Stefan Marinov

THE THORNY WAY OF TRUTH

Part III

Documents on the violation of the laws of conservation

EST-OVEST
Editrice Internazionale

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OF TRUTH

Part III

Documents on the violation of the laws
of conservation

... NICHT UM DES GEWINNES ODER LEEREN RUHMES
WEGEN, SONDERN UM DAS LICHT DER GÖTTLICHEN
WAHRHEIT ZU VERBREITEN...

НЕ ЗДЕСЬ МЫ, ЧТОБЫ ПРОКЛЯСТЬ ТЬМУ,
А ЧТОБЫ ВОЗЖЕЧЬ СВЕТИЛЬНИК!

After the Greek philosopher Pythagoras had discovered
his theorem, he sacrificed a whole hecatomb of oxen
as a thanksgiving to the Gods. Ever since, all the oxen
in the world are running scared whenever a new truth
has been discovered.

British top relativists discuss with their USA colleagues the events during the
first billionth part of the second after the big bang at a symposium on retar-
ded cosmology in Chattanooga Chu Chu (by the courtesy of the organizing committee)

P R E F A C E

I issue the third part of the collection of documents THE THORNY WAY OF TRUTH, but the relativists in the world (see the photograph of a groupe of English and USA top relativists on the preceding page) make as if my books, my experiments and my theories do not exist.

The months and the years pass away and looking at the gray sky over our scientific community I can only repeat by heart the beautiful words of Pushkin:

День каждый, каждую годину привык я думой провождать,

Эйнштейна стада смерть грядущу меж них стараясь угадать.

Meanwhile the experiments which I construct become more and more amazing and fantastical and the theory more simple and more elegant. In the last years I gave evidence not only on the invalidity of the principles of relativity and equivalence, but on the invalidity of the LAWS OF CONSERVATION which are the sacrosanct fundamentals of contemporary physics. --- We stay on the threshold of a tremendous change in human life as energy can be produced from nothing.

This is a DREAM, a FANCIFUL DREAM, but when I try to narrate it to my fellow-men, the result is the same as in GENESIS 37:5:

Now Joseph had a dream

and when he told it to his brothers,

they only hated him more.

Graz, 10 April 1988   Stefan MARINOV

PREFACE TO THE SECOND EDITION

In the second edition of TWT-III documents appeared after March 1988 have been included and some documents of the first edition have been cancelled. Four papers treating space-time problems were transferred to the third edition of TWT-I and one paper treating energy violation problems was transferred from TWT-I to TWT-III. The correspondence for the years 1986 and 1987 which was published in the second edition of TWT-I is now presented in this edition of TWT-III. Four new papers are published in this edition of TWT-III of which two of other authors.

Graz, 10 September 1988   Stefan MARINOV

Stefan Marinov with his brother Coliu (Sydney, February 1986)

FOR GLASNOST IN PHYSICS

(scientific essay)

> The great ennemy of the truth is
> very often not the lie - deliberate,
> contrived and dishonest, but the
> myth - persistent, persuasive and
> unrealistic.
>
> J. F. Kennedy (1962)

When even the Secretary General of the Soviet Communist Party has understood that the way of a society without GLASNOST is a way of stagnation and degradation, it seems that the Lords in science have still not realized that the lack of transperancy in the scientific research leads also inevitably to stagnation and degradation.

Once when wondering who might be this "clever" institution which introduced the system of anonymous refereeing, my interlocutor exclaimed: "You do not know?! - The Spanish inquisition." At the first moment I was shocked but after a while I realized that my interlocutor might be right. Indeed, the inquisitors who had to survey the people, to investigate the different cases, to pronounce the verdicts were anonymous. Their names were known only to the General Inquisitor. The sentenced could hear only the verdicts but not the motivations. Very often the sentenced could hear even nothing, they were simply executed.

The anonymity serves to create the feelings of mysticism, authority and sacrosanctity. The best arm in the hands of mafiosi is the secrecy. No authoritarian or suppressive regime can survive without hierarchical structures where this one who stays on the top can have a free look down, but this one who stays at the bottom cannot have a free look up.

It may seem strange that science, which is a field where the most lucid heads of the nations are gathered, preserves the attributes of the most reactionary and retrograde human institutions. A very clever physicist from Munich (who begged me to preserve his name in secrecy - see the fourth footnote on p. 4 of TWT-I) explained to me the reasons. There is no, he said, bigger authority than the authority of the scientists. One can in a single day change a political regime, hang the most powerful dictator with his head down or burn his mumified corpse. With the authorities in science one cannot do this. One needs centuries to turn the stream in the river of science. Those social and ethnic human groups who dominate and suppress other social and ethnic groups need certain authority to justify their leading role. Only science can offer to them this authority as any other authority is not enough stable.

On the other side, there is no other human activity which has bigger significance for the economical and ecological prosperity (better to say, survival) of mankind than science. A scientific discovery can change the whole life of a nation (or of the planet)

in few years. No other human activity has such deep social repercussions as science (remember the steam engine, the authomatic loom, the combustion engine, the electrification, the atomic power, the computers). Thus if science is so important for mankind, there must reign the largest glasnost. It is, however, exactly on the contrary.

The ways in which the scientific discoveries come to light are very peculiar and interwoven. Sometimes an occasion brings a discovery to light much earlier than the "logical evolution of science" could predict. But sometimes the most simple discovery remains again OCCASIONALLY hidden for many and many years and even for centuries, despite the logic "probability expectations". And for these "occasions" glasnost, or anti-glasnost, play a primary role.

Here I shall consider the short histories of two discoveries, in which I have taken an active part, that lead first to a radical change in physical theory and thereupon to a radical change in planetary energetics. These discoveries could be done 100 years ago but they OCCASIONALLY remained unnoticed by mankind. Had mankind done these discoveries a century ago, our planet would look completely different from that what it is now.

The first discovery is the establishment of the space-time absoluteness. As I wrote on p. 70 of TWT-II, in their historical 1887-paper, where Michelson and Morley presented the account on their interferometric experiment, they gave also a proposal for an experiment on the measurement of first-order in v/c effects, where v is the absolute velocity of the laboratory and c the velocity of light. As Michelson and Morley noted, this experiment might be performed with the experimental technique of that time. However neither Michelson nor some other researcher after him has tried to carry out such an experiment. The man who did it (without having read Michelson's suggestion) was I in 1973 (repeated in 1975 and 1984). My experimental reports show that at the end of the 19th century one was able to carry out this experiment. Had this experiment been done, physics had to go a completely different way, electromagnetism had to be built on another theoretical ground and the probability that an electromagnetic perpetuum mobile could be discovered also 100 years ago would be much higher.

In my "coupled mirrors" experiment carried in 1973 and 1975/76 in Sofia and in my "coupled shutters" experiment in 1984 in Graz (as well as in 1979 in Brussels, where I could not achieve the necessary accuracy for registering the Earth's absolute velocity) I used a rotating axle for realizing the so-called Newtonian time synchronization (i.e., for synchronizing two spacely remoted events in an absolute sense). My numerous experiments described in the books EPPUR SI MUOVE and CLASSICAL PHYSICS and my detailed theoretical analyses led me to the conclusion that if a Newtonian time synchronization should be not realized, then one is unable to measure optical effects due to the motion of the laboratory in absolute space. According to me, one can observe optical absolute effects without realizing a Newtonian time synchronization only in the quasi-Bradley experiment (see my books). On the other hand, however, it is very easy to observe electromagnetic absolute effects without realizing a Newtonian time synchronization. Such an ex-

periment is proposed on p. 150. Recently the student Robert Jan de Geus (Pesthuis laan 51, 1054 RH Amsterdam, Holland) wrote me that he has carried out this experiment with his "pocket money" with a definitely clear positive effect.

But in the autumn of 1986 I learned from private correspondence (see beneath) that E. W. Silvertooth has succeeded in registering absolute effects in an <u>optical</u> experiment without realizing a Newtonian time synchronization. The story with Silvertooth's experiment is very interesting and I should like to narrate it here in detail, as it shows that Glasnost has many aspects, namely that the spreading of truth may be accompanied also by spreading of untruths. Nevertheless, the overcome of untruth cannot be achieved by limiting Glasnost. Exactly on the contrary! Only a WIDE GLASNOST can in the shortest time establish what is right and what is wrong. Let us never forget the wise admonition of Bacon: <u>The truth resists better to errors than to confusion</u>!

On the 14 August 1986 Silvertooth published the following pretty enigmatic note in NATURE (reference 4 can be seen in TWT-II, p. 311)

Special relativity

Sɪʀ—Aspden[1], Psimopoulos and Theocharis[2] discuss the need for a Michelson–Morley type test in space and raise interesting points about the effects of standing waves in rotating and translational motion of optical apparatus. Some time ago, I carried out a relevant investigation using a special standing-wave sensor manufactured by the General Electric Co.[3]. This photoelectric sensor incorporates a photomultiplier tube through which a laser beam can pass to be reflected back on itself by a mirror. This allows the device to scan translationally along the standing wave set up by the interference in the beam. The experiment shows that the spacing between nodes in the standing wave set up by two oppositely-directed light rays from the same laser source is a function of the orientation of the apparatus.

The forced optical condition assuring light speed isotropy as suggested by Aspden is not supported by the experiment, and initial indications are that the beam modulation pattern is attributable to the Earth's motion through space at cosmic speeds commensurate with those found from the isotropy assumption of 3K cosmic background radiation. In effect, it appears that in the standing-wave conditions, the waves move at different speeds in opposite directions relative to the apparatus and, as their frequencies are the same, they present different wavelengths in the two directions and so affect the nodal spacing.

A detailed report on the experiment is available prior to eventual formal publication. Meanwhile, it is of interest to note that the optical configuration resembles that of the Sagnac experiment, the basis of the ring laser gyro technology mentioned by Aspden, Psimopoulos and Theocharis. However, the sensor scans linearly along a section of the modulated beam in a non-rotating system, rather than being at rest, as in the gyro, and sensing effects of rotation of the apparatus.

Clearly, this research will have interesting implications for the theory of relativity, as foreseen by your recent leading article[4]. It may also help us to resolve the large errors found in the global satellite positioning system. If present findings are sustained, it may not be necessary to extend the Michelson–Morley tests into outer space in order to obtain positive, as opposed to null, results in interferometric tests of linear motion.

E.W. Sɪʟᴠᴇʀᴛᴏᴏᴛʜ

Star Route, Box 166,
Olga, Washington 98279, USA

1. Aspden, H. *Nature* 321, 734 (1986).
2. Psimopoulos, M. & Theocharis, T. *Nature* 321, 734 (1986).
3. Silvertooth, E.W. & Jacobs, S.F. *Applied Optics* 22, 1274 (1983).
4. Maddox, J. *Nature* 316, 209 (1985).

On the 24 October 1986 my very good friend Prof. J. P. Wesley sent to me the following letter:

J. P. **WESLEY**, *Ph.D. Physicist*

Weiherdammstr. 24, 7712 Blumberg, West Germany, Tel: 07702-658

24 October 1986

Dear Stefan,

Thanks for your contribution to <u>Progress in
Space-Time Physics 1987</u> entitled "The Anisotropy
of Light Velocity". I will probably include it
as you have written it. I will probably, however,
~~retype~~ it. If I make any changes, I will
send you the final version for your final
approval.

In addition, I will include my description
of your toothed-wheels measurement of the
absolute velocity of the solar system with the
minor corrections you suggest. (I call it a
"Toothed-wheels measurement" to remind people
of Fizeau's out-and-back toothed-wheel
measurement of the velocity of light. It makes
it a little bit easier to understand than a
"coupled shutters" experiment.)

So far I have received about 6 contributions
to <u>Progress in Space-Time Physics 1987</u>. There
are still more than 2 months before the
dead-line of 30 December 1986. I am not
going to trouble myself about the volume
until after 1 January 1987. I will guess
that it will be June 1987 before a printed

(over)

copy can be bought.

No, your complaint that Pappas, Müller, and Wesley have not read your books, etc.; although partially true, is not justified. You never seem to be able to describe the simplest experiment, so that one can understand it. It is a major undertaking to try to extract any sense from what you write. I have essentially given up on trying to figure out your experiments — It is no longer worth my time and effort.

Using the Biot-Savart law in its usual differential form one can obtain any value one might wish for the self force on a closed loop. The law is "absurd", completely arbitrary, as any law must be that violates Newton's third law, which is not a law of physics but merely an admonition that arbitrary lables like ① and ② have nothing to do with physics. Enclosed is again my ~~proof~~ of the "absurdity" of the Biot-Savart law. You should really try to understand the proof.

Apparently my 2 or 3 year effort to get a description of your toothed-wheel measurement of the absolute velocity of the solar accepted by van der Merwe for the _Found. Phys._ has finally failed.

I enclose a preliminary description, written by myself, of Silvertooth's measurement of the absolute velocity of the solar system, which he can use to prepare a final manuscript.

Before he let me photo duplicate what he had written up concerning his experiment, he made me promise not to share the information with you. ~~He was here to visit me.~~ If he discovers that I have not kept my promise, he may hang me up by my thumbs. But science requires information exchange and not secrecy!

Silvertooth's experiment is very clever and a bit difficult to understand; but, after three months and a couple exchanges of letters, I have no doubt that he has in fact performed the experiment with the positive result he reports.

Paul

TRANSCRIPTION

Dear Stefan,

Thanks for your contribution to PROGRESS IN SPACE-TIME PHYSICS 1987 entitled "The Anisotropy of Light Velocity". I will probably include it as you have written it. I will probably, however, retype it. If I make any changes, I will send you the final version for your final approval.

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one might wish for the self force on a closed loop. The law is "absurd", completely arbitrary, as any law must be that violates Newton's third law, which is not a law of physics but merely an admonition that arbitrary lables like (1) and (2) have nothing to do with physics. Enclosed is again my PROOF of the "absurdity" of the Biot-Savart law. You should really try to understand the proof.

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I enclose a preliminary description, written by myself, of Silvertooth's measurement of the absolute velocity of the solar system, which he can use to prepare a final manuscript.

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Silvertooth's experiment is very clever and a little bit difficult to understand; but, after those months and a couple exchanges of letters, I have no doubt that he has in fact performed the experiment with the positive result he reports.

                                                            Paul

I grasped immediately the importance and the significance of Silvertooth's experiment. I wrote a letter to Silvertooth to give an expression of my admiration for his experimental success. But as Prof. Wesley has begged me to not reveal to Silvertooth the fact that Wesley acquainted me with the physical essence of his experiment, I wrote the letter to Silvertooth, as if I do not know this essence.

Here first is an excerpt of my letter to Prof. Wesley of the 1 November 1986:

   Stefan Marinov
   Morellenfeldgasse 16   J. P. Wesley
   A-8010 Graz

   1 November 1986

   Dear Paul,
   Enclosed is my letter to Silvertooth. I hope you will agree with the manner in which I presented the stuff, so that Silvertooth would not come to the idea that you have revealed to me his method. That will be the death of me to see my best friend hung up on his thumbs.

   Silvertooth's experiment is WONDERFUL. A strike of a genious! Reliable, easy, clear, accurate, no rotating axles. SPLENDID!!!! His report must be published AS SOON AS POSSIBLE. This experiment shows once more that humanity (INCLUDING ME in humanity) is BLIND. I have analysed so much the "standing waves" possibilities. I could not come to the idea of Silvertooth. What an ass I am!!!!

                                        Yours,
                                        Stefan

And here is my letter to Silvertooth of the 1 November 1986:

Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
Austria
1 November 1986

To: E. W. Silvertooth
Star Rout Box 166
Olga
WA 98279

Dear Dr. Silvertooth,

As far as I remember, our last contact was a phone conversation (or a letter exchange) in 1978 when I was in the States. I follow your activity and read your papers.

Two days ago I received a letter from Prof. J. P. Wesley in which Paul informs me that you have succeeded in measuring the absolute Earth's velocity. According to Paul the method used by you is reliable and it involves standing waves. I have analysed many times the "standing waves" possibilities for measuring the laboratory's absolute velocity. According to my analysis, this is IMPOSSIBLE. I attach §31 of my book EPPUR SI MUOVE, where I analyse the "quasi-Wiener experiment" (as called by me) and where I show that it is IMPOSSIBLE to measure the Earth's absolute velocity by using light standing waves. However, Paul assures that you have SUCCEEDED. Of course, I am highly curious and I should like very much to become acquainted with your method, with the technical description and with the obtained figures. I should be very thankful to you, if you will supply me with the necessary information.

I steem very much the physical insight of Paul and my BELIEF in his opinions and statements is very high (of course, not ABSOLUTE). I was so intrigued that I phoned him immediately, but he gave me the advise to address you directly, what I am doing with this letter. If you have, indeed, succeeded in measuring the Earth's absolute velocity by a standing waves experiment, your report must be published AS SOON AS POSSIBLE, as the accuracy in such a kind of experiment is VERY HIGH and the set up not difficult for construction. I know, however, that the scientific journals of the "establishment" will surely reject the publication of your article, so that you, surely, have to try with a couple of journals and the time of examination may become not only months but even years (I have a very RICH experience in this "field"). So I can propose you the following way, which I discovered in the last time: PAID ADVERTISEMENTS. I enclose my LAST paid advertisement concerning the perpetuum mobile MAMIN COLIU which I recently discovered. Now I shall print my LETTER TO THE WORLD'S SCIENTIFIC CONSCIENCE (3 Nature-pages). The page charge in NATURE is about 1000 $. If at the present moment you have financial difficulties, I shall gladly pay this sum for you, if you will be able to present the whole information (eventually with two figures - a scheme and a photograph of the set up) on one Nature-page. If you would agree to use this way, then send me your article by an express letter. I shall compose it here (the enclosed advertisement was composed in Graz) and, if I shall succeed to send it to London before "monday", your article will appear on "thursday".

I am very interested in a speedy publication of another laboratory method for measuring the Earth's absolute velocity, as I have difficulties when trying to persuade the world's scientific community that there is a possibility to construct a perpetuum mobile. After the publication of your report, my paid advertisements on my perpetua mobilia will be read with more attention by the physicists. The possibility for constructing an electromagnetic perpetuum mobile is tightly connected with the ABSOLUTE aspects of electromagnetism. You can however imagine the resistance of the "establishment" against my perpetua mobilia if even my VERY GOOD FRIEND Paul does not give me the right to publish in his collection of papers SPACE-TIME PHYSICS 1987 an article on a "perpetuum mobile". I try to persuade him that my electromagnetic perpetua mobilia are SPACE-TIME PHYSICS, however he refuses even to read and analyse my papers. If I have such difficulties with Paul, it will be clear for you which are my difficulties with those "heads of wood" which still reject the absolute character of space-time and "incense" the poor Einstein.

I hope, you have heard about the "energy machine" of Joseph Newman. I have the most recent information on Newman, as his "editor" Evan Soule sends me the most "fresh" news. Newman has also discovered a perpetuum mobile. I was in the States at the end of 1985 and I lived for 20 days in the house of the father of one of Newman's lawyers, who is also a space-time physicist, and maybe you have heard about him: Henry Dart III.

Hoping to receive an answer by an express letter, Sincerely yours,

Stefan Marinov

Silvertooth did not answer this letter. He broke also his contacts with Wesley (the
very reason why Silvertooth broke his contacts with Wesley is known neither to me nor to
Wesley).

I dedicated many days and nights in ruminating over Silvertooth's experiment and
I decided to repeat it. The production of Silvertooth's transparent photomultipliers,
which serve as detectors of the nodes and anti-nodes in a standing light wave, is an
extremely difficult technical problem. I tried first to exchange the photomultipliers
by vacuum photocells with transparent photosensitive cathodes, but then I came to the
EXCELLENT idea to replace the transparent detectors by nontransparent and I modified
Silvertooth's quasi-Wiener experiment to an experiment which I called the quasi-Michel-
son experiment. This experiment is so simple that it can be mounted in a day in any
optical laboratory.

I carried out the experiment and did all measurements on the 2, 3 and 4 January 1987 and
I remained with the impression that there was a positive effect. I was extremely excited
as the experiment was very easy and cost me no money.

Later, however, I established that the effect observed by me was due not to the ab-
solute velocity of the laboratory but to the fact that in my set-up the light rays se-
parated by the semitransparent mirrors mounted on the moving platform were not parallel
to the motion of the latter. My theory for the inconclusiveness of Silvertooth's expe-
riment and   of the causes for the spurious "positive" effect observed by me in Janu-
ary 1987 are given on p. 287 of TWT-I.

Silvertooth continues to affirm that his experiment gives a positive effect. My
friend Dr. R. Monti (Bologna),who visited me in January 1988, organized in May 1988
a conference in Bologna under the title "Galileo back in Italy" for a critical discus-
sion of Silvertooth's experiment, of my variation and of other space-time topics in the
frame of the absolute Newtonian-Galilean concepts (see the program of the confrerence
on p. 307). A couple of days later, Dr. U. Bartocci organized in Perugia a similar con-
ference with the same participants (without Aspden) where some other Italian scientists
took part. The discussion is still continuing. Only Glasnost will help us to establish
who is right: Silvertooth or me. When more persons will repeat Silvertooth's original
experiment and my simplified version and when more persons will take part in the analysis
of the reported effects, the truth will come to light.

If, however, Prof. Wesley has not informed me about this experiment and if it remained
published in the enigmatic form given by Silvertooth (in SPEC. SC. TECHN., **10**, 3 (1987)),
it could remain ununderstood and its difficult execution could become hindrance blocking
its eventual repetition, leading thus to the creation of a myth.

Now, thanks to the noble deed of Prof. Wesley, who gave GLASNOST to Silvertooth's ex-
periment in a private letter, it obtained my easy quasi-Michelson modification, and,
ONCE BEING IN MY TEETH, I quickly brought its inconclusive result to the attention of
the scientific community. Glasnost has many children but only the child called TRUTH sur-
vives. And I shall conclude this first story словами батьки Кобы: "Кузьмич уделял всегда

отцовское внимание малой гласности. Не пренебрегайте и вы ею, ибо из малой гласности
рождается и гласность великая. В этом один из важнейших заветов Кузьмича."

The other story is about the discovery of the perpetuum mobile MAMIN COLIU.

I showed in TWT-II that without the experimental results of the Cuban physicist
Francisco Müller (Miami, USA) which he communicated to me in private letters I could
NOT come to the discovery of the motional-transformer induction. And this was the mo-
tional-transformer induction which led me first to the understanding of the strange
effects in the Farady and Barlow disks (cemented and uncemented) and then to the dis-
covery of the perpetuum mobile MAMIN COLIU.

Here I wish first to rewrite the note from p. 207 of TWT-II given after the repro-
duction of the   letter which F. Müller wrote to me on the 22 July 1983:

Marinov's note. I sent 300 copies of my book CLASSICAL PHYSICS to the physics li-
                braries of the world. No single book was bought. About 10% of the
libraries returned the books. Certain libraries wrote that if I shall not send money
for the back postage, the books will be burnt, other libraries did the holocaust with-
out having any scruples (see p. 233 where the letter confirming the auto-da-fe in the
British Institute of Physics is reproduced). However ONE of my books found a blessed
soil: the hands of Francisco Müller. And what a harvest brought this single book: the
discovery of the perpetuum mobile.--- Thus I address those who will come to this earth
when we shall disappear: Don't become desparate when the seeds which you try to se-
minate fall on stones. May be only one of all thrown seeds will find a propitious soil,
but the harvest brought by a single seed may be big.

And now I wish to narrate a short episode from my relations with F. Müller which
shows that GLASNOST ("glasnost" comes form the Russian word "glas" - as a matter of
fact this is a BULGARIAN word, the Russian say "golos") is very important for any kind
of human progress, but the decisive VOICE ("glas") which a researcher has to hear is
his OWN VOICE.

When building my theory of the motional-transformer induction according to the for-
mula for the induced motional-transformer electric intensity $\mathbf{E} = (\mathbf{v}.\mathrm{grad})\mathbf{A}$, where $\mathbf{A}$ is
the magnetic potential originated in a wire at rest by a current element moving with
a velocity $\mathbf{v}$ (for a system of current elements, where the velocities of the single ele-
ments may be different, the formula must be integrated), I came to the conclusion that
the seat of the inductive electric tension for the case 9 of the table from p. 300 of
TWT-II must be along the wire ER and not along the wire IR (see fig. I on p. 299 of
TWT-II). Müller, however, asserted of having established (see the first paragraph on
p. 303 of TWT-II in Müller's letter of the 9 March 1985) that the induced tension in
this case is along the wire IR.

The situation became very critical and many nights I went to bed with a heavy heart
after having thrown away my theory as unsuitable. But in the morning I began again the
fight for saving the theory. And so on the 10 April 1985 I wrote to Müller:

... Francisco, I thank you very much for your letter. You saved me from WRONG CON-
CEPTIONS. And now I beg you for another hand of support. Write me - AS SOON AS YOU CAN
   - whether for fig. 1 in your letter of the 16 February 1985 (see fig. 1 on p. 299

of TWT-II) the induction is in ER or in IR for the cases 9 - 16. I need your experimental result VERY MUCH. If the induction is in ER - all is O.K. - my theory explains all effects. If the induction is in IR - this is a CATASTROPHY!!!!!!! I beg you, send me the answer on the phone, saying: "outside", i.e., in ER or "inside", i.e., in IR, to the person who will receive the call. Only one word: Say to Marinov that Francisco (my friends know about you) says "outside"/"inside". In a week I begin with the print of a new edition of TWT-II and I MUST know the right answer. Can I print again all your materials from the first edition and some later letters? I enclose a recent paper published in a Graz journal. The p.m. will soon begin to work. But first I must know where the induction is - in ER or in IR. HELP ME!

<div align="right">Yours,   Stefan</div>

PS. Or send a cable: "Induction outside/inside".

On the 17 April 1985 F. Müller sent me the following telegram

311a graz ta
ra taura wien 160 2317 04/17
zczc waa034 wvi793 ioh244 4-030929s107
auwx co uqnx 029
tomt miami fl 29/28 17 1609
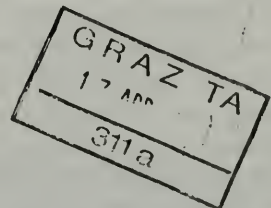
stefan marinov
niederschoecklstr 62
graz/a8044austria

experiment april 80 gave induction at internal radius. have not been repeated yet. sorry. you can publish pertinent letters. protect patent

francisco muller

This was a catastrophy. What to do? The experiment is AGAINST the theory! And I remembered the ferocious and merciless words of Albert Einstein: "A theory must be discarded as wrong if only one small experimental result is against it." I spent months in desperate, laborious and irksome efforts to find a unique theory which could bring all experimental results under "one hat". I could not. I was depressed.

And then I decided to take a fatal path: "This Müller's experiment was false!" It was very difficult for me to take this decision as my belief in Müller's precision and reliability was as to an idol. But there was no other way for me. And I decided to build a theory AGAINST one of Müller's experiments. Until today I do not know where is the seat of the induced tension in case 9 of the table on p. 300 of TWT-II. Müller has not repeated this series of experiments. I can not spend money and time to repeat Müller's experiments. Maybe Müller is right. Then my theory must be REJECTED. But in

the following years my persuasion that IN THIS CASE Müller has done an error became very strong. I am sure that the theory is right and that the induction in case 9 (and in ALL cases 9 - 16) is along the wire ER.

Here is another page of my relations with Müller.

In the same letter of the 10 April 1985, I drew the   scheme of the following experiment which presents a very clever combination of the rotational experiment shown
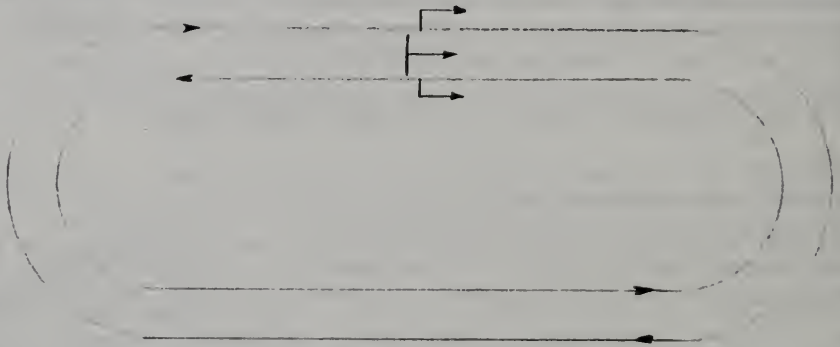
in fig. 1 of the paper VIOLATIONS OF THE LAWS OF CONSERVATION OF ANGULAR MOMENTUM AND ENERGY (published in this volume) with the inertial experiment shown in fig. 2 of the same paper. Let us suppose thus that we have two FLEXIBLE closed wires of the shown above form, along which constant and equal currents flow in the opposite directions, and an open wire put between them. I posed to Müller the questions, which will be the induction effects:

1) If we move the open wire?

2) If we move the closed wires, so that always (as they are flexible) they preserve the same form?

3) If we move the open and closed wires together?

And I gave the answers:

1) Motional induction.

2) No induction, as the motional-transformer induction is null.

3) Induction equal to the motional induction, as the motional-transformer induction is null.

This experiment clearly shows that one can make separation of the charges in a wire at an INERTIAL motion of a system of wires (some of which are current wires) without having any RELATIVE motion.

I did not this experiment (I never do experiments in which results I am absolutely sure, as I will not have time to do experiments in which results I am not absolutely sure), but recently Müller did it in another slightly different variation and I publish his letter of the 20 February 1988 in toto in this volume.

I should like to note that the induction effects of a closed current loop on an

MOST LIKELY

open wire produced by the ABSOLUTE velocity of the laboratory have been already obser-
ved by Edwards et al. (PHYS. REV. D, **14**, 922 (1976)), however the authors could not
understand which is the reason for the appearing effect. Of course, being unware of
the cause for the effect, they could not choose a loop with convenient shape and the
effects observed were feeble. The experiment with loops with convenient shapes (so
that a predominant part of the motional-transformer induction can be made zero) can
be carried out by students.(and the Dutch student de Geus confirmed my prediction).

My books TWT-I,II,III show how the concepts of the motional-transformer induction
led me to the discovery of the perpetuum mobile MAMIN COLIU. Here I shall add only a
couple of words.

Conventional physics explains the induction effects by the change of the magnetic
flux through a loop in a unit of time. Thus according to conventional physics, if a
changing magnetic flux induces current in a loop, then by sending such current in the
loop one will generate magnetic flux. I noticed that as the induction effects are
not "closed lines" and "flux" effects, but "point-to-point" effects, then the DISTRI-
BUTION of the magnetic flux through the cross-section of the loop is of HIGH IMPORTANCE.
And I construced the machine MAMIN COLIU where the changing magnetic flux, produced
by the mutual motion of two bronze (or alluminium) disks, in which permanent magnets
are arranged, has an inhomogenious distribution in the iron of the coil, but the
"counter flux" produced by the current in the coil has a homogenious distribution, so
that this counter flux could not exert a ponderomotive action on the rotating magnets
in the rotating disk. Thus the machine has only a generator effect and has NOT a motor
effect.

If F. Müller has not seen my book CLASSICAL PHYSICS in the university library of
Miami (for the happiness of humanity the librarian in Miami has not followed the
example of his colleagues in the British Institute of Physics!!!!!) and if he has
not written me a letter in July 1983, the discovery of the first electromagnetic per-
petuum mobile could be delayed for another century!

P. T. Pappas and Stefan Marinov observe the effective Bul-Cub machine
(Graz, February 1984)

SCIENTIFIC PAPERS

EXPERIMENTAL VIOLATION OF AMPERE'S FORMULA
AND OF NEWTON'S THIRD LAW

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Abstract. As the Biot-Savart and Ampere formulas for the magnetic interaction of
two current elements lead to the same result for the interaction of
closed current loops, until now no experiment was conceived to decide
which of both formulas is the right one. Recently carrying out an expe-
riment, where not two but three closed current loops were involved, I
showed that the right formula is the Biot-Savart's. This experiment
shows the way on which Newton's third law can be violated.

The formula for the force of interaction between two current elements was presen-
ted by Ampere, with undetermined constants, in 1820 and in 1823 in the final form[1]

$$d\vec{f}' = \frac{II'}{c^2 r^5}\{3(\vec{r}.d\vec{r})(\vec{r}.d\vec{r}') - 2(d\vec{r}.d\vec{r}')r^2\}\vec{r}, \qquad (1)$$

where $d\vec{r}$ is the line element along which a current I flows (if I is positive it is
along the vector $d\vec{r}$) and which acts with the potential force $d\vec{f}'$ on the line element
$d\vec{r}'$ along which the current I' flows, $\vec{r}$ being the vector connecting $d\vec{r}$ with $d\vec{r}'$, r
its magnitude, and c the velocity of light for the case where the formula is written
in the CGS system of units.

When a certain numerical physical relation (as that one presented in (1)) is con-
firmed by many experimenters and when no contradiction at all between the predicted
and observed effects has been found, one calls this numerical relation a physical
law. Humanity gave soon to formula (1) the name Ampere's law.

However in 1845 Grassmann[2] proposed another substantially different formula for
the description of the same phenomenon

$$d\vec{f}' = \frac{II'}{c^2 r^3}\{d\vec{r}'\times(d\vec{r}\times\vec{r})\} = \frac{II'}{c^2 r^3}\{(\vec{r}.d\vec{r}')d\vec{r} - (d\vec{r}.d\vec{r}')\vec{r}\}. \qquad (2)$$

As this formula follows from the formula for the magnetic intensity generated
by a current element, proposed by Biot and Savart in 1820 (initially for the case
where the current "element" is an infinitely long straight wire), one has
called (2) the formula of Biot-Savart-Grassmann (today the name of Grassmann is
normally omitted). As no contradiction has been found between formula (2) and the avai-
lable experimental evidence, it was called then the law of Biot-Savart.

Humanity remained puzzled realizing that all magnetic interactions between the
currents can be described by two substantially different formulas. Many efforts
have been done to establish which is the right one but no one succeeded to give an
experimental proof. In the XIX-th century preference was given to Ampere's formula,

as the Biot-Savart formula <u>violates Newton's third law</u> (it is easy to see that it leads to $d\vec{f} \neq - d\vec{f}'$), while the Ampere's formula preserves this law. On the other hand the Ampere formula leads to the <u>strange result</u> that the force of interaction of two <u>parallel</u> current elements becomes zero when the angle θ concluded between $\vec{r}$, on one side, and $d\vec{r}$, $d\vec{r}'$, on the other, has the value $\theta = \arccos \sqrt{2/3} = 35^{0}.3$. In the XXth century humanity has forgotten Ampere's formula because the Biot-Savart formula can be immediately deduced from the fundamental <u>Lorentz equation</u>

$$d\vec{f}' = \frac{q'}{c} (- \frac{\partial \vec{A}}{\partial t} + \vec{v} \times \text{rot} \vec{A}), \tag{3}$$

where $\vec{A}$ is the magnetic potential originated by the surrounding system of currents at the space point crossed by the charge q' with a velocity $\vec{v}'$. Indeed, if we replace $q'\vec{v}' = I'd\vec{r}'$ and we suppose that the surrounding system is the current element $Id\vec{r}$, we shall have $\vec{A} = q\vec{v}/cr = Id\vec{r}/cr$, $\partial \vec{A}/\partial t = 0$ (for a stationary case), and putting this into (3), we obtain (2). In this paper I shall consider <u>only magnetic interac-tions</u>, so that the electric potential, Φ, of the surrounding system will <u>always</u> be assumed equal to zero.

I deduce[3,4] formula (3) from the magnetic potential energy of two electrical charges q, q' moving, at a distance r, with the velocities $\vec{v}$, $\vec{v}'$, proposed first by Neumann[5] (for the case of elements of stationary currents in two loops)

$$dW = \frac{qq'}{c^2 r} \vec{v}.\vec{v}', \tag{4}$$

which, together with a similar formula for the electric potential energy of the charges proposed first by Coulomb, present the axioms of my theory on whose grounds, only by logical speculations, I construct <u>whole classical electromagnetism</u>[4].

Although the deduction of (3) from (4) is very simple, I spent 4 years of inten-sive research in Sofia until I came to it. <u>Nobody</u> has found the way, how from (4) to obtain (3). I must emphasize that only by revealing this transition, one can un-derstand the essence of electromagnetism and the importance of the <u>motional-trans-former induction</u> discovered recently by me[6-8] which led me to the discovery of the electromagnetic perpetuum mobile MAMIN COLIU[6-8].

Ampere[1] presented his formula without giving a sufficiently clear logical deduc-tion. Maxwell[9] deduced it <u>on 16 pages</u> proceeding from the results of <u>four experi-ments</u> carried out by Ampere.

Riemann[10] deduced Ampere's formula from the formula for the magnetic potential energy of two <u>current loops</u>, L and L', which follows immediately from (4)

$$W = II' \iint_{LL'} \frac{d\vec{r}.d\vec{r}'}{c^2 r}. \tag{5}$$

As for the force of interaction (and consequently for the potential energy) of two current loops <u>both</u>   Biot-Savart and   Ampere formulas lead to the same re-

then
sult, "by going back"   from (5) one can obtain (1) as well as (2).

For the magnetic potential energy of two moving <u>electric charges</u> Riemann accepted
not the Neumann formula (4) but the Weber formula[11]

$$dW = \frac{qq'}{c^2 r}(\frac{dr}{dt})^2 = \frac{qq'}{c^2 r}\{\vec{r}.(\vec{v}' - \vec{v})\}, \tag{6}$$

where the transition is to be done remembering that $r = (\vec{r}.\vec{r})^{1/2}$ and $d\vec{r} = (\vec{v}' - \vec{v})dt$.
Then he showed[10] that Weber's potential energy (6) is in agreement with Ampere's for-
mula (1). Riemann did not mention at all the Biot-Savart formula. Maxwell[9] mentio-
ned the Biot-Savart formula but stated that "Ampere's formula should always remain
the cardinal formula of electrodynamics".

Recently Wesley[12] gave another deduction of Ampere's formula from the Weber poten-
tial energy.

Neumann's and Weber's potential energies are <u>different</u>. Weber's potential energy
is a <u>relative</u> quantity and depends only on the difference in the velocities of both
charges, while Neumann's potential energy is an <u>absolute</u> quantity. Thus for charges moving
with the same velocity Weber ascribes zero magnetic energy, while Neumann ascribes
a finite energy. Meanwhile if the one charge is at rest, Weber ascribes a magnetic
energy, while Neumann does not. My proposed experiment[8] for measurement of the labo-
ratory's absolute velocity by observing the magnetic interaction between a current
loop and a non-closed wire which are at rest one to another proves that the magnetic
energy of the charges depends on their absolute velocities and shows thus the untena-
bility of Weber's formula. The reported in this paper experiment disproving Ampere's
formula is also a hit against Weber's formula.

Let me note that the first <u>direct</u> mathematical proof that the magnetic force with
which a closed current loop acts on a current element (and thus also on another current loop)
is the same according to Ampere's formula (1) and according to the Biot-Savart for-
mula (2) was given <u>only a quarter of century</u> ago by Lyness[13]. With much simpler cal-
culations Christodoulides[14] confirmed a part of Lyness theorem, namely that ac-
cording to Ampere's formula (1) a current loop acts on a current element always with
a force perpendicular to the latter, as this is also the case with the Biot-Savart
formula.

Thus never by observing the interactions of <u>closed</u> current loops can one say which
of formulas (1) and (2) is the right one. In the recent years, after the experiments
of Pappas giving a quantitive repetition of the historical Ampere's floating bridge
experiment, again the interest to Ampere's formula has been raised. Under the sugges-
tion of Pappas this topic was largely discussed at the International Conference on
Space-Time Absoluteness[15] and then many papers have been published by different
authors (see references in Ref. 12 and 15). The majority of all these authors
(first of all such as Aspden, Graneau, Pappas, Wesley) sustain the opinion that Am-
pere's formula is the right one.

I sustain the opinion[4,6] that Biot-Savart's formula is the right one. I proposed my "trick-track" perpetuum mobile[6,16] where the interaction of currents in non-closed wires can be observed. This experiment will not only confirm my thesis that Ampere's formula is wrong but it will give the first direct demonstration of the violation of the angular momentum conservation law, as the Biot-Savart magnetic interactions between non-closed wires violate Newton's third law.

However the execution of the "trick-track" perpetuum mobile is a very difficult technical problem and my financial possibilities (I am financing my whole scientific activity from my own pocket) do not allow to carry it out. For this reason I performed another very easy experiment in which closed current loops have been used.

My experimental arrangement (fig. 1)   presents a closed half polar machine (see in Ref. 6, p. 143 the classification which I give to all electromagnetic machines - motors and generators). A hollow iron cylindrical yoke with two circular lids having circular holes, Y, embraces two cylinders consisting of the cylindrical neodymium magnets M_1, M_2 and the cylindrical iron pieces I_1, I_2. Between these two cylinders and the   lids very thin plastic hulls H_1, H_2 are tightly put. For brevity, I shall call $M_1 + I_1$ and $M_2 + I_2$ with the commom name internal cylinder and designate it by C. The internal cylinder C has a slender cylindrical hole along its axis through which an axle AA' passes. The axle can rotate on its pointed extremities touching the solid plates P_1, P_2. The   thin iron disk D is solidly attached to the axle AA' and can rotate in the gap between the upper and lower parts of the internal cylinder C. The disk D has a loose electric connection with the solid vertical wire W which crosses the upper lid through a cylindrical hole   and is connected then with the adjustable resistor R and the battery B. The current from   one electrode of the battery going through the upper plate, the axle and the radius of the disk, reaches through the wire and the resistor the other electrode. The disk D is "embraced" by a circular spiral spring and the elastic force pulling the disk to its "dead" position is proportional to the angle of the disk's rotation. The plastic hulls H_1, H_2 can be taken away and the internal cylinder C can be fixed to the axle AA' by the help of two similar slender plastic hulls and then it can rotate together with the disk.

As the wire W and the axle AA' are in space domains where the magnetic intensity generated by the magnets M_1, M_2 and the iron pieces I_1, I_2, Y is null, only the current going along the radius of the disk D will interact with the (molecular) currents in C and Y. I verified this assertion by making the connection between the vertical wire W and the resistor R loose and by observing that no forces acted on it. Thus in this experiment there are three "closed current loops": the loop B-A-D-W-P-B, the cylindrical magnet C and the hollow cylindrical yoke Y.

First I measured (plot 1 in fig. 2) the deflections of the disk at different currents when the internal cylinder was solidly attached to the yoke Y. Then (plot 2) I measured the deflections of the disk when the internal cylinder was solidly attached to the

axle and I obtained a plot which was almost the same as in the first case. The very small differences are due to the greater friction in the bearings in the second case when the rotating mass was bigger.

These results can be immediately explained by the Biot-Savart formula. It is well known (such experiments were carried out by Das Gupta[17]) that a cylindrical magnet can set a radial current wire in rotation, but a cylindrical magnet can never be set in rotation by another current loop. Indeed, imagining the cylindrical magnet as a circular current, we see that never a rotational moment can be applied to its current elements, as the magnetic forces are always perpendicular to the current elements and thus pointing to the axis of the circle. Thus, as no rotational moment is applied to the internal cylinder C, it is immaterial whether it is fixed to the yoke Y or to the disk D. If the yoke Y will be taken away or a circular strip will be cut (see beneath) in the upper lid with a radius equal to the distance between AA' and W, then on D and W two equal and oppositely directed rotational moments will act. In my experiment where W goes through a hole, a rotational moment equal and opposite to that of D is applied to Y. I observed it in my demonstrational Faraday-Barlow machine[6,18].

Let us now try to explain my experiment according to Ampere's formula. First let me note that obviously (I verified this also experimentally) the yoke Y cannot impart a rotational moment on the internal cylinder C. Thus when in my experiment Y and C are solidly connected, D rotates under their common action (we imagine that also W, R and B are solidly attached to D!). When C is attached to D, the rotational moment which C imparts on D must disappear and D + C must rotate only because of the rotational moment which Y imparts on D. This moment, obviously, must be different than the moment imparted both by Y and C. However the experiment showed that the rotational moment imparted on D remained exactly the same. Thus the Ampere's formula must be wrong.

The above experiment is to be changed into an experiment with non-closed current loops in the following way (see the right upper side of fig. 1). A circular strip (with a middle radius equal to the distance between AA' and W) is to be cut in the upper lid. This circular strip is to be filled with three different substances: 1) metal, 2) vacuum (air), 3) dielectric (in fig. 1 the vertical cross-section of this strip is hatched). The circular strip is to be "covered", up and down, by two thin metal circular strips (in fig. 1 their vertical cross-sections are painted black) which make a condenser with the air and the dielectric. The thick metal strip is insulated from the condenser's plates and we have, as a matter of fact, two condensers with the insulator as dielectric. The lower condenser's plate is to be connected with the wire W and the upper plate, through a switch, is to be connected with the positive and negative electrodes of the battery. Now when the switch is "at the left" (as in fig. 1), the battery will charge the condenser through the circuit A + D + W, while when the switch is "at the right" the condenser will be discharged through the same circuit. Obviously the disk D will receive clockwise and counter-clockwise momenta (jerks). The question is: which ponde-

rable medium will "absorb" the equal and oppositely directed momenta?

1) In the first case (strip of metal) alternating currents will flow and the metal strip will absorb the momenta in question.

2) In the second case (strip of vacuum) a Maxwell's displacement current $I_{dis} = (S/4\pi)(\partial E/\partial t)$ will cross the vacuum, where E is the intensity of the electric field in the strip (let us assume it uniform) and S is   its horizontal cross-section. According to conventional physics, this displacement current (with a current element $I_{dis}h$, where h is the height of the strip) will "interact" with the magnetic field in the strip and will absorb the momenta in question. But as the vacuum is not a ponderable medium and cannot absorb momentum, the unique logic answer is that the condenser's plates will do it and they will receive jerks if their contacts with both ends of the wire W will be sliding.

3) In the third case (strip of dielectric), for the same reasons as in case 2), the dielectric will receive jerks if it can slide without friction on the condenser's plates.

The contradiction between cases 2) and 3) leads to the conclusion that if absorption of momentum would appear, then not the "displacement current" will

              interact   with the current loops C + Y, but the electrical charges streaming fro and to the condenser's plates, and in both cases momentum will be received by them.

In my opinion, however, the displacement current is a purely fictitious notion without a physical background (but having a high conceptual importance!) and neither the dielectric nor the condenser's plates will receive jerks. Thus there will be no ponderable medium which will "absorb" the momenta in question and the angular momentum conservation law will be violated.

Thus if all parts of the set-up (i.e., Y, C, D, W, B, R) will be solidly attached to the axle AA', the whole system will receive clockwise and counter-clockwise jerks. To make the rotation only in one direction, the magnets M_1 and M_2 are to be turned up-down after any switching. If the permanent magnets will be replaced by an electromagnet which will be fed by the same current (as in my "trick-track" perpetuum mobile[16]), the rotation will be steady, as the driving moment is proportional to the product of the currents in the cylindrical magnet C and the radius of the disk D.

I intend to call this machine a "Bul-Cub" motor without stator,

                          as it is, as a matter of fact, an ineffective "Bul-Cub" motor[16](i.e., an ineffective one-and-a-half polar motor[6]) which is made effective by using alternating currents in non-closed loops. The energetic aspects of this machine are, however, not easily predictable as I have established experimentally[6] with my perpetuum mobile ADAM[6] that the Faraday disk (such is disk D) violates the energy conservation law (it produces more electrical energy than the consumed mechanical

energy, an effect observed for the first time by Bruce de Palma[6] in 1980), but we do
not know which is the "mathematics" of the effect. A rotation caused by internal
forces is also until now nowhere observed (the Faraday disk rotates by internal for-
ces when the magnet C is attached to it but for the system as a whole the angular mo-
mentum conservation law is not violated) and, for the time being, the "mathematics"
of the effect is covered by fog, too, as our present physics mathematics is based
exclusively[4] on the laws of conservation.

For information, I show in fig. 3 an effective "Bul-Cub" machine (motor or genera-
tor), i.e., a one-and-a-half polar machine constructed by me 4 years ago[6]. Its yoke is
not cylindrical (as in fig. 1) but consists of two wings. This "Bul-Cub" machine has
many sections of wires (which can be clearly seen·in fig. 3) and it is made effective
by short-circuiting the wires crossing both rectangular gaps of the yoke (correspon-
ding to the wire W in fig. 1), so that only a part of the driving torque applied to
the wires in the cylindrical magnet's gap (corresponding to the radial "wire" in disk
D in fig. 1) remains acting (if such a short-circuiting is not done, the machine is
ineffective and can neither rotate nor generate current). This "Bul-Cub" machine is
conventional, i.e., does not violate the laws of conservation.

Its novelty is that if the short-circuiting is done by a non-contact method (say,
by changing a photoresistance or a magnetoresistance), it is a d.c. motor (generator)
without sliding contacts and was submitted for a patent[19]. For four years the Austri-
an Patent Office denies the delivery of a patent under the pretext that "according
to the electromagnetic theories taught in the Austrian universities such a motor can-
not rotate". My suggestion to bring the machine for demonstration was not honoured.

Note added in 1988. I wish to turn once more the reader's attention to the fact
that when the wire W (fig. 1) goes through a hole in the yoke Y, then the ponderomo-
tive action of the (molecular) currents in the yoke Y on the current in the wire W is
null, however the action of the current in the wire W on the currents in the yoke Y
is not null, and the yoke receives a rotational moment (equal and opposite to the
rotationla moment received by the current in the disk D). These asymmetric effects are
due to the cause that the forces with which two current elements act on each other
are not equal and oppositely directed. I spent years of intensive thinking and setting
up dozens of experiments (of which the most important is the Faraday-Barlow demonstra-
tional machine[6,18]) until I came to this extremely important conclusion. Only assuming
it, I was able to explain all effects in my experiments from a common point of view.

When one cuts a circular strip (slit) in the yoke through which the wire W passes,
then the ponderomotive action of the current in the wire W (this part of W which
crosses the slit) on the currents (molecular) of the yoke is null, however the action
of the currents in the yoke Y on the current in the wire W is not null and the wire
receives a rotational moment (equal and opposite to the rotational moment received

by the current in the disk D).

It is extremely difficult to come to these conclusions by <u>mathematical calculations</u> and I propose this <u>heavy</u> task to the mathematicians. Proceeding from the formula (2) for the magnetic interaction between two current elements and the "geometry" of the currents in fig. 1, the mathematicians <u>must</u> come to the results predicted (and observed) by me. I am ready to pay with my head, if the mathematicians will establish that I am wrong.

This paper shows the way on which I came to the idea to construct my "Bul-Cub" machine without stator (see the following papers) which demonstrates <u>patently</u> a violation of the angular momentum conservation law.

As a matter of fact, the "Bul-Cub" machine without stator is a variation of my "trick-track" perpetuum mobile[6] (fig. 6 on p. 108), where the magnetic field of the "cylindrical" magnet is let not "free" in space but is "led" through an iron yoke.

When I proposed my "trick-track" perpetuum mobile, I was unaware of the paper of Graham and Lahoz (<u>Nature</u>, <u>285</u>, 154 (1980)) - as a matter of fact I read this paper (and made a photocopy) immediately after its publication but I could not realize at that time its importance, due to the foggy way in which the experimental results have been explained by the authors, so that I "rediscovered" it in November 1987 occasionally when putting order in my archives. The experiment of Graham and Lahoz is a realization of my "trick-track" perpetuum mobile and it is the <u>first experiment</u> <u>in history</u> which, <u>without any doubt</u>, demonstrated a violation of one of the fundamental laws of conservation, namely the law the conservation of angular momentum. I consider the Graham and Lahoz experiment in detail in the following papers.

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FIGUR CAPTIONS

Fig. 1. - A closed half polar machine.

Fig. 2. - Rotational angles of the disk at different currents along its radius.

Fig. 3. - An effective one-and-a-half polar ("Bul-Cub") machine.
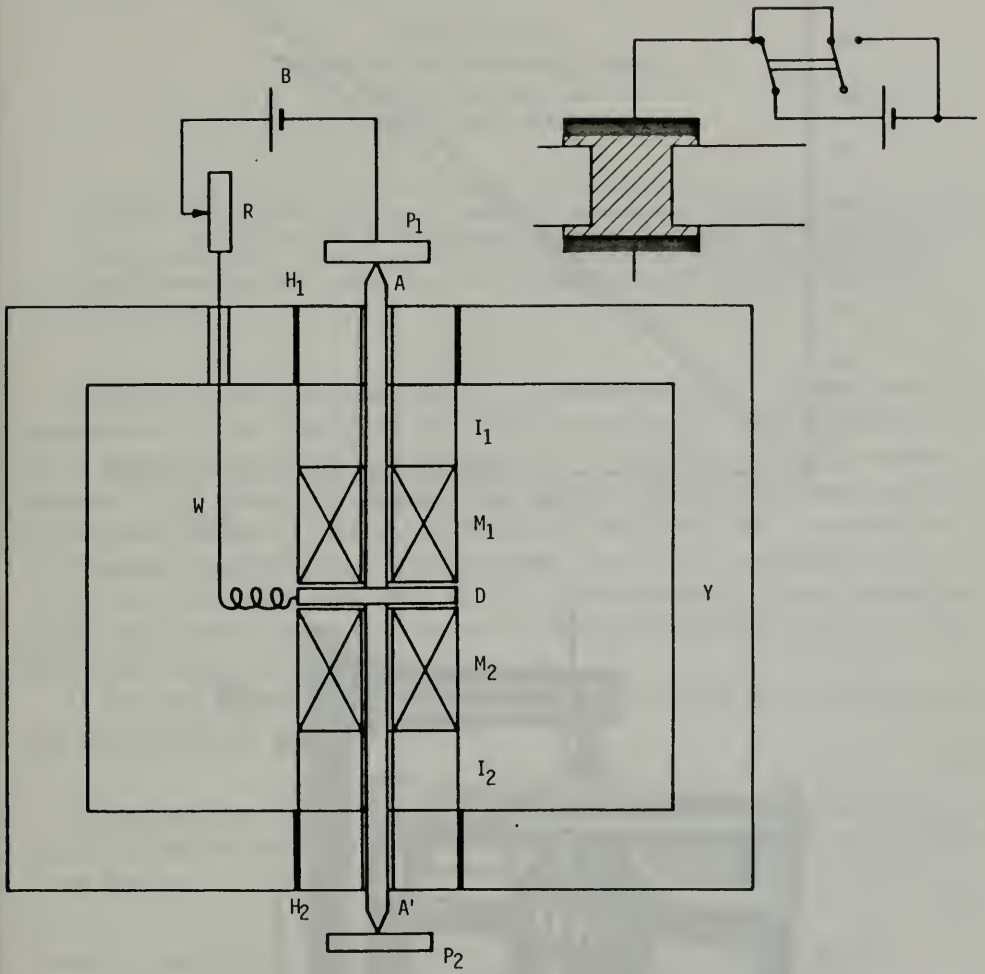
Fig. 1
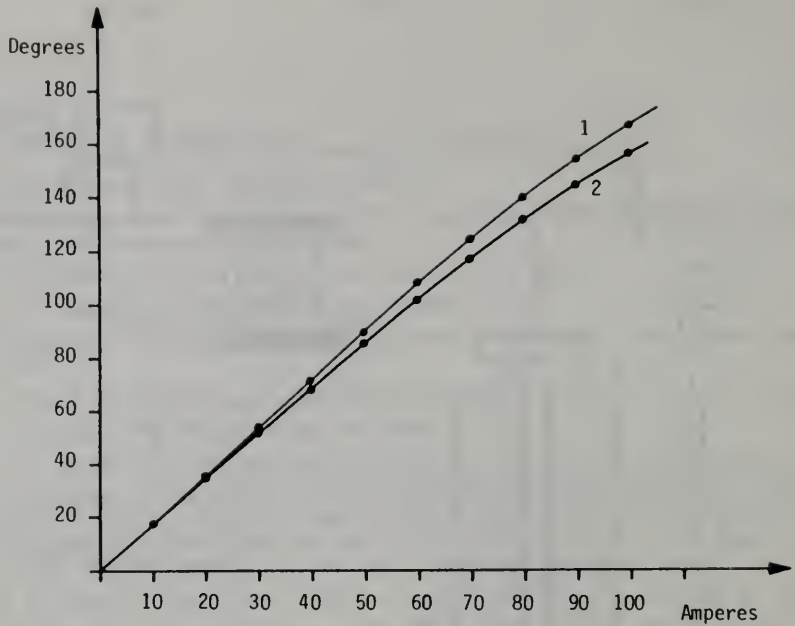
Fig. 2
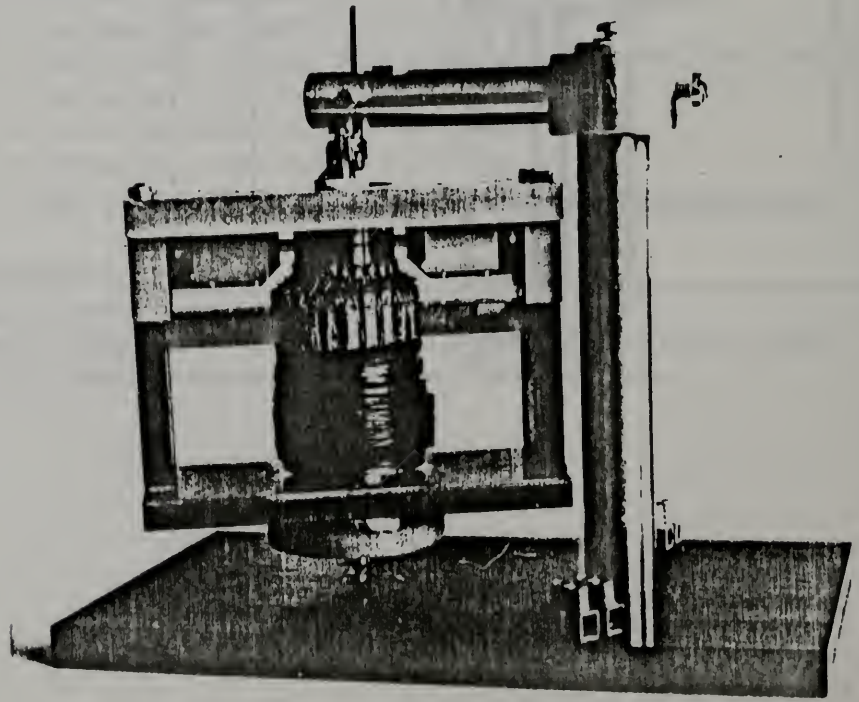
Fig. 3

VIOLATIONS OF THE LAWS OF CONSERVATION OF ANGULAR MOMENTUM AND ENERGY

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Abstract. Proceeding from four axiomatical assertions, I deduce the whole theoretical basis of electromagnetism coming to some differences with conventional physics. Then I show that violations of the laws of conservation of angular momentum and energy have been already observed by other experimenters and by me.

1. THEORY

The theory of electromagnetism which is conventionally taught in schools and universities is: 1) very complicated, 2) in many aspects wrong. I shall present the whole theoretical background of electromagnetism in the following couple of pages, and then I shall point out to a couple of experiments confirming my theory and disproving some fundamental laws of today's physics, namely the laws of conservation.

I define axiomatically three kinds of energy (those are the assertions of the fifth, sixth and eighth axioms of my absolute space-time theory[1,2]) and one equation giving the connection between the changes of these three energies (this is the assertion of the ninth axiom of my theory).

1) The space potential (i.e., electric) energy of two particles with electric charges q_1, q_2 distant r one from another is

$$U_{12} = q_1 q_2 / r. \qquad (1)$$

2) The time (i.e., kinetic) energy of a particle with mass m moving with a velocity $\vec{v}$ in absolute space (the space in which the center of mass of the whole universe is at rest) is

$$e_o = mc^2 (1 - v^2/c^2)^{-1/2}, \qquad (2)$$

where c is the velocity of light which is isotropic only in absolute space.

3) The space-time potential (i.e., magnetic) energy of two particles with charges q_1, q_2, moving with velocities $\vec{v}_1$, $\vec{v}_2$ at a distance r one from another in absolute space is

$$W_{12} = (q_1 q_2 / c^2 r) \vec{v}_1 \cdot \vec{v}_2. \qquad (3)$$

4) The sum of these three kinds of energy of an isolated material system remains always a constant quantity, i.e.,

$$dU + dE_o + dW = 0, \qquad (4)$$

where U and W are the sums of the potential energies of every pair of particles and E_o is the sum of the kinetic energies of every single particle.

If for a time dt the radius-vector $\vec{r}$ of the particle has changed with $d\vec{r}$, the quantities

$$\vec{v} = d\vec{r}/dt, \qquad \vec{u} = d\vec{v}/dt \tag{5}$$

are called universal velocity and universal acceleration of the particle, while the quantities

$$\vec{v}_0 = d\vec{r}/dt_0 = (d\vec{r}/dt)(1 - v^2/c^2)^{-1/2} = \vec{v}(1 - v^2/c^2)^{-1/2}, \tag{6}$$

$$\vec{u}_0 = d\vec{v}_0/dt = \vec{u}(1 - v^2/c^2)^{-1/2} + (\vec{v}/c^2)(\vec{v}.\vec{u})(1 - v^2/c^2)^{-3/2} \tag{7}$$

are called proper velocity and proper acceleration of the particle.

We can write for a system consisting of n particles

$$dU = \sum_{i=1}^{n} \frac{\partial U}{\partial \vec{r}_i}.d\vec{r}_i, \tag{8}$$

$$dE_0 = \sum_{i=1}^{n} \frac{\partial E_0}{\partial \vec{v}_i}.d\vec{v}_i = \sum_{i=1}^{n} \frac{\partial e_{0i}}{\partial \vec{v}_i}.d\vec{v}_i = \sum_{i=1}^{n} \frac{d}{dt}\{(1 - \frac{v_i^2}{c^2})\frac{\partial e_{0i}}{\partial \vec{v}_i}\}.d\vec{r}_i =$$

$$\sum_{i=1}^{n} \frac{d}{dt}(\frac{\partial e_i^0}{\partial \vec{v}_i}).d\vec{r}_i = \sum_{i=1}^{n} m_i \vec{u}_{0i}.d\vec{r}_i, \tag{9}$$

where $e^0 = - mc^2(1 - v^2/c^2)^{1/2}$ is called Lagrange time energy of the particle, while e_0 in (2) is called Hamilton (or proper) time energy, and

$$dW = \sum_{i=1}^{n} (\frac{\partial W}{\partial \vec{r}_i}.d\vec{r}_i + \frac{\partial W}{\partial \vec{v}_i}.d\vec{v}_i) = \sum_{i=1}^{n} \{\frac{\partial W}{\partial \vec{r}_i}.d\vec{r}_i + d(\frac{\partial W}{\partial \vec{v}_i}.\vec{v}_i) - d(\frac{\partial W}{\partial \vec{v}_i}).\vec{v}_i\}. \tag{10}$$

However

$$\sum_{i=1}^{n} d(\frac{\partial W}{\partial \vec{v}_i}.\vec{v}_i) = \sum_{i=1}^{n} dW_i = d\sum_{i=1}^{n} W_i = 2 dW, \tag{11}$$

where W_i is the magnetic energy of the system in which the ith particle takes part, so that from (10) and (11) we obtain

$$dW = \sum_{i=1}^{n} \{- \frac{\partial W}{\partial \vec{r}_i}.d\vec{r}_i + d(\frac{\partial W}{\partial \vec{v}_i}).\vec{v}_i\}. \tag{12}$$

Putting (8), (9) and (12) into (4), and dividing by dt we obtain the fundamental equations of motion in electromagnetism, called the Lagrange equations, as the velocities are quantities independent one from another

$$\frac{d}{dt}\{\frac{\partial(E^0 + W)}{v_i}\} = - \frac{\partial(U - W)}{\partial \vec{r}_i}, \qquad i = 1,2,...n. \tag{13}$$

The quantities

$$\Phi = \sum_{i=1}^{n} q_i/r_i, \qquad \vec{A} = \sum_{i=1}^{n} q_i \vec{v}_i/cr_i \tag{14}$$

are called, respectively, electric and magnetic potentials at a reference point whose distance to the ith particle is r_i.

If at the reference~a~point~ a particle with mass m, charge q~ and~ ~velocity~ $\vec{v}$

is placed, the electric and magnetic energies of the system of $n+1$ particles in

which the charge q takes part will be

$$U = q\Phi, \qquad\qquad W = (q/c)\vec{v}.\vec{A}. \qquad\qquad (15)$$

Putting (15) into (13), we obtain

$$\frac{d}{dt}(m\vec{v}_0 + \frac{q}{c}\vec{A}) = -q\,\text{grad}(\Phi - \frac{\vec{v}.\vec{A}}{c}), \qquad\qquad (16)$$

which I call the <u>Newton-Lorentz equation</u>. The quantity $\vec{f}_0 = m\vec{u}_0$ is called <u>kinetic</u>

<u>force</u> of the particle, the quantity $\vec{\bar{f}}_0 = m\vec{u}_0 + (q/c)d\vec{A}/dt$ its <u>full kinetic force</u>,

and the quantity on the right side of (16) its <u>potential force</u>. Equation (16) shows

that in electromagnetism equal and oppositely directed are only the full kinetic

forces of two interacting particles, but their kinetic forces <u>may be not</u>. According

to Newton's third law, the kinetic forces of two interacting particles must always

be equal and oppositely directed. Thus Newton's third law in electromagnetism is

violated.

Since

$$d\vec{A}/dt = \partial\vec{A}/\partial t + (\vec{v}.\text{grad})\vec{A}, \qquad\qquad (17)$$

$$\text{grad}(\vec{v}.\vec{A}) = (\vec{v}.\text{grad})\vec{A} + (\vec{A}.\text{grad})\vec{v} + \vec{v}\times\text{rot}\vec{A} + \vec{A}\times\text{rot}\vec{v}, \qquad (18)$$

where $\vec{v}$ is to be considered as constant, we can write the Newton-Lorentz equation in

the form

$$f_0 \equiv \frac{d}{dt}\frac{mv}{(1-v^2/c^2)^{1/2}} = -q(\text{grad}\Phi + \frac{1}{c}\frac{\partial\vec{A}}{\partial t}) + \frac{q}{c}\vec{v}\times\text{rot}\vec{A}. \qquad (19)$$

I beg the reader to cheque the validity of equation (11). Some 20 years ago I

searched <u>for four years</u> a way to obtain the fundamental equation of motion in electro-

magnetism proceeding <u>directly</u> from the axiomatical relations (1), (2), (3), until

finally I found the transition (11). There is no book or paper <u>in the world</u> where the

Lorentz equation should be obtained directly from the "Coulomb" laws (1) and (3). The

relation (17) must also always be kept in mind if one wishes to understand the essence

of electromagnetism.

I call (19) the <u>absolute</u> Newton-Lorentz equation as it is valid only in a labora-

tory which rests in absolute space. If the laboratory moves with a velocity $\vec{V}$ in abso-

lute space, we shall have, writing $\vec{v}_{abs} = \vec{v} + \vec{V}$ and considering now $\vec{v}$ as the relative

(laboratory) velocity of the particle,

$$\Phi_{abs} - \frac{1}{c}\vec{v}_{abs}.\vec{A}_{abs} = \sum\frac{q_i}{r_i} - \frac{\vec{v}+\vec{V}}{c}\sum\frac{q_i}{cr_i}(\vec{v}_i+\vec{V}) = \Phi(1-\frac{v^2}{c^2}) - \Phi\frac{\vec{v}.\vec{V}}{c^2} - \frac{\vec{v}}{c}.\vec{A} - \frac{\vec{V}}{c}.\vec{A} \cong$$

$$\Phi(1 - \frac{\vec{v}.\vec{V}}{c}) - \frac{\vec{v}}{c}.\vec{A} - \frac{\vec{V}}{c}.\vec{A}, \qquad\qquad (20)$$

where Φ is the laboratory electric potential which is equal to the absolute electric

potential, $\vec{A} = \sum q_i\vec{v}_i/cr_i$ is the laboratory magnetic potential, and the expression

on the right side is valid within an accuracy of first order in V/c. As $d\vec{A}_{abs}/dt = d\vec{A}/dt$, and keeping in mind relations (17) and (18), we obtain the _relative_ (_laboratory_) Newton-Lorentz equation, putting (20) into (16),

$$\frac{d}{dt} \frac{m(\vec{v} + \vec{V})}{\{1 - (\vec{v}+\vec{V})^2/c^2\}^{1/2}} = -q(grad\Phi + \frac{1}{c}\frac{\partial\vec{A}}{\partial t}) + \frac{q}{c}\vec{v}\times rot\vec{A} + q\frac{\vec{v}.\vec{V}}{c^2} grad\Phi +$$

$$\frac{q}{c}\vec{V}\times rot\vec{A} + \frac{q}{c}(\vec{V}.grad)\vec{A}. \qquad (21)$$

When an observer being always at rest in absolute space considers a particle moving first with a velocity $\vec{v}$ and then with _another_ velocity $\vec{v}'$, one must work with the so-called _Lorentz invariance_ (largely used by me[1,2]) to find the equation of motion. However when the observed particle moves _always_ with the same velocity but the observer is first at rest in absolute space and then moving with a velocity $\vec{V}$, one must work with the introduced by me _Marinov invariance_,[1,2] as shown above. Conventional physics proceeding from its nonsensical principle of relativity does not make difference between these two cases and will never be able to understand why the laboratory Newton-Lorentz equation has the form (21).

Further I shall work only in the domain of magnetism, i.e., considering the interaction between wires along which current may (or may not) flow, so that I shall always assume $\Phi = 0$. Writing $q\vec{v} = q(d\vec{r}/dt) = Id\vec{r}$, where I is the current flowing through the wire element $d\vec{r}$, and taking into account (14) by assuming that the surrounding system consists only of a wire element $d\vec{r}'$ along which current I' flows, we obtain from (19), at the assumption $\partial\vec{A}/\partial t = 0$,

$$\vec{f}_o = \frac{Id\vec{r}}{c} \times (\frac{I'd\vec{r}'\times\vec{r}}{cr^3}) = \frac{II'}{c^2r^3}\{(\vec{r}.d\vec{r})d\vec{r}' - (d\vec{r}.d\vec{r}')\vec{r}\}, \qquad (22)$$

what is called the _formula of Grassmann_. The term in the parantheses on the left side is called the _formula of Biot-Savart_.

The potential force acting on a unit electric charge is called _electric intensity_ and thus equation (19) can be written

$$\vec{E} = - (1/c)\partial\vec{A}/\partial t + (\vec{v}/c)\times rot\vec{A}. \qquad (23)$$

If there is a wire along which electric charges flow with a velocity $\vec{v}$, the intensity

$$\vec{E}_{pond} = \vec{v}\times rot\vec{A} \qquad (24)$$

is called _ponderomotive electric intensity_. If electric current does not flow but the wire itself moves with a velocity $\vec{v}$, the intensity

$$\vec{E}_{mot} = \vec{v}\times rot\vec{A} \qquad (25)$$

is called _electromotive electric intensity_.

Conventional physics considers the first term on the right side of (23) only for the case of _non-stationary currents_, i.e., when the current I' changes while the

element $d\vec{r}'$ remains at rest and calls this <u>transformer electric intensity</u> (as I also do)

$$\vec{E}_{tr} = -(1/c)\partial\vec{A}/\partial t. \tag{26}$$

However, if the element $d\vec{r}'$ moves and the current I' remains constant, conventional physics is <u>unable</u> to say which force will act on the charges in $d\vec{r}$. Proceeding from the principle of relativity, conventional physics affirms that the effect will be the same as for the case where $d\vec{r}'$ should be at rest and the element $d\vec{r}$ should move with the <u>opposite</u> velocity, so that for this case conventional physics uses formula (25) taken with an opposite sign. This is a <u>tremendous lie</u> which the relativists preach since 70 years. In this case the intensity acting on the charges in the resting wire $d\vec{r}$ is called by me <u>motional-transformer electric intensity</u> and is to be calculated according to the formula

$$\vec{E}_{mot-tr} = -\frac{1}{c}\frac{\partial\vec{A}\{r(t)\}}{\partial t} = -\frac{1}{c}\left(\frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial x}\frac{\partial x}{\partial t} + \frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial y}\frac{\partial y}{\partial t} + \frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial z}\frac{\partial z}{\partial t}\right) = (\vec{v}\cdot grad)\vec{A}, \tag{27}$$

where $\vec{v} = -\partial\vec{r}/\partial t$ is the velocity of the element $d\vec{r}'$. This kind of electric intensity was <u>discovered</u> recently by me,[3-7] although Maxwell and Lorentz had to be the persons to discover it but they did not and then Einstein with his theory of relativity deprived humanity of the possibility to discover this extremely important kind of electric intensity.

Those are the fundamental theoretical concepts of electromagnetism. As I showed[1,2], proceeding from the Newton-Lorentz equation and using exclusively the logical apparatus of mathematics I obtained <u>all results</u> of theoretical electromagnetism, i.e., the effects in static, quasi-static and dynamic systems, including the radiation of electromagnetic energy, and I introduced the relevant corrections in the conventional teaching. Now I shall point out at some experiments confirming my concepts.

2. EXPERIMENTS

Violation of the law of angular momentum conservation has been observed twice. Kennard[8] has observed such a violation in 1917 with an electromotive effect and Graham and Lahoz[9] have observed such a violation in 1980 with a ponderomotive effect. Unfortunately those authors have not understood the importance of their observations.

Kennard[8] established (fig. 1) that if a wire $b - b_0$ whose ends are connected with the plates of two cylindrical condensers moves between two concentric current wires, the condenser is <u>charged</u>. If the concentric current wires rotate, the wire $b - b_0$ being at rest, the condenser is <u>not charged</u>. If all elements rotate together, the condeser is charged exactly to the same potential as in the first case. If feeding the concentric wires with alternating current, Kennard <u>would be</u> able to produce alternating current when the system <u>rotates as a whole</u>. But when the system does not rotate, no alternating current would be produced. Thus the apparatus of Kennard can be a <u>generator</u> of alternating current. In a generator the produced electric energy can be only "transformed" mechanical energy. Thus the uniform rotation of the <u>isolated</u> system

had to be braked, what is a violation of the angular momentum conservation law.

Kennard's experiment can be explained only by my theory (conventional physics makes as if Kennard's experiment does not exist at all). Indeed, in the first case the induced electric intensity is motional and is to be calculated according to formula (25), in the second case the induced electric intensity is motional-transformer and is to be calculated according to formula (27), and the thrid case is a combination of the above two.

In fig. 2 is presented an inertial variation of Kennard's experiment proposed by me[3],[4]. Putting into formula (21) $\partial\vec{A}/\partial t = 0$, $\vec{v} = 0$, and taking into account that if the vertical wires are far enough, the last term will be zero, one sees that in (21) only the term next to the last remains. For b = 15 cm, b_0 = 0.2 cm, I = 100 A (current in the rectangular loop), V = 300 km/sec, the potential difference between the end-points of the wire $b - b_0$ will be 60 V. Thus with this electromagnetic experiment the Earth's absolute velocity can be very easily and very accurately measured.

In the experiment of Graham and Lahoz[9] (fig. 3) the plates of two cylindrical condensers are connected with the wires a and b to which an alternating tension is applied and a constant magnetic field[B] parallel to the axis of the condensers is applied. Thus the torque due to the ponderomotive forces acting on the wire a will be bigger than this acting on the wire b (use formula (24) putting there $\vec{B} = rot\vec{A}$). The whole system was suspended on a string and when alternating tension was applied with a period equal to the period of own oscillations of the system, the system has begun to oscillate. Graham and Lahoz have not understood the importance of their experiment, as they supposed that electromagnetic energy had to be radiated and its momentum had to balance the appearing torque. First they have not observed such a radiated energy and secondly to obtain theoretically the Poynting vector of this radiated energy they multiplied the magnetic intensity which is constant by the variable electric intensity appearing between the condensers' plates. This is a nonsensical calculation as electromagnetic energy can be radiated by a single system but not by two, the one supplying the vector $\vec{B}$ and the other the vector $\vec{E}$.

In my Bul-Cub machine without stator (figs. 4, 5, 6) one can observe both the electromotive (Kennard's) and the ponderomotive (Graham+Lahoz') violations of the angular momentum conservation law[10]. My machine consists of a coil wound on the cylindrical core of an electromagnet having a cylindrical yoke. The magnet with the yoke can rotate on the pointed ends of two axes taken from a clock. The "Faraday disk" (the disk along which radial currents will flow) is fixed to the magnet and is isolated from the magnet's iron. The center of the disk, through the lower pointed axle, is connected with   the one electrode L   of the delivered tension .   The periphery of the disk is fixed to a brass ring whose surface "looking down" presents the upper plate of a ring condenser. The lower plate of this ring condenser is connected through sliding contacts with the other

electrode K of the delivered tension (in the case where the machine works as a generator). The lower lid of the yoke has a ring "gap" in which the condenser's dielectric is placed. One end of the coil's wire is connected through the upper pointed axle with the one electrode M of the feeding tension and the other end makes contact with the lower condenser's plate and thus through the sliding contacts reached the other electrode K of the feeding tension (in the case where the machine works as a generator). The core of the magnet is made by powder iron where the single grains are insulated one from another and is thus non-conducting, so that there were no eddy currents in the magnet.

Let us see first how the machine works as a motor. In this case the sliding contacts must be taken away and the coil remains connected in series with the Faraday disk. As the torque on the radial currents in the Faraday disk is proportional to the product of the currents along the disk's radius and in the coil (see formula (22)), this torque is unidirectional. If the upper and lower condenser's plates will be connected by a wire, the torque on this wire will be equal and opposite to the torque applied to the disk, and no rotation will be possible, as I have already experimentally established with my ineffective Bul-Cub machine[4]. However when there is a dielectric in the gap of the lower lid, in which only the Maxwell displacement current goes through, $\dot{I}_{dis} = (S/4\pi)\partial E/\partial t$, where E is the electric intensity between the condenser's plates (let us assume it uniform) and S is the horizontal cross-section of the condenser, no torque in the space between the condenser's plates can appear (imagine, for clarity, that the dielectric is replaced by vacuum). Thus we see that the whole body will begin to rotate if an alternating tension will be applied. The rotation will be due only to the action of internal forces and thus the angular momentum conservation law will be violated.

Let us now see how the machine works as a generator. In this case the sliding contacts must be put and the circuit of the coil and of the Faraday disk plus condenser will be separated, having only a common point at the lower plate of the condenser. When the body rotates a tension will be induced along the radius of the disk calculated by the help of formula (25). If the condenser's plates will be connected by a wire, an equal and oppositely directed tension will be induced in the latter, and the output tension will be null, as I have established with my ineffective Bul-Cub machine[4]. However, when there is no wire (and consequently no moving charges) in the gap of the lower lid, no tension can be generated in this gap, and only the tension generated in the disk will remain. Thus we see that the body will begin to generate alternating current if the coil will be fed by alternating current. This generator has only a rotor and no stator.

As in my experiment the condenser had a very small numerical value (about 1 nF), only feeble alternating current could be sent through it. As, on the other hand, the magnetic field of the electromagnet was not very big (about 0.07 T) and the friction in the bearings could not be ignored, I could realize only the second experiment,

i.e., I showed only how a body rotating as a whole generated alternating current. At radius of the Faraday disk 2 cm and a rotational velocity 20 rev/sec the produced tension was 1.1 mV, a value matching well with the calculated according to formula (25) value.

When trying to drive the machine as a motor, I applied the tension of the mains (220 V) and to reduce the dephasation between tension and current to zero I put in series the two big coils which can be seen in fig. 6. Their common ohmic resistance was 37,000 Ohm, the common inductivity 8,600 H and the calculated resonance frequency was 56.6 Hz. The measured current was 5.4 mA.

I hope that the reader has understood that it is extremely simple to demonstrate a violation of the angular momentum conservation law. Let me add that my Bul-Cub machine without stator definitely rejects Ampere's formula for the interaction between two current elements (compare with formula (22))

$$\vec{f} = \frac{I\,I'}{c^2 r^5}\{3(\vec{r}.d\vec{r})(\vec{r}.d\vec{r}') - 2(d\vec{r}.d\vec{r}')r^2\}\vec{r}, \tag{28}$$

as according to this formula two current elements interact with forces which are equal and oppositely directed and thus this formula is in concord with Newton's third law. My experiment also patently shows that Maxwell's displacement current is a fiction, as it can lead neither to the appearance of ponderomotive forces nor to the generation of magnetic potential.

Let us turn now our attention to the violation of the energy conservation law.

Bruce de Palma[11] was the first man who observed such a violation in his N-machine which represents a cemented Faraday disk (i.e., a Faraday disk rotating together with a cylindrical magnet, as is the case in the Bul-Cub machine without stator) working as a generator. I confirmed[4] de Palma's observations with my machine ADAM[4] (figs. 7 and 8). Such a generator produces more electrical energy than the mechanical energy supplied, i.e., the machine brakes at a lower than a 100% rate, meanwhile all known to humanity generators brake exactly at a 100% rate. The percentage of braking depends on many different factors[4], being pretty high.

My machine MAMIN COLIU (MArinov Motion-transformer INductor COupled with a LIghtly rotating Unit)[4-7] (figs. 9, 10 and 11) is a generator where there is no braking at all. The induced in the machine electric intensity is motional-transformer. The explanation of the fact that there is no electromagnetic braking in this machine is straighforward (I shall use here the common "flux" language and not my "potential" language to be easier understood by the reader). The rotor has two pairs of short magnets with opposite polarity and in the gap of the core there are long magnets (one pair) with the same polarity. When the rotor magnets with the same polarity are in row with the stationary magnets, the magnetic flux in the core is maximum and when the rotor magnets with the opposite polarity are in row with the stationary magnets, the magnetic flux in the core is minimum. The change of the magnetic flux leads to induction of alternating current in the magnet's coil. This induction current generates its own

magnetic field which, however, has a cylindrical symmetry in the gap (let us assume that the   permeability   of the permanent magnets is equal to unity) and no torque on the rotor's magnets can appear. Indeed, applying currents of the order of 1 A to the coil, no even slightest motion of the rotor could be observed.

The reader may   ask me: How could I come to a violation of the energy conservation law, if this law is a fundamental axiom in my theory (equ. (4))? The answer is that equ. (4) is valid only in the physics of particles. The machine MAMIN COLIU is from the physics of continua where magnetizable material is used. One can easily persuade oneself that if MAMIN COLIU will be constructed only by current wires, the energy conservation law cannot be violated. (See p. 90).

At the time being the generated by the machine tension is lower than the tension needed for rotation of the motor driving the rotor. I am working on the increase of this tension. The unique thing which I need to run this machine with a closed energetic cycle (i.e., as a perpetuum mobile) is money (about 10,000 $). Nothing else!

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FIGURE CAPTIONS

Figure 1 The Kennard experiment.

Figure 2 Inertial variation of Kennard's experiment.

Figure 3 The experiment of Graham and Lahoz.

Figure 4 Scheme of the Bul-Cub machine without stator.

Figure 5 The Bul-Cub machine without stator open.

Figure 6 The Bul-Cub machine without stator mounted.

Figure 7 Scheme of the machine ADAM.

Figure 8 Photograph of the machine ADAM.

Figure 9 Scheme of the machine MAMIN COLIU.

Figure 10 The machine MAMIN COLIU open.

Figure 11 The machine MAMIN COLIU mounted.

Marinov's note. The Bul-Cub machine without stator described above was with teflon as dielectric. Then I exchanged the teflon by barium titanat increasing the capacity of the ring condenser to 430 µF and could bring the machine to rotation (see the next paper).
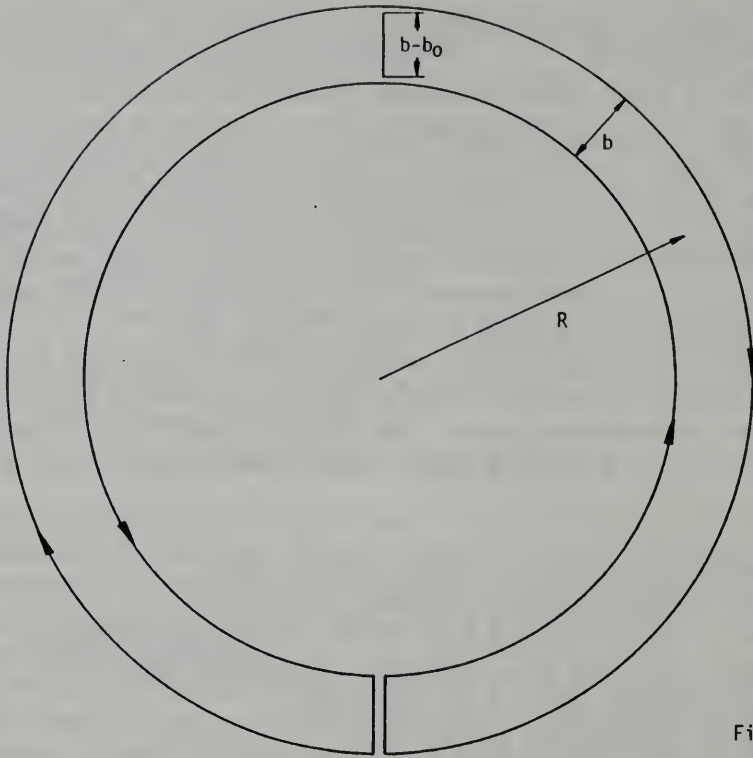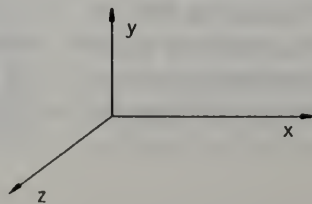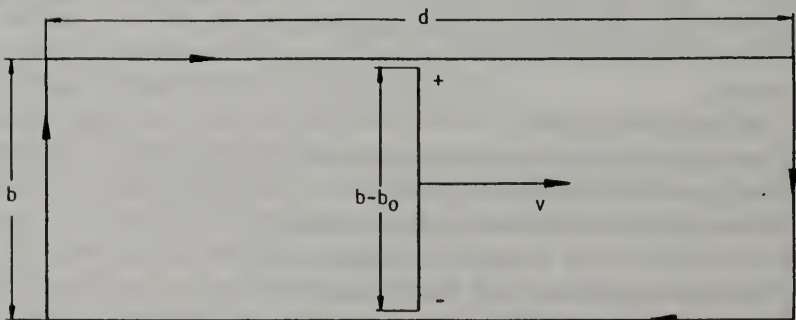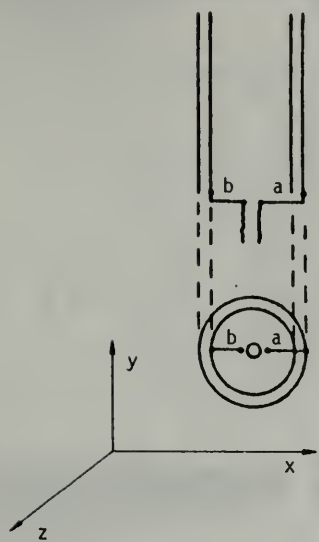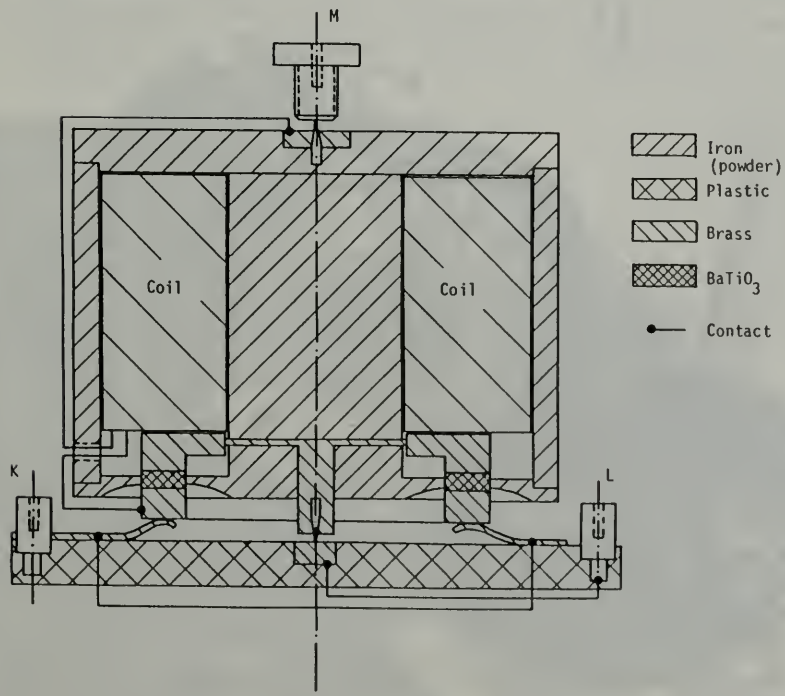
Fig. 1

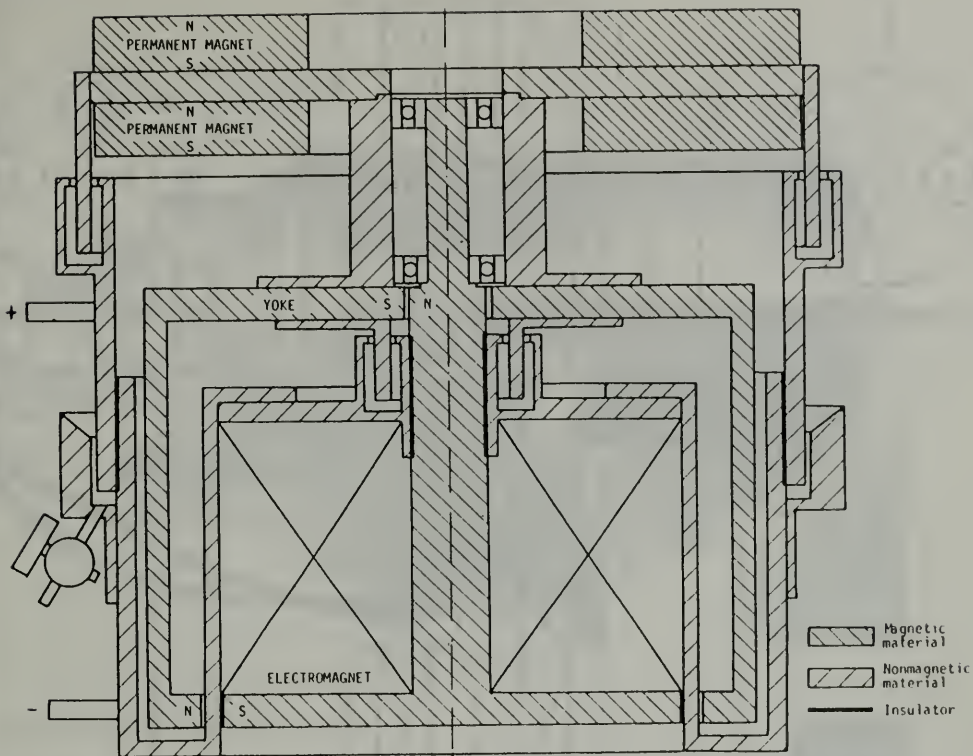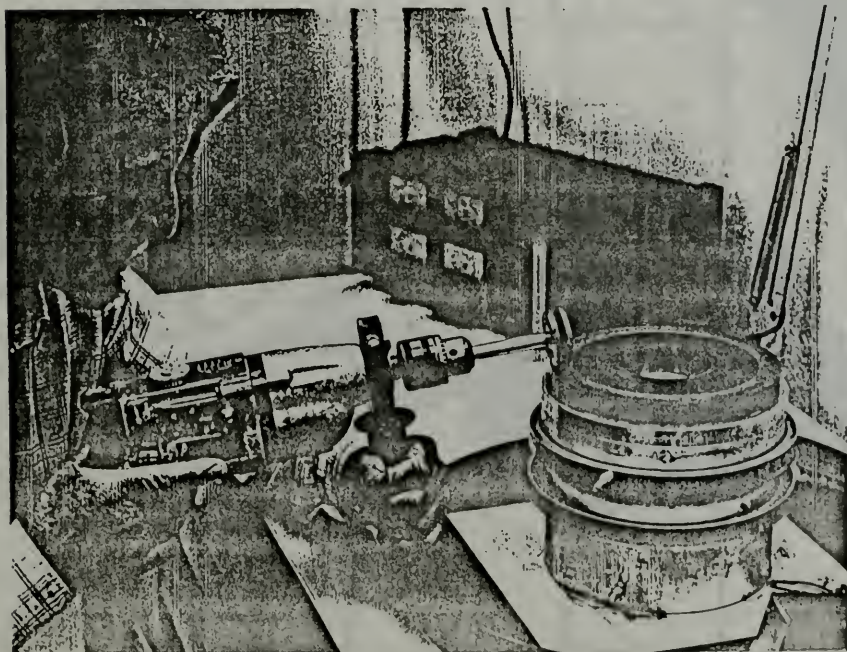Fig. 2

Fig. 3
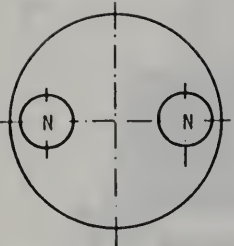

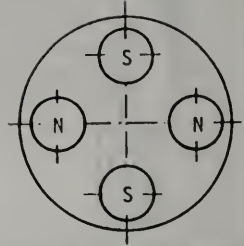Fig. 4
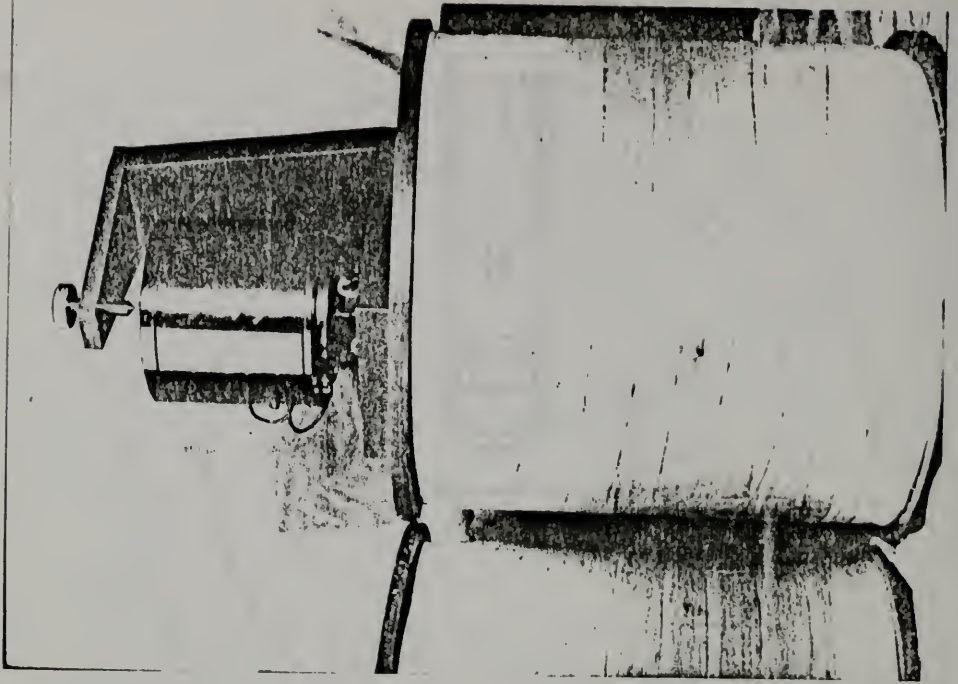
Fig. 6

Fig. 5

Fig. 7

Fig. 8

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Long (steady) magnets

Short (rotating) magnets

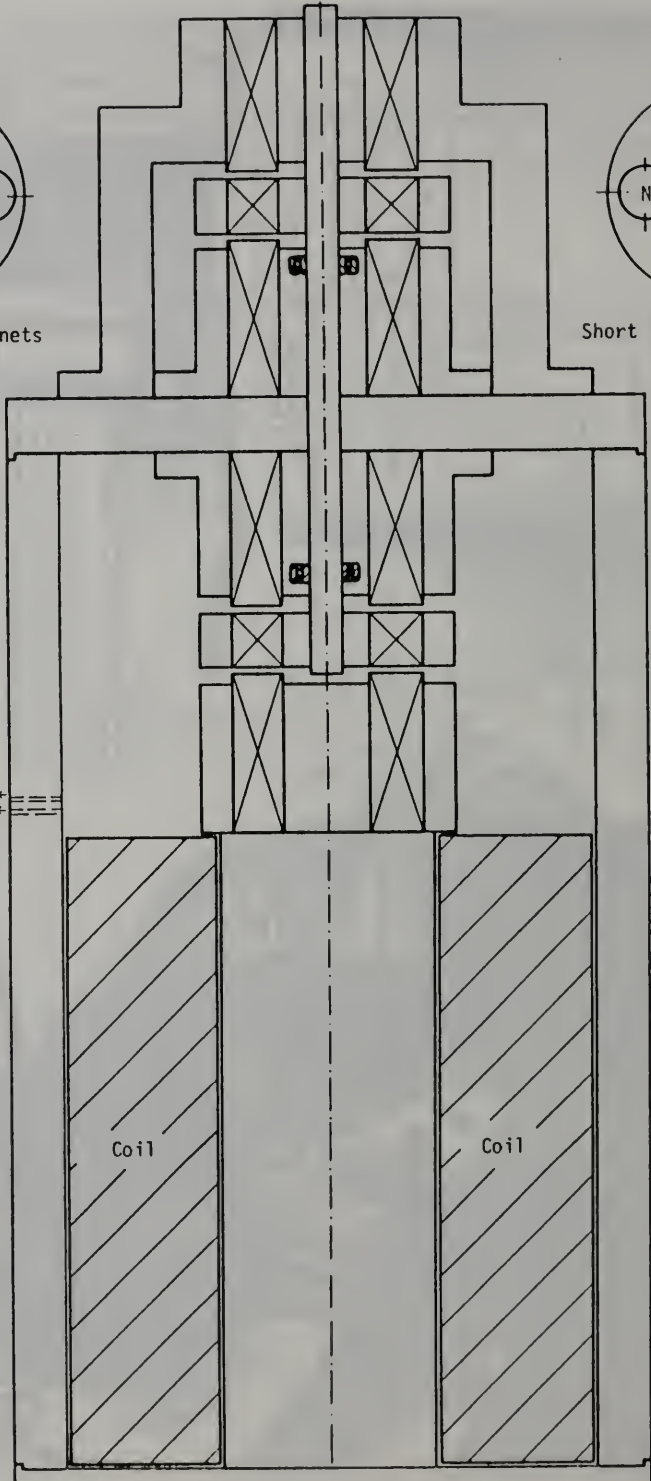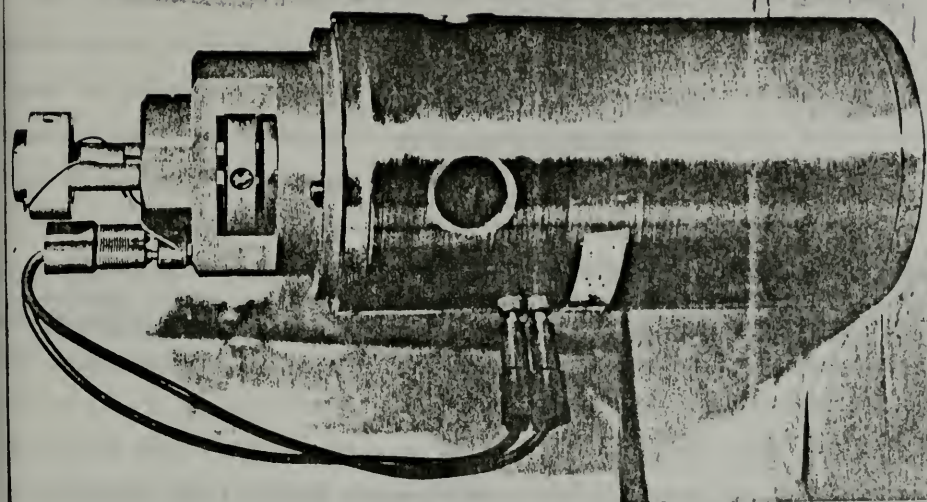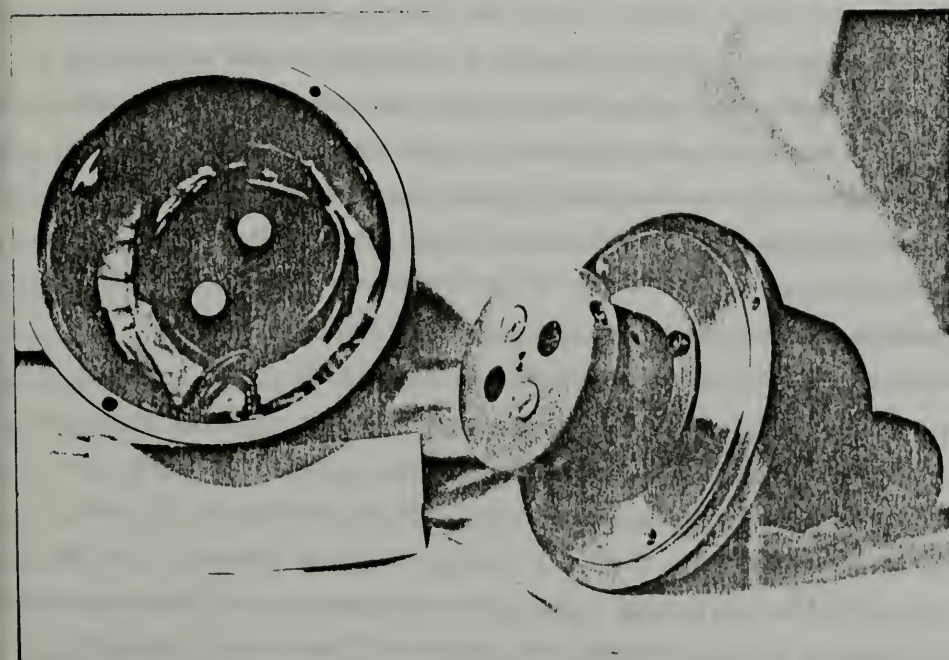Coil's output

Coil

Coil

Fig. 9

Fig. 11

Fig. 10

VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM
CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM

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Abstract. Analyzing the experiments of Kennard, Graham & Lahoz and my Bul-Cub
machine without stator, I show that the law of conservation of angular momentum
has been already experimentally violated and that the concepts of conventional electromagnetism
are terribly confused. The violation of the laws of conservation opens a new
era not only in physics but in human history.

My absolute space-time theory[1,2] is built proceeding from the most simple "Newtonian"
concepts about space, time and energy, i.e., that space and time are absolute catego-
ries and the interactions between the particles (electric, magnetic, gravitational)
are momentary (any child intuitively develops such concepts when coming in contact
with the surrounding world and the writings of his ancestors). In my theory there is
a substantial difference between the potential, radiation and radiation reaction
fields, their intensities being inversely proportional, respectively, to the second,
first and zero power of the distance from the system generating the fields to the
reference point. The notions "density" of electromagnetic energy and "transfer" of
electromagnetic energy are relevent only to the radiated energy but not to the po-
tential energy (electric and magnetic) which cannot be located.

The errors which conventional physics makes are tremendous. As I show, the percen-
tage of the lies in the text-books on electromagnetism overpasses considerably the
percentage of the truths[1-3]. These wrong concepts do not permit to the electroengi-
neers and electrotechnicians to construct machines working by violating the laws
of conservation and thus to change radically mankind's future. I have already constructed
several machines violating the energy conservation law[3-6] but none in the world pays
attention to my communications which are usually published as paid advertisement, as

the journals of the "establishment" refuse to print my papers.

In this paper I shall show that one can <u>very easily</u> observe a violation of the angular momentum conservation law. Moreover! I shall show that such a violation has already been observed but because of the <u>wrong</u> theoretical concepts of present-day electromagnetism neither the people carrying out the experiments nor other scientists have realized the importance of these observations.

Kennard[7] observed a violation of the law of angular momentum conservation in an <u>electromotive</u> experiment (fig. 1). A constant current flows along the two concentric circles with a difference b in their radii. A wire $b - b_0$ is placed between both circles and can rotate alone or together with the circles, or the wire can be kept at rest and the circles rotated. When the wire moved, Kennard observed that electric tension was induced along its length which charged the (connected to the wire's endpoints) two coaxial plates of a cylindric condenser. When the circular loops moved, there was no induced tension. Finally when wire and loops moved together, Kennard observed the <u>same</u> tension as in the first case.

On the 29 October 1987 I visited Acad. A. Sakharov in Moscow and informed him about Kennard's experiment, which was unknown to him (according to my statistics, only 99,9% of the living physicists have heard about Kennard's experiment). Although being highly puzzled by this experiment, Sakharov could not grasp its importance and remained sceptical about my perpetual motion machines[3-6], giving immediately an expression of his scepticism[8].

Changing the direction of the current in the concentric circles, Kennard generated an alternating tension on the condenser when his apparatus rotated <u>as a whole</u>, representing thus a generator for alternating current <u>without stator</u>. The produced electrical energy must come from the mechanical rotational energy of the whole body and its angular velocity must be diminished. This represents a violation of the angular momentum conservation law.

Graham & Lahoz[9] observed a violation of the angular momentum conservation law in a <u>ponderomotive</u> experiment (fig. 2). An alternating electrical tension is applied to the inner endpoints of two radial wires whose outer endpoints are connected with the

put in constant axial magnetic field
inner and outer coaxial plates with radii a and b of a cylindrical condenser. If the
frequency of the alternating tension is equal to the own frequency of mechanical os-
cillations of the system, a resonance appears, so that the system can oscillate at
the availability even of a very feeble torque.

I repeated Kennard's and Graham & Lahoz' experiments with my Bul-Cub machine with-
out stator[10](figs. 3-5).   I shall consider first the theoretical aspects of
my machine. This analysis will reveal why Garaham & Lahoz (Kennard's theoretical
speculations were limited) could not understand the importance of their experiment.

My Bul-Cub machine without stator consists of a coil wound on a cylndrical core
of an electromagnet having a cylindrical yoke and two ring lids. The magnet with the
yoke can rotate on the pointed ends of two axes. The "Faraday disk" (the disk along
which radial currents will flow) is of brass and is fixed to the magnet's core (thus it
is a "cemented Faraday disk"). The center of the disk is connected, through the lower
pointed axle, with the one electrode L of the delivered tension (when the machine
works as a generator). The periphery of the   "Faraday disk" is fixed to a brass
ring whose surface "looking down" presents the upper plate of a ring condenser. The
lower plate of this ring condenser is connected through sliding contacts with the
other electrode K of the delivered tension. The lower lid of the yoke has a ring gap
in which the dielectric of the condenser is placed. One end of the coil's wire is con-
nected through the upper pointed axle with the one electrode M of the feeding tension
and the other end makes contact with the lower conenser's plate and thus through the
sliding contacts reaches the other electrode K of the feeding tension. The magnet's
core and yoke are made by pow_der iron where the single grains are insulated one
from another and are thus non-conducting, so that there were no eddy currents in the
. magnet.

The machine works as a generator because at its rotation an electric tension
is induced along the radius of the disk. If the condenser's plates will be connected
by a wire, an equal and oppositely directed tension will be induced in the latter,
and the output tension will be null, as I have established with my ineffective Bul-Cub
machine[3,11]. However when there is a dielectric in the gap of the lower lid, in which

no tension can be generated, only the tension generated in the "Faraday disk" will remain and the rotating body generates alternating electric tension if the coil will be feeded.by alternating current.

Let us now see how the machine works as a motor. The driving tension can be ap-plied in parallel (in such a case the electrodes M and L are to be connected shortly) or in series (in such a case the sliding contacts must be taken away and the driving tension is to be applied to the electrodes M and L). As the torque on the radial currents in the "Faraday disk" is proportional to the product of the currents along the disk's radius and in the coil, this torque is unidirectional when the driving tension is alternating. If the upper and lower condenser's plates will be connected by a wire, the torque on this wire will be equal and opposite to the torque applied to the disk, and no rotation is possible, as I have established with my ineffective Bul-Cub machine[3,11]. However, when there is a dielectric in the gap of the lower lid, in which only the Maxwell displacement current can go through, no torque in the space between the condenser's plates can appear (imagine, for clarity, that the die-lectric is replaced by vacuum). Thus the body begins to rotate due to the action of "internal forces" violating thus the angular momentum conservation law.

Conventional physics (following Maxwell's concepts) affirms that the displace-ment current has the same character as the conduction current. Bartlett & Corle[12] were the first experimenters who heralded of having measured the magnetic action of the displacement current flowing in a condenser. Their experiment is completely nonsensical as one is unable to measure the magnetic action of a current element (even for d.c.); one is able to measure only the magnetic action on a current ele-ment. But nobody has until now measured the magnetic action on a displacement cur-rent element, as this action is ponderomotive, and to bring vacuum into motion is the same difficult thing as to sell one's own shaddow. My machine gives excellent possibilities to demonstrate such ponderomotive effects if they do exist. Unfortu-nately, they do not.

I shall calculate the ponderomotive torques acting on the conduction current and on the displacement current in my machine. Let us choose a reference frame with

its origin at the axis of the apparatus, the x-axis pointing to the reader, the y-axis
pointing to the right and the z-axis pointing upwards. If the magnetic intensity in the
core of the electromagnet is $\vec{B}$ pointing upwards, the radius of the core r and the
current I flowing from the axis to the periphery, the torque (the moment
of force) acting on the radial convection currents will be

$$\vec{M}_{cc} = \int_0^r \vec{r} \times (\frac{I \, d\vec{r}}{c} \times \vec{B}) = -\frac{IB}{c} \hat{z} \int_0^r r \, dr = -\frac{IBr^2}{2c} \hat{z}. \tag{1}$$

If the electric intensity in the condenser is $\vec{E}$, at the above direction of the
current $\partial\vec{E}/\partial t$ will point downwards. Thus if the distance between the condenser's plates
is h (we assume it **equal** to the height of the cross-section of the gap in the lower
lid) and the inner and outer radii of the condenser's plates (and of the gap) are R_i and R_o, the
torque acting on the displacement current will be

$$\vec{M}_{dc} = \vec{R}_{middle} \times \{\frac{\pi(R_o^2 - R_i^2)h}{4\pi c} \frac{\partial\vec{E}}{\partial t} \times \vec{B}'\} = \frac{(R_i + R_o) \, h \, (R_o^2 - R_i^2) \, B'}{8c} \frac{\partial E}{\partial t} \hat{z}, \tag{2}$$

where $\vec{B}'$ (pointing to the axis of the apparatus) is the magnetic intensity in the
gap and we shall assume that the whole magnetic field is closed in the iron and in
the gap, thus that the magnetic fluxes in the core and in the gap are equal, so that

$$B' = \frac{r^2}{h(R_i + R_o)} B. \tag{3}$$

Taking further into account that

$$\partial E/\partial t = I/Ch, \qquad C = (R_o^2 - R_i^2)/4h, \tag{4}$$

where C is the capacitance of the condenser with vacuum as dielectric, for which the
displacement current is $(1/4\pi)\partial\vec{E}/\partial t$, we obtain from (2), (3) and (4) $\vec{M}_{dc} = -\vec{M}_{cc}$.

Now the big question is to be posed: Will the torque $\vec{M}_{dc}$ lead to a ponderomotive
action. My answer (and the answer of the experiment) is: No! Thus the system begins
to rotate due to the action of the torque $\vec{M}_{cc}$ what is a violation of the law of con-
servation of angular momentum.

Conventional physics asserts that the torque $\vec{M}_{dc}$ is "taken by the electromagnetic
field". "Vacuum is the seat of something in motion" write Graham & Lahoz[9], although
yet Sokrates taught to his pupils that something is nothing and if a philosopher

cannot define the notions of which he makes use, it is better that he keeps his mouth closed. I said above that according to my concepts the potential electromagnetic "fields" are only mathematical means and have no physical (i.e., energetic) bearer. Only the radiation electromagnetic fields have physical bearer. Thus the law of conservation of angular momentum will be saved only if my machine will radiate electromagnetic energy which will rotate in the condenser-magnet's gap in direction opposite to the direction of rotation of the material system. This rotating radiation energy must have such a big pressure that if in the gap a freely rotating wall with a mass about equal to the mass of the system will be placed, this wall has to begin to rotate with an angular velocity equal and opposite to the velocity of the system. Neither the most powerful laser can exert such a big pressure.

In any textbook on electromagnetism one tries to hammer in the heads of the students that if there are a charged condenser producing the electric intensity $\vec{E}$ and a magnet producing the magnetic intensity $\vec{B}$ there is a flow of electrimagnetic energy with the density $(c/4\pi)\vec{E}\times\vec{B}$, meanwhile every child knows that this is not true. An electromagnetic energy flow can exist only if $\vec{E}$ and $\vec{B}$ are the intensities in a radiation field. In this case they must have been produced by the accelerated motion of charges in a certain system (not of two different systems, as is the case above), being always equal in value und mutually perpendicular.

Thus a violation of the law of conservation of angular momentum has been observed by Graham & Lahoz 8 years ago. If we shall take into account also the experiment of Kennard, such a violation is being observed in the year when Lenin took the power in Russia. I am asking: Until when will the scientific community close its eyes for this tremendous discovery, which moreover is a logical result of the fundamental formula for the interaction of two current elements proposed by Grassmann[13], as this formula violates Newton's third law.

In my experiment (figs. 3 - 5) the yoke was made of powder soft iron material Coro-vac EF 6880 delivered by the VACUUMSCHMELZE, Hanau, West Germany. I had (further the formulas will be written in the SI-system) R_i = 3 cm, R_o = 4 cm, h = 0.2 cm (height of the air gap), d = 0.4 cm (distance between the condenser's plates). The dielectric of the condenser was barium titanat with   permittivity $\varepsilon \cong 10000$. For smooth plates the capacitance is $C = \varepsilon_o \varepsilon \pi (R_o^2 - R_i^2)/d$, where ε_o is the   electric constant. I etched the condenser's plates making them rough and increasing thus the surface and the capacitance, which, measured between the electrodes K and L, was C = 430 nF. A condenser with a capacitance 470 nF brought the magnet coil into a re-sonance if a 50-Hz-alternating-current was applied, so that the inductivity of the coil was L = 22 H. By applying the mains (220 V), the current flowing in the coil was I = 0.23 A, and thus the whole ohmic resistance of the coil was R = 960 ohm. The calculation of the magnetic intensity across the Faraday disk according to the formula $B = \phi/\pi r^2 = \mu_o n I / \sum (L_i/\mu_i S_i) \pi r^2$, where ϕ is the magnetic flux in the yoke, r = 2 cm is the radius of the Faraday disk, μ_o is the   magnetic constant, n = 12,000 is the number of the turns of the coil, and L_i, S_i, μ_i are the lengths, the cross-sec-tions and the   permeabilities of the different parts of the yoke (μ_{air} = 1, μ_{iron} = 200), gave the value B = 0.072 T.

First I run the machine as a generator driving it with a d.c. electromotor which "rubbed" the upper lid. The tension which was expected to be induced along the disk's radius during a rotation with a rate N = 20 rev/sec had to be $U = \pi B r^2 N$ = 1.8 mV. I measured U = 1.1 mV.

Then I run the machine as a motor applying a 50-Hz tension of 1500 V from a trans-former to the electrodes L and M and taking away the sliding contacts. The flowing current was I = 1.5 A and the rate of rotation was parts of a revolution per second.

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FIGURE CAPTIONS

Fig. 1. The experiment of Kennard.

Fig. 2. The experiment of Graham & Lahoz.

Fig. 3. Scheme of the Bul-Cub machine without stator.

Fig. 4. Photograph of the Bul-Cub machine without stator (open).

Fig. 5. Photograph of the Bul-Cub machine without stator (mounted). The big coils were used to balance the low capacitance of the condenser at the time when teflon and not barium titanat was used as a dielectric.
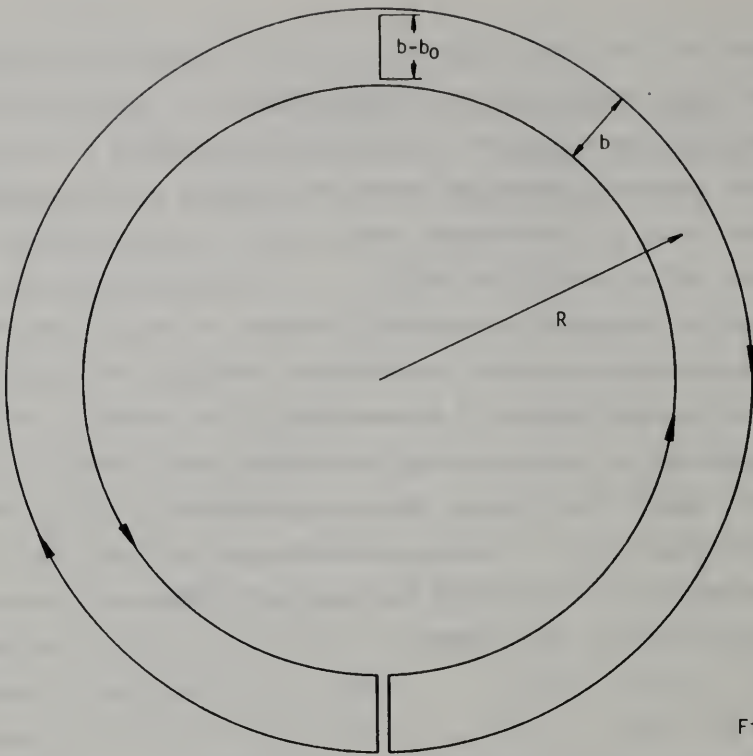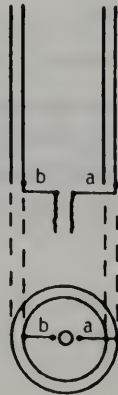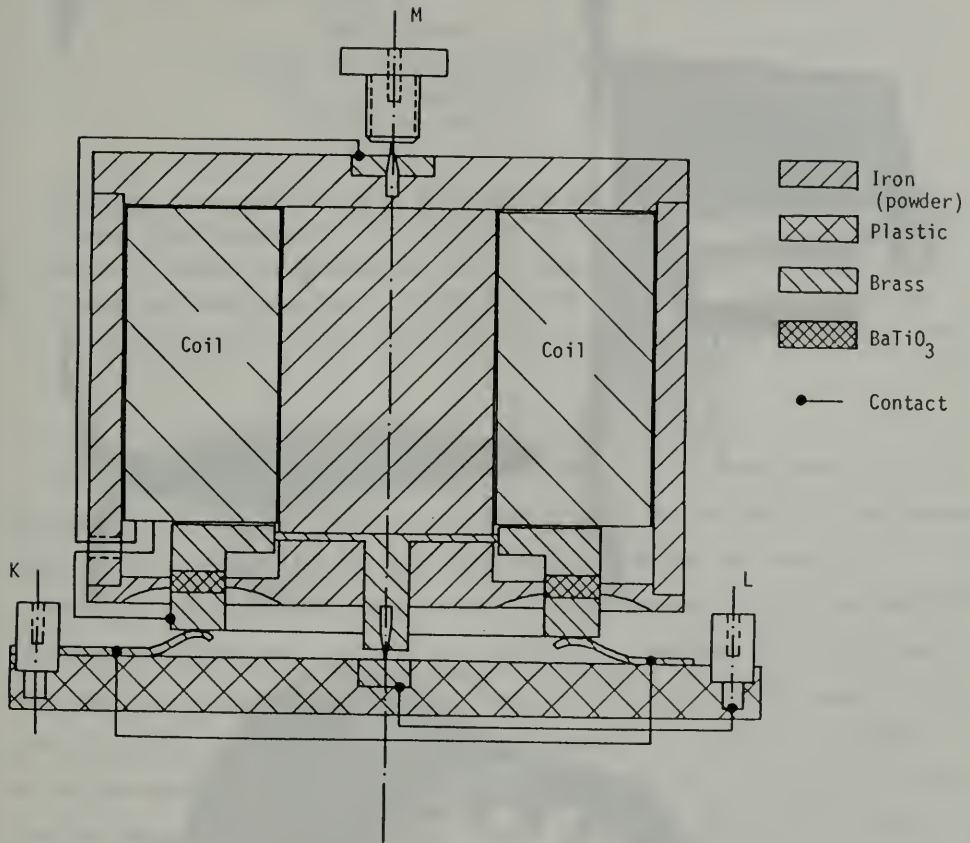
Fig. 1

Fig. 2
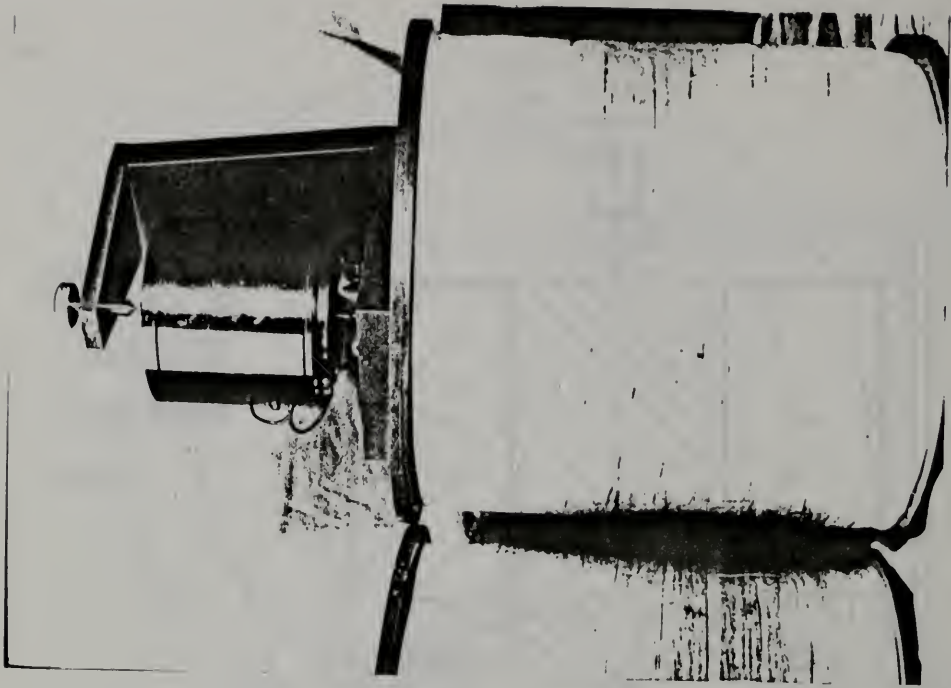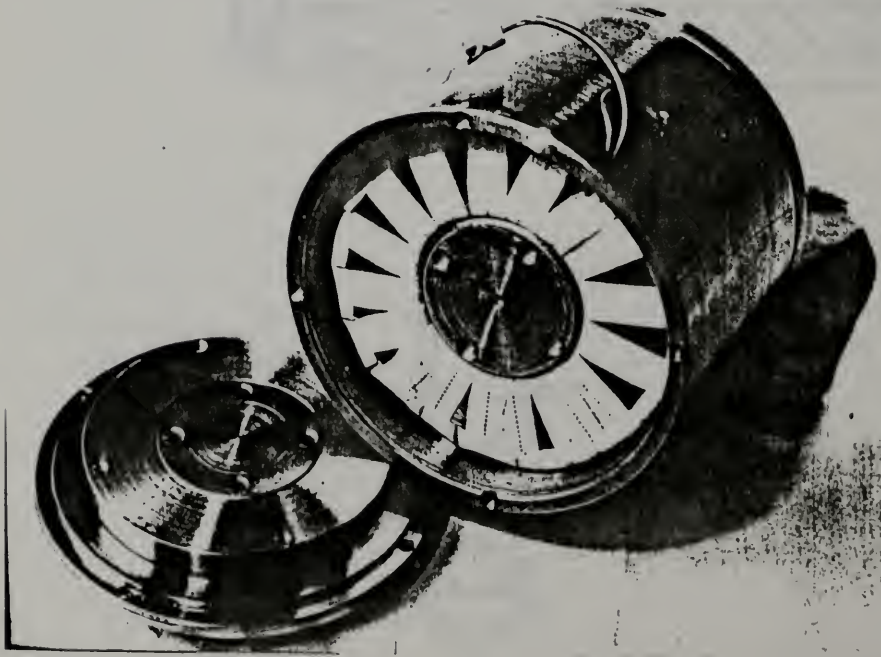
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Fig. 3

Fig. 5

Fig. 4

THE MYTHS IN PHYSICS

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Abstract. I enumerate ten myths deeprooted in conventional physics, giving immediately short evidence for their fallacy. Then I consider in detail the myth about the storage of momentum and angular momentum in potential electromagnetic fields and I give short descriptions of my Bul-Cub machine without stator and my rotating Ampere's bridge which undiscutably violate the angular momentum conservation law.

1. Ten myths

Before beginning my article, I should like to cite the following thought of J. F. Kennedy (1962): "The great ennemy of the truth is very often not the lie - deliberate, contrived and dishonest, but the myth - persistent, persuasive and unrealistic."

Physics is an experimental science where the "laws" proposed by different persons can always be experimentally checked but, nevertheless, the myths are here even more persistent than in any other science. It is very difficult to give an answer why the myths in physics are so tenacious. I can easily explain the tenacity of the myths of the immaculate conception Mariae, of Stalin's refined literary taste, or of the peculiar spiritual abilities of the Jews, but I do not understand why the following myths in physics are still alive:

1. The myth about the isotropy of light velocity. Meanwhile Harres[1] in 1912 and Sagnac[2] in 1913 have experimentally demonstrated that the velocity of light on the rim of a disk rotating with a velocity v is (within effects of first order in v/c) $c - v$ along the rotation and $c + v$ against the rotation. Every commercial or military plane has a laser gyro working on this effect.

2. The myth about the principle of relativity. Meanwhile since 1973 I have measured the Earth's absolute velocity with three different apparatus[3-5]. My "coupled shutters" experiment[5] is so easy that it can be repeated in any optico-mechanical laboratory in a week or so. NASA builds cosmic speedometers based on this effect (the technology is still classified).

3. <u>The myth about the principle of equivalence</u>. Meanwhile with any of my "rotating axle" experiments[3-5] can one establish that when the acceleration of the laboratory is kinematic the absolute velocity changes, while when the acceleration is gravitational it does not change[6]. Thus one can easily make an experimental distinction between   kinematic and gravitational accelerations.

4. <u>The myth that the physical effects depend only on the relative velocities of the interacting bodies</u>. Meanwhile Kennard[7] in 1917 has observed that when rotating a radial wire about the axis of a cylindrical magnet there is induction, when rotating the magnet there is no induction, and when rotating wire and magnet together there is exactly the same induction as in the first case. Such experiments with closed circuits by using sliding contacts have done Faraday[5] in 1830 for rotational motion (those were the <u>first</u> experiments where the phenomenon "electrimagnetic induction" has been observed) and Fr. Müller (p. 271 in ref. 8) for rectilinear motion.

5. <u>The myth that only the electric and magnetic intensities are physically observable quantities</u>, the potentials being auxiliary "mathematical" quantities which can be changed at will (gauge transformations). Meanwhile if there are two coaxial toroidal coils and one changes the current in the internal coil, an induced current flows in the external coil which lies in a space domain where the magnetic intensity, **B**, being always equal to zero, does not change at all. Outside the internal torus only the magnetic potential, **A**, changes, and the induced electric intensity is calculated according to the formula $\mathbf{E} = - (1/c)\partial\mathbf{A}/\partial t$. This effect can be observed   in any transformer.

6. <u>The myth about the propagation of interaction</u>. Everybody knows that any physical quantity must be measured in three fundamental measuring units: the units for length, time and energy. Meanwhile the physicists-mythologues assert that there is a certain quantity called "interaction" which has no physical substance as it cannot be measured in length, time and energy units, but, nevertheless, this quantity "interection" can move, like a phantom, in space and, as phantoms usually do, pretty quickly. When one asks the mythologues to point out at some experiment where the mysterious "propagation of interaction" can be observed, the latter point at light

and other electromagnetic radiations or at the signals propagating in wires, wave guides etc., i.e., at propagation of <u>energy</u> but not of the immaterial and phantom-like interaction.

7. <u>The myth about the existence of displacement current</u> with density $I_D = (1/4\pi)\partial E/\partial t$ which has all magnetic characteristics of conduction current, i.e., the current element $I_D dV$, where dV is an elementary volume around the point where the electric intensity is E, generates its own magnetic intensity at a reference point distant r according to the formula

$$dB = rot(dA) = rot(I_D dV/cr) = (I_D \times r/cr^3)dV \tag{1}$$

and reacts to an external magnetic intensity B by the ponderomotive force

$$df = (I_D dV/c) \times B. \tag{2}$$

Meanwhile, if the second assertion is true, one must be able to set in motion the vacuum between the plates of a capacitor, what, obviously, is such a hopeless endeavour as trying to ride the shadow of a horse. I have shown with a simple experiment[8] that the first assertion is also not true. One has never to forget Planck's words[9]: "...even in the case of unclosed currents the magnetic intensity of the field is calculated from the vector potential of the conduction currents without regard to the displacement currents...". One can, of course, find the circulation of B along the circumference, L, of a surface, S, by calculating the flux of I_D through this surface, but one can easily show that this second calculation leads to the same results as the first calculation. The first method (with the magnetic potential of the conduction currents) seems difficult, as one has to make integration over all currents of the system. The second method (with the flux of the displacement current) seems easier as one has to know $\partial E/\partial t$ only at the points of a <u>local</u> surface. When, however, one tries to calculate $\partial E/\partial t$ at the points of the surface S, one sees that one has to take into account the currents in the whole system. Thus both ways lead to the same result for B, but this does not signify that B is originated by displacement current. No! B is originated by the conduction currents in the wires and only these conduction currents react with ponderomotive forces to external magnetic fields.

8. <u>The myth about Newton's third law</u>. Meanwhile Ampere with his floating bridge
(see sect. 4) has shown that a Π-form wire along which current flows moves because
of the interaction of the current electrons in the wire, and the body is thus <u>self-propulsing</u>. One finds the self-propulsing force by simple integration proceeding
from Grassmann's formula[10] for the force with which a current element I'dr' acts on
another current element Idr (dr is an elementary length of the wire directed along
the current I flowing in the wire)

$$d\mathbf{f} = (II'/c^2r^3)d\mathbf{r} \times (d\mathbf{r}' \times \mathbf{r}), \tag{3}$$

where r is the vector from dr' to dr. This formula is <u>silently</u> accepted by conven-
tional physics, but all of the mythologues make as if they do not see that df ≠ - df',
while by Newton's third law it must be df = - df'. The more coragious physicists
who dare to recognize that Grassmann's formula (3) violates Newton's third law imme-
diately add: Yes, one can assume that there is violation of the actio-rectio prin-
ciple between current elements, but try to calculate the force between two <u>closed</u>
loops, L and L', and you will obtain the result

$$\mathbf{f} = (II'/c^2)\iint_{LL'} (d\mathbf{r}.d\mathbf{r}'/r^3)\mathbf{r}, \tag{4}$$

where, look, look, look, f = - f'. And hastily one creates

9. <u>The myth that all currents flow in closed loops</u>. And if there is a capacitor
in the loop? - Nevertheless, answer the mythologues, the current is closed through
the displacement current in the capacitor. And taking out of the juggler's cylinder
the seventh myth, the mythologues hurry to wash their hands. And during a century
nobody tries to make a circuit with a capacitor and to look, will this circuit move
violating Newton's third law or not. I made such experiments[8] (see sect. 3 and 4).
The circuits move under ponderomotive forces violating Newton's third law but the
mythologues in their endeavour to save the myth make as if my experiments do not
exist.

10. <u>The myth about the energy conservation law</u>. Meanwhile for six years the ma-
chine TESTATIKA (from TESla STATIC electricity) works in the community Methernitha
in the village Linden, near Bern, producing <u>from nothing</u> continuously 3 kW electric

power which is distributed in the electric net of the village. Everybody can see
the machine (Fig. 1) and persuade oneself that it is a perfect perpetuum mobile but, being
afraid to destroy their most cherished myth, the mythologues prefer not to go.

2. The myth about momentum and angular momentum "stored" in
potential electromagnetic fields

This is one of the very tenacious myths in electromagnetism as it gets a slight
mystic flavour   by ascribing momentum and angular momentum to vacuum where every
body   knows   there is nothing, as vacuum is vacuum, is vacuum, is vacuum (Gertrude
Stein).

If there is a charged capacitor generating the electric intensity field **E** between
its plates and a permanent magnet (electromagnet)   originating the magne-
tic intensity field **B**, then, assert the mythologues, there is a momentum

$$\mathbf{\Pi} = (c/4\pi)\mathbf{E} \times \mathbf{B} \tag{5}$$

"stored" in any cubic centimeter of space which they call momentum density of the
electromagnetic field.

Considering a certain space point P whose vector to the reference point is r, the
mythologues call the quantity

$$\mathbf{\Lambda} = (c/4\pi)\mathbf{r} \times (\mathbf{E} \times \mathbf{B}) \tag{6}$$

density of angular momentum of the electromagnetic field with respect to point P.

A classical example showing that such angular momentum density is stored in elec-
tromagnetic fields was given by Feynman[11] with the experiment presented in Fig. 2:
If the current flowing in the coil and originating the magnetic intensity field **B**
will be interrupted, the inductive electric intensity $- (1/c)\partial \mathbf{A}/\partial t$ acting on the
charged metal spheres, which from their part generate the electric intensity field
E, will set the latter (and the whole rigidly to them connected mechanical system
suspended on the vertical axle) in rotation. The acquired mechanical angular momentum
$\mathbf{L}_{mech} = \int \mathbf{r} \times \mu \mathbf{v} dV$, where μ is the mass density having radius vector r and moving with
velocity **v**, will be equal to the quantity $\mathbf{L}_{elma} = \int \mathbf{\Lambda} dV$, taken over whole space and
called angular momentum of the potential electromagnetic field. If there is no such
"stored" electromagnetic angular momentum, this experiment would violate the law of

angular momentum conservation, concludes Feynman.

Yes, this experiment <u>violates</u> the law of angular momentum conservation as <u>poten-tial</u> electromagnetic fields do not store momentum. Momentum have only <u>radiation</u> elec-tromagnetic fields[12], which do not "srore" but transfer it with the velocity c through space and everybody can detect the pressure of this <u>propagating</u> momentum by experi-ments of the kind carried out for the first time by Lebedev[13].

After Feynman five other authors[14-18] have discussed Feynman's paradox but nobody of all of them has understood its physical essence. So Boos[17] replaces Feynman's me-tal balls by a metyl cylinder charged homogeneously (Boos considers two such coaxial cylinders charged with the same quantity of opposite charges and building thus a ca-pacitor). Will now the charged metal cylinder (or Boos charged cylindrical capacitor) begin to move if switching off the current in the coil?

The answer of Boos is "yes" ("The changing magnetic flux causes a tangential elec-tric field that acts on charged tubes giving them a mechanical angular momentum..."[17]), but the answer of Nature is "no, no, no". Here is the reason.

The force acting on an electrical charge q crossing with a velocity **v** the refe-rence point, where the electric and magnetic potentials of the surrounding system are Φ and **A**, is given by the Newton-Lorentz equation (the name of Newton is attached by me[12])

$$f = - q\text{grad}\Phi - (q/c)\partial A/\partial t + (q/c)v\times\text{rot}A. \qquad (7)$$

I call the first term on the right side electric force and the other two terms mag-netic forces, respectively, transformer and motional magnetic forces, as for me mag-netic are the interactions caused by **A**, while conventional physics calls magnetic only the interactions caused by the magnetic intensity **B** = rot**A**. The electric and magnetic forces acting on the charge q lead in certain situations to the generation of electric current and I call such forces <u>electromotive</u>, while in other situations their action is transferred to the ion lattice of the metal conductor leading to a macroscopic motion of the latter, and I call such forces <u>ponderomotive</u>. If along the direction of action of the   electric or magnetic forces from eq. (7) there are no obstacles for the charges, the force is always electromotive. A ponderomotive force parallel to **f** appears only if the charges are not free to move in this direc-

tion. (In this context very interesting is Faraday's rotating disk[5] where radially flying electrons can freely move in direction perpendicular to the radius but, nevertheless, the action of the tangential motional magnetic force $(q/c)\mathbf{v} \times rot\mathbf{A}$ sets the disk in rotation. Bruce de Palma[19] was, however, the first to notice that, when the Faraday disk is used as generator, not the whole motional magnetic force is transformed into ponderomotive force, by observing a violation of the energy conservation law. I confirmed splendidly de Palma's observations in my machine ADAM[5] where the rotating Faraday disk was made not of solid metal but of mercury.) If a piece of metal placed in a homogeneous field of the forces $-q grad\Phi$ and $-(q/c)\partial\mathbf{A}/\partial t$ is not charged, it becomes polarized and as the forces acting on the positive and negative charges, whose numbers are equal, are equal and oppositely directed, the piece of metal cannot be set in motion. If, however, the piece of metal is charged, the charges at the one pole prevail over the charges at the other pole and such a charged piece can be set in motion. Such is the case in Feynman's experiment shown in Fig. 2. In Boos' experiment the charges on the cylindrical plates are free to move in closed circles along the direction of the force $-(q/c)\partial\mathbf{A}/\partial t$ and the cylinder cannot be set in rotation. Boos' experiment, as a matter of fact, presents the most common transformer where the secondary "coil" has only one winding and this winding is charged.

Thus in Boos' experiment the "stored" electromagnetic angular momentum disappears when switching off the current in the coil but a mechanical angular momentum does not appear and in the frame of the Feynman-Boos concepts this would be a violation of the law of angular momentum conservation.

One can raise the objection that in Boos' experiment, indeed, a mechanical angular momentum does not appear but the charges circulating in the metal cylinder generate their own magnetic field and, as their electric field remains unchanged, one comes to the conclusion that the magnetic field related to the conduction current of the coil will be now related to the conduction current in the metal cylinder. This objection is logical and the calculation surely will show that the initial and final angular momenta "stored" in these two different electromagnetic fields will be numerically equal.

This aspect of Boos' experiment leads, however, to interesting conclusions if we shall return to Feynman's experiment, where we   have both mechanical angular momentum and momentum "stored" in the electromagnetic field, because the convection current of the rotating charged balls will originate its own magnetic field. The electromagnetic "angular momentum" in Feynman's experiment can be made very small with respect to its mechanical angular momentum, as by increasing the mass of the disk we can diminish its velocity, diminishing thus the "stored" electromagnetic angular momentum but the mechanical angular momentum always remains constant. This conclusion leads to an interesting electromagnetic motor based on Feynman's experiment which leads this time to violation of the energy conservation law.

Let us suppose that Feynman's disk is free to rotate only in one direction and let feed the coil with an alternating current. Obviously the balls will begin to rotate only in one direction and the axle of the apparatus can deliver kinetic energy. Where from this kinetic energy can come? - The only possible answer is that the convection current of the balls will induce a back electromotive tension (I do not like the term "back electromotive force") in the driving coil. Similar speculations as above show that this back electromotive tension can be made very small with respect to the driving tension and thus the delivered kinetic energy should has to be created practically from nothing. The back electromotive tension appears only when the disk with the balls is accelerated. The electric energy "devoured" by the back electromotive tension in a unit of time $\Delta E_{elec} = IL\Delta A/c = ILq(v + \Delta v)/c^2 r - ILqv/c^2 r = ILq\Delta v/c^2 r$,
where I is the current in the coil, L its length, q is the charge of the balls, v their velocity, Δv the increase of the velocity and r   some "effective" distance, is proportional only to the increase of the velocity of the balls. However, the acquired mechanical energy $\Delta E_{mech} = m(v + \Delta v)^2/2 - mv^2/2 \cong mv\Delta v$, where m is the mass of the balls and the mass of the disk is assumed equal to zero, is proportional to the product of the balls' velocity and its increase and thus for v high enough can be made arbitrarily high.

Let me note that in any electromagnetic motor constructed by human hands the back electromotive tension is induced in the stator's wires by conduction currents (or permanent magnets' "currents") flowing in the rotor's wires (or vice versa) and there

is no single electromagnetic motor working with convection current (i.e., with moving charged conductors).

Feynman's experiment can be easily   transformed to a direct current motor having only rotor and thus having no sliding contacts. The coil can be mounted on the rotating disk (or may be let solid to the laboratory). The battery is mounted at centre of the
the disk. The balls sit on the disk's rim on their bottoms and all bottoms are connected with a thin wire. There are two commutators. The first commutator working with a frequency $f \cong R/2\pi L$, where R is the ohmic resistance of the coil and L its inductance, reverses the tension feeding the coil, while the second commutator, working synchronously with the first, reverses the sign of the balls' charges, connecting   the thin wire lying under the bottoms of the spheres once to the positive and once to the negative electrode of the battery.

The current in the coil has a dephasation $\pi/2$ with respect to the applied alternating tension, while the sign of the charges on the metal spheres is "in phase" with the applied tension. Thus the charges on the metal spheres change their signs exactly when $\partial A/\partial t$ changes its sign and the whole system comes into continuous rotation. To increase the capacitance of the metal spheres, and consequently their charges, the rotating disk is to be surrounded by a grounded metal cylinder which is solid to the laboratory.

Conventional physics asserts that angular momentum equal and opposite to the angular momentum acquired by the system will be "stored" in the electromagnetic field. As the above apparatus can be taken on a satellite and suspended freely in vacuum, the continuously acting driving mechanical momenta will bring it to fantastically high rotational velocity which will be limited only by the centrifugal forces which may break the material. One is unable to show where the equal and opposite angular momentum "stored" in the electromagnetic field can be located and how detected. Thus such a "stored" angular momentum does not exist.

One may raise the objection that when exchanging the charges on the spheres radial currents will flow which will interact with the magnetic field of the coil. As the battery can be put on the rim of the disk, this objection is annulled. Another objection is that when charging the balls currents will flow along the thin wire

connecting their bottoms which will induce back electromotive tension in the driving coil. As these charges flow in both halves of the wire in opposite directions, their net inductive action will be null.

I should like to emphasize that in this experiment not the violation of the angular momentum conservation law but the violation of the energy conservation law is the important one. I remained with the impression that similar must be the principle of action of the machine TESTATIKA (Fig. 1).

A very good numerical "illustration" of Feynman's paradox has been given by Sharma[18]. His calculations are so clear and beatiful that his article will become a solid pillar for the "stored angular momentum" concept. But now I shall show that Sharma's pillar is to be put on another place.

Sharma[18] considers a metal sphere with radius a, magnetized homogeneously with magnetization M in parallel to the z-axis, and charged homogeneously with the electric charge Q. If leaving the electric charge go out through one of the sphere's poles, the latter, because of the appearing magnetic forces which are transferred from the current electrons to the ion lattice of the sphere will come to rotation (remember the Faraday disk above). The acquired mechanical angular momentum will be $L_{mech} = L_{cond.cur.} = (8\pi/9c^2)MQa^2$. The calculation of the angular momentum "stored" in the electromagnetic field leads to the same number. But Sharma's integral (4) is to be considered $\overset{\text{not as stored angular momentum but}}{\wedge}$ as the angular momentum which is to be "absorbed" by the <u>displacement current</u>. As the moment of forces acting on the conduction and displacement currents in a closed circuit are always equal and oppositely directed (see sect. 3), Sharma's integrals (4) and (8) must by force lead to the same values. Sharma's formula (4) (in which there is a misprint in the first row) must be written <u>also</u> as a time integral of the moment of forces acting on the displacement current elements (as Sharma writes formula (8) for the conduction current elements), noting that I write all formulas in the system CGS,

$$L_{dis.cur.} = \int_V \{r \times (1/4\pi c) \int_0^\infty \partial E/\partial t \times B \, dt\} \, dV = (1/4\pi c) \int_V r \times (E \times B) dV, \qquad (8)$$

where the external integral is to be taken over whole space V, and the internal integral is to be taken from the moment t = 0, when E = E, to the moment t = ∞, when E = 0.

The integral (8) must be the angular momentum acquired by the masses on which the displacement current "transfers" its ponderomitive action, as the magnetic forces acting on the conduction current transfer their ponderomotive action to the metal sphere, according to Sharma's formula (8). However, the displacement current cannot absorb ponderomotive forces, neither to "store" or "extract" momentum from the potential electromagnetic field. Consequently the integral (8) leads to no motion of ponderable matter, i.e., it d-i-s-a-p-p-e-a-r-s.

Sharma's circuit can be presented as a closed "loop", if putting another metal sphere with very big radius, concentric with Sharma's sphere, and connecting their "south" poles by a wire through which the charges from the internal sphere will be transferred to the external sphere. In such a case the displacement current will "flow" in the space between both spheres.

Thus the puzzling equality established by Sharma $L_{cond.cur.} = L_{displ.cur.}$ has totally different physical background and not this one supposed by Sharma. I must, however, note that Sharma's and Feynman's experiments are substantially different as in the former the electric field disappears and there are flowing conduction and displacement currents, while in the latter the magnetic field disappears and convection current flows.

One can better understand the equality of the moments of forces acting on conduction and displacement currents by analyzing the experiment of Graham and Lahoz[20] which is the first experiment in the history of physics where violation of the angular momentum conservation law has been observed.

I modified the experiment of Graham and Lahoz to my Bul-Cub machine without stator the theory of which is so simple and clear that even children can understand that here one observes the crash of one of the fundamental myths of contemporary physics.

3. The Bul-Cub machine without stator

My Bul-Cub machine works as a generator and as a motor. It consists (Figs. 3-5) of a coil wound on a cylindrical core having a cylindrical yoke and two ring lids. The iron was glued powder whose grains were isolated one from another, so that the core and

the yoke were insulators. This electromagnet can rotate on the pointed ends of two axles. The "Faraday disk" (the disk in which radial currents will flow) is of brass. The center of the disk is connected, through the lower pointed axle, with the one electrode, L, of the delivered tension (when the machine works as generator). The periphery of the "Faraday disk" is fixed to a brass ring whose surface "looking down" presents the upper plate of a ring capacitor. The lower plate of this ring capacitor is connected through sliding contacts with the other electrode, K, of the delivered tension. The lower lid of the yoke has a ring gap in which the dielectric of the capacitor is placed. One end of the coil's wire is connected through the up- per pointed axle with the one electrode, M, of the feeding tension, while the other end makes contact with the lower capacitor's plate and thus through the sliding con- tacts reaches the other electrode, K, of the feeding tension.

The machine works as a <u>generator</u> because at its rotation an electric tension is induced along the radius of the disk. If the capacitor's plates will be connected by a wire, an equal and oppositely directed tension will be induced in the latter, and the output tension will be <u>null</u>, as I have established with my ineffective Bul-Cub machine[5,21]. However, when there is a dielectric in the gap of the lower lid, in which <u>no</u> tension can be induced, only the tension induced in the "Faraday disk" will remain and the rotating body generates alternating electric tension if the coil will be fed by alternating current.

Let us now see how the machine works as <u>motor</u>. The driving tension can be applied <u>in parallel</u> (in such a case the electrodes M and L are to be connected shortly) or <u>in series</u> (in such a case the sliding contacts must be taken away and the driving tension is to be applied to the electrodes M and L). As the torque on the radial cur- rents in the "Faraday disk" is proportional to the <u>product</u> of the currents flowing along the disk's radius and in the coil, this torque is <u>unidirectional</u> when the driving tension is alternating. If the upper and lower capacitor's plates will be connected by a wire, the torque on this wire will be equal and opposite to the torque applied to the disk, and no rotation is possible, as I have established with my in- effective Bul-Cub machine[5,21]. However, when there is a dielectric in the gap of the

lower lid, in which only displacement current can go through, no torque in the space between the capacitor's plates can appear. Thus the body begins to rotate due to the action of "internal forces" violating thus the angular momentum conservation law.

I shall calculate the ponderomotive torques acting on the conduction and displacement currents. Let us choose a reference frame with its origin at the axis of the apparatus, the x-axis pointing to the reader, the y-axis pointing to the right, and the z-axis pointing upwards. If the magnetic intensity in the core of the electromagnet is B pointing upwards, the radius of the core r, and the current flowing from the axis to the periphery I, the torque (the moment of force) acting on the radial conduction current will be

$$\mathbf{M}_{cc} = \int_0^r \mathbf{r} \times (\mathbf{I} d\mathbf{r} \times \mathbf{B}/c) = - (IB\hat{z}/c) \int_0^r r dr = - (IBr^2/2c)\hat{z}. \quad (9)$$

If the electric intensity between the plates of the capacitor is E, at the above direction of the current, $\partial E/\partial t$ will point downwards. Thus if the distance between the capacitor's plates is h (we assume it equal to the height of the cross-section of the gap in the lower lid) and the inner and outer radii of the capacitor's plates (and of the gap) are R_i and R_o, the torque acting on the displacement current will be

$$\mathbf{M}_{dc} = R_{middle} \times \{\frac{\pi(R_o^2 - R_i^2)h}{4\pi c} \frac{\partial E}{\partial t} \times \mathbf{B}'\} = \frac{(R_i + R_o) h (R_o^2 - R_i^2) B'}{8c} \frac{\partial E}{\partial t} \hat{z}, \quad (10)$$

where B' (pointing to the axis of the apparatus) is the magnetic intensity in the gap and we shall assume that the whole magnetic field is closed in the iron and in the gap, thus that the magnetic fluxes in the core and in the gap are equal, so that

$$B' = r^2 B/h(R_i + R_o), \quad (11)$$

Taking further into account that

$$\partial E/\partial t = I/Ch, \qquad C = (R_o^2 - R_i^2)/4h, \quad (12)$$

where C is the capacitance of the capacitor with vacuum as dielectric, for which the displacement current is $(1/4\pi)\partial E/\partial t$, we obtain from (10), (11) and (12) $\mathbf{M}_{dc} = - \mathbf{M}_{cc}$.

Now the question is to be posed: Will the torque $\mathbf{M}_{dc}$ lead to a ponderomotive motion. My answer (and the answer of the experiment) is: NO! Thus the system begins to rotate due to the action of the torque $\mathbf{M}_{cc}$ what is a violation of the law of conser-

vation of angular momentum.

Conventional physics asserts that the torque M_{dc} is "taken by the electromagnetic field". "Vacuum is the seat of something in motion" write Graham and Lahoz[20], although yet Sokrates taught to his pupils that something is nothing and if a philosopher cannot define the notions of which he makes use, it is better that he keeps his mouth closed. I said above that according to my concepts the potential electric and magnetic fields are only mathematical means and have no physical (i.e., energetic) bearer. Only the radiation electromagnetic fields have physical bearer. Thus the law of conservation of angular momentum will be saved only if my machine will radiate electromagnetic energy in the capacitor-magnet gap in direction opposite to the direction of rotation of the material system. This radiation energy must have such a big pressure that if in the gap a freely rotating turbine with a mass about equal to the mass of the system will be placed, this turbine has to begin to rotate with an angular velocity equal (at absorbtion of the radiation) or double (at reflection of the radiation) and opposite to the velocity of the system. Neither the most powerful laser can exert such a big pressure.

In my experiment (Figs. 3 - 5) the yoke and the core were made of powder soft iron material Corovac EF 6880 delivered by the VACUUMSCHMELZE, Hanau, West Germany. I had (further in this section the formulas will be written in the SI-system) R_i = 3 cm, R_o = 4 cm, h = 0.2 cm (height of the air gap), d = 0.4 cm (distance between the capacitor's plates). The dielectric of the capacitor was barium titanat with permittivity $\varepsilon \cong 10,000$ (the value was not measured). For smooth plates the capacitance is $C = \varepsilon_0 \varepsilon \pi (R_o^2 - R_i^2)/d$, where ε_0 is the   electric constant. I etched the capacitor's plates making them rough and increasing thus the surface and the capacitance, which, measured between the electrodes K and L, was C = 430 nF. A capacitor with capacitance 470 nF brought the magnet coil into a resonance if a 50-Hz alternating tension was applied, so that the inductivity of the coil was L = 22 H. By applying the mains (220 V), the current flowing in the coil was I = 0.23 A, and thus the whole ohmic resistance of the coil was R = 960 Ω. The calculation of the magnetic intensity across the Faraday disk according to the formula $B = \Phi/\pi r^2$ =

$\mu_0 nI/\sum(L_i/\mu_i S_i)\pi r^2$, where Φ is the magnetic flux in the yoke, $r = 2$ cm is the radius of the Faraday disk, μ_0 is the magnetic constant, $n = 12{,}000$ is the number of the turns in the coil, and L_i, S_i, μ_i are the lengths, the cross-sections and the permeabilities of the different parts of the yoke ($\mu_{air} = 1$, $\mu_{iron} = 200$), gave the value $B = 0.072$ T.

First I run the machine as a generator driving it with a d.c. electromotor which "rubbed" the upper lid. The tension which was expected to be induced along the disk's radius during a rotation with a rate $N = 20$ rev/sec had to be $U = \pi Br^2 N = 1.8$ mV. I measured $U = 1.1$ mV.

Then I run the machine as a motor applying a 50-Hz tension of 1500 V from a transformer to the electrodes L and M and taking away the sliding contacts. The flowing current was $I = 1.5$ A and the rate of rotation was parts of a revolution per second.

4. The flying and rotating Ampere's bridges

The historical Ampere's bridge experiment (Fig. 6) consisted of two troughs of mercury connected by a floating bridge of copper wire. When an electric current flows as shown in Fig. 6, the bridge is set in motion to the right. To exclude possible forces on the surface between copper and mercury, Tait substituted later the copper bridge by a glass-tube filled with mercury; the effect remained the same.

This experiment was repeated very carefully by Pappas[22] who worked also with mercury cups but suspended the bridge by strings on the ceiling and measured the pushing forces at different currents. My calculations[5] showed that the results of Pappas' experiment fit well (discrepancies not larger than 13%) to Grassmann's formula (3) but Moyssides and Pappas[23] found the theoretical values to be in excess of the experimental values by about 40%.

I repeated Ampere's experiment in the variation shown in Fig. 7, where the sliding contacts were rotating metal balls. The bridge ABCD was suspended by strings on the ceiling. If the wires IJ and EF which bring current to the bridge are not as in Fig. 7 but are perpendicular to the plane ABCD, then the forces acting on the

current elements of the bridge in the plane ABCD will be as shown in Fig. 8a. If the points A and D will be connected by a wire and a battery will be put between, the forces acting on the current elements of this frame will be as shown in Fig. 8b.

The calculation of the forces can be done very easily proceeding from the formula $d\mathbf{A} = I d\mathbf{r}/cr$ for the magnetic potential generated by a current element $I d\mathbf{r}$ at a refe-
rence point distant r from it. Using a frame of reference with x-axis along AD and y-axis along AB, we obtain for the magnetic potential generated by the current in the leg AB = L at a point of the shoulder BC distant x from point B

$$\mathbf{A} = (I/c) \int_0^L (x^2 + y^2)^{-1/2} dy \,\hat{\mathbf{y}} = (I/c)Arsinh(L/x) \,\hat{\mathbf{y}} . \tag{13}$$

For the magnetic (Grassmann's) force acting on a current element with length dx at this reference point we obtain

$$d\mathbf{f} = (I/c)d\mathbf{r} \times rot\mathbf{A} = (I^2 Ldx/c^2 x)(x^2 + L^2)^{-1/2} \,\hat{\mathbf{y}} \cong (I^2 dx/c^2 x)\hat{\mathbf{y}}, \tag{14}$$

where the result on the right side is written for $L \gg x$.

I changed the length of the legs AB and CD from zero to 80 cm with 5 cm any time, preserving the weight of the bridge the same. The bridge deviated from zero to 14 mm but after the lengths of the legs surpassed 35 – 40 cm the maximum deviation of 14 mm from the initial position of suspension did not change more.

I affirm that if now the conduction current in the wire AD in Fig. 8b will be re-placed by displacement current, the bridge will begin to move upwards, as the forces acting on it will be as in Fig. 8a and I call such a machine the Flying Ampere's Bridge. This machine will violate the momentum conservation law.

I carried out a similar experiment violating the angular momentum conservation law. To understand its principle of action, let us consider first the variation of Ampere's bridge shown in Fig. 9. The current mounts the bridge at the point B coming from the direction AB, which is perpendicular to the plane BCD, goes along the wire BCDEFG, where the wire DE is perpendicular to the planes BCD and EFG, and leaves the bridge at the point G into the direction GH collinear with AB. In Fig. 9 are drawn only the magnetic forces acting on the current elements of the bridge which are perpendicular to the axis ABGH about which the bridge can rotate. It is easy to see that the net

moment of force about this axis is null. Indeed, the sum of the moments of the forces f_1 and f_2 is equal and opposite to the moment of the force f_3, as $f_1 = f_2 = f_3 = f$ and thus $f_1(d - x) + f_2 x = f_3 d$. To set the bridge in rotation under the action of internal forces, the conduction current along some of the paths must be replaced by displacement current. I replaced the parts BC and FG by dielectric put between the plates of two cylindrical capacitors, as shown in Fig. 10, which was the drawing for my turner. The four self-propulsing "Ampere's bridges"   (in Fig. 10 is drawn only one and in the photograph, Fig. 11, can be seen three) were tangential to the big cylindrical plates. I called this apparatus the Rotating Ampere's Bridge.

The capacitance along a length L of an infinitely long cylindrical capacitor is (in the system SI) $C = 2\pi\epsilon_0 \epsilon L/\ln(R_{ext}/R_{int})$, where R_{ext} is the internal radius of the external cylinder and R_{int} is the external radius of the internal cylinder. I used barium titanat (BaTiO$_3$) as dielectric ($\epsilon \cong 10^4$) and taking into account that L = 6 cm (for both capacitors), R_{ext} = 1.9 cm, R_{int} = 0.3 cm, I calculated a capacitance C = 18 nF. Etching the plates I increased their surface (see sect. 3) and the value which I measured for my both capacitors was C = 290 nF.

For the frequency 50 Hz of the current used, I balanced this capacitance with coils with thick enough wires whose common inductance was L = 34 H (thus the own frequency of the circuit was $f = 1/2\pi(LC)^{1/2}$ = 50.7 Hz) and ohmic resistance R = 24 Ω. The alternating current which I measured applying tension 220 V was I = 9 A. With this current I was able to set the bridge in slow motion of one rotation in a couple of seconds.

Obviously the flying Ampere's bridge will be the basis of the whole future aero- and cosmo-nautics. Here the objection can be raised that the forces in the Ampere's bridge are too feeble. This is not true! Deis et al.[24] have accelerated a mass of 317 g to a velocity 4.2 km/sec with a classical Ampere's bridge using very high currents. Humanity does not know an explosive which can accelerate such a mass to such a high velocity. Thus the impulses which act in the Ampere's bridge are the biggest reached in human history. With the classical Ampere's bridge one can set artificial satellites in orbit around a planet without atmosphere "shooting them from a canon".

· In the flying Ampere's bridge, however, the driving force can act during the whole flight and the high velocity can be achieved during a long period of time.

The energetic aspects of the flying and rotating Ampere's bridges need additional investigations.

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FIGURE CAPTIONS

Fig. 1. The machine TESTATIKA.

Fig. 2. Feynman's experiment.

Fig. 3. Scheme of the Bul-Cub machine without stator.

Fig. 4. Photograph of the Bul-Cub machine without stator (open).

Fig. 5. Photograph of the Bul-Cub machine without stator (mounted).

Fig. 6. The historical Ampere's floating bridge experiment.

Fig. 7. Marinov's variation of the Ampere's bridge experiment.

Fig. 8. The forces acting on the current elements of the Ampere's bridge.

Fig. 9. The fórces acting on the current elements of the rotating Ampere's bridge.

Fig. 10. Scheme of the rotating Ampere's bridge.

Fig. 11. Photograph of the rotating Ampere's bridge.

Fig. 1

Fig. 2

Marinov

Iron (powder)

Plastic

Brass

BaTiO$_3$

Contact

Fig. 3

Fig. 5

Fig. 4

Fig. 6

Fig. 7

a)

b)

Fig. 8

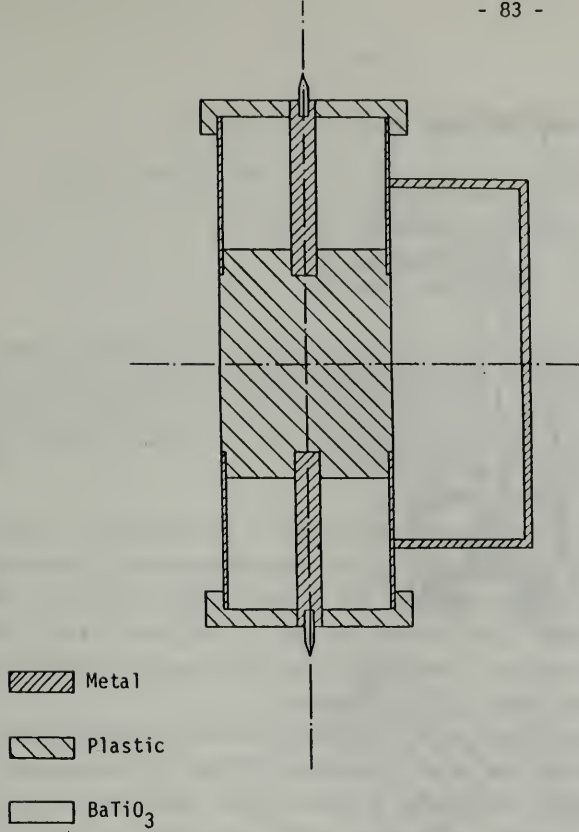Fig. 9

ZZZZ Metal

Plastic

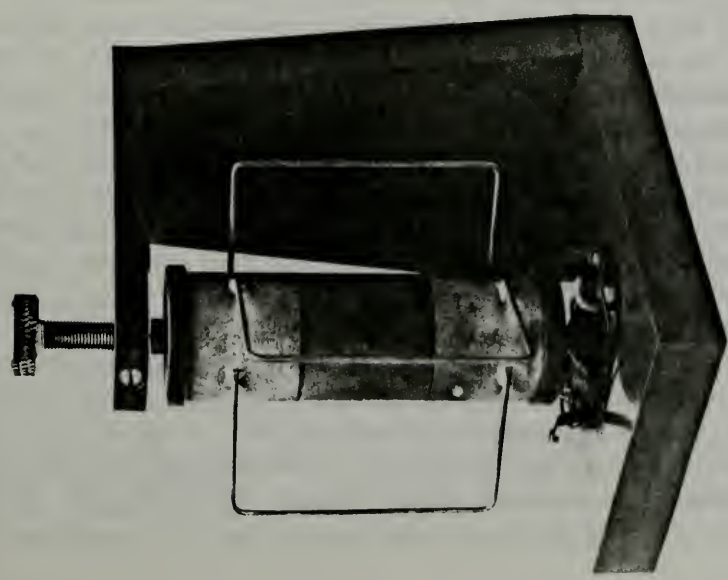BaTiO₃
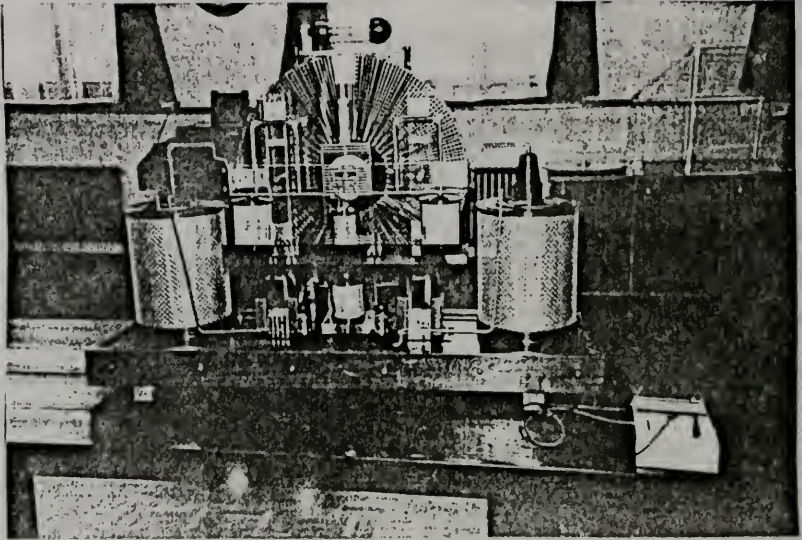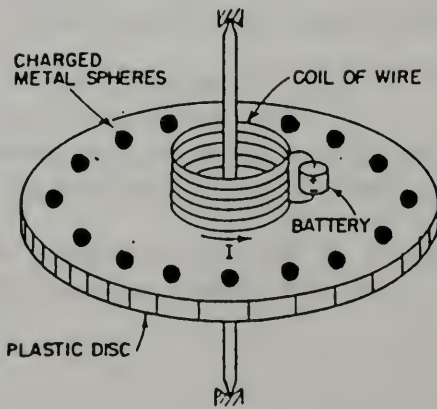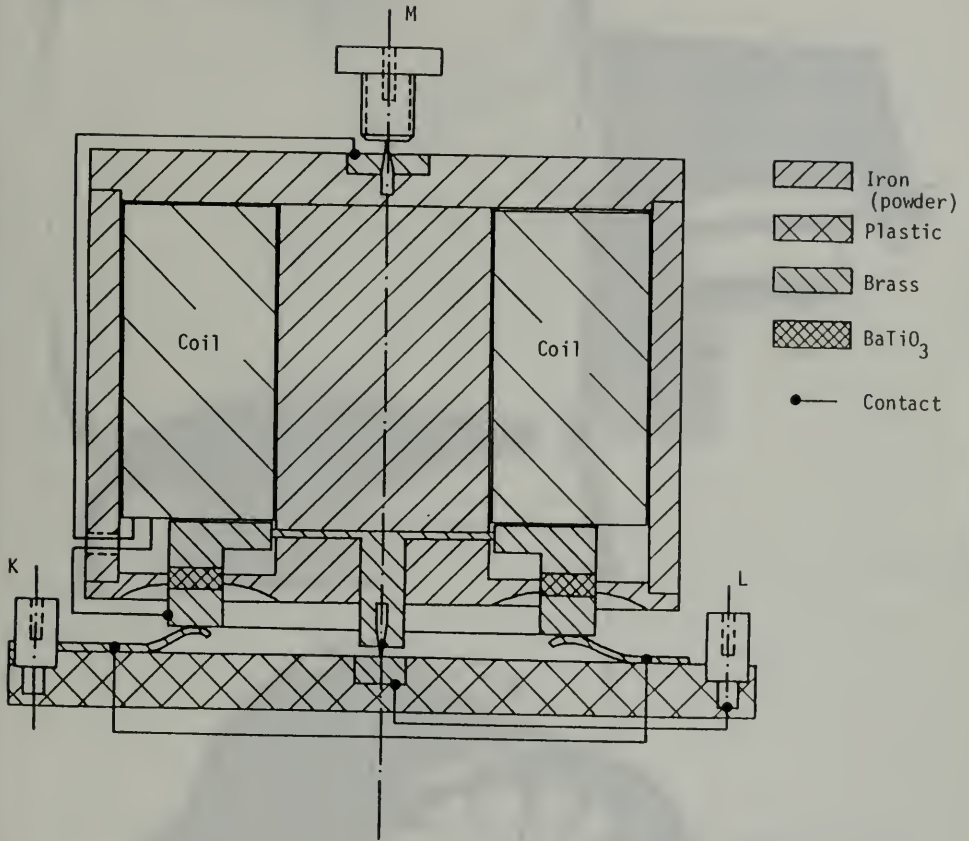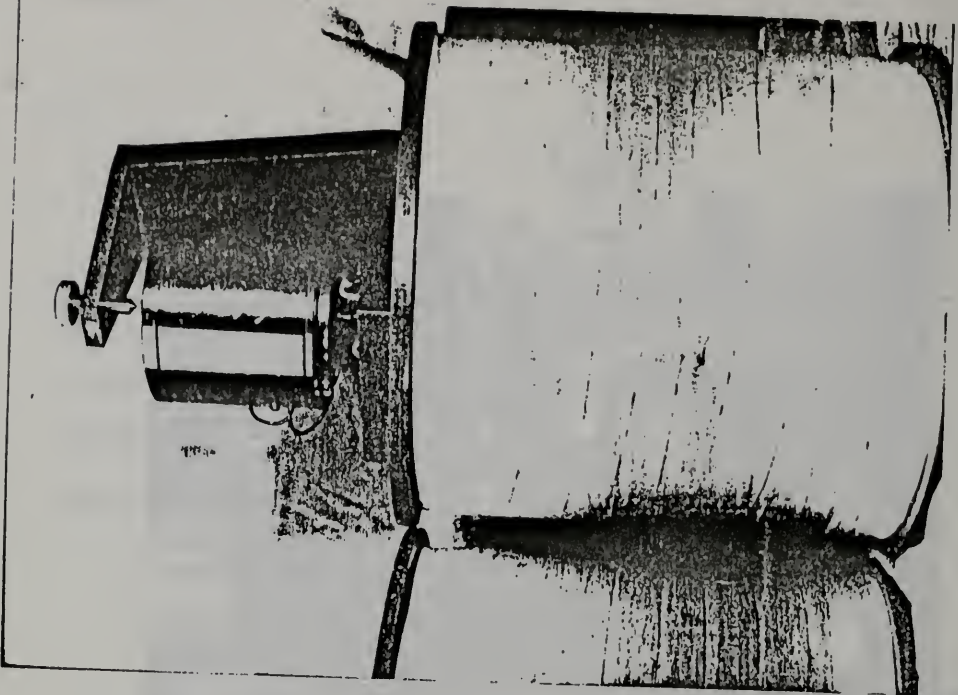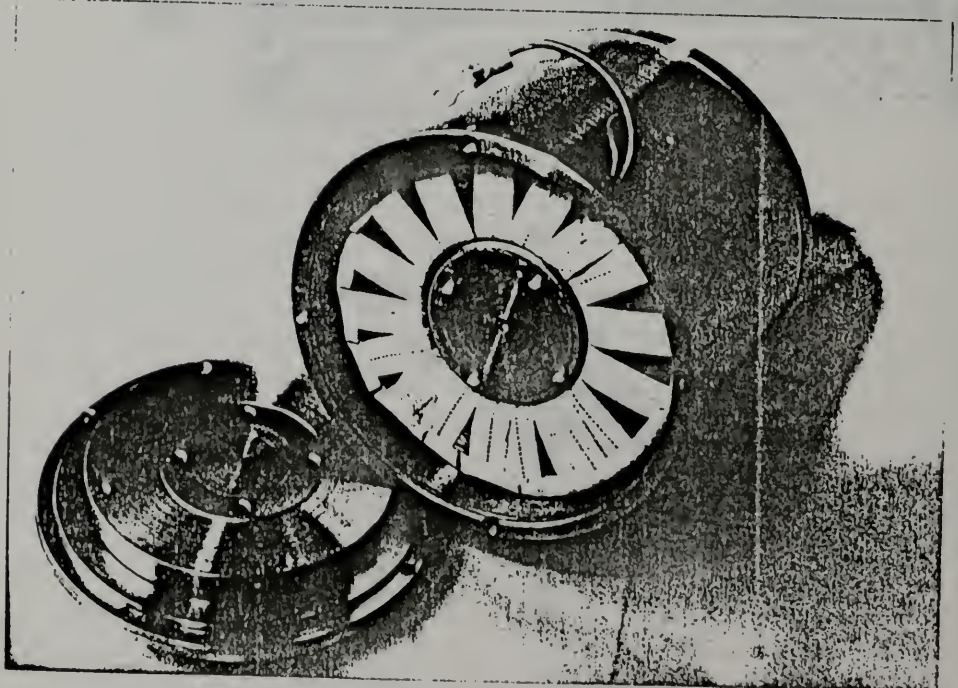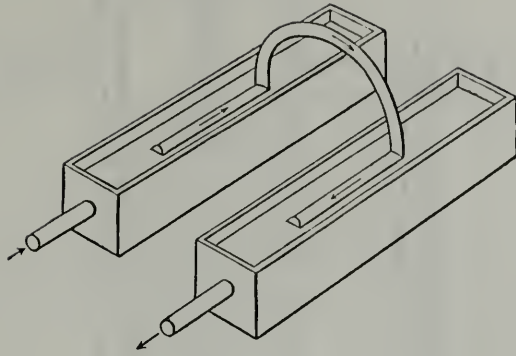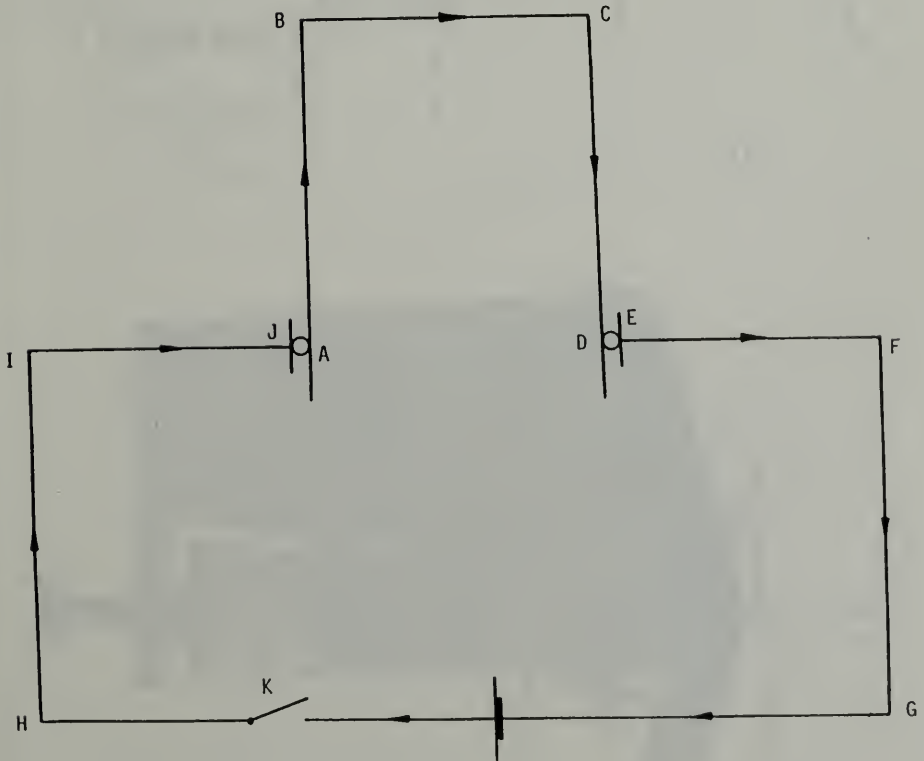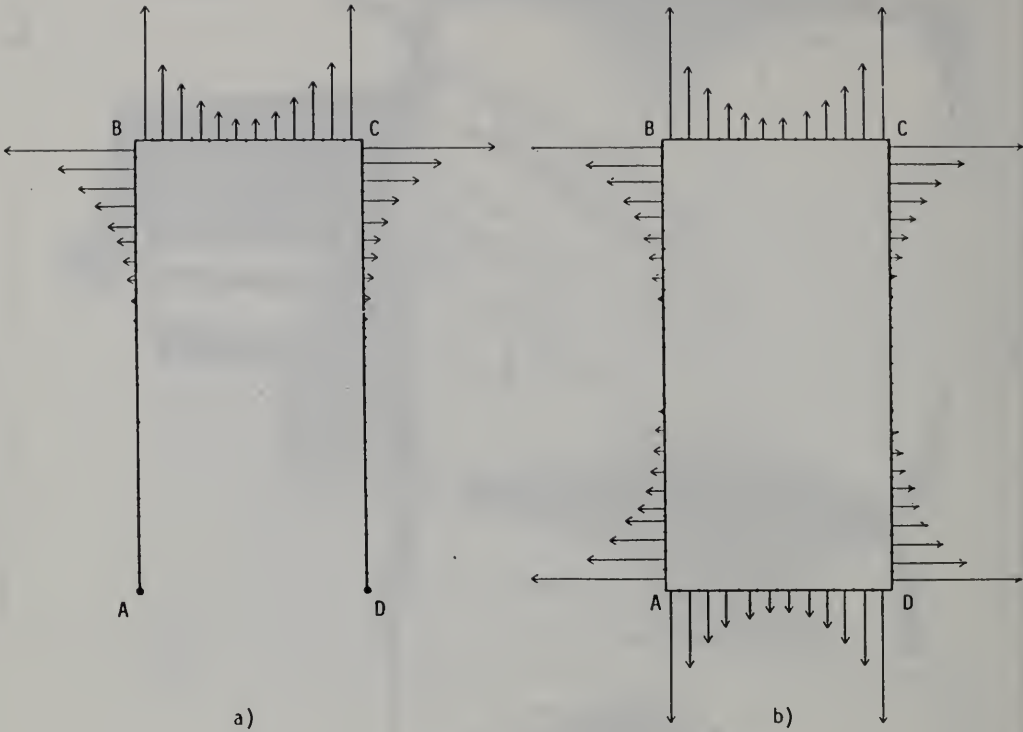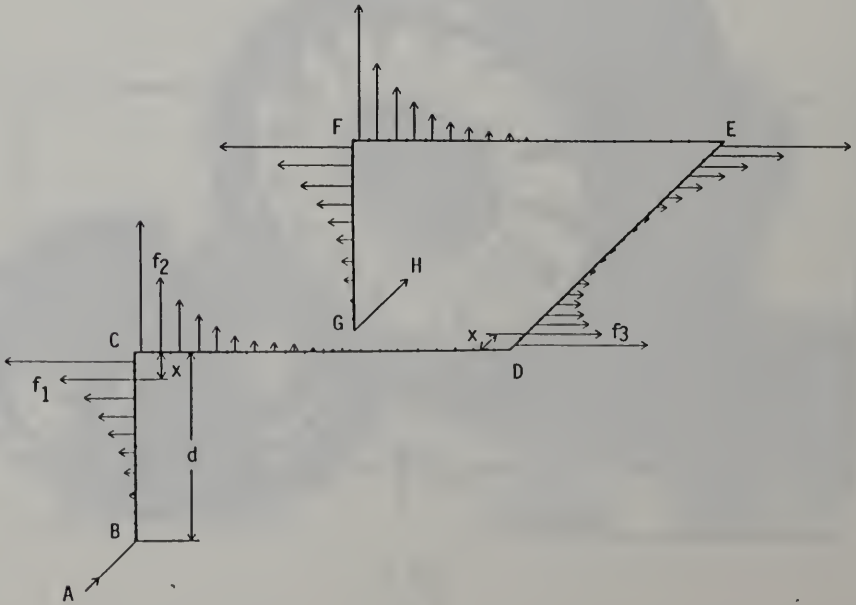
Fig. 10

Fig. 11

THE PERPETUUM MOBILE M A M I N   C O L I U

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Abstract. In this paper I present all six models of the machine MAMIN COLIU which is a generator for alternating current without an electromagnetic braking effect, i.e., this machine violates the Lenz rule. For the time being a machine with a closed energetic circle (perpetuum mobile) is still not constructed but this is only a question of money, OF NOTHING ELSE (and not of much money!!!).

My machine MAMIN COLIU was presented in TWT-II (third edition, 1986) and in TWT-I (second edition, 1987). The reports on this machine appeared as paid advertisements in NATURE (**327**, p. x, 21 August 1986) and in NEW SCIENTIST (**112**, 48, 1986) and in my "Letter to the Editor" published in the INT. J. GEN. SYST. (**13**, 2, 1987).

Since those publications I constructed five other models of MAMIN COLIU, i.e., until today I have SIX models of this machine.

The first four models were with a toroidal iron yoke, while the fifth and sixth were with a cylindrical iron yoke. I intended first to call the machine with cylindrical yoke NEMA LABAVO (NEw MArinov's LABour-saving Apparatus to be soon the VOgue), but later I decided to call the machines with toroidal and cylindrical yoke by the same name MAMIN COLIU (MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit). In this connection I should like to note that I intended first to call the machine which violates the angular momentum conservation law and which is photographed on the back cover of this book MAMUL (from MArinov - MULler), but later I gave to it the name BUL-CUB MACHINE WITHOUT STATOR (see the "erratum" at the bottom of the NATURE-letter of the 1 February 1988 published in this volume).

In this paper I shall give the schemes of the first and second groups of the machine MAMIN COLIU and the photographs of all six models. I shall not bore the reader with the technical parameters of any single model and here I shall give only some general informations (the technical details of the first model are given on p. 171.

The scheme of the machines with   toroidal iron yoke is given in fig. 1. The scheme of the machine with cylindrical yoke is given in fig. 2. The first model is photographed in fig. 4, the second in fig. 5, the third in fig. 6, the fourth in figs. 7 and 8, the fifth in figs. 9 and 10, and the sixth in figs. 11 and 12 (the fifth and sixth models are photographed "closed" and "open", so that one can see clearly the coils, the rotors and (in fig. 10) also the stationary disk. The fourth model is photographed with stationary and rotating disks "in the gap" and "outside the gap".
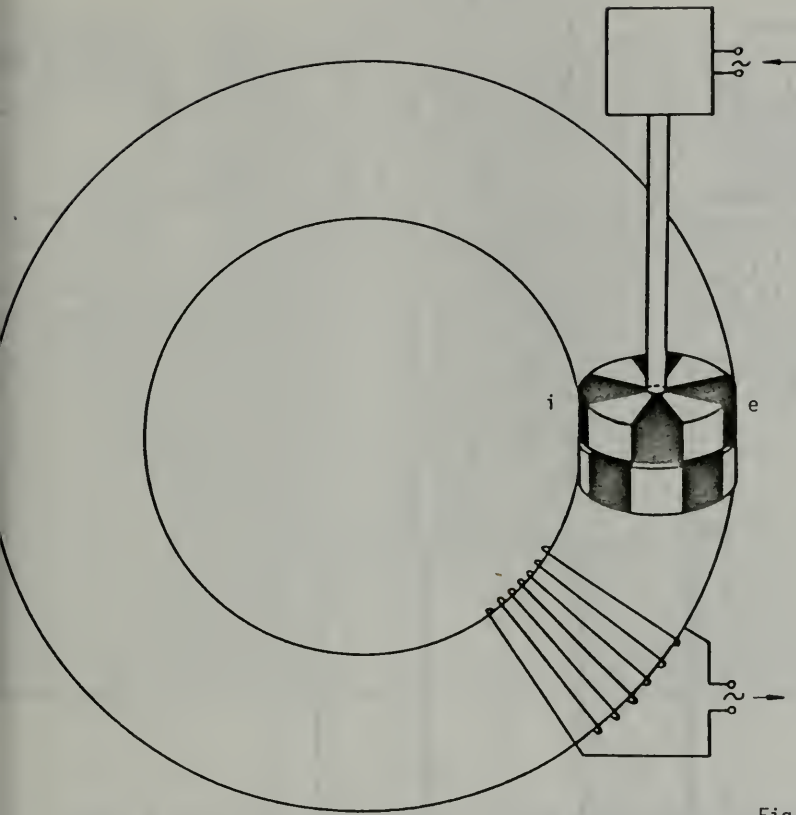
Fig. 1

On p. 171 I explain why the machine generates alternating current and why it has no electromagnetic braking moment. A part of the tension produced in the machines with toroidal yoke is due not to the overlapping of the permanent magnets in the rotating and stationary disks, but to the fact that when the permanent magnets in the rotating disk are at the position "i" (internal) (see fig. 1), they produce a bigger magnetic flux in the torus than in the case when the permanent magnets are at the position "e" (external), assuming that the stationary disk is TAKEN AWAY. This is due to the shorter path of the magnetic lines at the position "i", and thus to the corresponding smaller magnetic resistance. Hence even when the stationary disk is taken away and one rotates the rotating disk, some alternating tension is induced in the coil. However NOW the magnetic flux produced by a current flowing in the coil has the same asymmetry and thus this current produces a torque on the magnets of the rotor. Consequently such a generator does not violate the rule of Lenz and it has a braking moment. When the stationary disk is put, both generation effects - this one
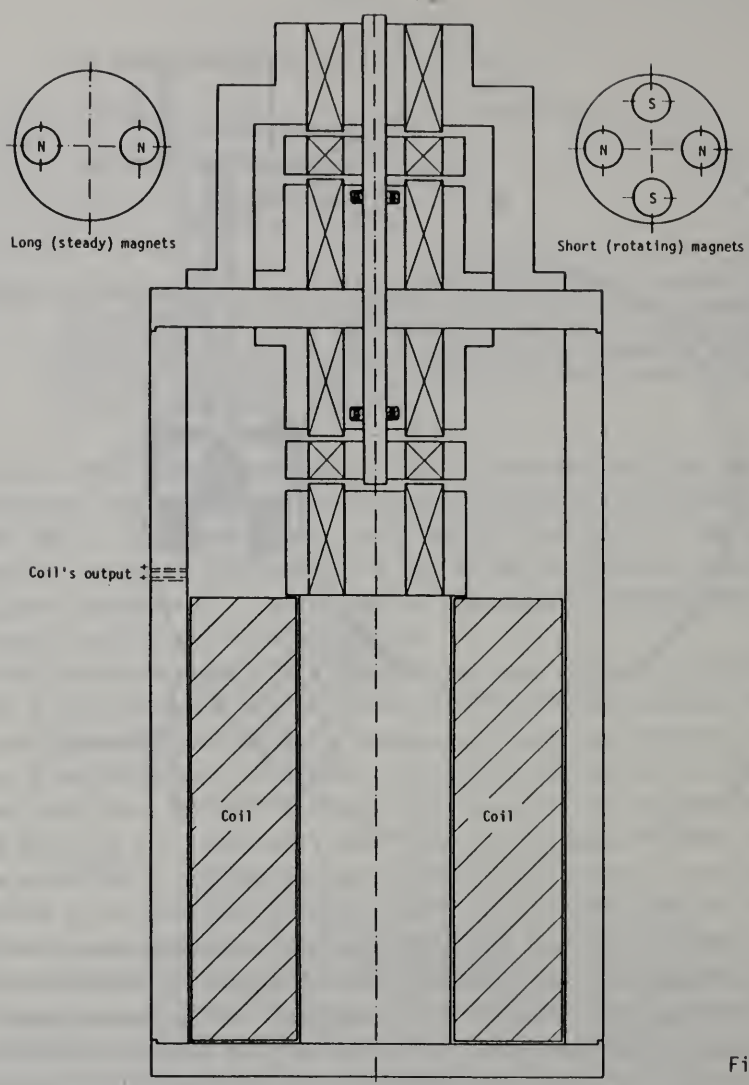
(see also p. 19)

(see also p.87)

Fig. 2

with electromagnetic braking and this one without electromagnetic braking - appear together and the machine shows some (weak) braking effect. Also when the coil is fed by a direct current a certain (weak) torque can be observed acting on the rotor. To evade this conventional generator (and motor) effect, I made the yokes in the fifth and sixth model cylindric. Now when one sends current in the coil NO torque on the rotor can be observed and thus the whole generated electric power is "unpaid".

I must add that also in the machines with cylindrical yoke a very weak torque can be observed when sending direct current in the coil. It is due to the following:
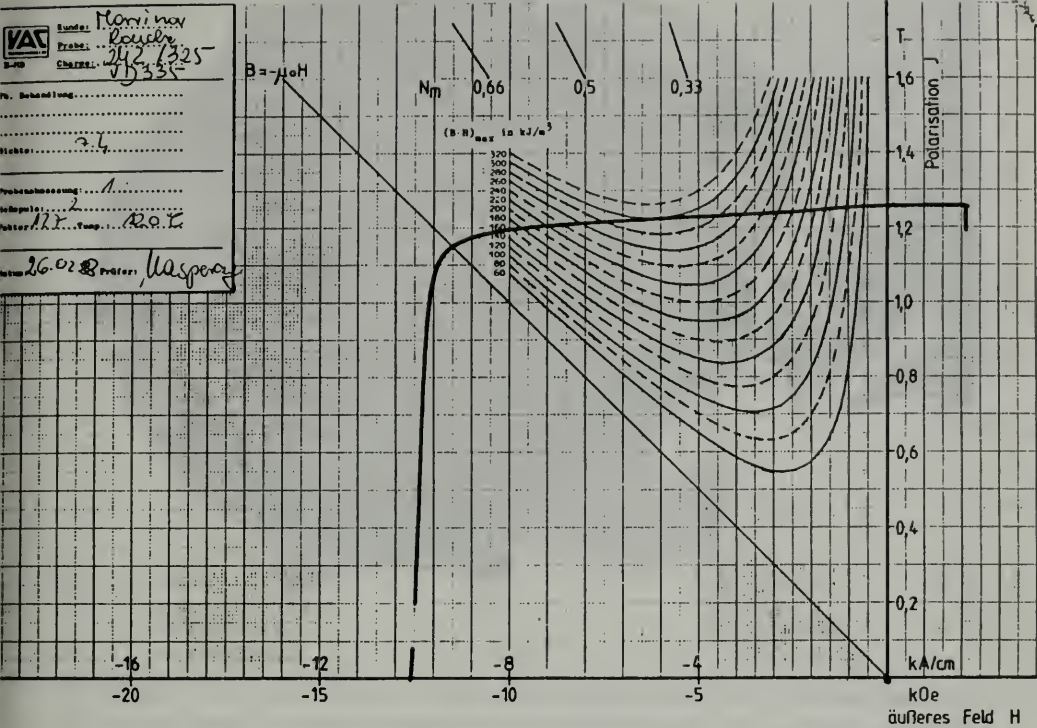
Fig. 3

In fig. 3 the magnetization curve $P = \mu_0 \chi H$ of the permanent magnets (Vacodym 335) used in the fifth and sixth models is given, where H is the applied external magnetic intensity, P (in the diagram the letter J is used) is the polarization, μ_0 is the magnetic constant and χ is the susceptibility of the material which is a function of the previous states of magnetization (in the CGS system of units where $\mu_0 = 1$ the magnetization, $M = \chi H$, equals the polarization, P). If the top line of the magnetization curve would be exactly horizontal, i.e., if *around* the magnetic intensity H = 0 the susceptibility would be a constant quantity, independent of the small changes of H, then the strength of the permanent magnets will be independent of the applied external field. In such a case, when sending direct current through the coil, *no* torque on the rotor will be observed at *whatever* its position (as the case will be if the permanent magnets should be replaced by cylindrical coils feeded by direct current). However, as the top line in the magnetization curve above is slightly inclined, the permanent magnets receive *additional* magnetization from the current in the coil and this leads to the appearance of a torque, as the balance of the attractive and repulsive forces between the permanent magnets in the stationary and rotating disks is disturbed. (N.B. I should like to note that another reason for the appearance of torques in the models with toroidal yokes, considered on pp. 94 and 95, is the higher number of ampere-windings at the internal side of the yoke, due to the more *dense* windings at the internal yoke's side with respect to the less dense windings at the external side.)

In fig. 2 one sees how I have neutralized the attractive and repulsive forces between the magnets in the stationary and rotating disks. For this aim I have added another system of stationary and rotating disks with permanent magnets (above) identical to the initial system of stationary and rotating disks generating the current (below).
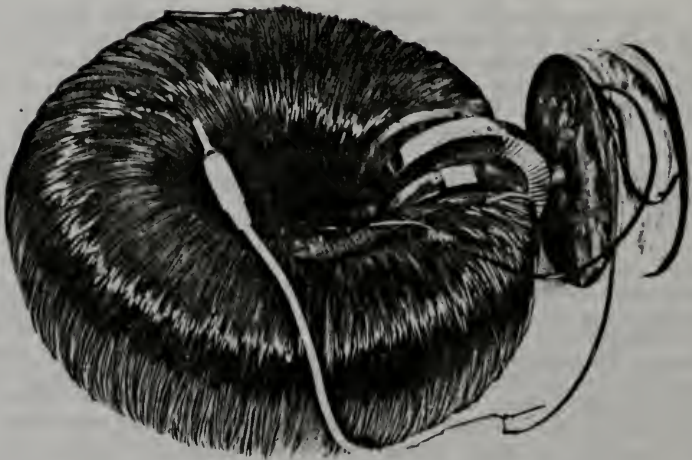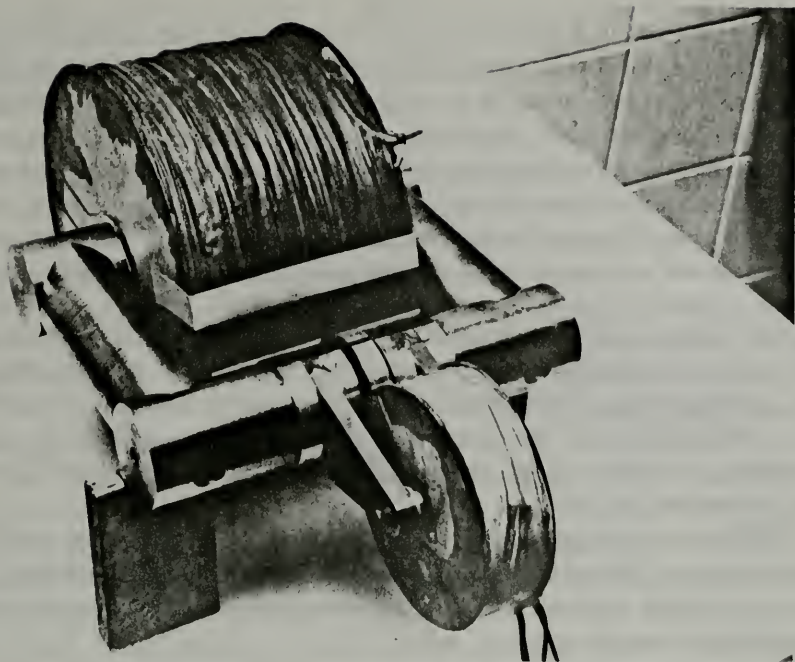
Fig. 4

Fig. 5

Fig. 6

The system above serves only to balance the forces between the permanent magnets in
the system below, as when the magnets in the system above attract each other, the
magnets in the system below repel each other (and vice versa). So the axle rotates
extremely easy. Although the forces between the permanent magnets are pretty strong,
a small 6-volt motor (see fig. 9) easily rotates the axle. The scheme in fig. 2 is
the drawing according to which the fifth machine (figs. 9 and 10) is constructed.
In the sixth machine (figs. 11 and 12) both systems of stationary and rotating disks
are "in the iron" and thus both rotors induce electric tension. In the sixth model
there are four induction coils and for this reason one sees in fig. 11 eight elec-
trodes. In fig. 9 the alternating tension through a rectifier goes to the driving
d.c. motor. In fig. 11 the produced alternating tension (in the figure current is
taken only from the upper coil) feeds a coil and its magnetic field attracts and
repels the four permanent magnets arranged at the upper disk which is fixed to the
rotating axle. In the stationary disks there are four permanent magnets with the
same polarity (in the fifth model there are two permanent magnets in the stationary
disks - see fig. 2) and thus for one rotation there are four periods of the alterna-
ting current, so that the attraction and repulsion of the four magnets at the upper
disk proceeds exactly SYNCHRONOUSLY with the periods of the generated current (let
me note   that in the sixth model there is only one stationary disk in any
system with four magnets having the "same polarity" and eight magnets with "iteratively

changing polarity" in the rotating disk - see them in fig. 12, while in the fifth mo-
del there are two stationary disks in any system with two magnets with the same pola-
rity and four magnets with iteratively changing polarity in the rotating disks - see·
fig. 2). The same is the principle of action in the second (fig. 5) and third (fig. 6)
models. In the fourth model (figs. 7 and 8) the generated tension feeds, through a
rectifier, an electromotor identic to the driving motor. The capacitor in fig. 7 is
used to obtain a resonance in the circuit and to extract the maximum current from the
coil.

The iron was made of isolated sheets only in the second and fourth models. The
torus in the fourth model (figs. 7 and 8) was delivered by the plant VACUUMSCHMELZE,
Hanau, GFR. It was a "Schnittbandkern" of Trafoperm N2. The yoke in the first, third
and fifth models was of the most simple soft iron which was bouth for a couple of
Schillings. The yoke in the sixth model made of Permanon 5000 H3 delivered also by
the VACUUMSCHMELZE, Hanau.

Until now the delivered power in all machines is much lower than the power nee-
ded to run the machine eternally. The best solution gives the sixth model, however
its iron is bulk material with terrible eddy currents and the current which can be
extracted is very low.

Now I must repeat this model with iron made by isolated sheets. However to pro-
duce a yoke in this form with laminated iron is a difficult task. I shall try to make
the replica of the sixth model with Corovac (as the iron yoke in my Bul-Cub machine
without stator was done), however Corovac has not an enough high permeability. The
success will be achieved if the generated tension is high enough at a not very high
internal resistance, noting that the internal resistance of a coil with laminated
iron core is due primarily to the ohmic resistance of the coil.

. . . . .

One always poses the question: Is it possible to explain PHYSICALLY that the gene-
rated electric power in MAMIN COLIU can be greater than the consumed mechanical power.
I cannot give such a "theoretical" explanation and I consider the calculations on pp.
120, 171 and 187, although very simple and clear, as not satisfactory enough.

If we shall replace the permanent magnets with coils fed   by direct current, then
the calculations show that in such a case no tension will be induced in the big coil.
Indeed, let us assume that there are only one black and one white segments (i.e., half-
circles) in any of the disks in Fig. 1 and that the black half-circles are coils with
n windings along which current I flows. Proceeding from the formula $\Phi = U_m/R_m$, repre-
senting the "Ohm's law" for "magnetic circuits", where Φ is the magnetic flux, U_m is
the "magnetomotive tension" (written by analogy with the electromotive tension - see
the top of p. 138) and R_m is the "magnetic resistance", we shall have:

1) For the case of overlapping coils

$$U_m = 2\mu_0 nI, \qquad R_m = \frac{2\pi R - L}{\mu(\pi r^2/2)} + \frac{L}{\pi r^2/2} \cong \frac{4R}{\mu r^2} + \frac{2L}{\pi r^2} \cong \frac{2L}{\pi r^2}, \tag{1}$$

where R is the radius from the center of the torus to its axis, L is the length of the torus' gap where the solid and rotating disks are placed, r is the radius of the torus' cross-section (thus $\pi r^2/2$ is the half cross-section of the torus, and we assume that there is magnetic flux only in the half cross-section which "overlap" the overlapping coils), μ is the permeability of the iron and μ_0 is the magnetic constant; the first approximate result in the second equation (1) is written for $\mu \gg 1$, and the second approximate result if in addition L is not much smaller with respect to $2\pi R$. Thus the magnetic flux in the half of the torus, which will be equal to the flux in the whole torus, will be $\Phi = U_m/R_m$. (Note that my permeability μ is the relative permeability!)

2) For the case of coils overlapping the non-magnetic (white) half-circles, we shall have for any of the half cross-sections of the torus the same magnetic resistance R_m as in case 1) and a magnetomotive tension $U_m' = \mu_0 nI$, so that the flux in the whole torus $\Phi' = 2(U_m'/R_m)$ will be the same as in case 1) $\Phi' = \Phi$.

Thus the theory says that for current coils in the solid and rotating disks MAMIN COLIU cannot generate tension.

Remembering
But my machine MAMIN COLIU which is with permanent magnets generates tension. p. 87 one sees that one reason that MAMIN COLIU with permanent magnets generates tension is that the magnetization curve of the permanent magnets in Fig. 3 is not exactly parallel to the "H-axis". The question is: will be there generated tension if the magnetization curve will be exactly parallel to the "H-axis" and are the magnetomotive tensions of a current coil and of a permanent magnet physically absolutely identical?

There are not permanent magnets with magnetization curve exactly parallel to the "H-axis" and I cannot present an experimental answer to this question. However, the fact that I observed that the generated electric energy is in excess to the consumed mechanical energy suggests to assume that current coils and permanent magnets may be not   identical. I am more than sure that the bigger flux for the case of overlapping magnets is not due only to some additional magnetization of the permanent magnets (as any of them is in the "field" of the other one) but is due to the fact that two overlapping magnets generate in the torus a bigger flux than in the case when they overlap the non-magnetic segments.

Neither can I construct MAMIN COLIU where the permanent magnets are substituted by current coils to see whether in such a case there will be no generated tension, as the "theory" predicts.

Thus, for the time being, it is senseless to make "theoretical" calculations for the machine MAMIN COLIU. My scope is to construct the machine with a cylindrical core (as in the fifth and six models) made of laminated (or powder) iron and to have a machine with high enough electric output which will clearly show the excess of generated electrical energy over the consumed mechanical energy and which eventually can be made to run eternally.
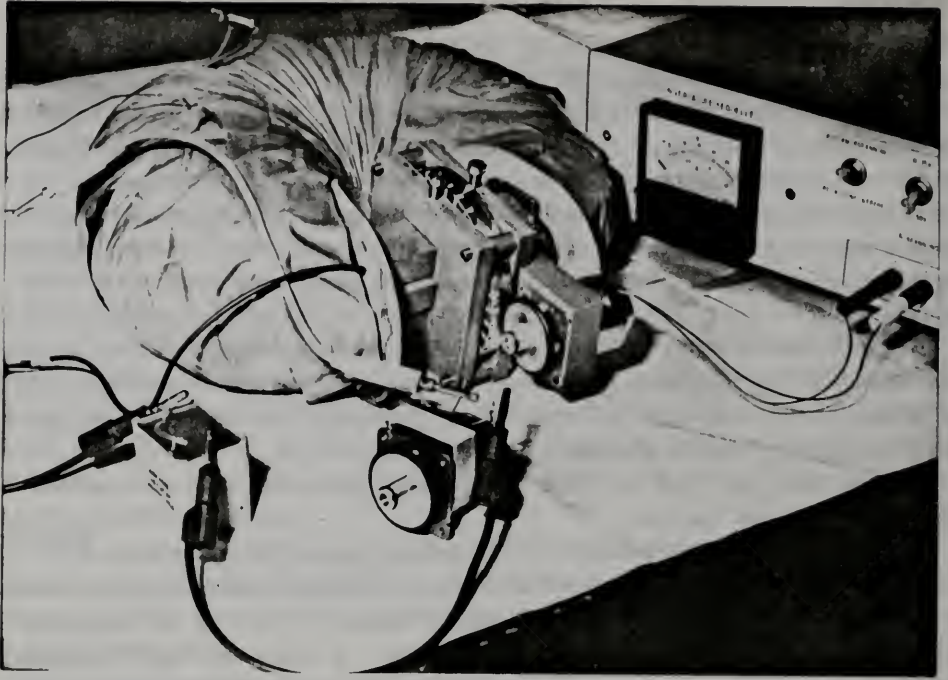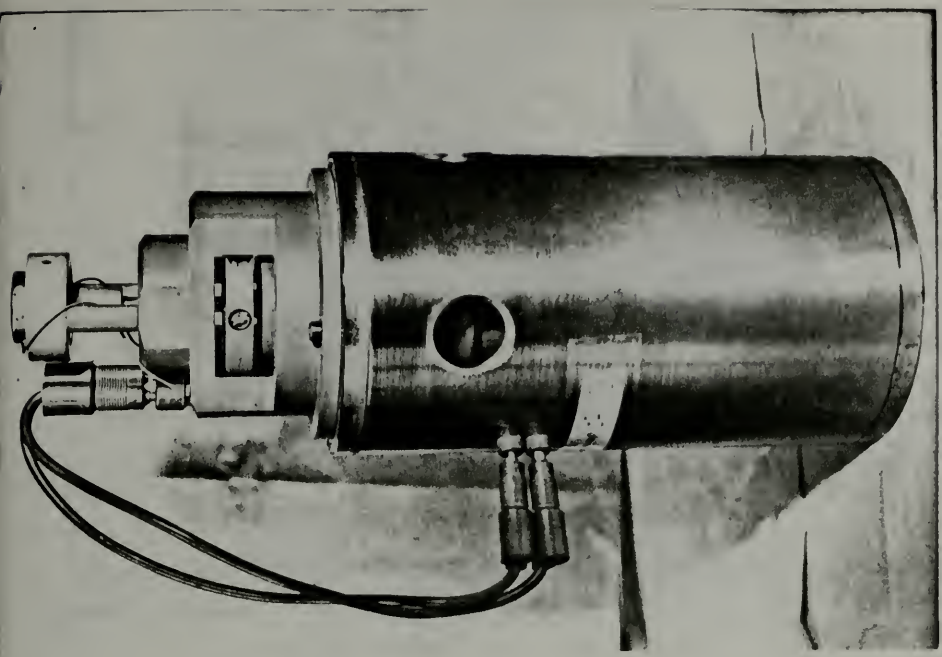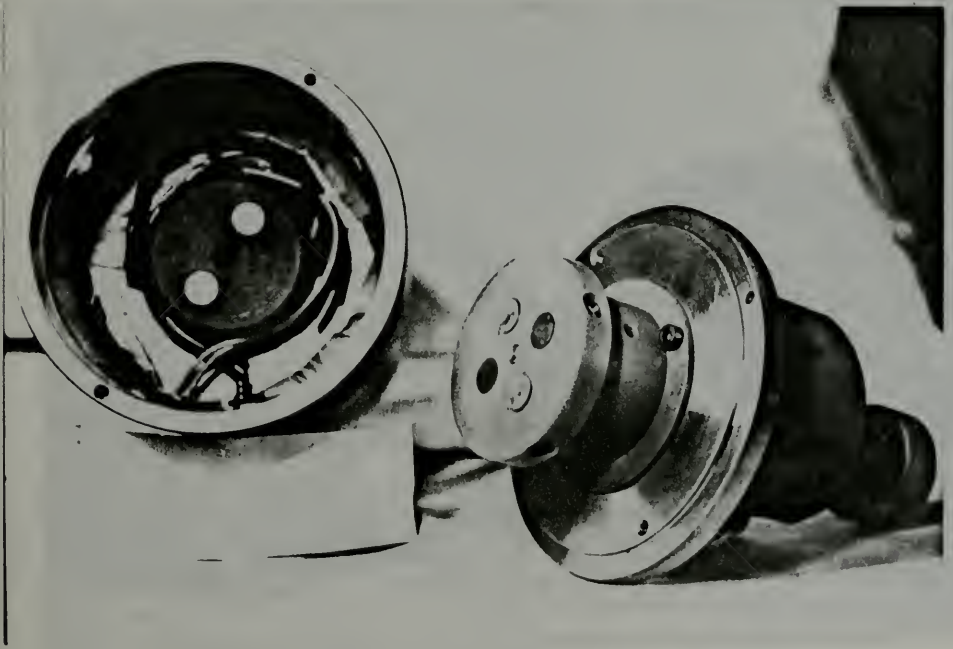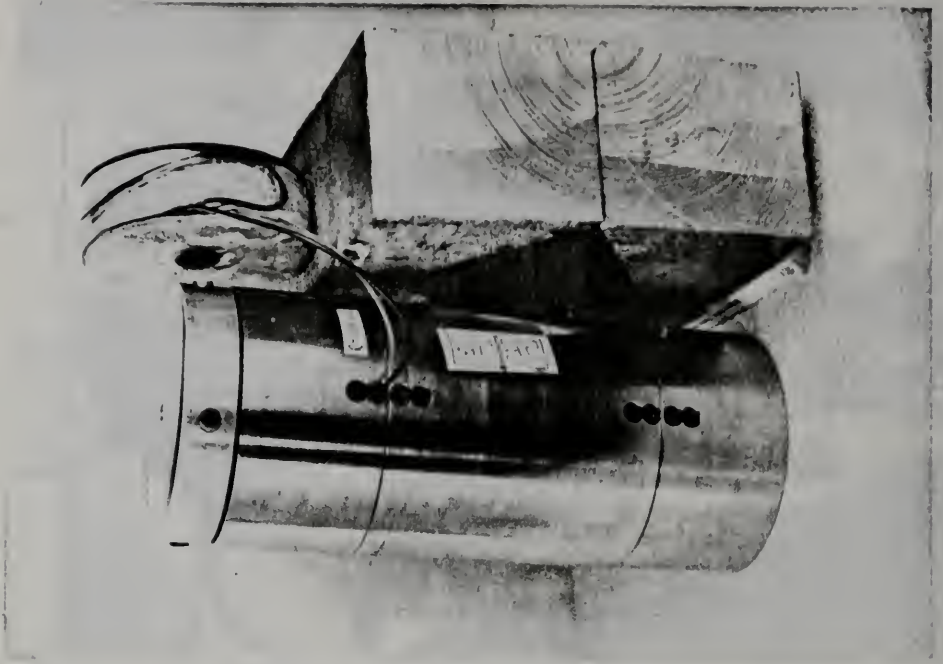
Fig. 7

Fig. 8

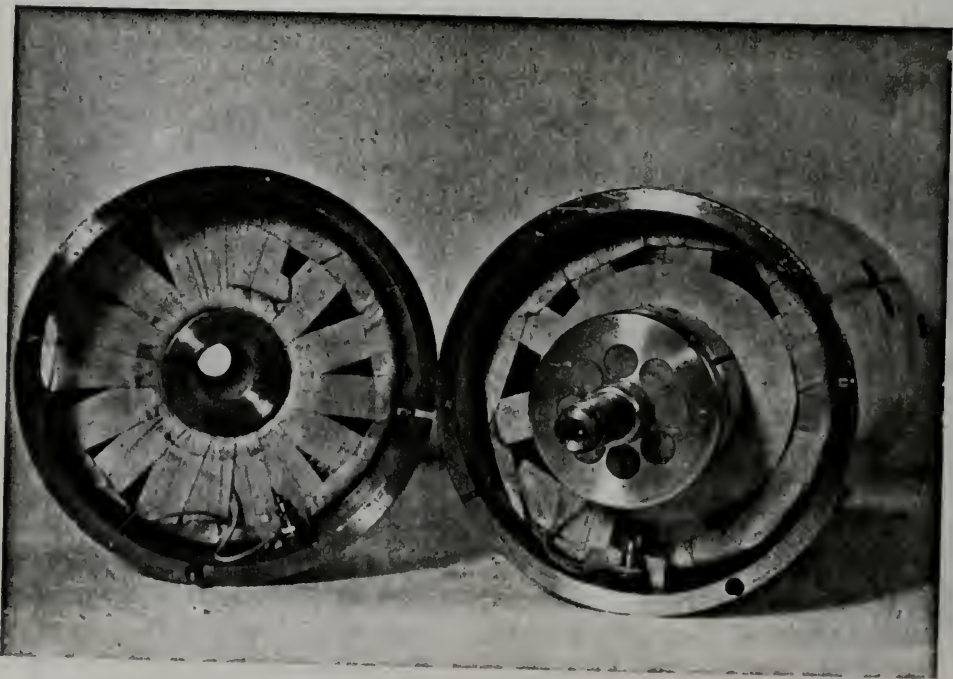Fig. 9

Fig. 10

Fig. 11

Fig. 12

НАРУШЕНИЕ ТРЕТЬЕГО ЗАКОНА НЬЮТОНА В ЭЛЕКТРОМАГНЕТИЗМЕ

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Резюме. Я показываю, что исторический эксперимент Ампера с плавающим мостом демонстрирует нарушение третьего закона Ньютона, так как мост движется вследствие действия внутренних сил. Я показываю как, исходя из этого эксперимента, можно построить электромотор постоянного тока. Этот электромотор имеет, практически, только ротор и обратное электродвижущее напряжение индуцируется под влиянием магнитного поля, возбужденного токами, текущими в проволоках неподвижно связанных с ротором, что является вопиющим противоречием с принципом относительности.

В 1823 г. Ампер предложил[1] следующую формулу для силы взаимодействия между двумя токовыми элементами

$$d\vec{f} = \frac{\mu_0 II'}{4\pi r^3} \{3(\vec{r}.d\vec{r})(\vec{r}.d\vec{r}') - 2(d\vec{r}.d\vec{r}')r^2\}\vec{r}, \qquad (1)$$

где $d\vec{r}'$ линейный элемент /т.е. коротенькая проволока/, по которому течет ток I' /если ток I' положителен, он направлен по вектору $d\vec{r}'$/ и который действует потенциальной силой $d\vec{f}$ на линейный элемент $d\vec{r}$, по которому течет ток I, $\vec{r}$ вектор соединяющий $d\vec{r}'$ с $d\vec{r}$, r его длина и μ_0 магнитная константа.

В 1845 Грассмани предложил[2] другую формулу, коренным образом отличающейся от формулы Ампера,

$$d\vec{f} = \frac{\mu_0 II'}{4\pi r^3} d\vec{r} \times (d\vec{r}' \times \vec{r}) = \frac{\mu_0 II'}{4\pi r^3} \{(\vec{r}.d\vec{r})d\vec{r}' - (d\vec{r}.d\vec{r}')\vec{r}\}. \qquad (2)$$

Общее между обеими формулами то, что они приводят к одной и той же силе взаимодействия между двумя замкнутыми токовыми контурами. В 1961 г. Лайнесс показал[3], что сила, с которой замкнутый токовый контур действует на токовый элемент, одна и та же согласно обеим вышеприведенным формулам. Я не мог установить, если до Лайнесса кто-то такое доказательство уже приводил.

Легко можно видеть, что согласно Амперу сила $d\vec{f}'$, с которой токовый элемент $Id\vec{r}$ действует на токовый элемент $I'd\vec{r}'$ равна с обратным знаком силе $d\vec{f}$, но согласно Грассману нет. Значит формула Ампера сохраняет третий закон Ньютона, но формула Грассмана его нарушает. С другой стороны формула Ампера приводит к странному результату, что сила взаимодействия между двумя параллельными токовыми элементами равна нулю, если угол, который они заключают с вектором $\vec{r}$ равен $\arccos(\pm\sqrt{2/3})$. Конечно, диковинности в формуле Грассмана куда больше чем в формуле Ампера.

В XIX-ом веке люди пользовались преимущественно формулой Ампера, которую Максвелл называл "кардинальной формулой электромагнетизма". Однако, в XX-ом веке, после торжества формулы Лоренца /которая, нужно отметить, была предложена еще Максвеллом/, люди начали считать формулу Грассманна кардинальной формулой электромагнетизма, так как она является следствием формулы Лоренца. Я это сейчас покажу.

Формула Лоренца дает электрический интенситет /т.е. силу действующую на единицу заряда/ в зависимости от скорости $\vec{v}$ этого заряда и от магнитного потенциала $\vec{A}$, созданного электромагнитной системой этот заряд окружающей,

$$\vec{E} = - \partial\vec{A}/\partial t + \vec{v} \times rot\vec{A}, \qquad (3)$$

считая электрический потенциал Φ равным нулю, как в случае взаимодействия между токовыми контурами.

Обозначая через J плотность электрического тока и через Q плотность зарядов в этом токе, мы можем написать $Jd\vec{r} = Jdt(d\vec{r}/dt) = Q\vec{v}$, где $\vec{v}$ скорость этих зарядов. Магнитный потенциал, который токовый элемент $I'd\vec{r}'$ возбуждает в точке пространства, где расположен элемент $d\vec{r}$, будет $\vec{A} = \mu_0 I'd\vec{r}'/4\pi r$. Для силы действующей на токоносящих зарядах в <u>единице объема</u> в элементе $d\vec{r}$, исходя из (2), получаем $\vec{F} = Q\vec{v} \times rot\vec{A}$, и сила действующая на единицу заряда будет

$$\vec{E} = \vec{v} \times rot\vec{A}, \qquad (4)$$

которая совпадает со вторым членом на правой стороне равенства (3). В случае что $\vec{v}$ скорость зарядов в проволоке $d\vec{r}$, я называю (4) <u>пондеро-моторным электрическим интенситетом</u> (ponderomotive electric intensity) и обозначаю через $\vec{E}_{pon} = \vec{v} \times rot\vec{A}$. В случае что ток в элементе $d\vec{r}$ не течет, но сам элемент движется со скоростью $\vec{v}$, я называю (4) <u>электро-моторным электрическим интенситетом</u> (electromotive electric intensity) и обозначаю через $\vec{E}_{mot} = \vec{v} \times rot\vec{A}$.

Конвенциональная физика рассматривает первый член на правой стороне равенства (3) только для случая нестационарных токов, т.е. в случае что величина тока I' изменяется. Я называю это <u>трансформаторным электрическим интенситетом</u> (transformer electric intensity) и обозначаю через $\vec{E}_{tr} = - \partial\vec{A}/\partial t$. Если, однако, элемент $d\vec{r}'$ движется, а ток I' остается постоянным, конвенциональная физика <u>неспособна</u> сказать, какие силы будут действовать на зарядах в элементе $d\vec{r}$. Исходя из принципа относительности, конвенциональная физика утверждает только, ^{что} эффект будет тот же самый, как и в случае что $d\vec{r}'$ будет в покое, а элемент $d\vec{r}$ будет двигаться с <u>обратной</u> скоростью. Так что в этом случае конвенциональная физика пользуется формулой для $\vec{E}_{mot}$, беря ее с обратным знаком. Это <u>ужасающая ложь</u>, которую уже 70 лет нам преподносят релятивисты всех стран мира. В случае что элемент $d\vec{r}'$ с током I' движется, я называю силу, действующую на единицу покоящегося в $d\vec{r}$ заряда, <u>моторно-трансформаторным электрическим интенситетом</u> (motional-transformer electric intensity) и обозначаю через

$$\vec{E}_{mot-tr} = - \frac{\partial\vec{A}\{r(t)\}}{\partial t} = - \left(\frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial x}\frac{\partial x}{\partial t} + \frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial y}\frac{\partial y}{\partial t} + \frac{\partial\vec{A}}{\partial r}\frac{\partial r}{\partial z}\frac{\partial z}{\partial t}\right) = (\vec{v}.grad)\vec{A}, \qquad (5)$$

где $\vec{v} = -\partial\vec{r}/\partial t$ скорость элемента $d\vec{r}$. Этот вид электрического интенситета чрезвычайной важности был открыт недавно мною[4-9], хотя еще Максвелл и Лоренц должны были его открыть, но они его как-то недосмотрели, а потом Эйнштейн с его вычурным принципом относительности отнял у человечества всякую возможность увидеть этот фундаментальный вид электрического интенситета. Причиной того, что исследователи XIX-го века моторно-трансформаторного электрического интенситета не заметили, является тот факт, что, как я показал[5], электро-моторное и моторно-трансформаторное напряжения /интенсивность помноженная на длину проволоки/ вдоль замкнутого контура всегда одинаковы. Разницу между этими двумя видами электрического интенситета впервые наблюдал Кеннард[10], который работал с незамкнутыми контурами. Пондеромоторные эффекты в незамкнутых токовых контурах наблюдали Грахам и Лахоз[11]. Они впервые в истории человечества наблюдали нарушение одного из законов сохранения, именно закона сохранения углового момента, но никак не могли разобраться в значимости своего эксперимента. В лит. 12 я анализирую эксперименты Кеннарда и Грахама-Лахоза и даю правильное толкование эффектов ими обнаруженных.

Так как в эксперименте Грахама-Лахоза изолированная система приводилась во вращательное движение вследствие действия внутренних сил, являющимися магнитными силами взаимодействия тока в замкнутом контуре с током в незамкнутом контуре, то этот эксперимент показывает, что формула Грассманна верна, а формула Ампера быть верной не может. Я повторил электро-моторный эксперимент Кеннарда и пондеро-моторный эксперимент Грахама-Лахоза в моей машине "Бул-Куб" без статора[12], которую построить чрезвычайно легко, ибо в ней магнитное поле замкнутых токов "стянуто" железом, а незамкнутый токовый контур "замыкается" мало-объемным конденсатором и эффекты очень легко наблюдаются.

Вопрос о том, какая из формул (1) и (2) соответствует реальности, всегда был как-бы дремлющим вулканом, который на протяжении века вспыхивал и снова затухал. На протяжении последних пяти лет вулкан этот затрясся довольно мощно и не затухает. Толчок к этой вспышке дал Паппас в 1982 г. своим докладом на Интернациональной Конференции Пространственно-Временной Абсолютности, где он сообщил[13] о повторении им исторического эксперимента Ампера с "плавающим мостом". В эксперименте Ампера /фиг. 1/ при пропускании тока мост из проволоки, плавающий в двух желобах, наполненных ртутью, начинает двигаться. Исходя из числовых данных эксперимента Мойсидеса и Паппаса[14], я показал[5], что они прекрасно согласуются с формулой Грассманна /Паппас твердо считает этот эксперимент подтверждением формулы Ампера[15,16]/. При этом нужно учесть, что токи в "ножках" моста сообщают на ток в "перекладине" магнитную силу перпендикулярную перекладине, но ток в перекладине на токи в ножках силу в эту сторону не сообщает. Таким образом мост движется в результате действия внутренних сил, что является вопиющим противоречием с третьим законом Ньютона.

Паппас заменил мост Ампера П-образной рамой, подвешенной на нитях, чьи концы

плавали в чашечках с ртутью. Я модифицировал /фиг. 2/ эксперимент Папласа, подводя
ток к подвешенной П-образной раме через катящиеся металлические шарики /этот способ
осуществления трущихся контактов мною широко использован[5] и для шарикоподшипников
из стали я открыл эффект[5], названный мною токо-тепловым расширительным эффектом
(current thermal dilatation effect)/. При одном и том же весе рамы я изменял длину
ножек DE и FG от нуля до L = 0.8 м, при чем рама отклонялась от нуля до 14 мм /при
токе 100 A/, но дальнейшее удлинение ножек к увеличению отклонения не приводило.
Так как токи в стационарных проволоках IJAB были слишком отдалены и их действия на
раму нельзя было заметить, а токи в стационарных проволоках BC и HI сообщали на
ток в проволоке EF силу направленную обратно отклонению, то, очевидно, пондеромо-
торные силы, действующие на перекладину EF, происходили только от токов в ножках
DE и FG.

Расположив в фиг. 2 координатную систему с абсциссой по прямой DG и с ординатой
по прямой DE, подсчитаем силу, с которой ток в ножке DE = L действует на токовый эле-
мент в перекладине, отстоящий от точки E на расстояние x. Для магнитного потенциала
в этой точке имеем

$$\vec{A} = \frac{\mu_0}{4\pi} \int_{DE} (I/r)d\vec{r}' = \frac{\mu_0 I}{4\pi} \int_0^L \frac{dy\ \hat{\vec{y}}}{(x^2+y^2)^{1/2}} = \frac{\mu_0 I}{4\pi} \text{Arsinh}(\frac{L}{x})\ \hat{\vec{y}} \tag{6}$$

и для элементарной пондеро-моторной силы

$$d\vec{f} = Id\vec{r}\times rot\vec{A} = \frac{\mu_0 I^2}{4\pi} \frac{L\,dx\,\hat{\vec{y}}}{x(x^2+L^2)^{1/2}}. \tag{7}$$

При достаточно большом токе эта сила очень большая. Дейс и др.[17] при помощи этой
силы успели ускорить массу в 0.317 кг до скорости 4.2 км/сек, что никаким химическим
эксплозивом сделать нельзя. При помощи этой силы из планеты без атмосферы можно
будет запускать искусственные спутники "паля их из пушки".

Включая и исключая ток ключом K, я приводил раму в колебательное движение, совер-
шая таким образом работу. В фиг. 3 показываю, как можно колебательное движение пре-
вратить во вращательное и сделать таким образом электромотор постоянного тока.

В каждом человечеству известном электромоторе есть статор, создающий магнитное
поле и ротор, который в этом поле вращается. При этом вращении в роторе индуцируется
обратный электродвижущий интенситет, который "пожирает" у источника ровно столько
электрической мощности, сколько механической мощности ротор производит. Но как быть
с электромотором, показанным на фиг. 3, где статор практически отсутствует, ибо маг-
нитное поле, приводящее перекладину в движение создается токами в ножках, которые
с перекладиной неподвижно связаны? Конвенциональная физика дать ответа не может. Са-
мое большее она скажет, что в раме обратный электродвижущий интенситет индуцироваться
не будет, ибо если рама в покое, индукции быть не может, а движение рамы всегда
можно представить себе происходящим с постоянной скоростью /как это на самом деле
и происходит в эксперименте, показанном на фиг. 2/. Или же она ухватится за интеграль-
ный закон Фарадея и будет вычислять индуцируемое обратное электродвижущее

напряжение.   Правильный ответ можно дать только исходя из моей абсолютной прос-транственно-временной теории[5,18,19], согласно которой уравнение Лоренца в лабора-тории, движущейся с инерциальной скоростью $\vec{V}$ в абсолютном пространстве, имеет сле-дующий вид

$$\vec{E} = - \text{grad}\Phi - \partial\vec{A}/\partial t + \vec{v}\times\text{rot}\vec{A} + \varepsilon_0\mu_0\vec{v}.\vec{V}\text{grad}\Phi + \vec{V}\times\text{rot}\vec{A} + (\vec{V}.\text{grad})\vec{A}, \tag{8}$$

где Φ и $\vec{A}$ электрический и магнитный потенциалы по отношению к лаборатории /абсолют-ный и лабораторный электрические потенциалы равны, разнятся только соответные маг-нитные потенциалы[5]/.

Полагая, как в нашем случае, $\Phi = 0$, $\partial\vec{A}/\partial t = 0$, и считая контур HIJABC прикреп-ленным к абсолютному пространству, а раму DEFG движущейся со скоростью $\vec{V}$ параллельно оси ординат, т.е. полагая $\vec{V} = V\hat{y}$, $\vec{v} = 0$, и пользуясь формулой (6), находим, учтя что $(\vec{V}.\text{grad})\vec{A} = 0$,

$$\vec{E}_{mot} = \vec{V}\times\text{rot}\vec{A} = - \frac{\mu_0}{4\pi} \frac{V I L \hat{x}}{x(x^2 + L^2)^{1/2}}. \tag{9}$$

Это и есть обратный электро-моторный электрический интенситет. Чтобы во всех этих вопросах разобраться, конвенциальная физика должна выбросить на мусор добрую поло-вину своих сегодняшних вычурных концепций.

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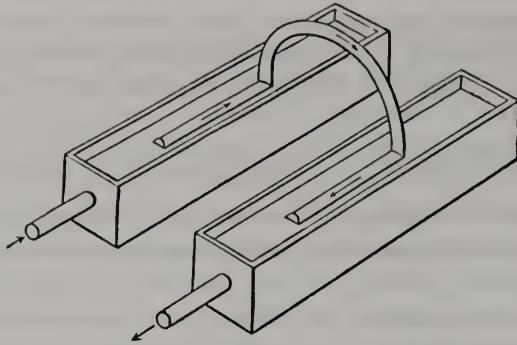
Фиг. 1
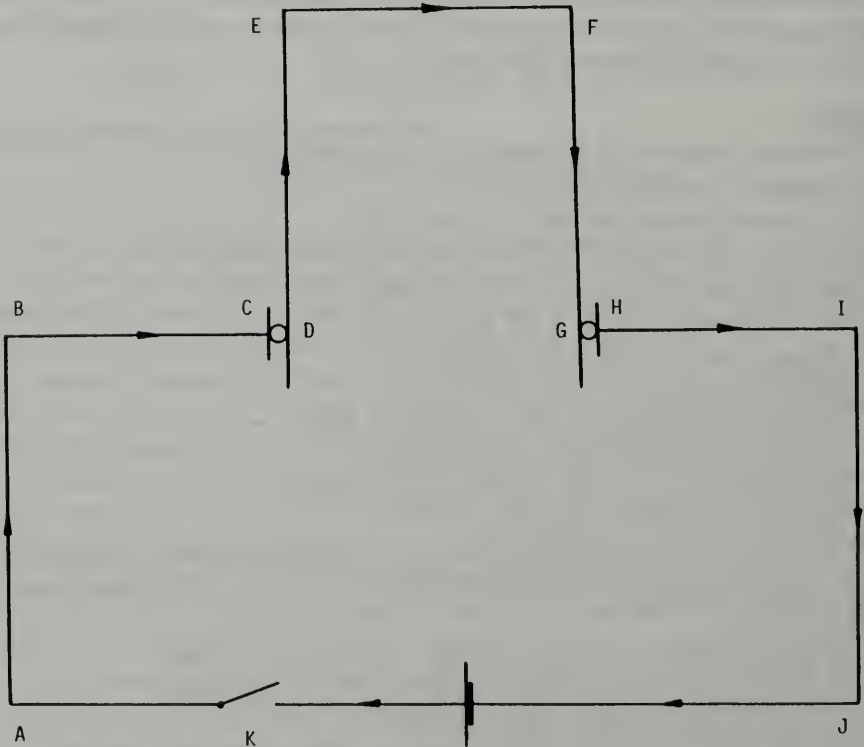
фиг. 2
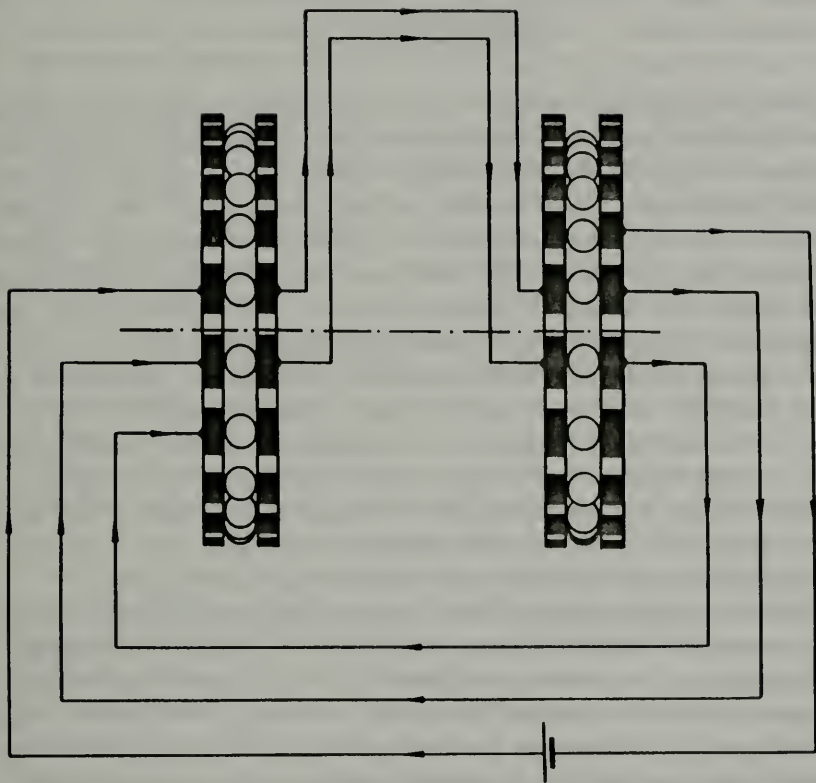
Фиг. 3

ЭКСПЕРИМЕНТАЛЬНЫЕ НАРУШЕНИЯ ПРИНЦИПОВ ОТНОСИТЕЛЬНОСТИ,
ЭКВИВАЛЕНТНОСТИ И ЗАКОНОВ СОХРАНЕНИЯ УГЛОВОГО МОМЕНТА И ЭНЕРГИИ

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На страницах журнала "Наука и жизнь" я хотел бы рассказать о некоторых интересных мной проведенных экспериментах, расшатывающие основные законы современной физики и прокладывающие путь к постройке машин, которые коренным образом изменят энергетику человечества. Все началось где-то четверть века тому назад, когда я жил в Болгарии и,пробираясь в дебрях теоретической физики, столкнулся с некоторыми противоречиями в теории относительности Эйнштейна. Для меня стало ясно, что Эйнштейновы аксиомы не могут быть верны, а следовательно и многие выводимые из этих аксиом следствия лживы.

Фундаментальной экспериментальной аксиомой специальной теории относительности считается следующее утверждение: Никаким физическим экспериментом, проведенным в инерциально движущейся лаборатории нельзя установить скорость последней. Одно из следствий этой аксиомы гласит: В инерциально движущейся лаборатории скорость света изотропна, т.е. имеет одну и ту же величину в любое направление. Действительно, если скорость в разных направлениях разная, то измерив скорости света в двух противоположных направлениях, можно определить проекцию лабораторной скорости по этой прямой, которая будет равна полуразности из этих двух световых скоростей.

Фундаментальной экспериментальной аксиомой общей теории относительности считается следующее утверждение: Никаким физическим экспериментом, проведенным в ускоренно движущейся лаборатории нельзя установить,является ли это ускорение кинематическим, т.е. порожденным ускоренным движением лаборатории по отношению к отдаленным звездам, или гравитационным, т.е. порожденным близ лежащими массами, например массой Земли.

Рассмотрев критически известные человечеству эксперименты, я на нашел таковых, которые бы эти две аксиомы Эйнштейна опровергали. Считая однако, что аксиомы эти быть верными не могут, я поставил себе целью такие эксперименты провести. Это оказалось делом довольно простым.

Я заметил, что во всех экспериментах по измерению световой скорости измеряется сумма из скоростей света на определенном участке пути "туда и обратно", так что если скорость света "туда" больше на величину скорости лаборатории и "обратно" на ту же величину меньше, то средняя скорость, которая на самом деле при таком эксперименте измеряется, остается величиной постоянной. На рисунке показана схема подобного эксперимента: Свет от источника S, проходя через полупрозрачное зеркало N, "нарезается" на куски вращающимся зубчатым колесом C, покрывает расстояние d до зеркала M, возвращается обратно, снова проходит через прорезы вращающегося колеса C и, отражаясь от полупрозрачного зеркала N, доходит до наблюдателя O. Если за время прохождения

пути d туда и обратно колесо поворачивается с прореза на зуб, то наблюдатель света
видеть не будет. Разделив расстояние 2d на время, за которое колесо поворачивается
с прореза на зуб, получаем скорость света. Такой эксперимент впервые провел Физо во
Франции в 1849-ом году. Сегодня люди проводят сотни тъсяч подобных измерений за день,
так как на земле функционируют сотни тъсяч радаров. Однако никто /повторяю, никто,
никто, никто/ не постарался измерить скорость света в одном направлении, хотя такой
эксперимент предложили еще Майкельсон и Морли в их известной статье 1881-го года,
где они сообщают о нулевом результате, полученном при попытке определения абсолютной
скорости Земли с помощью Майкельсонова интерферометра. Суть этого эксперимента на-
столько проста, что даже ребенок, разобравшись в эксперименте Физо, может ее пред-
ложить. Однако, как это ни странно, никто в мире не взялся такой эксперимент поста-
вить, тем более что технических трудностей не так уж много. На фотографии показана
установка, при помощи которой я измерил разности световых скоростей в двух противо-
положных направлениях. Свет от лазера разделяется полупрозрачным зеркалом на два
пучка, которые, отражаясь от еще пары зеркал, проходят в противоположных направле-
ниях расстояние между двумя синхронно вращающимися перфорированными дисками. Пер-
вым вращающимся диском свет нарезается на куски. Второй вращающийся диск пропускает
большую часть куска, если скорость света в этом направлении большая, соответно,
меньшую часть пучка, если скорость света в этом направлении меньшая. Так как рассто-
яние между дисками нельзя сделать очень большим /Физо работал при базисном расстоя-
нии d = 8 клм/, то световые куски движущиеся с большей скоростью проходят через
второй диск только чуть-чуть длиннее чем куски движущиеся в обратном направлении
с меньшей скоростью. Однако если за "вторым" диском поставить чувствительные фото-
диоды, то из разности генерируемых ими токов, измеряемой на гальванометре, можно
определить абсолютную скорость лаборатории в направлении оси аппарата. Я проделал[1]
подобный эксперимент впервые в Софии в 1973-ьем году. Эксперимент, показанный на фо-
тографии, был проделан[2] в Граце, Австрия, в феврале 1984-го года. Для абсолютной
скорости Земли я получил в Граце величину v = 360 км/сек, а для экваториальных коорди-
нат ее апекса /точки на небесной сфере куда направлена скорость/ я получил: склонение
$\delta = -24°$, прямое восхождение $\alpha = 12.5^h$.

На рисунке показан другой эксперимент для измерения абсолютной скорости Земли,
проделанный мною[3] в 1975/76 гг. в Софии, который представляет в известной мере вари-
ант классического эксперимента Майкельсона-Морли. Свет от источника S расчепляется
полупрозрачным зеркалом M_3 на два пучка. Первый пучок идет к зеркалу M_1, а второй,
отражаясь от зеркала M_4, идет к зеркалу M_2. По возвращении оба пучка интерферируют
на M_3 и результат интерференции регистрируется "наблюдателем" P. Оба зеркала M_1 и
M_2 насажены на вращающийся вал и расстояния $M_3M_1 = M_4M_2$ будем считать малыми по срав-
нению с расстоянием $L = M_3M_4$. Если определенный фотон отражается от M_1, когда M_2 на-
ходится в положении обозначенном пунктиром, то, вследствие конечности скорости рас-
пространения, фотон сопряженный с ним /т.е. покинувший полупрозрачное зеркало M_3 в

тот же самый момент времени/ отразится от M_2 в положении отстоящем на расстояние
$s = \Omega r L/(c + v)$, где Ω угловая скорость вращения вала и r отстояние зеркала M_2 от оси
вала /так что Ωr линейная скорость вращения зеркала/, а c скорость света "туда и
обратно" и v проекция скорости Земли на направление $M_3 M_4$ /так что $L/(c + v)$ время,
за которое свет покроет расстояние $M_3 M_4$/. Очевидно расстояние s изменяется в зависи-
мости от изменения проекции скорости Земли на оси $M_3 M_4$, и наблюдатель P отметит со-
ответственные изменения в интерференционной картине, так как при v положительном
сопряженный фотон вернется к M_3 раньше, а при v отрицательном позже, чем при v рав-
ным нулю. Изменения расстояния очень малые, но так как длины световых волн тоже
очень малые, то чувствительность аппарата очень велика и эти минимальные вариации
во временах возвращения "сопряженного фотона" можно установить с очень большой точ-
ностью.

Так что фундаментальную аксиому специальной теории относительности можно считать
экспериментально опровергнутой.

Фундаментальную аксиому общей теории относительности я опроверг экспериментально
той же установкой.   Я просто заметил, что когда моя установка находилась в лабора-
тории с кинематическим ускорением, то абсолютная скорость лаборатории с течением вре-
мени изменялась, тогда как в случае ее нахождения в лаборатории с гравитационным
ускорением никакого изменения в скорости с течением времени нельзя было обнаружить.

Эти   эксперименты имеют, на первый взгляд, только "академическое значение",
но скоро я увидел, что абсолютность пространства-времени приводит к коренным измене-
ниям в теории электро-магнетизма.

В 1983-ьем году я получил письмо от кубинского физика Франциско Мюллер, который
мне писал: "Дорогой д-р Маринов, мне попала в руки Ваша книга[4] "Классическая физика"
и листая ее мне стало ясно, что Вы, наверное, единственный человек в мире, который
мог бы меня понять. Дело в том, что в течении десяти лет я делаю эксперименты по
электромагнитной индукции и вижу, что наблюдаемые мною эффекты противоречат тому,
что написано в книжках. Я послал пару статей в научные журналы, но как и ожидал, все
статьи были отвергнуты. Вот мои эксперименты. Что Вы о них скажете?" Я ему ответил,
мы разменяли пару писем, а потом Франциско послал телеграмму: "Я женился! Хотим с
женой поехать на свадебное путешествие. Вот и прилетим к Вам через океан, чтобы по-
беседовать пообстоятельнее." Прилетел Франциско с кубинкой Терезой, побеседовали.
И мне стало ясно, что не только Эйнштейн шибко ошибался, но и воззрения Фарадея-
Максвелла о "силовых линиях", "замкнутых токах", "распространении взаимодействия"
и т.д. нужно ревизировать.

Фр. Мюллер ознакомил меня с экспериментом Кеннарда[5]. Сегодня этот эксперимент
физиками полностью забыт. В конце октября я посетил академика Сахарова на улице
Чкалова. Рассказал ему об эксперименте Кеннарда, а Андрей Дмитрич головой качает:
"О таком эксперименте я что-то не слыхивал."

Вот упрощенная схема эксперимента Кеннарда: По контуру, состоящему из двух кон-

чг. 4

центрических окружностей течет постоянный ток. По радиусу между кругами находится металлическая проволока. Оба конца проволоки соединены с обкладками цилиндрического конденсатора. Кеннард установил, что когда проволока /вместе с конденсатором/ вращается между концентрическими кругами, конденсатор заряжается, когда контур вращается, конденсатор не заряжается, а когда контур вращается вместе с проволокой, конденсатор заряжается как и в первом случае. Кеннард /с полным правом!/ считал, что это есть прямое доказательство нарушения принципа относительности, так как физический эффект заряжения конденсатора зависит не от относительной скорости проволоки и контура, а от их абсолютных скоростей. Однако когда теория Эйнштейна со своими вычурными догмами завоевала мировое признание, люди предпочли забыть эксперимент, ибо он "неудобен" и начали догмы на все лады распевать. Следует отметить, что сам Эйнштейн ни словом об эксперименте Кеннарда не обмолвился.

Эксперимент Кеннарда является как бы аналогом известного эксперимента Саньяка. В 1913-ом году Саньяк в Париже показал, что скорость света на вращающемся диске меньше в направление вращения и больше против вращения. Релятивисты никогда не могли увязать анизотропность скорости света во вращающейся лаборатории с прокламируемой ими изотропии в инерциальной лаборатории и сотни схоластических статей посвящены этому "увязанию", хотя и ребенку ясно, что любое движение с постоянной скоростью всегда можно рассматривать как вращение вокруг довольно отдаленного центра.

А вот на этом рисунке показан "инерциальный" вариант эксперимента Кеннарда, который был предложен мною[2] /следует отметить, что все выше описанные мои эксперименты по измерению абсолютной скорости лаборатории представляют инерциальные варианты эксперимента Саньяка/: Если двигать проволоку, происходит разделение зарядов, если двигать контур /который должен быть достаточно длинным, чтобы быть вправе пренебречь магнитным действием вертикальных токов/, разделения зарядов не происходит. Однако если двигать контур и проволоку вместе происходит разделение зарядов как и в первом случае. Спрашивается: двигать контур с проволокой <u>по отношению к чему</u>? Ответ ясен: по отношению к абсолютному пространству, т.е. по отношению к той координатной системе, в которой центр мира в покое, или еще проще, в которой скорость света изотропна.

Простой подсчет показывает, что если расстояние между вертикальной и горизонтальной проволоками $b = 15$ см, длина проволоки $b - b_0 = 14.8$ см, и ток в контуре 100 ампер, то так как абсолютная скорость Земли порядка 300 клм/сек, напряжение между концами проволоки будет 60 вольт. Я этого эксперимента не ставил, но провести его не трудно, особенно если проволоку вращать вокруг оси проходящей через ее центр и лежащей в плоскости чертежа. Тогда индуцируемое напряжение будет переменным и при помощи современной электроники скорость Земли можно будет измерить с очень большой точностью.

Читатель возможно скажет нетерпеливо: "Да эксперимент пожалуй интересен, но тоже слишком академичен". Как бы не так! Меняя направление тока в контуре, Кеннард /который работал с катушкой/заметил, что напряжение на конденсаторе меняет знак. Значит он своим экспериментом мог генерировать переменное напряжение. Но заметьте: Когда

система в покое, генерации переменного напряжения не происходит. Генерация происходит только когда система вращается. Значит эта машина представляет не трансформатор, а генератор. Но Кеннард дальше не пошел. Как говорится в восточной сказке: Нашел по дороге диамант, посмотрел, что хорошо блещет, и снова бросил в грязь.

Эффект замечанный Кеннардам был очень слаб, ибо магнитное поле его катушки замыкалось через все пространство и обкладки конденсатора были слишком отдалены. Чтобы лучше разобраться, что происходит, Фр. Моллер "замкнул" магнитное поле цилиндрического магнита железом. Моллер замкнул также контур проволоки, введя трущиеся контакты, и развил простую но тонкую методику, чтобы установить при каких движениях в какой части проволочного контура индуцируется напряжение. Результаты Моллеровских наблюдений представляют истинный клад и я его ставлю /уверен, что и человечество это сделает/ в один ряд с такими гигантами электромагнитного эксперимента как Фарадей и Ампер. Но как я сказал, редакторы-релятивисты физических журналов отвергли статьи Моллера как ересь и его научную продукцию можно найти только в моей книге "Терновый путь истины"[2].

Первое что я сделал, исходя из Моллеровских экспериментов, было построить мотор и генератор постоянного тока без трущихся контактов. Этот мотор-генератор, который я

назвал "Бул-Куб" в честь моей и его родин, виден на фотографии. На этой модели видны трущиеся контакты, ибо мне было технически удобнее так сделать. Но через щетки ток не течет, щетки делают только короткое замыкание определенных намоток и их можно заменить неконтактным устройством /используя магнитные котвы, фотосопротивления, магнитосопротивления и т.д./. В 1983-ьем году я представил машину "Бул-Куб" на соискание австрийского патента. По сей день патент все еще не выдан, ибо экзаменаторы утверждают, что согласно теории электро-магнетизма, которую преподают на австрийских университетах, этот мотор не может вращаться. Мое предложение принести мотор в патентное бюро и продемонстрировать его работу было отвергнуто.

В машине "Бул-Куб" токи постоянные и контура замкнутые. Важнейшим шагом, сделанный мною, было заменить замкнутые контура на незамкнутые и работать переменным током, т.е. вернуться к Кеннарду, но работать со замкнутым железом магнитом.

Тут нужно сказать два слова о формуле Био-Савара-Грассмана. Эта формула, предложенная в 1845-ом году Грассманом и сводящаяся к формуле Био и Савара 1820-го года, показывает, что силы, с которыми взаимодействуют два токовых элемента /токовый элемент это коротенькая проволока, по которой течет определенный ток/, не равны между собою и не направлены обратно одна к другой, как этого требует третий закон Ньютона о равенстве действия и противодействия. Нарушение третьего закона Ньютона при магнитных взаимодействиях является чудом, но так как, оказывается, силы, с которыми взаимодействуют два замкнутых токовых контура, равны и обратно направлены, люди успокоились и забыли о "неудобстве" формулы Био-Савара /имя Грассмана обыкновенно опускают, а в современных учебниках опускают и саму формулу/. Чудо, описываемое этой формулой, можно выявить работая только с незамкнутыми токовыми контурами. Это чудо впервые показала

7 машина "Бул-Куб" бесстаторный,   сконструированная мною в этом году. Ниже дана
8 ее схема и две ее фотографии.

9   Эта машина /мотор и генератор/ имеет только ротор, вращающийся на двух тонких осях, взятых из старого будильника, но статора не имеет. Чтобы вращать ее как мотор, нужно убрать два трущихся контакта и пропускать переменный ток от электрода M к электроду L. Этот ток, поступая через верхнюю ось, проходит через катушку, магнетизирует железный сердечник замкнутого магнита, достигает нижний диск из латуни, проходит через диэлектрик конденсатора /титанат бария/ на верхний диск из латуни и пробираясь по радиусу цилиндрического магнита, выходит через нижнюю ось. Так как вращательный момент пропорционален произведению токов в электромагните и в контуре, то при переменном токе вращение однонаправленное. Если   обкладки конденсатора были бы соединены проволокой, то на этой проволоке действовал бы равный и обратно направленный вращательный момент и в этом случае вращение невозможно /припомним себе, что силы между замкнутыми контурами равны и обратно направлены/. Но в бесстаторном "Бул-Кубе" через пространство между обкладками конденсатора проходит только так называемый ток смещения Максвелла. Так как ток этот чисто фиктивен и не имеет никакого материального носителя, он не может "принять" на себя пондеромоторные силы, т.е. действие магнитного поля на такой ток к движению весомой материи привести не может. Физики и по сей день верят, что ток смещения Максвелла физически существует, однако бесстаторный "Бул-Куб" показывает, что это не так.

     Я   также   наблюдал   генерацию переменного тока при вращении ротора, когда поставлены трущиеся контакты и переменный ток, питающий катушку, проходит от электрода M к электроду K, а генерируемое напряжение снимается с электродов K и L.

       Этот эксперимент достаточен, чтобы воскликнуть: "Чудо произошло!" Я когда был у Сахарова, сказал ему: "Увидеть тело, вращаемое внутренними силами,   это для физика большее чудо, чем для христианина увидеть Святую Богоматерь. Ведь это нарушение закона сохранения углового момента." А. Д. только улыбнулся.

10   А тут я показываю схему и две фотографии самой диковинной машины мной сконструиро-
11 ванной. Это машина "Мамин Коло". По-русски   переводится как "Маменькин Николаша",
12 но на самом деле название нужно расшифровать так: MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit - MAMIN COLIU. При вращении ротора эта машина индуцирует переменный ток, но при питании ее   током на ротор никакой вращательный момент не действует, т.е. в этой машине нарушается правило Ленца, так что с ее помощью можно построить вечный двигатель, если индуцируемое напряжение подать на движущийся мотор /на одной из фотографий эта подача показана/.

       Нижняя система магнитов /которая "закупорена" в сердечнике/ служит для генерации переменного напряжения, а верхняя система служит для сбалансирования сил, действующих между постоянными магнитами. Таким образом ротор чрезвычайно легко движется /я кручу его моторчиком в шесть вольт/, а генерируемый ток никакого торможения на ротор не оказывает. Объяснение этого эффекта очень просто: Ротор имеет две пары коротких магнитов с противоположной полярностью, а в зазоре сердечника поставлены длинные

магниты с одинаковой полярностью. Когда роторные магниты с той же полярностью становятся в ряд со стационарными магнитами, магнитный поток в сердечнике максимален, а когда роторные магниты с обратной полярностью становятся в ряд со стационарными магнитами, магнитный поток в сердечнике минимален. Изменение магнитного потока индуцирует переменный ток в катушку сердечника. Этот индуцируемый ток создает свое магнитное поле, которое однако имеет цилиндрическую симметрию в зазоре /примем, что у постоянных магнитов относительная магнитная проницаемость единица/ и никакого вращательного момента на магниты ротора сообщить не может. Хочу отметить, что на самом деле все нужно объяснять оперируя магнитным потенциалом, а не магнитным интенситетом и потоком. Индукция в этой машине является двигательно-трансформаторной. Этот вид индукции открыт мною[2]. Человечество оперирует только двумя видами индукции, двигательной и трансформаторной, а эту третью индукцию пока-что не заметило, ибо для релятивистов движение проволоки по отношению к магниту и движение магнита по отношению к проволоке должны приводить к одной и той же величине индуцируемого напряжения, тогда как Кеннард, Мёллер и я показали, что это совсем не так. Мною доказана теорема[2], что если относительная скорость между проволокой и магнитом одна и та же, то двигательная и двигательно-трансформаторная индукции приводят к одному и тому же напряжению вокруг замкнутого контура. По этой причине человечество разности между ними не заметило, принимая далее во внимание, что эксперименты с незамкнутыми контурами требуют известных усилий.

Покамест величина индуцируемого напряжения в моей машине "Мамин Колю" недостаточна, чтобы двигать электромотор, но осуществление 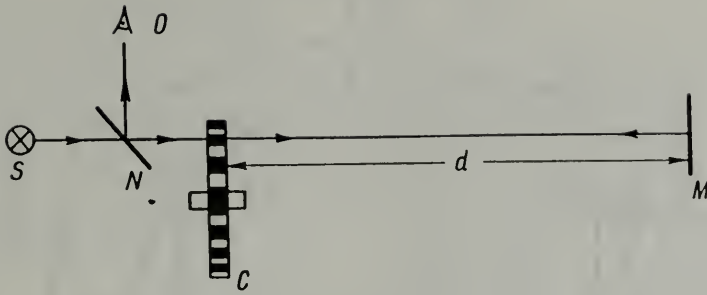замкнутого цикла только вопрос денег. Отмечу, что я уже шесть лет финансирую всю мою теоретическую, экспериментальную и публицистическую деятельность работая конюхом в конюшне для скакунов близи Граца /притом я работаю нелегально, т.е. "на лево", ибо австрийское правительство уже шесть лет не дает мне права на работу и два раза бросало в тюрьму за бродяжничество/.

Более подробную информацию о моей машине "Мамин Колю" кроме в книге "Терновый путь истины"[2] можно найти и в моих посланиях нобелевскому комитету по физике[6] и мировой научной совести[7]. Пока что нобелевский комитет и мировая научная совесть не расшевелились. Но расшевелятся!
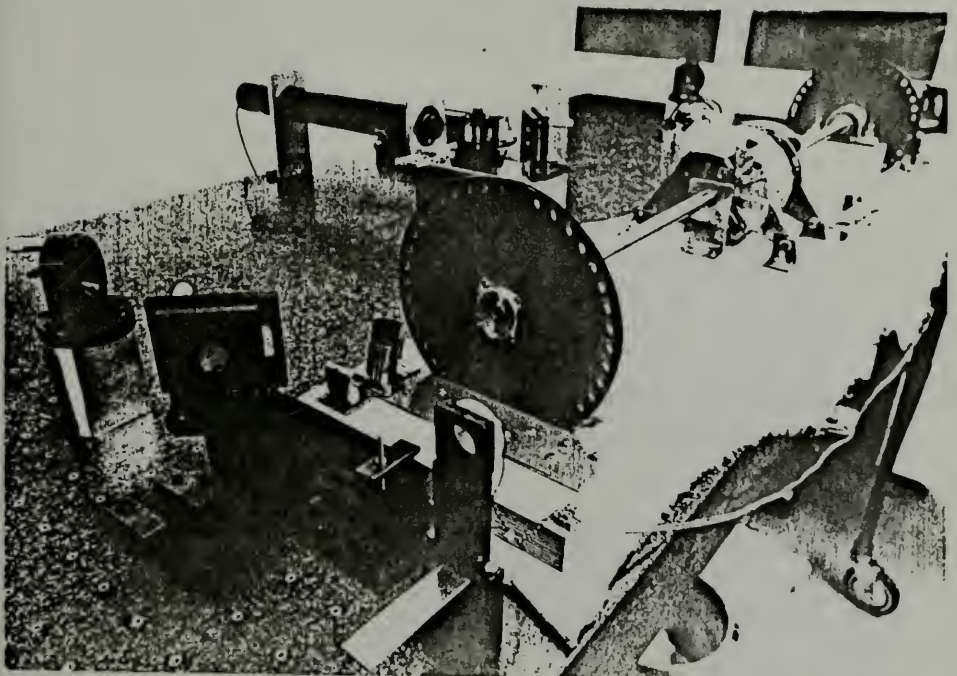
Я надеюсь, что некоторые из читателей этого журнала в Советском союзе заинтересуются моими экспериментами, повторят их и увидят, что чудо легко можно соорудить своими собственными руками.
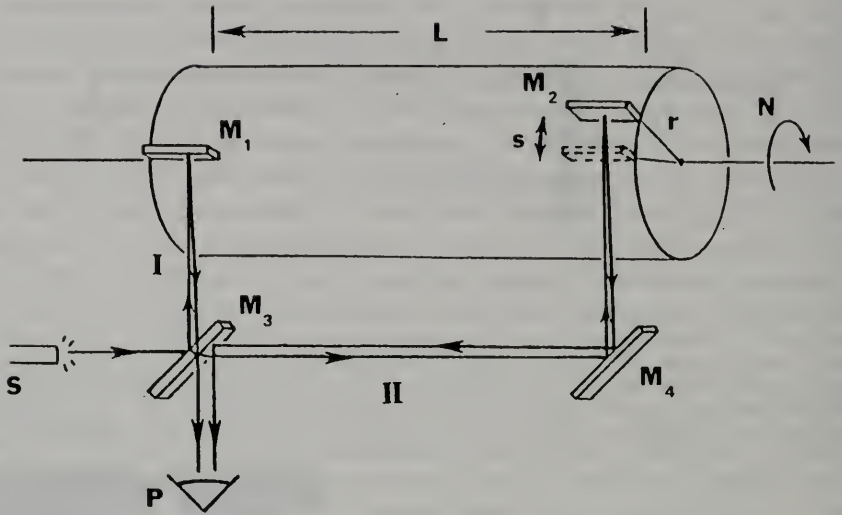
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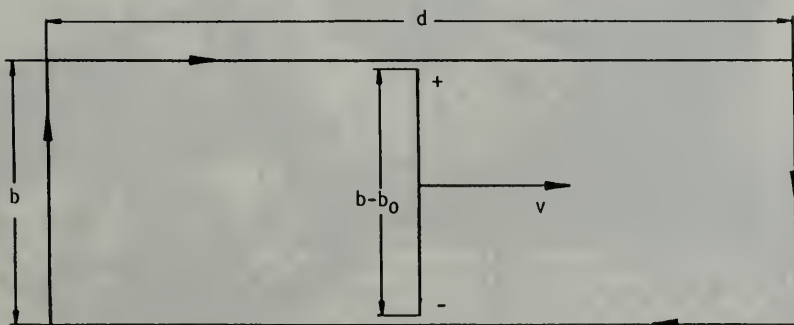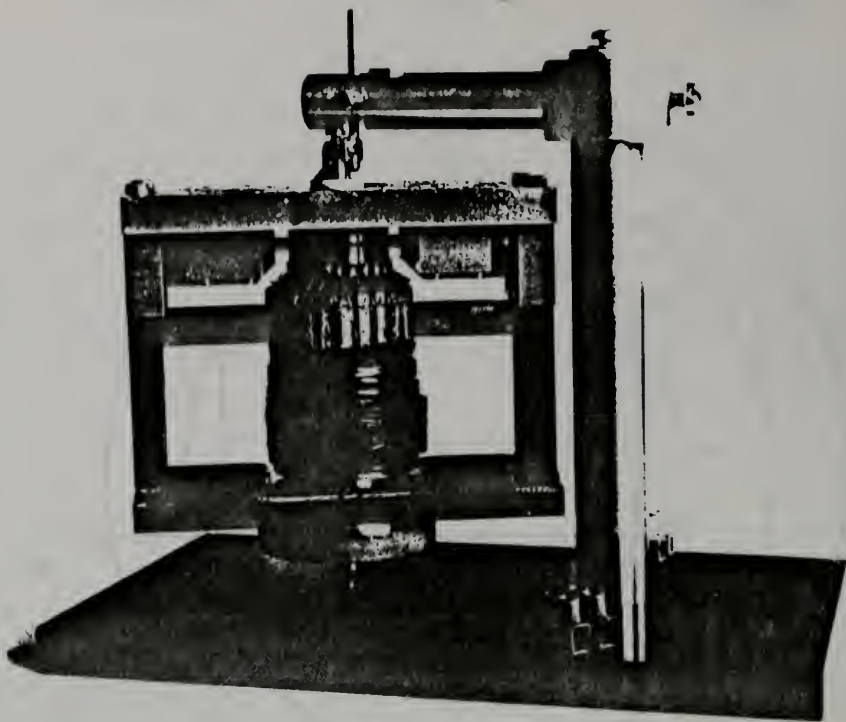7. Marinov S. Marinov to the world's scientific conscience. New Scientist, 112, 48 (1986).

Фиг. 1

Фиг. 2

Фиг. 3
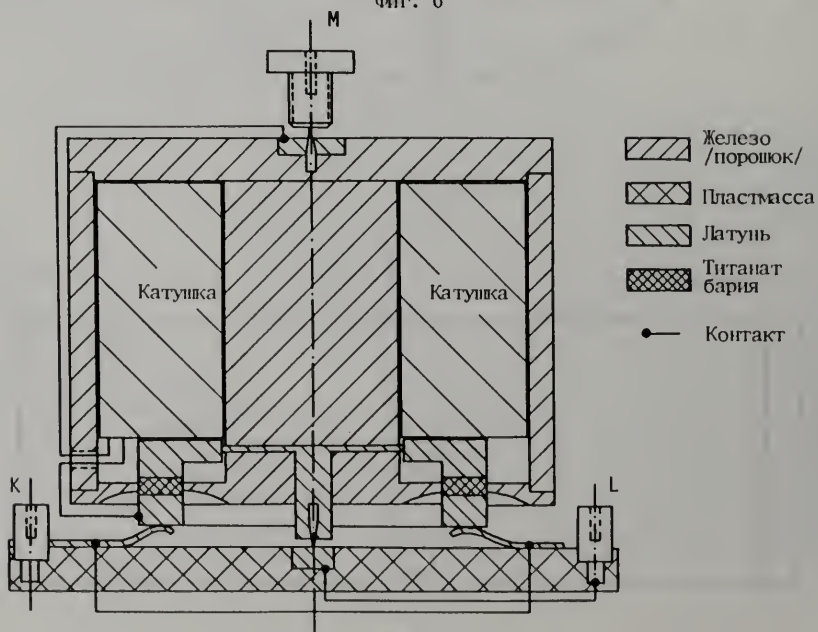
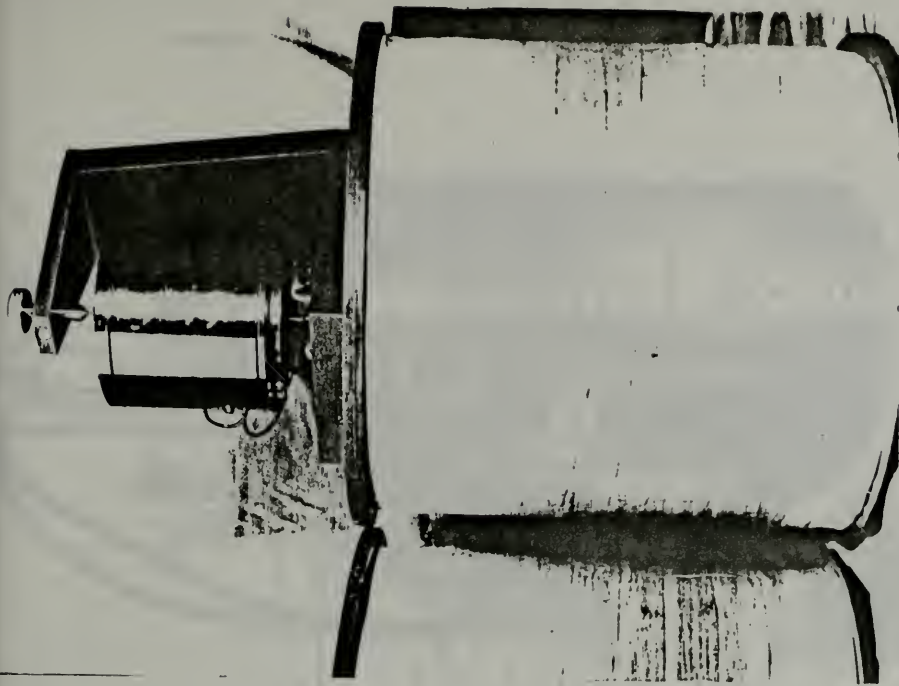Фиг. 4

Фиг. 5

Фиг. 6

▨	Железо /порошюк/
⊠	Пластмасса
▧	Латунь
▨	Титанат бария
•—	Контакт

Фиг. 7

фиг. 8

фиг. 9

Длинные /стационарные/
магниты

Короткие /вращающиеся/
магниты

Выход катушки

Катушка   Катушка
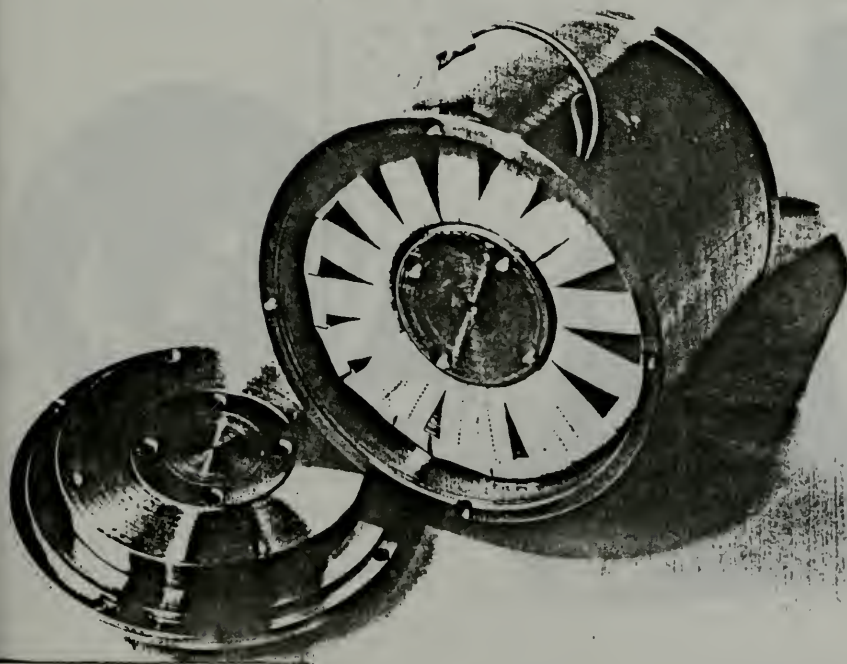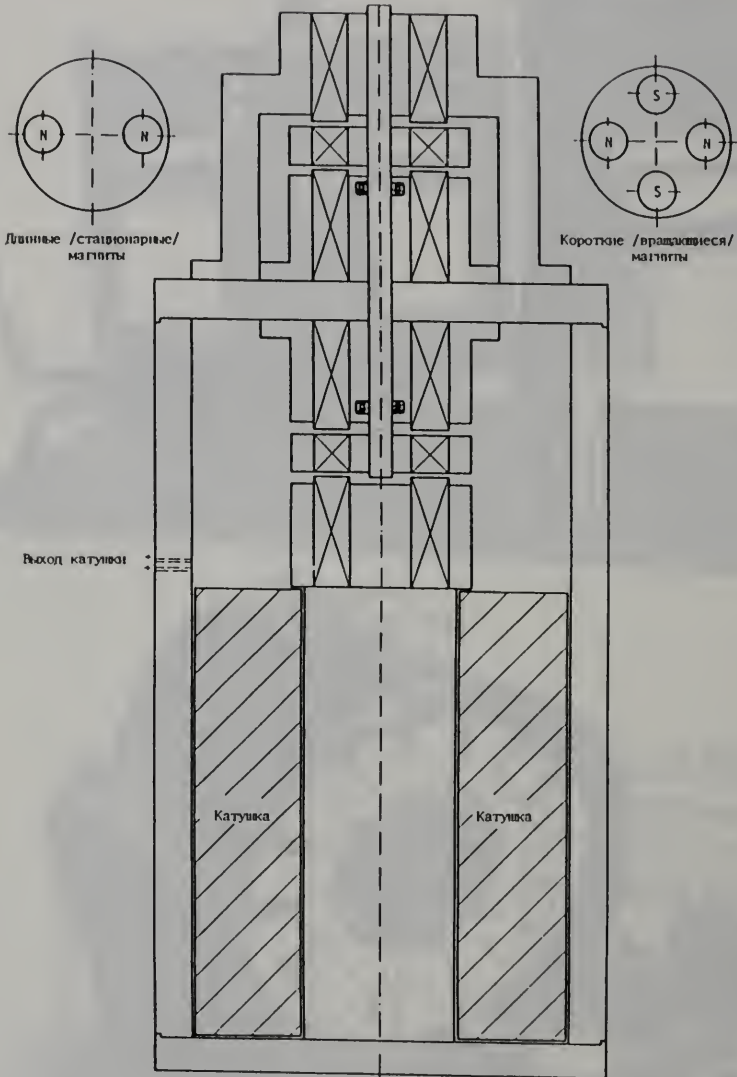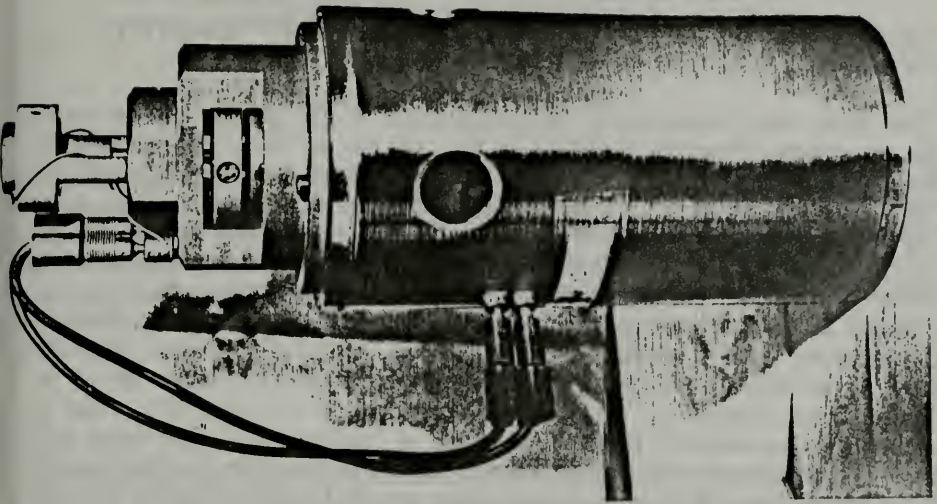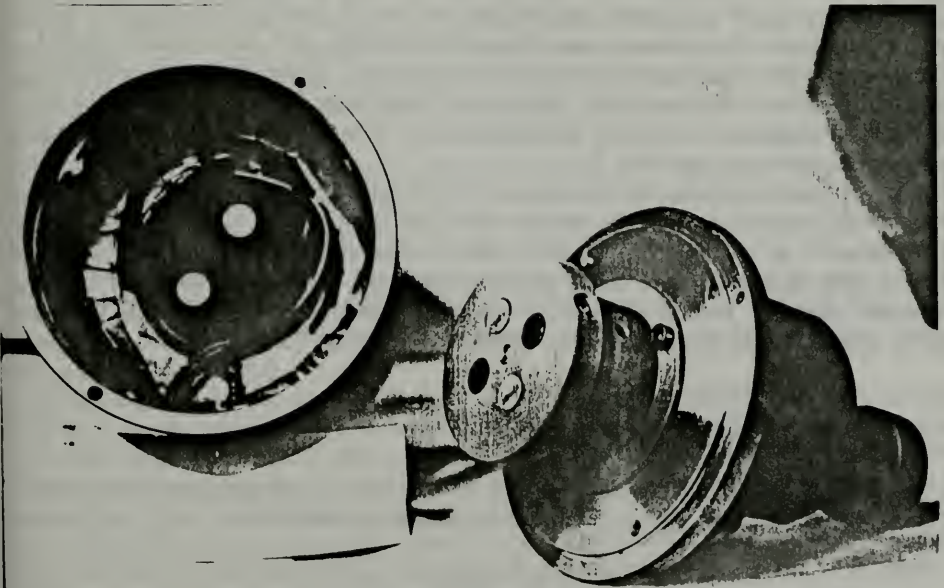
Фиг. 10

Фиг. 11

Фиг. 12

Letter to the Editor

EXPERIMENTAL VIOLATIONS OF THE PRINCIPLES OF RELATIVITY, EQUIVALENCE AND ENERGY CONSERVATION

Sir—This letter was stimulated by the publication of the special issue of your journal on Systems Thinking in Physics (Vol. 11, No. 4, 1985, pp. 279–345). I succeeded to measure the Earth's absolute velocity with three different set-ups[1-3] (the last, so-called "coupled shutters" experiment, gave for the Earth's absolute velocity the magnitude $V = 360 \pm 40$ km/sec and for the equatorial coordinates of the apex $\delta = -24° \pm 7°$, $\alpha = 12.5^h \pm 1^h$) and with my accelerated "coupled mirrors" experiment I showed[4] that a local distinction between a kinematical and a gravitational acceleration can be very easily established (when my apparatus is put in a laboratory with a kinematical acceleration it shows different absolute velocities at the different moments, but when the acceleration of the laboratory is gravitational, no changes in the absolute velocity can be observed). Thus I demonstrated experimentally that the principles of relativity and equivalence are not true. My experiments are neither repeated nor commented by the "orthodox" scientists, although in the domain of space-time physics I published more than 40 papers, the monumental 5-volume work "Classical Physics",[5] and the books "Eppur si muove",[6] "The Thorny Way of Truth", Part I[7] and Part II.[8] I took part at the most important space-time conferences in the last decade, including the last three International Conferences on General Relativity and Gravitation and I organized in 1982 the International Conference on Space-Time Absoluteness, publishing together with Prof. J. P. Wesley its Proceedings.[9] I did all what is to be done. If the "orthodox" scientific community still does not "see" my theory and experiments, this is not my fault.

This letter will be dedicated to one of my electromagnetic experiments which showed a violation in the energy conservation law (giving first a short theoretical introduction). Let us have a magnet whose magnetic potential at a certain reference point is $\vec{A}$ and a wire element which moves at this point with a velocity $\vec{v}$ or remains there at rest. I showed[8] that conventional electromagnetism knows only the *motional induction*, i.e., the motional electric intensity

$$\vec{E}_{mot} = \frac{\vec{v}}{c} \times \text{rot } \vec{A} \qquad (1)$$

which appears when a wire moves with respect to a magnet, and the *pure transformer induction*, i.e., the pure transformer electric intensity

$$\vec{E}_{tr} = -\frac{1}{c} \frac{\partial \vec{A}}{\partial t}, \qquad (2)$$

which appears when an electromagnet and a wire are at rest and only the current feeding the electromagnet changes. Conventional electromagnetism does *not* know

the *motional-transformer induction*, i.e., the motional-transformer electric intensity

$$\vec{E}_{\text{mot-tr}} = -\frac{1}{c}\sum_{i=1}^{n}\frac{\partial\vec{A}_i\{\vec{r}_i(t)\}}{\partial t}$$

$$= -\frac{1}{c}\sum_{i=1}^{n}\left(\frac{\partial A_i}{\partial r_i}\frac{\partial r_i}{\partial x_i}\frac{\partial x_i}{\partial t} + \frac{\partial A_i}{\partial r_i}\frac{\partial r_i}{\partial y_i}\frac{\partial y_i}{\partial t} + \frac{\partial A_i}{\partial r_i}\frac{\partial r_i}{\partial z_i}\frac{\partial z_i}{\partial t}\right)$$

$$= \frac{1}{c}\sum_{i=1}^{n}(\vec{v}_i.\text{grad})\vec{A}_i, \tag{3}$$

where $\vec{v}_i = -\partial\vec{r}_i/\partial t$ is the velocity of the magnetically stationary ith charge of the system and $\vec{A}_i$ is the magnetic potential originated by this charge at the reference point where our test charge rests. The motional-transformer induction appears when a magnet (electromagnet or permanent magnet) moves with respect to a wire. Only when the motion of the magnet is translational with the common velocity $\vec{v}$, the last formula reduces to

$$\vec{E}_{\text{mot-tr}} = \frac{1}{c}(\vec{v}.\text{grad})\vec{A}. \tag{4}$$

For conventional physics an absolute space does not exist, and if there are two objects A and B, then the cases "A moves with respect to B" and "B moves with respect to A" must lead to absolutely identical physical phenomena. For this reason when calculating the effects of the motional-transformer induction conventional physics uses the formula for the motional induction. This, however, is a *tremendous error*. The motional-transformer induction is *not* reciprocal to the motional induction. *Even for translation* they are two different physical phenomena described by two *different* mathematical formulas, namely the formulas (1) and (4). One of the historical reasons for discarding the motional-transformer induction was the complexity of formula (3), where one must take into account the velocity of any current element of the magnetic system, while formula (1) is very simple, as here one must take into account only the velocity of the test charge. Then came the relativity theory with the whole of its nonsense, nipping in the bud any attempt of making difference between formulas (1) and (4), although even a child who has learned what is rotation and what is vector-gradient will say that these two formulas are different. I have met no text-book on electromagnetism where one can see formula (3).

Following the pioneering research of F. Müller[10] who during 10 years carried out very clever experiments revealing the "seats" of the induced electric intensities, I carried out experiments repeating and developing Müller's results and similar experiments revealing the "seats" of the electromagnetic ponderomotive forces. I established that when electric current is induced, then the electromotive and ponderomotive forces have the same seats only in the case of the motional induction, but in the case of the motional-transformer induction the seats can be different (the pure transformer induction leads only to electromotive forces).

Figure 1 represents the diagram and Figure 2 the photograph of the demonstrational Faraday–Barlow machine (as it is called by me). The machine has three parts which can rotate independently of one another: (1) the magnet,
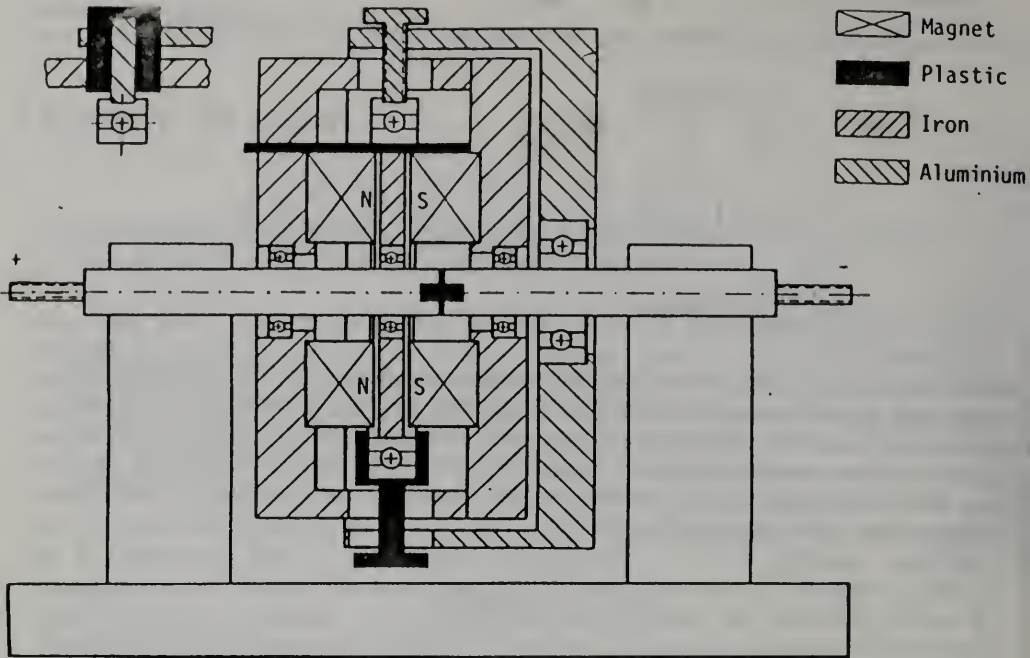
FIGURE 1 A diagram of the demonstrational Faraday–Barlow machine.

Magnet
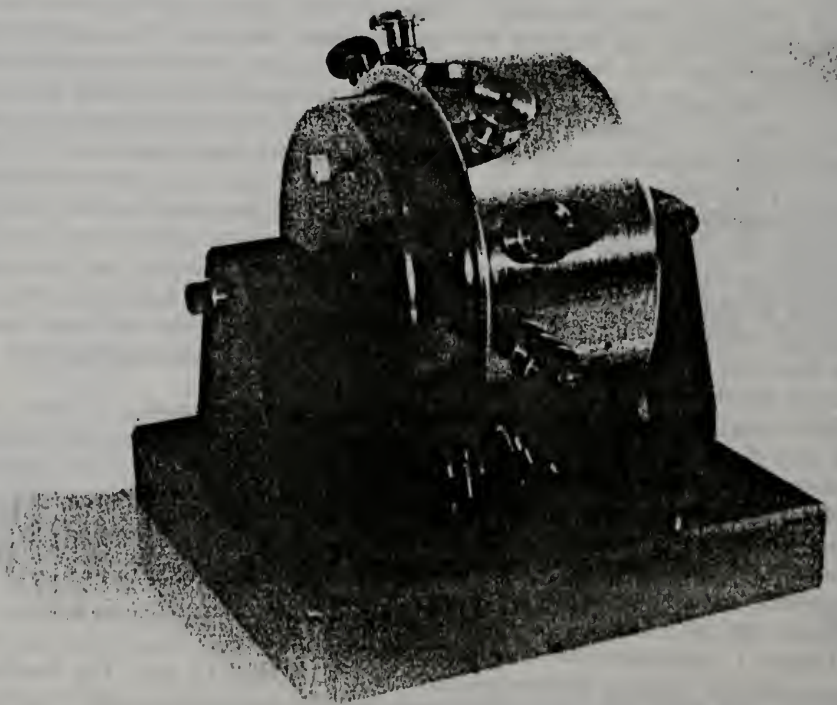Plastic
Iron
Aluminium

Figure 2 A photograph of the demonstrational Faraday–Barlow machine.

consisting of two ring magnets and a yoke of soft iron; (2) the Faraday–Barlow disk of soft iron; and (3) the six bar conductors of aluminium crossing the yoke through holes large enough, so that a limited motion of the bars with respect to the yoke (and vice versa) can be realized. The magnet rotates on the first and third small ball-bearings, the disk rotates on the second small ball-bearing, and the bar conductors rotate on the middle and on the big ball-bearings (the inner race of the big ball-bearing is solid to the disk). The current (when the machine is used as a motor) goes from the positive electrode of the battery through the second small ball-bearing, crosses the disk, the big ball-bearing, the bar conductors, and through the middle ball-bearing reaches the negative electrode. The bars can be made solid to the magnet by the help of a plastic "cap" shown on the left of the figure. The magnet can be made solid to the disk by the plastic "spoke" shown in the upper part of the drawing. The bars can be made solid to the disk by the help of the plastic "cap" shown in the lower part of the drawing which blocks the rotation of the big ball-bearing. The disk can be made solid to the lab by the help of a "spoke" (not shown in the drawing) which blocks the rotation of the second small ball-bearing. The magnet and the bars can be made solid to the lab by hand. The effects observed by me are presented in Table I.

Table I

	Rotation or possibility for rotation of:			Generator Effects			Motor effects	
	Magnet	Disk	Bars	Measured tension	Kind of induction	Seat of induction	Torque at	Reaction at
1.	0	0	0	0			0	
2.	0	0	Ω	0			0	
3.	0	Ω	0	+	motional	disk	disk	magnet
4.	0	Ω	Ω	+	motional	disk	disk	magnet
5.	Ω	0	0	+	mot.-tr.	bars	magnet	disk
6.	Ω	0	Ω	+	mot.-tr.	bars	magnet	disk
7.	Ω	Ω	0	0	mot.-tr mot. (opp.)	bars disk	0	
8	Ω	Ω	Ω	0	mot.-tr. mot. (opp.)	bars disk	0	

The sign "0" signifies that there is no rotation and there is no tension. The sign "Ω" signifies that there is rotation and the sign " + " signifies that there is tension.

Take into account that in Case 6 a continuous rotation can be realized. Thus in Case 6 the generator produces continuously direct current and the tension is induced in the bar conductors which the whole time remain in space domains where the magnetic intensity is *zero*. Thus the current is produced only because of the availability of magnetic potential in the location domain of the bar conductors. But note there is *no* relative motion between the magnet and the bar conductors! Conventional physics has to eat much bread until it will understand why in such a case the seat of the motional-transformer electric intensity is in the bar conductors. Meanwhile conventional physics defends the tremendous *lie* that the magnetic potential can not be physically observed!

My discovery that the seat of the motional-transformer induction may be at such points of the wire which lie *outside* the magnetic intensity field produced by the moving magnet leads to the conclusion that induced electrical energy can be obtained without spending some mechanical energy. Indeed, at the motional induction the magnetic intensity field of the current induced in the moving wire interacts with the stationary magnet and always the motion of the wire is braked (see Cases 3 and 4 in the table). This is also the case at the motional-transformer induction when the seat of the induction is in parts of the wire which lie in the magnetic intensity field of the moving magnet, i.e., as I say, which are "under the poles" (such a case cannot be realized in the apparatus from Figure 1, as the disk lies in a magnetic intensity field with rotational symmetry and a motional-transformer electric intensity cannot be induced in the disk). But motional-transformer induction can appear also at points of the "wire" which are outside the magnetic intensity field of the moving magnet, i.e., which are "outside the poles". In such a case a magnetic interaction, and consequently a braking, is impossible. It turns out, however, that for closed loops always certain parts are "under the poles" and always a braking does appear. This is demonstrated clearly by Cases 5 and 6 in the table, where the motional-transformer tension is induced in the bars but the braking appears because of the interaction of the current in the disk with the magnet.

I constructed an apparatus where a motional-transformer electric tension is induced in a *closed* wire which lies *thoroughly* outside the magnetic intensity field of the moving magnet. The digram of the machine is shown in Figure 3 and the photograph in Figure 4. In the "gap" of a torus of soft iron with permeability μ (my torus was made of transformer iron sheets) there are two similar disks consisting of an equal number of sectors of axially magnetized magnets. In the space between the sectorial magnets there are sectors of non-magnetizable material (I have used bronze). The one disk is solid to the torus and the other one can be rotated by an electromotor (in Figure 4 the electromotor drives the rotating disk by friction and not as it is shown in Figure 3). When the sectorial magnets of the rotating disk overlap the sectorial magnets of the solid disk, the magnetic flux in the torus has a certain value $\Phi = B(S/2)$, where B is the magnetic intensity originated in those "sectors" of the torus which "overlap" the overlapping sectorial magnets, S is the cross-section of the torus, and I assume that the magnetic intensity in those "sectors" of the torus which overlap the overlapping bronze sectors is zero. When the sectorial magnets of the rotating disk overlap the bronze sectors of the solid disk (and consequently the bronze sectors of the rotating disk overlap the magnet sectors of the solid disk), the magnetic flux in the torus is $\Phi' = B'S$, where $B' = (\mu'/\mu)B$ is now the magnetic intensity in the whole torus and $1/\mu' = 1/\mu + L_d/L_t$, where L_d is the thickness (the height) of any of the two disks and L_t is the middle length (middle circumference) of the torus. If $\mu \gg L_t/L_d$, a case which can be easily realized, we can assume $\mu' \cong L_t/L_d$, thus $B' \cong \{(L_t/L_d)/\mu\}B$, and then accept $B' \cong 0$, and consequently $\Phi' \cong 0$. As

$$\Phi = \int_S \vec{B} \cdot d\vec{s} = \int_S \mathrm{rot}\, \vec{A} \cdot d\vec{s} = \oint_L \vec{A} \cdot d\vec{l}, \tag{5}$$

where L is the circumference of the surface S, we shall have for the magnitude of the *alternating* motional-transformer electric tension induced in a wire consisting
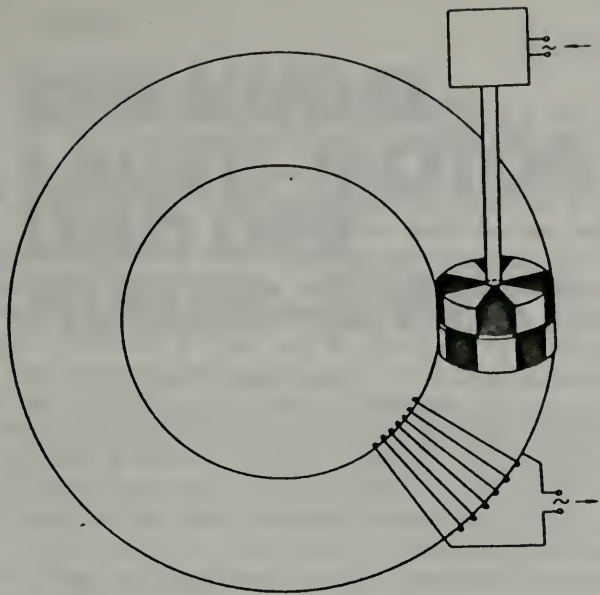
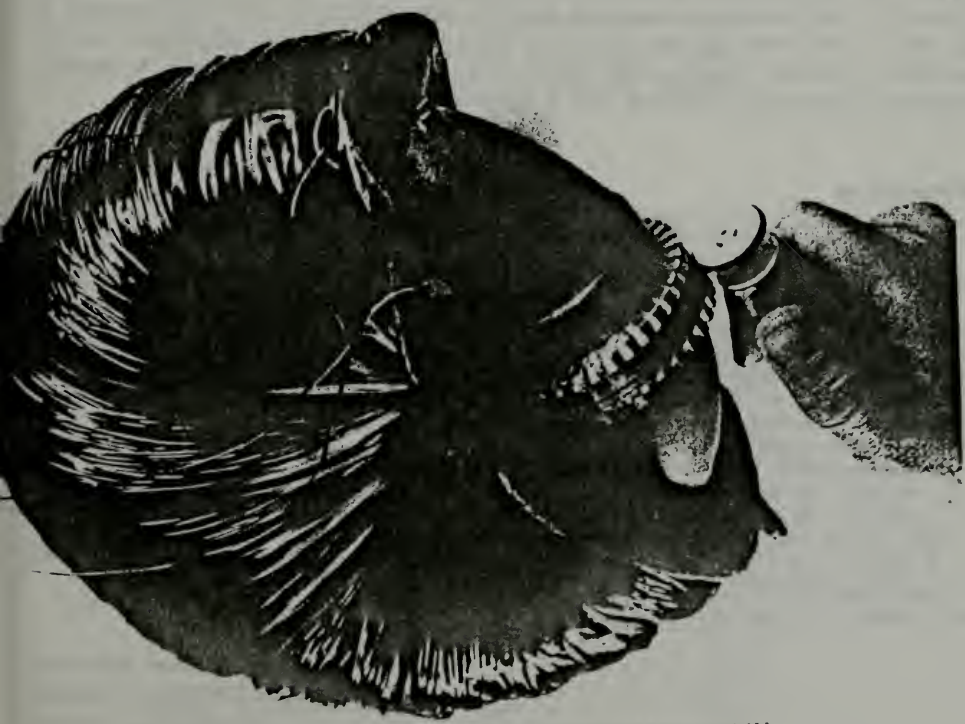Figure 3   A diagram of the perpetuum mobile MAMIN COLIU.

Figure 4   A photograph of the perpetuum mobile MAMIN COLIU.

of n turns wound on the torus

$$U = \frac{n}{c} \frac{\Delta}{\Delta t} \oint \vec{A} \cdot d\vec{l} = \frac{n}{c} \frac{\Delta \Phi}{\Delta t} = \frac{n}{c} \frac{\Phi - \Phi'}{1/pN} \cong \frac{nBSpN}{2c}, \tag{6}$$

where p is the number of the sectorial magnets in one of the disks and N is the number of revolutions per second of the rotating disk.

It is evident that in this generator the motion of the rotating disk cannot be braked by the magnetic field produced by the electric current induced in the solenoid, as this magnetic field has a *rotational symmetry* about the axis of rotation. On the other hand, as the width of the "gap" is practically $2L_d$ (let us assume that the permanent magnets have quasi rectangular hysteresis loop, so that we can set $\mu_{magn} \cong \mu_{bronze} \cong 1$), the magnetic intensity, B_{ind}, originated in the torus by the current induced in the solenoid will be very low. This machine thus can be only a generator but cannot be a motor, because if feeding the coil by an alternating tension, the disk cannot be set in motion. Indeed, at different positions of the rotor I fed the coil by very strong electric pulses but not even slightest motion of the rotor could be observed.

The motional-transformer inductors of this type can be called *non-polar* machines, as no pieces of the coil lie "under the magnetic pole". The non-polar machines can only be generators and since they do not brake the motion of their "rotor", the induced electric energy is *produced from nothing*. Feeding the motor in Figure 4 by the current produced in the coil, one can run the machine eternally, if the motor will overcome the friction of the system. I call this perpetuum mobile MAMIN COLIU, coining the name from the words MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit.

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Forschung

DER KUGEL-LAGER-MOTOR UND DER HUBER-EFFEKT

von Prof. Stefan Marinov, Graz

Schon auf dem DVS-Kongreß in Hannover im Frühjahr 1987 hat Marinov seinen Kugellager-Motor demonstriert. Er behauptet, daß dieser „Motor" den Energie-Erhaltungssatz verletzt, und er ist davon überzeugt, daß sich mit dem richtigen Material und bei genügender Forschungsarbeit daraus ein Perpetuum mobile entwickeln ließe. Ein Motor, der seine Energie selbst erzeugt. Außerdem ist Marinov der Ansicht, daß der in raum & zeit Nr. 28 beschriebene Huber-Effekt mehr thermischen als elektromagnetischen Ursprungs ist. Eine interessante Theorie, die wir hier zur Diskussion stellen.

n Lit. 1 und 2 erzähle ich die lustige Geschichte, wann und wo ich das erste Mal von dem Kugellagermotor gehört habe. Das wäre nämlich 1966 in der Psychiatrie von Sofia, wo ich für meine politische Tätigkeit eingesperrt war. Ein anderer, gegen seinen Willen eingesperrter Mann, erzählte mir, daß er eine Achse auf Kugellagern gedreht hat, wenn er durch die Lager und die Achse elektrischen Strom führte.

Er fragte mich, wie ich diesen Effekt als Physiker erkläre. Ich selbst habe dann die wunderbaren Effekte des Kugellagermotors viel später (in den letzten vier Jahren) beobachtet und untersucht (1, 2). Dabei kam mir stets das alte französische Sprichwort in den Sinn: „Willst du etwas sehr wichtiges und sehr neues erfahren, dann gehe in ein Irrenhaus."

Nach einer sorgfältigen Überprüfung der Literatur habe ich festgestellt, daß der erste Bericht über den Kugel-

lagermotor 1967 publiziert wurde (3), und daß seitdem dieser fantastisch interessanten Maschine nur weitere vier Artikel gewidmet sind (4-7). Jetzt, beim Lesen des Huber-Artikels (8) in der Ausgabe Nr. 28 von raum & zeit, sehe ich, daß derselbe Effekt wirkt, wenn auch nicht in den Kugellagern, sondern in einem auf Eisenbahnschienen gesetzten Radsatz.

Drei russische Autoren (9), die den Effekt weiter untersucht hatten, nannten ihn den Huber Effekt.

Leider hat bis jetzt niemand verstanden, warum der Kugellagermotor sich nach rechts und nach links dreht und warum der Hubersche Radsatz vorwärts und rückwärts rollt, wenn Gleich- oder Wechselstrom fließt.

Ich stellte fest, daß der Effekt nicht elektromagnetisch ist, wie die Autoren der Artikel (4-6) und Huber selbst (8) glauben, auch wenn alle diese Autoren verschiedene elektromagnetische Erklärungen geben. Ich habe

KUGEL-LAGER-MOTOR

mit absoluter Sicherheit festgestellt, daß der Effekt thermisch ist. Der Kugellagermotor und der Hubersche Radsatz sind sozusagen „Dampfmaschinen", weil bei ihnen die thermische Ausdehnung zu mechanischer Bewegung führt. Weil das Erhitzen durch den elektrischen Strom verursacht ist, nannte ich diesen Effekt den „current thermal dilatation effect" (strom-thermischen Ausdehnungseffekt).

Der große und sehr wichtige Unterschied zwischen allen anderen thermischen Maschinen und dem Kugellagermotor ist der folgende:

1. In allen von der Menschheit benützten thermischen Maschinen ist der ausdehnende Stoff ein Gas, in dem Kugellagermotor ist es Stahl.

2. In allen bekannten thermischen Maschinen wirkt die mechanische Bewegung in die Richtung der thermischen Ausdehnung, im Kugellagermotor ist sie senkrecht zur thermischen Ausdehnung.

3. In allen bekannten thermischen Maschinen kühlt sich das Gas ab bei der Ausdehnung, und man kann sagen, daß die Wärmeenergie in mechanische Energie „umgewandelt" wurde, in dem Kugellagermotor dagegen kühlt sich der Stahl nicht ab während der sehr kurzen Zeit der mechanischen Beschleunigung und die mechanische Energie entsteht aus nichts. Der Kugellagermotor verletzt also den Energieerhaltungssatz.

An der Dr. Niepers Konferenz in März in Hannover habe ich einen kleinen Kugellagermotor gezeigt. Dr. G. Spinivasan aus Dubai und sein Sohn (Student in dem Californian Institute of Technology) haben mehrere solche Motoren demonstriert. In seinem Referat hat Spinivasan Junior zwar über die elektromagnetische Erklärung von Grünberg (4) berichtet, in einem langen privaten Gespräch stimmten Vater und Sohn aber zu, daß der Effekt thermisch sein müßte.

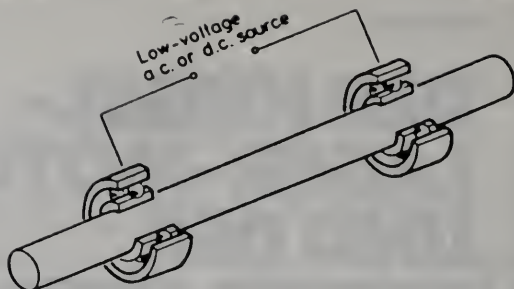Das Schema des Kugellagermotors ist im Bild 1 gezeigt. Ein großer und
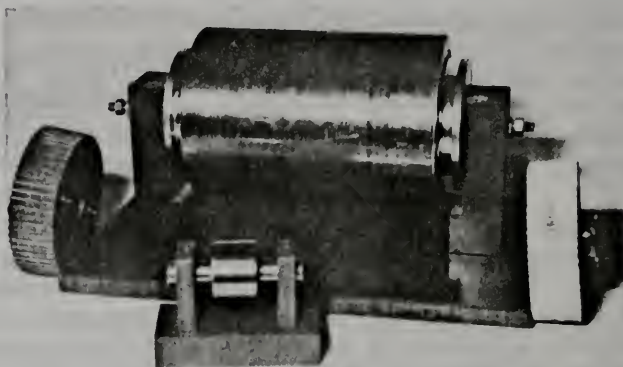
Bild 1

Bild 2

ein kleiner Kugellagermotor sind im Bild 2 vorgestellt (den kleinen brachte ich nach Hannover). Wenn Strom durch die Kugellager und die Achse fließt, dreht sich die Achse. Von selbst startet der Motor selten, nur stochastisch mit einer Wahrscheinlichkeit von 10% bei Motoren mit größeren Lagern. Die Geschwindigkeit erhöht sich mit der Zunahme des Stromes, aber nach dem Erreichen einer gewissen Grenze steigt sie nicht mehr. Wenn der Motor nicht abgekühlt wird, kann mit der Zeit die Geschwindigkeit fallen, und das Drehen kann sogar (bei Motoren mit kleinen Lagern) aufhören.

Die physikalische Erklärung des Effektes, die ich gebe (Bild 3), ist die folgende: Der ohmsche Widerstand an dem Kontakt zwischen den inneren und äußeren Laufringen und der Lagerkugel ist der größte, und der Strom erzeugt dort die größte Menge an Wärme. Die Kugel bekommt eine lokale Ausdehnung und nimmt die Form eines Ellipsoids an. Diese ellipsoidale Form der Kugel verusacht ein Drehmoment, wenn die große Achse des Ellipsoids nicht genau senkrecht
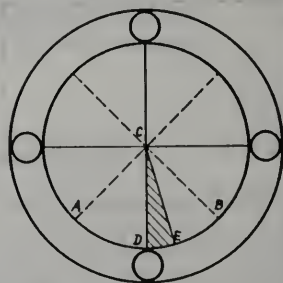
Bild 3

zu den Laufringen steht. Die Ausdehnung ist minimal. Ich bin nicht imstande sie zu messen, aber ich schätze sie auf Mikronen.

Während der Drehung der Kugel wird das lokale Erhitzen von der ganzen Kugel absorbiert, und das lokale „Hügelchen" verschwindet. Beim nächsten Kontakt mit den Laufringen entsteht wieder ein lokales Erhitzen, Kippmoment, und die lokale Wärme wird wieder von der ganzen Kugel absorbiert.

Nehmen wir an, Δt ist die Zeit, in welcher das lokale Erhitzen von der

ganzen Kugel absorbiert wurde. Wenn der Radius des Innenlaufringes R ist und N die Zahl der Umdrehungen pro Zeiteinheit (Sekunde), dann wird für eine Zeiteinheit der Punkt E sich um die Strecke $2\pi RN$ verschieben. Für die Zeit Δt wird die Verschiebung $ED = 2\pi RN\Delta t$. Es muß sein $ED < \pi r$, wobei r der Radius der Lagerkugel ist, und so bekommen wir $N < r/2R\Delta t$. Wir beschließen, daß um die Zahl der Umdrehungen zu erhöhen, muß man wählen r größer, R kleiner, Δt (die Wahl von Δt ist von den thermischen Eigenschaften des Stahls bestimmt). Das ist sozusagen der thermisch-geometrische Aspekt.

Schauen wir uns jetzt den thermisch-dynamischen Aspekt an. Das Drehmoment ist größer, wenn die Ausdehnung größer und „lokaler" ist, und wenn die Kugel und Laufringe härter und nicht locker sind. Wir wissen aber, daß härteres Material einen kleineren Ausdehnungskoeffizienten besitzt. Hier liegt der neuralgische Punkt des Kugellagermotors. Wenn ich ein Metall hart wie Diamant mit einem großen Ausdehnungskoeffizienten und mit kleiner spezifischen Wärme bekomme, werde ich einen Wagen mit ein Paar Watts elektrischer Leistung in Bewegung bringen. (Der Ausdehnungskoeffizient zeigt, um wieviel der Durchmesser einer Kugel länger wird, wenn die Temperatur um ein Grad steigt; die spezifische Wärme zeigt, um wieviel Wärmeeinheiten (Kalorien) muß man eine Masseeinheit (Kilogramm) von einer Substanz erwärmen, um ihre Temperatur um ein Grad zu steigern.) Also harte Kugel und Laufringe, großer Ausdehnungskoeffizient, kleine spezifische Wärme, und nicht nur ein Pkw, sondern ein Lastauto wird wie verrückt sausen, wenn durch seine Kugellager der Strom von einer Taschenlampenbatterie läuft.

Leider haben wir solche effektive Kugellager noch nicht. Aber die Möglichkeit, sie zu bauen ist nicht ausgeschlossen. Es gibt aber hier einen heiklen Punkt: Der fließende Strom korrodiert die Oberflächen der Kugel und der Laufringe. Also muß man tüchtig forschen, um nichtkorrodierende Lager zu erzeugen.

Um sich vorzustellen, was für Kräfte in einem stromdurchflossenen Kugellager entstehen, denke man daran, daß ein paar Kubikzentimeter Regenwasser in den Ritzen großer Steinblöcke genügen, um sie beim Einfrieren leichter als mit Dynamit zu zerspalten.
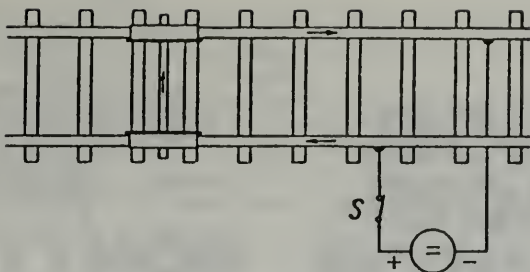

Bild 4

Voriges Jahr habe ich die beiden größten Kugellagerfabriken, FAG und SKF in Schweinfurt besucht. In jeder der Firmen habe ich mich 1 bis 2 Stunden unterhalten. Bei der FAG mit den Dipl.-Ingenieuren Klaus Comes, Oswald Bayer und Werner Geiling, bei der SKF mit Kurt Feldle und Rudolf Diem. Ich habe den Kugellagermotor auf den Tisch gelegt und gefragt: „Wird sich die Achse drehen, wenn ich durch sie Strom schicke? Alle Spezialisten (einer mit 25 Dienstjahren) sagten nein. Ich habe eine Batterie eingeschaltet, und die Achse drehte sich.

Dann sagte ich: „Das ist kein elektromagnetischer Motor, wie Sie vielleicht glauben, das ist eine Dampfmaschine." Die Spezialisten schüttelten den Kopf. Ich fuhr fort: „Das ist eine Dampfmaschine, aber eine seltsame Dampfmaschine. Es wird hier keine Wärme in mechanische Arbeit umgewandelt. Die mechanische Energie wird erzeugt aus NICHTS." Die Herrschaften wollten einen Psychiater rufen. Ich aber sagte: „Wollen Sie wissen, wie ich das festgestellt habe?" – Ich legte ich den Kugellagermotor in einen Kalorimeter (Kalorimeter ist ein Raum, der keinen thermischen Kontakt mit der Umgebung hat; eine Thermosflasche ist ein schlechter Kalorimeter). Ich schickte bestimmten Strom I unter bestimmter Spannung U für bestimmte Zeit Δt, also ich „goß" in die Maschine die Wärme-energie $E = IU\Delta t$, und ich maß die Erhöhung der Temperatur des Kalorimeters. Dann, bei der gleichen Anfangstemperatur, setzte ich den Motor in Bewegung. Weil der Widerstand der Maschine sich geändert hat, setzte ich einen neuen Strom I', unter einer neuen Spannung U', so aber daß $IU = I'U'$ war, und nach derselben Zeit Δt maß ich wieder die Temperatur des Kalorimeters.

Ich fragte dann die Ingenieure: „Meine Herrschaften, war die Tem-

peratur dieselbe, niedriger oder höher?" Einer sagte, die Temperatur müßte niedriger sein, weil im zweiten Fall auch mechanische Energie erzeugt wurde. Ich schaute auf ihn wie ein unzufriedener Lehrer. Da sagte ein anderer: „Nein, die Erhöhung der Temperatur ist die gleiche, weil die ganze mechanische Energie durch die Reibung wieder in Wärme umgewandelt wurde." „Gut, sehr gut", sagte ich, „Sie erinnern sich bestens an die Physik in der Schule. Im zweiten Fall aber war die Temperatur höher. In beiden Fällen war die ohmsche Wärmeenergie dieselbe, im zweiten Fall kam noch die Wärme der Reibung dazu. Die mechanische Energie, die die Reibungswärme erzeugt hat, kam aus NICHTS."

Ich bot an, ab sofort in der Firma zu bleiben und unbezahlt Forschung durchzuführen, um den Kugellagermotor zu optimieren. Dann könnte Lager und Motor in einem Wagen dasselbe Bauelement sein, und der Wagen würde seine treibende elektrische Energie mit einem Generator selbst erzeugen. Die Ingenieure lehnten ab.

Zuhause kann ich Kugellager nicht erforschen und entwickeln. Die vorhandenen Lager haben eine zu große Wärmedissipation. Die entstehende mechanische Energie beträgt ungefähr 10% von der eingeführten elektrischen Energie. Die Kugellagermotoren, die ich zuhause bauen und verkaufen könnte, würden eine schlechtere Effizienz haben als konventionelle Motoren. Daß der konventionelle Motor nur einen Teil der zugeführten elektrischen Energie in Wärme umwandeln wird und mein Motor die ganze, wird den Kunden nicht interessieren. Den Kugellagermotor kann ein Kind bauen. Die Verletzung des Energieerhaltungssatzes kann ein Student nachweisen. Ich schreie in die ganze Welt. Meßt, schaut, was hier passiert. Aber niemand will hören.

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Der Effekt in dem Huberschen Radsatz (Bild 4) ist genau dergleiche. Jeder, der seinen Artikel sorgfältig liest, wird sich davon überzeugen. In dem Radsatz gibt es noch eine elektromagnetische Kraft: der Strom in den Schienen stößt den Strom in der Radachse ab. Nehmen wir an, der fließende Strom ist I. Ein Längeelement dr (sagen wir dr = 1 mm) von den Schienen wirkt auf einen Längeelement dr' von der Achse mit der folgenden elementaren Kraft

$$d\vec{f} = \frac{\mu_0 I^2}{4\pi r^3} d\vec{r} \times (d\vec{r'} \times \vec{r}) = \frac{\mu_0 I^2}{4\pi r^3} [(\vec{r}.d\vec{r'})d\vec{r} - (d\vec{r'}.d\vec{r})\vec{r}] , \qquad (1)$$

wobei $\vec{r}$ der Vektor (orientierte Distanz) von dem Element dr' zu dem Element dr' ist. Die magnetische Konstante μ_0 hat den Wert $4\pi \times 10^{-7}$. I muß man in Amperen messen, $\vec{r}$, dr' und dr' in Metern und dann bekommt man die Kraft df' in Newton. Für den Radsatz dr' ist perpendikulär zu dr' und die Formel (1) reduziert sich zu der folgenden

$$d\vec{f} = \frac{\mu_0 I^2}{4\pi r^3} (\vec{r}.d\vec{r'})d\vec{r}. \qquad (2)$$

Die Kraft ist also parallel zu den Schienen und von der Stromquelle weg. In Lit. 1 zeige ich, wie man die obige Formel (genannt die Formel von Biot-Savart-Grassmann) integrieren kann. Darum hat Huber beobachtet, daß sein Radsatz nur in die Richtung von der Quelle startet und daß bei Bewegung die Kraft in die Richtung weg von der Quelle immer größer ist als die Kraft zu der Quelle. Das alles zeigt, daß der „current thermal dilatation" Effekt viel größer ist als der elektromagnetische Effekt.

Das folgende, von mir durchgeführte Experiment, bestätigte leicht meine These vom strom-thermischen Ausdehnungseffekt: Kugellagermotoren mit gewöhnlichen Stahlkugellager drehen sehr gut mit $20 - 30 - 40 - 50$ Ampere. Ich kaufte mir in Stuttgart Bronzelager aus alten Nazitorpedos. Sei drehten sch viel schlechter. Ich vergoldete die Bronzelager und sogar mit Strömen von $400-500$ Ampere drehten sie sich nicht. Dann sagte ich mir: „Nur wenn man Eisen auf Stein schlägt, bekommt man Funken."

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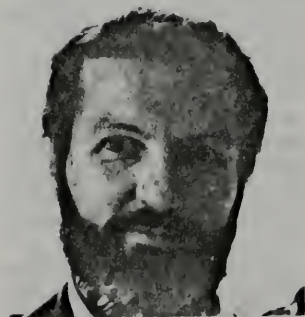
Der Autor dieses Beitrages

Stefan Marinov wurde 1931 in Sofia geboren in einer Familie der Intelektuellen-Kommunisten, die gegen den Faschismus in Bulgarien kämpfte. Im Jahre 1948 beendete er mit Silbermedaille die Sowjetische Mittelschule in Prag, wo sein Vater Diplomat war. Ma-rinov studierte Physik an der Karls Universität in Prag und an der Kliment Universität in Sofia. Während des Korea-Krieges unterbrach er sein Studium der Physik, um als Freiwilliger die Manneakademie in Varna zu absolvieren. Er reiste als Deckoffizier auf bulgarischen, tschechischen, und westdeutschen Schiffen auf den Weltmeeren.

Von 1961 bis 1973 arbeitete er an der Physikalischen Fakultät der Universität und am Physikalischen Institut der Akademie der Wissenschaften in Sofia. 1966 wurde er wegen seiner politischen Tätigkeiten als Dissident verhaftet. Nach einjähriger Behandlung wurde er befreit und wieder in der Akademie aufgenommen. Aber 1973 wurde er zwangspensioniert, 1974 wieder für ein Jahr eingesperrt. Als er 1977 die erste unabhängige wissenschaftliche Konferenz im Osten (International Conference on Space-Time Absoluteness) organisiert hatte und Sacharow als Ehrengast einlud, wurde er wieder eingesperrt. Diesmal nur für 20 Tage. Nach einem Kompromiß mit der Akademie und dem bulgarischen KGB sagte Marinov die Konferenz ab und bekam dafür einen Reisepaß. Er lebte in Brüssel, Washington, Genua und seit 1982 in Graz, die größte Zeit illegal ohne gültige Identitäts- und Reisedokumente (seine bulgarische Bürgerschaft wurde ihm aberkannt und sein Haus in Sofia konfisziert). Im Westen bekommt er keine Arbeitsgenehmigung.

Geld um zu Leben und Wissenschaft zu treiben, verdient er seit fünf Jahren mit „schwarzer" Arbeit als Stallknecht in einem Pferdestall bei Graz.

Kritik

DER NEWMAN-KONVERTER IST EIN MYTHOS

von Prof. Stefan Marinov, Institut für fundamentale Physik, Graz

Der Newman-Konverter wurde auf dem DVS-Kongreß in Hannover u.a. mit Video und Dia-Vorführungen demonstriert. Er ist in der ganzen Welt bekannt geworden, nicht zuletzt durch den Dauerstreit mit der amerikanischen Prüfungsbehörde National Bureau of Standards. Eine wissenschaftliche Überprüfung nachgebauter Newman-Konvertoren ergab jetzt: Er ist ein technischer Flop. Es handelt sich um einen konventionellen Motor, der den Energieerhaltungssatz nicht verletzt. Prof. Marinov weist hier bis ins letzte Detail nach, warum Newman irrt. raum & zeit will mit diesem Beitrag die Freie-Feld-Energie-Forschung nicht etwa bremsen. Ganz im Gegenteil, wir wollen Sackgassen technischer Entwicklung aufzeigen und damit beginnen, auf diesem hochinteressanten Gebiet der Physik die Spreu vom Weizen zu trennen. Mystifizierung bringt uns nicht weiter, sondern nur ehrliche Forschungsarbeit. Dazu gehört, Irrtümer einzugestehen.

as Feld der **freien Energie** ist ein spezielles Feld der Physik. Die offizielle Wissenschaft vertritt entschlossen das Dogma, daß man den Energieerhaltungssatz nicht verletzen kann, und darum verurteilt sie die „freie Energie" als Häresie und schließt dieses Feld von dem Bereich ihrer Untersuchungen vollkommen aus. Also bleiben nur die sogenannten „outsiders", die Freienergiemaschinen (d.h. Perpetua mobilia) zu bauen versuchen. Das wissenschaftliche Niveau dieser outsiders ist sehr verschieden, aber, in der Regel, sind das Leute mit sehr großen Lücken in ihrer wissenschaftlichen Ausbildung, und viele haben überhaupt keine physikalische Bildung. Das hat einige positive Aspekte. (Einstein fragte einmal seine Zuhörer: „Wie macht man die großen Entdeckungen?" und als keine Antwort kam, gab er sie: „Jeder weiß, daß man etwas nicht machen kann; aber da ist jemand, der entweder davon nichts gehört hat, oder zu eigensinnig ist, um zu glauben, was die Welt befürwortet; und er macht es.")

Der Mangel an systematischer Ausbildung hat aber auch sehr viele Schattenseiten. Ich glaube, es ist nicht nötig sie zu zählen. Andererseits könnte eine effektive Freienergiemaschine ihrem Erfinder einen Haufen Geld einbringen, und weil viele solche Projekte große Summen aus den Taschen ihrer Erfinder verschlungen haben, sind fast alle angeblichen Perpetua mobilia mit Geheimnissen umgeben, ich würde sagen sogar mit **Mystizismus.**

Es ist also sehr schwer, die Wahrheit in dem Dschungel von Dummheiten, Phantasmagorien, halb-gesagten Wahrheiten, Übertreibungen und Lügen zu sehen. Ich werde nur zwei Worte über die Übertreibungen und die Lügen sagen: Sie sind von einem doppelten Charakter: unabsichtliche und absichtliche. Jeder Forscher „sieht" den Effekt, nach dem er sucht, bevor das Experiment ihn gezeigt hat. Und wenn das Experiment den Effekt zeigt, sieht der Forscher ihn größer, als er tatsächlich ist. Und er tut alles das **unabsichtlich** (jeder verliebte Mensch sieht das Objekt seiner Leidenschaft schöner als es wirklich ist).

Oft aber sind die Übertreibungen und die Lügen **absichtlich.** Aus verschiedenen Gründen. Einer der Hauptgründe ist, auf diesem Weg zu Geld zu kommen, um die schon gebaute Maschine zu verbessern oder andere Maschinen zu bauen. Ich muß aber betonen, daß ich in meinen zahlreichen Kontakten mit den Freienergieforschern keiner Person begegnet bin, die übertreibt und lügt mit dem einzigen Ziel, Geld zu angeln. Also die Freienergieforscher können Phantasten, naive Leute, Betonköpfe, Verrückte sein, aber sie sind keine (oder wenigstens bin ich solchen nicht begegnet) Scharlatane. (Es ist zu bemerken, daß unter den Hellsehern, Heilern, Revolutionären und Predigern der Prozentsatz der Scharlatane sehr hoch ist.)

Also können wir mit Stolz behaupten, daß während der Jahrhunderte die Entwickler von Perpetua mobilia ihre Herzen rein bewahrt haben und fast alle haben ihr Leben mit dem einzigen heiligen Wunschtraum geopfert, die Sterne mit nackten Händen zu erreichen.

In der Literatur (Patente, Artikel) sind sehr viele Freienergiemaschinen beschrieben worden. Aber die Zahl der Publikationen über **Reproduktionen** von solchen Maschinen ist **sehr begrenzt.**

Mir ist die Maschine von Joseph Newman noch nicht aus der Zeit bekannt, als er sie geheim hielt. Ich bat sogar meinen Freund, Dr. Henry Dart III (New Orleans – Tuscon), Newman zu

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besuchen und mich zu informieren über siene Eindrücke von dem Newmanschen „schwarzen Kasten", was Dr. Dart tat (Lit. 1, S. 274). Später enthüllte J. Newman das Geheimnis seiner Maschine und ich schrieb einen kurzen Unterstützungsartikel, der von **Nature** aufgenommen, aber dann nicht veröffentlicht wurde. (Lit. 1, S. 322) In meinen beiden Büchern[1,2] widmete ich Newman mehrere Seiten und druckte Informationen über seine Maschine von wissenschaftlichen Zeitschriften, Zeitungen und direkt von seinem Buch[3] nach. An der Dr. Niepers Konferenz in Hannover im März 1987 testete ich eine Newmansche Maschine, die von dem deutschen Student Sven Reuss nachgebaut wurde.

Ich war so beeindruckt, daß ich bei den abschließenden Stunden der Konferenz die Newmansche Maschine preiste und teilte mit Sven Reuss den 5.000 DM-Preis, den ich an der Konferenz gewann. Nach der Rückkehr in Graz machte ich meine eigene Reproduktion mit dem Ziel, die Maschine gründlich zu testen und zu versuchen, den energetischen Kreis zu schließen, so daß die Maschine ewig laufen würde (s. in Bild 1 das prinzipielle Schema und in Bildern 2 und 3 die Fotografien von zwei der mehreren Variationen, die ich gebaut habe). Ich machte sehr sorgfältige Messungen mit einer **perfekt** konstruierten Maschine. Einer von meinen Rotoren (Bild 3) rotierte auf den spitzen Punkten von Uhrenachsen und war praktisch ohne jegliche mechanische Reibung, so daß die **ganze energetische Bilanz** nur in **elektrischen Watts** berechnet wurde, inbegriffen die zerstreute ohmsche Wärme. Ich beobachtete **keine Verletzung** des Energieerhaltungssatzes, weil die Eingabe **immer** etwas größer war als die totale Abgabe, mit der Zurechnung der ganzen als Wärme zerstreuten Energie in die Abgabe.

Ich will die Resultate meiner Messungen allen zur Kenntnis geben, die an freienergetischen Maschinen arbeiten. Ich glaube, daß dadurch viele Bemühungen und Investitionen für andere scheinbar vielversprechende Projekte gespart werden können. Und ich möchte Faradays Vermächtnis wiederholen: „Die negativen Resultate der Experimente haben dieselbe Be-
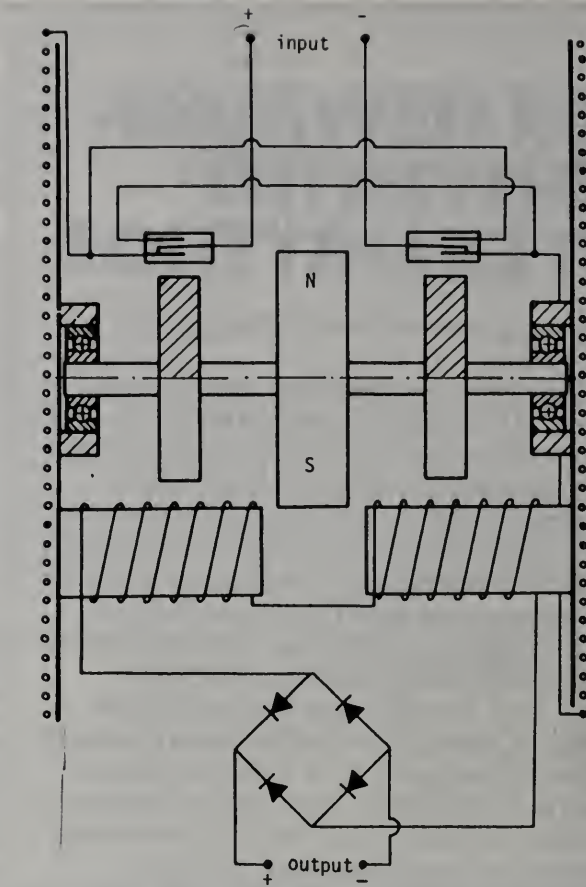

Bild 1. Schema der Marinovschen Reproduktion von der Newmanschen Maschine.

deutung wie die positiven Resultate; man muß sie ebenso sorgfältig beobachten und **publizieren.**"

Meine Maschine bestand aus einer großen Spule mit Kupferdraht (0.3 mm Durchmesser), an einem plastischen Zylinder mit den folgenden Ausmaßen gewickelt: Innendurchmesser 13 cm, Außendurchmesser 25 cm, Höhe 25 cm. Ich baute zwei solche Spulen (siehe Bild 3). Die eine hatte 120.000 Wicklungen und einen Widerstand von 17.000 Ohm, die andere 140.000 Wicklungen und einen Widerstand von 20.000 Ohm. Ich konstruierte mehrere verschiedene Rotoren. Manche Rotoren machten selbst die Kommutation (d.h. sie arbeiteten als traditionelle Gleichstrom-Elektromotoren), andere drehten sich mit aufgezwungener Kommutation (d.h. als Synchronmotoren). Ich werde einen

der selbskommutierenden Rotoren beschreiben, dessen Schema im Bild 1 angegeben ist. Im Bild 2, zur besseren Beobachtung, ist er von der Spule herausgenommen und an der rechten Seite zu sehen.

Der Rotor hat einen Neodymium Stabmagnet (Ausmaße 4×3×2 cm) und rotiert auf einer Achse, an welcher zwei **Halb**ringmagnete befestigt sind, über denen sich zwei Reed Relais befinden, so daß während einer halben Umdrehung die beweglichen Klingen von den Halbringmagneten angezogen werden und die unteren stationären Klingen kontaktieren, und während der anderen halben Umdrehung kontaktieren sie die oberen stationären Klingen. In dieser Weise ist eine Kommutation des Stromes in der großen Spule durchgeführt, weil die angelegte elektrische Gleichstrom-

Leistung (Spannung) zu den beweglichen Klingen geführt ist. Das bedeutet: Für eine Umdrehung, wird die Richtung des magnetischen Feldes zweimal gewechselt und das bringt den Stabmagneten in eine kontinuierliche Rotation.

Der Stabmagnet rotiert gegenüber zwei anderen kleinen Spulen, deren Achsen senkrecht zu der Achse der großen Spule stehen (wegen der Klarheit des Bildes sind die zwei kleinen Spulen **unter** der Achse des rotierenden Magnets eingezeichnet), wobei eine Wechselspannung induziert wird, welche, nach der Gleichrichtung, einen **Teil** der Ausgangsleistung liefert. Die andere elektrische Ausgangsleistung wird von einem (oder mehreren) **sekundären** Rotoren geliefert, die außerhalb der Spule stehen und **synchron** rotieren (ein solcher sekundärer Rotor mit der Spule, in welcher Ausgangsleistung induziert wird, ist an der linken Seite des Bildes 2 zu sehen).

Die Rotationsgeschwindigkeit ist von der Größe der Reibung des selbstkommutierenden Rotors bestimmt. Die elektrische Energie, die in den beiden kleinen Spulen induziert wurde, setzt diese Geschwindigkeit weiter herab. Auch die Energie, die in den Spulen der sekundären Rotoren induziert wird, vermindert die Rotationsgeschwindigkeit des selbstkommutierenden Rotors: Aus zwei Gründen:

1. die **gegenelektromotorische Spannung**, die von den sekundären Rotoren in der großen Spule induziert wird, schwächt den fließenden Strom ab, 2. wegen der direkten magnetischen Mitwirkung zwischen den sekundären und dem primären (selbstkommutierenden) Rotoren, wenn sie nahe beieinander stehen.

Jedes Kind weiß, daß wenn man zwei Dauermagnete nimmt, und den einen im Labor befestigt

mit seinem Nordpol zu dem anderen Magnet, der an einer Achse rotieren kann, dann dreht sich der bewegliche Magnet um, bis sein Südpol zu der möglichst nächsten Position beziehungsweise zu dem Nordpol des stationären Magnets kommt. Wenn jetzt die Polarität des stationären Magnets gewechselt wurde, wird der rotierende Magnet seinen Nordpol zu ihm drehen. Wäre man imstande, diese „Kommutation" ohne (oder mit kleinem) Energieaufwand herzustellen, würde ein Perpetuum mobile entstehen. Forscher haben sich bemüht, (ich muß aber betonen, daß die Zahl solcher sehr **gering** war) Remagnetisierung von **hartem** Eisen mit kur-

Bild 2. Fotografie der Maschine mit primärem (selbstkommutierendem) Rotor (rechts) und sekundärem (synchron rotierendem) Rotor (links).

zen aber **starken** magnetischen Impulsen genau in dem Moment zu bewirken, wenn der rotierende Magnet den „toten" Punkt des nächsten Abstands zwischen den Polen durchquert. Ich hoffe, daß man in dieser Weise ein Perpetuum mobile konstruieren **könnte**, aber, selbstverständlich, hat das Experiment das letzte Wort. Auf Dr. Niepers Konferenz in Hannover waren zwei junge deutsche Studenten, Hermann Lübers und Martin Allerman, die sich bemühten, ein Perpetuum mobile in dieser Weise zu bauen. Ihr Stand war rechts von dem Stand von Sven Reuss.

Ein Elektromagnet mit einer hohen Windungszahl, mit schwachem Strom ernährt, scheint eine Art von „**remagnetisierbarem** Dauermagnet" zu sein, weil die Energie, die für seine Remagnetisierung nötig wäre, **sehr klein** ist, aber die erzeugte magnetische Intensität könnte **ausreichend stark** sein. Diese **verlockende** Spur hat Newmans Aufmerksamkeit angezogen. Um Mehr Klarheit zu bringen, machen wir folgende „kindische" Rechnungen:

Wenn man einen Kupferdraht mit einem Widerstand, sagen wir, 0.01 Ohm/m (d.h. wenn der Durchmesser des Drahtes 1.4 mm beträgt) auf einen plastischen Zylinder von 1 m Höhe und 1 m Umfang umwickelt und beim Anlegen einer Spannung $U = 1$ V auf einer Windung einen Strom $I = 100$ A fließen läßt, wird die verbrauchte elektrische Leistung $P = 100$ W, und die magnetische Intensität in dem Zentrum der Schleife $H \cong 100$ A/m sein (genauer 100π A/m, wie das von der Formel $H = 1/2R$ folgt, mit, in unserem Fall, $R = 1/2\pi$). (Es ist zu bemerken[5], daß ich keinen Unterschied zwischen B und H mache, weil diese zwei Größen physikalisch **absolut identisch** sind; also verwende ich einen einzigen Ausdruck „magnetische Intensität" und ein einziges Symbol „B", was, unglücklicherweise, in dem Meßsystem SI nicht zu machen ist, weil, man B dort in Tesla mißt und H in Ampere/meter. Der numerische Zusammenhang zwischen diesen Meßeinheiten ist $1\,T = \mu_0^{-1}$ A/m $= 10^3$ gauss, wobei $\mu_0 = 4\pi 10^{-7}$; um Mißverständnisse zu vermeiden, wenn ich in dem System SI
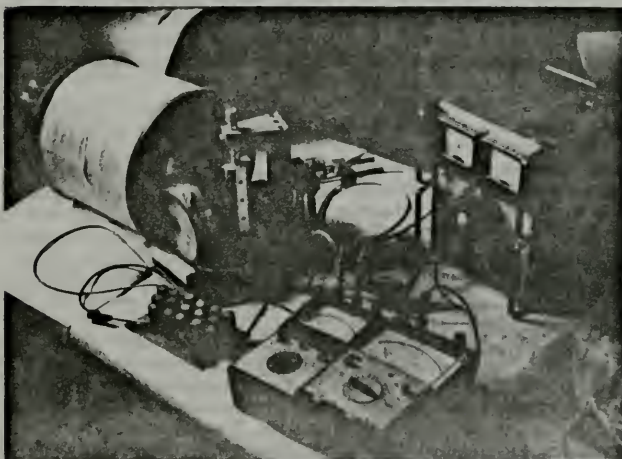

Bild 3. Fotografie der Maschine mit Rotor auf Uhrenaxen und Kaskade zur Erhöhung der induzierten Spannung in der „Ausgangspule".

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arbeite, nenne ich B „Intensität in Tesla gemessen" und H „Intensität in A/m gemessen".)

Bei 10 Windungen und der gleichen angelegten Spannung führt das zu I = 10 A, P = 10 W, H = 100 A/m (hier wird die Annäherung besser als in dem ersten Fall, wenn die Windungen über die ganze Höhe des Zylinders gewickelt sind). Bei 1.000.000 Windungen (in diesem Fall muß der Durchmesser des plastischen Zylinders kleiner sein, so daß die **mittlere** Länge von einer Windung 1 m bleibt) führt dieselbe angelegte Spannung zu I = 10^{-4} A, P = 10^{-4} W, H = 100 A/m.

Ich muß unterstreichen, daß die Leistung (100 W in dem ersten Fall und 10^{-4} W in dem letzten Fall) nicht für den „Aufbau" des magnetischen Feldes verbraucht ist (wie Newman denkt); sie geht einfach als Joule Wärme in dem Draht **verloren**. Wenn die Maschine arbeitet (nehmen wir zum besseren Verständnis an, daß die Kommutation momentan und die angelegte Spannung quasi-sinusoidal ist), wandert die magnetische Energie W = $(1/2)LI^2$, wobei L = 3700 H in meiner Maschine die Induktivität der Spule ist und I der maximale in der Spule fließende Strom, ständig (mit einer Frequenz gleich der doppelten Drehgeschwindigkeit) von der Quelle zu der Spule und **zurück** von der Spule zur Quelle, auf Grund der **Dephasierung** zwischen Spannung und Strom.

Also, für das **Wechseln der Polarität** des Elektromagnets braucht man **keine** Energie. Und wie ich oben mit den kindischen Rechnungen gezeigt hatte, kann man die **unvermeidlichen** Wärmeverluste wesentlich senken (in einer Spule mit vielen Windungen); oder zu Null bringen, wenn supraleitender Draht verwendet wird.

Newman glaubte **irrtümlicherweise**, daß dieser kleine Energieaufwand (der, ich wiederhole, nur in Wärme **transformiert** wird, d.h. der überhaupt **nicht verloren** geht) das magnetische Feld „baut". Die Energie W = $(1/2)LI^2$ für den Aufbau des magnetischen Feldes ist schon beim Einschalten der Batterie zu der Spule verbraucht; während der Kommutation **wandert** sie dann einfach zwischen der Spule und der Batterie. Wenn der ohmsche Widerstand der Spule Null ist und keine Verluste bei der Kommutation entstehen, dann wird **kein** Gleichstrom von der Batterie zu der Spule fließen, sondern nur Wechselstrom **hin und zurück** mit einer Phase zwischen Spannung und Strom von 90°.

Die elektrische Energie, die von einem im magnetischen Felde rotierenden Dauermagneten in mechanische Energie transformiert wird, kommt von der **gegenelektromotorischen Spannung** (gegen EMS), die der rotierende Magnet in der Spule induziert. (Es ist zu bemerken[1], daß ich anstelle des Wortes „elektromagnetische **Kraft**", das in der konventionellen Physik üblich ist, das Wort „elektromotorische **Spannung**" benütze, weil „Kraft" ein völlig verschiedener physikalischer Begriff ist; das Vereinfachen und die Unifikation der Begriffe und Symbole in der Physik sind von einer **enormen Bedeutung** für ihr einfaches Verständnis.)

Ich werde das Problem noch einmal mit einfachen Zahlen erklären. Wenn an einer Spule mit Widerstand R = 5 Ohm eine Spannung U = 10 V angelegt wird, dann fließt beim Stillstand des Magnets ein Strom I = 2 A, und die verbrauchte Leistung ist $P_{Wärme}$ = UI = I^2R = 20 W. Wenn jetzt mit der Hilfe eines Kommutators der Magnet in Rotation versetzt wird, wird der fließende Strom auf, sagen wir, I = 1 A herabgesetzt, so daß die verbrauchte Leistung auf P = UI = 10 W sinkt. Von diesen 10 W werden $P_{Wärme}$ = I^2R = 5 W in Wärme transformiert und P_{mech} = P – $P_{Wärme}$ = 5 W werden in mechanische Energie transformiert, die wieder in Wärme übergehen, wegen der Reibung in den Kugellagern des rotierenden Magnets. Die Spannung U_{gegen} = P_{mech}/I = 5 V wird „gegen EMS" genannt.

Das kann man gleich nachprüfen: wenn man ein Voltmeter zu den Klemmen der Spule schaltet und den Magnet von Hand mit der Operationsgeschwindigkeit rotieren läßt, dann wird die induzierte Spannung U_{ind} = 5 V und der fließende Strom bei kurzgeschlossener Spule I_{ind} = U_{ind}/R = 1 A. Wenn die Maschine als Elektromotor wirkt, werden die induzierten 5 Volt gegen EMS genannt. Die hier beschriebenen Effekte nennt man kurz die „Motorregel", wenn der Aufwand von elektrischer Energie zur Generation von mechanischer Energie führt, und die „Generatorregel", wenn der Aufwand von mechanischer Energie zur Generation von elektrischer Energie führt.

Ein Elektromotor kann Perpetuummobile-Effekte nur dann zeigen, wenn die „Motorregel" verletzt wird (so zeigt meine Maschine MAMIN COLIU[4,5] Perpetuum-mobile-Effekte, weil sie die „Generatorregel" verletzt). Die Newmansche Maschine verletzt **nicht** die Motorregel und ich sehe **keine physikalischen Gründe** für eine solche Verletzung. Warum habe ich dann Zeit und Geld geopfert, um die Newmansche Maschine zu reproduzieren? – Weil ich zu viele **positive** Berichte über die Newmansche Maschine gehört und gelesen hatte und ich glaube nur an einen Gott, dessen Name EXPERIMENT ist. Aber ich mache immer alles mögliche, um mich nicht in das Anbeten des Idols ANGEBLICHES EXPERIMENT einbeziehen zu lassen.

In meiner Reproduktion der Newmanschen Maschine war die Motorregel streng eingehalten. Das National Bureau of Standards (Washington, D.C.) hat eine Variante der Newmanschen Maschine getestet und ebenfalls die Erhaltung der Motorregel festgestellt[6]. Der Bericht des NBS ist schwer zu finden und er wird von Newman und seinem Verfechter, Roger Hastings, bestritten. Sie behaupten, die Prüfung wurde nicht richtig durchgeführt. Und wie in fast jedem Fall mit einer Freienergiemaschine wird hier alles mit „Mystizismus" bedeckt. Die Prüfung hat 6 Monate gedauert und kostete 75.000 Dollar. Inzwischen habe ich eine ähnliche Maschine in 10 Tagen gebaut und die Prüfung kostete nichts und konnte an einem Tag durchgeführt werden, wenn man Ampermeter und Voltmeter zur Verfügung hat.

In der Variante, die im Bild 3 gezeigt ist, verwendete ich starke Neodymium Magnete (VACODYM 335) von der Fabrik VACUUMSCHMELZE, Hanau, BRD, mit einem Energieprodukt $(BH)_{max} = 270 kJ/m^3$. In der Fotografie ist nur ein zylindrischer Magnet mit einem Durchmesser von 3 cm und einer Höhe von 10 cm zu sehen, aber an dem Rotor montierte ich noch zwei solcher Magnete.

Der Rotor im Bild 3 ist selbstkommutierend (s. den Kommutator im Bild 3 rechts von dem Rotor auf zwei langen horizontalen Stangen aufgestellt). Der Kommutator funktioniert mit dem magnetischen Anziehen/Abstoßen eines kleinen Magnetchens unter der Wirkung des großen Rotormagnets; das Magnetchen ist zu der Klinge eines Relais gewandt befestigt. Dieser Kommutator ist praktisch ohne energetische Verluste. Die Quelle ist ein Transformator, ernährt vom Stromnetz (s. rechts im Bild 3), regulierbar für Spannungen von 0 bis 250 V. Die Wechselspannung, über einen Gleichrichter, lädt einen Filter, der aus zwei Kondensatoren (jeder mit 47 μF) und einem Widerstand (1000 Ohm) besteht und zu einer Gleichspannung von 370 V führt (der Gleichrichter mit dem Filter ist im Bild 3 zwischen den beiden Ampermetern und dem Transformator zu sehen).

Bei seiner Rotation induziert der starke Rotationsmagnet elektrische Spannung in der kleinen Spule, deren Achse senkrecht zu der Achse der großen Spule steht. Diese Wechselspannung wird zu einer **Kaskade** (einer Kombination von 17 Kondensatoren, jeder mit 47 μF, und 17 Dioden) geführt, die die angelegte **niedrige** Wechselspannung zu einer **hohen** Gleichspannung umtransformiert (die Kaskade ist im Bild 3 zwischen den Ampermetern und den Spulen zu sehen).

Die Eingangsleistung (input) ist als das Produkt von dem Gleichstrom I_{in}, der von der Quelle fließt, und der angelegten Gleichspannung U_{in} zu berechnen. Als **netto** Ausgangsleistung (output) betrachte ich die abgegebene Wärme in einer **Last**, die zu dem Ausgang der Kaskade eingeschaltet ist und mit einem Widerstand gleich dem Widerstand der großen Spule ausgewählt wurde (20.000 Ohm). In diesem Fall aber müßte ich auch den Strom in der kleinen Induktionsspule messen und die in der Spule abgegebene Wärme berechnen. Es gab auch einige (sehr kleine) Verluste in der Kaskade. Um die Zahl der möglichen Meßfehler zu verringern, schaltete ich die Last direkt zu den Klemmen der kleinen Induktionsspule. Weil der Widerstand der kleinen Spule 82 Ohm war, der Widerstand der Last 800 Ohm (die Netto-Leistung an einem 20.000 Ohm großen Widerstand war in diesem Fall sehr klein!), und der Widerstand des Galvanometers 18 Ohm, schrieb ich der Last (load) einen **totalen** Widerstand $R_{load} = 900$ Ohm zu. Also die Ausgangsleistung P_{load} könnte als das Produkt von dem Quadrat des fließenden in der kleinen Spule Stromes, I_{load}, und dem totalen Widerstand, $R_{load} = 900$ Ohm, berechnet werden.

Die als Wärme in der großen Spule (coil) zerstreute Leistung, P_{coil}, wurde als das Produkt von dem Quadrat des fließenden in der großen Spule Stromes, I_{coil}, und dem Widerstand der großen Spule, $R_{coil} = 20.000$ Ohm, berechnet. Zuletzt gab es auch eine gewisse Energieabgabe in dem R-C Element, das parallel zu der großen Spule eingeschaltet wurde, um die Funkenbildung (sparking) in dem Kommutator zu vermindern; der entsprechende Widerstand war $R_{spark} = 330,00$ Ohm und die Kapazität des Kondensators $C_{spark} = 68$ nF, die im Bild 2 zu sehen sind. Diese zerstreute Wärmeleistung wurde als das Produkt von dem Quadrat des in dem R-C Element fließenden Stromes, I_{spark}, und dem Widerstand, R_{spark}, berechnet

Ich machte Messungen bei verschiedenen angelegten Spannungen (und dementsprechend bei verschiedenen Drehgeschwindigkeiten), bei verschiedenen Zahlen der Magnete in dem Rotor, bei verschiedenen Abständen des Rotors von der großen Spule (es ist zu bemerken, daß bei größeren Abständen von der Spule das Drehmoment, das an dem Rotor wirkt, fast dasselbe blieb, weil die kleinere gegen EMS zu einer Zunahme des fließenden Stromes in der großen Spule führte). Ich arbeitete auch mit zwei großen Spulen, die in eine Reihe mit dem Rotor in die Mitte gestellt wurden, oder die eine neben der anderen mit leicht geneigten Achsen dem Rotor gegenüber. Ich stellte auch die großen Spulen in senkrechte Achsen und erzeugte mit einem externen Kommutator ein Drehmagnetfeld. Für **alle diese Kombinationen** blieb der Energieerhaltungssatz streng beibehalten. Abb. 4 zeigt die Zahlen von zwei von meinen Messungen. P_{fur} ist die Reibungsleistung (friction power), die ich als Unterschied zwischen den Eingangs- und Ausgangs Leistung berechne. Ich hatte keine Möglichkeit diese Leistung zu messen, aber, wie die Meßergebnisse zeigen, ist diese Annahme vollkommen berechtigt.

Ich führte auch den Ausgang von der Kaskade zu dem Eingang der großen Spule, d. h. ich ernährte die große Spule mit dem von der Maschine erzeugten Strom. Bei eingeschalteter Quelle war der Strom I_{in} immer größer als der Strom I_{load}. Beim Ausschalten der Quelle blieb nur der Strom I_{load} um den Rotor zu drehen, aber nach 30–40 Sekunden stoppte die Rotation. Das **zeigte klar:** Das von der kleinen Spule hervorgerufene Bremsmoment war größer als das von der großen Spule hervorgerufene Treibmoment. Diese Beobachtung ist die **entscheidenste,** weil hier keine Ampermeter verwendet und keine Berechnungen gemacht wurden. Man schaut nur, ob die Maschine sich ewig dreht. Also hier kann sogar ein Kind sagen, ob die Maschine Energie aus nichts erzeugt. Newman glaubt, daß alles wird gelöst, wenn er das Patent bekommt. Nein, Joe! Alles wird gelöst, wenn die Maschine sich ewig drehen würde.

Es ist sehr leicht, den Irrtum der Newmanschen Erwartungen zu zeigen, es wäre möglich mit einer großen Spule einen starken Magneten mit

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sehr kleinem Energieaufwand nur zu drehen. Ich muß nur eines **betonen:** Das auf den Magnet wirkende Drehmoment war **sehr groß** bei **sehr kleinem** Energieaufwand für die Erzeugung des magnetischen Feldes. Aber **in dem Moment**, in dem der Magnegt in Bewegung kommt, tötet die gegen EMS die angelegte treibende Spannung, der Strom sinkt fast zu Null und die Beschleunigung, die der Magnet bekommt, ist **sehr niedrig**. Wenn man den Magnet mit der Hand berührt, hat man das Gefühl, als ob er in Honig getaucht wäre. Ähnlich ist der Fall, wenn ein Metallstück in einem starken Magnetfeld bewegt wird und die induzierten starken Wirbelströme die Bewegung bremsen, auch wenn die treibende Kraft stark ist (erinnern Sie sich an das Waltenchofsche Pendel!). In der Newmanschen Maschine gibt es keine Wirbelströme, sondern induzieren Ströme in der feststehenden Spule, die genau **gegen** die treibenden Ströme gerichtet sind. Im Resultat haben wir eine starke wirkende Kraft (Treibmoment), die zu einer sehr schwachen Bewegung und folglich zur Erzeugung von kleiner mechanischer Energie führt. Möchte man den Magnet mit einer höheren Geschwindigkeit drehen, ist man gezwungen, die treibende Spannung **wesentlich** zu erhöhen (darum legt Newman tausende und zehntausende von Volt in seiner Maschine an), und die elektrische Leistung, die in mechanische Leistung nach der Formel $P_{mech} = U_{gegen} I$, wobei U_{gegen} die gegen EMS und I der fließende Strom sind, transformiert wurde, erhöht sich genau nach dem Energieerhaltungssatz.

Ich möchte hier eine Aussage von Roger Hastings vor dem Subcommittee on Energy vom 30. Juli 1966 zitieren: „. . . witness Newman's latest prototype (on demonstration following this hearing today in an auditorium in this building), which runs on 0.0008 A at 3000 V and turns a 16-inch (= 40 cm) fan blade at more than 500 r.p.m. How much torque can this motor produce? Try to stop the motor by holding the two-inch (= 5 cm) diameter shaft. This will be not possible for a normal human, although the motor will never draw more than 0.003 A or 9 watts."

Motor ohne Last; Drehgeschwindigkeit 340 Umdr/min

I_{in}	= 0.54 mA,	U_{in}	= 370 V,	P_{in}	= 200 mW
I_{coil}	= 0.70 mA,	R_{coil}	= 20 k-Ohm	P_{coil}	= 10 mW
I_{spark}	= 0.40 mA,	R_{spark}	= 330 k-Ohm	P_{spark}	= 53 mW
				P_{out}	= 63 mW

$$P_{fric} = P_{in} - P_{out} = 137 \text{ mW}$$

Motor mit Last; Drehgeschwindigkeit 200 Umdr/min

I_{in}	= 2.3 mA,	U_{in}	= 370 V,	P_{in}	= 851 mW
I_{coil}	= 4.2 mA,	R_{coil}	= 20 k-Ohm	P_{coil}	= 353 mW
I_{spark}	= 0.5 mA,	R_{spark}	= 330 k-Ohm	P_{spark}	= 83 mW
I_{load}	= 18 mA,	R_{load}	= 0.9 k-Ohm	P_{load}	= 292 mW
				P_{out}	= 728 mW

$$P_{fric} = P_{in} - P_{out} = 123 \text{ mW}$$

Abbildung 4

Wenn ich einen solchen Motor in meinen Händen haben würde, könnte ich **in drei Stunden** das Perpetuum mobile in Gang setzen! Leider haben mich meine Messungen überzeugt, daß diese Aussage von Roger Hastings eine **derbe Übertreibung** ist. Wenn eine Achse sich mit 500 Umdr/min dreht und ein **normaler Mensch** kann diese **Rotation** mit seinen Händen nicht stoppen, wird man **leicht** in einer Induktionsspule eine Leistung **höher** als 9 Watt induzieren. Wenn man dann die Newmansche Spule mit diesen 9 Watt erwärmt, wird man den Kreis der ewigen Bewegung schließen. Also, wenn R. Hastings (und J. Newman) wirklich einen solchen Motor haben und dann noch Zeit und Geld (Millionen von Dollars) verschwenden, um mit den Windmühlen des Patent Office, des National Bureau of Standards und mit dem Richter Jackson zu kämpfen, anstatt eine Spule für einige Cents zu kaufen und **die ganze Welt in Staunen zu versetzen**, könnte man sie mit der höchst euphemistischen Bezeichnung „Idioten" qualifizieren.

An seiner Presse-Konferenz am 20. August 1986 in der Stadt Jackson hat Newman zwei Ventilatoren demonstriert, die genau denselben Geschwindigkeiten drehten. Der eine Ventilator wurde von einem konventionellen Motor gedreht mit der Spannung U_c = 75 V und dem Strom I_c = 0.38 A, d. h. mit der Leistung P_c = $U_c I_c$ = 28.5 W, der andere von dem Newmanschen Motor mit der Spannung U_N = 2300 V und dem Strom I_N = 0.003 A, d. h. mit einer Leistung P_N = 6.9 W. Nach Newman war das ein

Wunder. Wenn wir **der Einfachheit halber** annehmen, daß keine Wechselstromdephasierungen und keine gegen EMS vorhanden sind, werden wir sehen, daß der konventionelle Motor einen Widerstand $R_c = U_c/I_c$ = 197 Ohm hat, und die Leistung, die er als Joule Wärme zerstreut, $P_c = I^2_c R_c$ = 28.4 W beträgt. Der Widerstand des Newmanschen Motors wird aber $R_N = U_N/I_N = 7.66 \times 10^5$ Ohm und die Leistung, die er als Joule Wärme zerstreut, wird $P_N = I^2_N R_N$ = 6.9 W betragen. Die Schlußfolgerung kann nur eine sein: Die Newmansche Maschine ist **sparsamer** als der konventionelle Motor (im Energieverbrauch, nicht aber im Gewicht und Material!), sie ist aber **kein** Perpetuum mobile.

In November-Dezember 1985 war ich in den Vereinigten Staaten und weilte für 30 Tage in dem Haus von Dr. Henry Dart (sein Sohn ist einer von den Newmanschen Rechtsanwälten). Ich wollte Newman besuchen, aber er wollte mich nicht empfangen. Ich hatte lange Telefongespräche mit seinem Herausgeber, Evan Soule, und mit seinem Hauptkonstrukteur, Dr. Ralph Hartwell, mit dem ich auch an Dr. Niepers Konferenz sprach. Ich stellte immer die allerlogischste Frage: Warum schließt Newman nicht den energetischen Kreis, warum verliert er Zeit und Geld in **ergebnislosen Demonstrationen?** Die Antwort war: „Es bestehen technische Schwierigkeiten." Inzwischen ist die Antwort nur eine einzige: Das ist nicht möglich, weil der gesamte energetische Ausgang immer kleiner ist als der energetische Eingang ist.

In einigen von seinen Maschinen unterbricht Newman den Strom mehrmals während einer Rotationsperiode. Ich machte das mit verschiedener Frequenz der Unterbrechung. Das Resultat ist nur eine Abnahme des Mittelstromes und des treibenden Momentes. Das führt zu keinem Energiegewinn. Newman (und Hastings) behaupten weiter, daß ein großer Teil der erzeugten Energie in der Form von hochfrequenten Oscillationen besteht, die bei der Kommutation entstehen. Ich „erwischte" diese Energie in dem R-C Element, das parallel zu den Spulenklemmen eingeschaltet ist. Wie ich oben gezeigt hatte, ist diese Energie klein im Verhältnis zu der Eingangsenergie.

Ich werde nicht die Newmansche Aussage kommentieren, daß, auch wenn der Strom von der Batterie (in meiner Maschine von den Kondensatoren des Filters) fließt, d. h. in die Richtung der Spannung der Batterie, die Batterie trotzdem **aufgeladen** wird, weil man seine Leser achten muß. Dasselbe betrifft die Newmanschen Konzepte, daß seine Maschine Masse in Energie umwandelt und alle ähnlichen wissenschaftlichen Absurditäten.

Zum Abschluß möchte ich nur das folgende sagen: Die Maschine von Joseph Newman war ein **süßer** Mythos, leider aber nur ein **Mythos.** Wenn wir rasch zu einem effektiven Perpetuum mobile kommen wollen, muß jeder Mythos zerstört werden. Je schneller, desto besser.

Literatur

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raum&zeit

NEWMAN'S CONVERTER IS A MYTH

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The field of "free energy" is a special field in physics. As official science supports firmly the dogma that the energy conservation law cannot be violated, it condemns "free energy" as a heresy and excludes this field completely from the domain of its research. Thus there are only the so-called "outsiders" who construct free energy machines (i.e., perpetua mobilia). The scientific level of these outsiders is very different but, as a rule, they are persons with big lacks in their scientific education, and certain are without any education at all. This has some positive aspects (Einstein asked once his auditory: "How the big discoveries come to light?" and as no answer came, he gave it: "Every body knows that something cannot be done; but there is somebody who either has not heard about or who is too stubborn to believe what the world says; and he does it"). The lack of systematic education has, however, a plenty of negative aspects. I think, it is not necessary to number them. On the other side, as an effective free energy machine can bring to his inventor an enormous amount of money, and as many machines have swallowed big sums from the pockets of their constructors, almost all such machines are covered with secrecy, I should rather say, with *mysticism*. It is thus very hard to see the truth in the jungle of stupidities, phantasmagories, half-spoken truths, truths, exagerations, lies. I should like to say only two words about the exagerations and the lies. They are of a double character: nonintentional and intentional. Any researcher "sees" the effect which he is looking for before the experimental set-up shows it, and if the set-up shows the effect, the researcher sees it bigger than it actually is. And he does all this *non-intentionally* (any enamoured person sees the object of his love handsomer than it actually is). But very often the exagerations and the lies are *intentional*. For many reasons. One of the principal reasons is to come in this way to money for improving one's machine and for • constructing others. I must emphasize, however, that in my numerous contacts with the free energy builders I have not met persons who exagerate and lie with the single aim to angle for money. Thus the free energy people can be called fantasts, naive persons, block-heads, fools, but they are not (or at least I have not met such) charlatans. (It is to be noted that between the clair-voyants, healers and the revolutionaries and preachers the percentage of the charlatans is *very high*.) Thus we can state with proud that during the centuries the builders of the perpetual motion machines have preserved their hearts pure and almost all of them have sacrified their lives with the only saint dream to reach the stars with a bare hand.

In the literature (patents, articles) there are described many free energy apparatus. But the number of the publications where *replications* of these apparatus are des-

cribed is *very limited*. We know, however, that one swallow does not make a summer. I
think, it is highly important to repeat the alleged free energy machines and in the
case of negative (and, of course, of positive) results to publish the results of the
observations. In this way many of the apparatus alleged as "working" will be discarded
and the attention of the free energy community will be concentrated only to these ap-
paratus where there are *effects*.

I am familiar with Joseph Nemwan's machine since the time when he kept it in se-
crecy. I even begged my friend, Dr. Henry Dart III (New Orleans - Tucson) to visit
Newman and to inform me about his impressions about Newman's "black box", what Dr.
Dart did (ref. 1, p. 274). Later J. Newman disclosed the secret of his machine and
I wrote a short supporting paper submitting it to *Nature*, but the paper, although
accepted, has not appeared

(ref. 1, p. 322). In both my books[1,2] I dedicated to Newman many pages reprinting
information on his machine from scientific vehicles, newspapers and directly from
Newman's book[3]. At the Dr. Nieper's conference in Hannover in March 1987 I tested
a replication of Newman's machine constructed by the German student Sven Reuss. I was
so impressed that at the concluding hours of the conference I highly praised Newman's
machine and I granted to Sven Reuss the half of the 5,000 DM award which I won at
the conference. Returning to Graz, I made my own replication with the aim to test the
machine properly and to try to close the energetic circle, running it eternally (see
in fig. 1 the principal scheme and in fig. 2 and 3 photographs of two of the several
variations which I carried out). I made extremely careful measurements with a *perfect-
ly* constructed machine. One of my rotors (fig. 3) rotated on the two sharp points of
clock axles and was practically without mechanic friction, so that the *whole energetic
balance* could be done in *electrical watts* only, calculating also the dissipated ohmic
heat in electrical watts, too. I registered *no violation* of the energy conservation
law, as the input was *always* slightly higher than the total output, including in the
output the whole dissipated energy as heat.

I wish to bring the results of my measurements to the attention of the free energy
community. I think that in this way many efforts and investments will be saved for
other promising projects. And I should like to repeat Faraday's bequest: "The negative
results of the experiments have the same importance as the positive results; they must
be diligently observed and published too."

My machine consists of a big coil of copper wire (0.3 mm diameter) wound on a pla-
stic cylinder with the following sizes: internal diamater 13 cm, external diameter
25 cm, height 25 cm. I made two such coils (see them in fig. 3). The one has 120,000
turns and ohmic resistance 17,000 ohm, the other 140,000 turns and resistance 20,000
ohm. I constructed many different rotors. Some rotors make the commutation themselves
(i.e., work as traditional d.c. electromotors), other rotate by an outside commuta-
tion (i.e., as synchronous d.c. motors). Let me describe one of the self-commutating

rotors whose principal scheme is given in fig. 1. In fig. 2, for better observation
it is taken out of the coil and can be seen at the right. The rotor has a bar Neody-
mium magnet (sizes 4x3x2 cm) and can rotate on an axle on which two *half*-ring magnets
are fixed and above them there are two Reed's relais, so that during half a rotation
the movable blades are attracted by the half-ring magnets and contact the lower sta-
tionary blades, while during the other half of the rotation the former contact the
upper blades. In this way a commutation of the current in the big coil is carried out,
as the input d.c. electric power (tension) is conducted to the movable blades. Thus,
for one rotation, the direction of the magnetic field changes twice and brings the
bar magnet to a continuous rotation. The bar magnet rotates in front of two other
small coils with axes perpendicular to the axis of the big coil (for the sake of vi-
sual clarity, these two small coils are drawn in fig. 1 *beneath* the axis of the rota-
ting magnet), where an alternating tension is induced which, after rectifying, furni-
shes *a part* of the output electric power. The other output electric power is furni-
shed by one (or more) *secondary* rotors which are put outside the coil and rotate
synchronously (one such secondary rotor   with the coil in which it induces out-
put power can be seen at the left of fig. 2). The rate of rotation is determined by
the amount of friction of the self-commutating rotor. The amount of energy induced
in its two induction coils reduces further this rate. Also the amount of energy in-
duced in the induction coils of the secondary rotors reduces the rate of rotation of
the self-commutating rotor for two reasons: 1) because the *back electromotive tension* (see beneath)
induced by the secondary rotor in the big coil diminishes the flowing current, and
2) because of the direct magnetic interaction between the secondary and primary (self-
commutating) rotor if they are put close enough.

Every child knows that if one has two permanent magnets and the one is solid to the
laboratory pointing, say, with its north pole to the other magnet which can rotate on
an axle, then the movable magnet rotates until its south pole comes to the most near
possible position respectively to the north pole of the stationary magnet. If now one
can change the polarity of the stationary magnet, the rotating magnet will turn to it
its north pole. By making this "commutation" without (or with a low) energy expendi-
ture one can realize a perpetuum mobile. Efforts have been done (although, I must note,
by a very *limited* number of people) to make remagnetization of *hard* iron by *short* but
strong magnetic pulses applied exactly at the moments when the rotating magnet crosses
the "dead" point at the most near distance between the poles. I hope that in this way
a perpetuum mobile *can be* constructed, but, of course, the last word has the experi-
ment. At the Dr. Nieper's conference there were two young German students who tried
to make a perpetuum mobile based on this principle. Their stand was to the right of
the stand of Sven Reuss, and their names are Hermann Lübers and Martin Allerman.

An electromagnet with a high number of windings feeded by a feeble current presents,
it seems, a kind of a "*remagnitazable* permanent magnet", as the energy needed for its

*remagnetization is *very low*, but the magnetic intensity field originated by it *strong*
enough. This *tempting* clue attracted Newman's   attention. To be more clear,
let us make the following childish calculations. If there is a copper wire with a re-
sistance of, say, 0.01 ohm/m (i.e., if the diameter of the wire is 1.4 mm) and a plas-
tic cylinder with a height 1 m and circumference 1 m, then by making one turn and ap-
plying a tension $U = 1$ V, a current $I = 100$ A will flow, the consumed electric power
will be $P = 100$ W, and the magnetic intensity at the center of the loop will be
$H \cong 100$ A/m (exactly 100π A/m , as it follows from the formula $H = I/2R$ with, in our
case, $R = 1/2\pi$). (Note[4] that I do not make a difference between B and H, as these two
quantities are physically *absolutely identical*; thus I use one single term "magnetic
intensity" and one single symbol "B", what, unfortunately, cannot be done in the system
SI where, my God!, B is measured in tesla and H in ampere/meter and the numerical re-
lation between them is $1\ T = \mu_0^{-1}$ A/m $= 10^4$ gauss, with $\mu_0 = 4\pi 10^{-7}$; to evade misunder-
standings, when working in the system SI, I call B "intensity measured in tesla" and
H "intensity measured in A/m".) If we make 10 turns, we shall have, by applying the
same tension, $I = 10$ A, $P = 10$ W, $H \cong 100$ A/m (here the approximation will be better
than in the first case, if the windings cover the whole height of the plastic cylin-
der). If we make 1,000,000 turns (in such a case the diameter of the plastic cylinder
must be reduced, so that the *average* length of one turn should be 1 m), we shall have
$I = 10^{-4}$ A, $P = 10^{-4}$ W, $H = 100$ A/m. I must emphasize that the power (100 W in the first
case and 10^{-4} W in the last case) is not at all *consumed* for "building" the magnetic
field (as Newman thinks); it is simply *lost* as Joule heat in the wires. When the ma-
chine operates (let us for clarity suppose that the commutation is done instantaneous-
· ly and the applied tension is quasi-sinusoidal), the magnetic energy $W = (1/2)LI^2$,
where L (= 3700 H in my machine) is the inductance of the coil and I is the maximum
current flowing through it, travels continuously (with a frequency equal to the double
rate
of rotation) from the source to the coil and *back* from the coil to the source, because
of the dephasing between tension and current. Thus for *changing the polarity* of the
electromagnet one does *not* need to spend energy. And as I showed with the above chil-
dish calculations, the *inevitable* concomitant heat losses can be substantially redu-
ced in a coil with many turns or even brought to zero if superconducting wires should
be used. Newman *wrongly* thinks that this low energy expenditure (which, I repeat, is
only *transformed* into heat, i.e., which is *not lost* at all)   "builds" the magnetic
field. The energy for building the magnetic field $W = (1/2)LI^2$ is spent when switching
on the battery to the coil; then during the commutation this energy simply *travels*
between the battery and the coil. If the ohmic resistance of the coil is zero and
there are no losses at the commutation *no* direct current will flow from the battery
but only alternating current *to and fro*.

The electric energy transformed (I do not like this word "transformed", but inevi-
tably I must use it!) into mechanical energy by a permanent magnet rotating in the

magnetic field of a coil comes from the *back electromotive tension* (back EMT) which the rotating magnet induces in the coil. (Note[1] that instead of the term "electromotive *force*" common in conventional physics I use the term "electromotive *tension*" as "force" is a completely different physical notion; the simplification and the unification of the terms and the symbols in physics are of an *extreme importance* for its easy understanding.) I shall explain the problem with simple figures as above. If the coil has a resistance $R = 5$ ohm on which a tension $U = 10$ V is applied, then, at rest of the magnet, a current $I = 2$ A will flow and the power consumed will be $P_{heat} = UI = I^2R = 20$ W. Now if by the help of a commutator the magnet is set in rotation, the flowing current will be reduced, say, to $I = 1$ A, so that the consumed power will become $P = UI = 10$ W. Of these 10 watt $P_{heat} = I^2R = 5$ W will be transformed into heat and $P_{mech} = P - P_{heat} = 5$ W will be transformed into mechanical energy of the rotating magnet which will then be converted into heat because of the friction in the ball-bearings of the rotating axle. The tension $U_{back} = P_{mech}/I = 5$ V is called "back EMT". This can be checked immediately: if we connect a voltmeter to the terminals of the coil and then rotate the magnet by hand with its operational speed, expanding thus mechanical energy, the induced tension will be $U_{ind} = 5$ V and the flowing current at short-circuited coil will be $I_{ind} = U_{ind}/R = 1$ A. When the machine rotates like an electromotor, the 5 volt induced are called back EMT. One calls the effects described here shortly the "motor rule", when the expenditure of electric energy leads to generation of mechanic energy, and the "generator rule", when the expenditure of mechanic energy leads to generation of electric energy.

An electromotor can show perpetual motion effects only if the "motor rule" will be violated (so, my machine MAMIN COLIU[4,5] shows perpetual motion effects because it violates the generator rule). Newman's motor does not violate the motor rule and I do not see *any physical grounds* for such violation. Why then have I spent time and money to reproduce Newman's machine? - Because I heard too much about the numerous *positive* reports on Newman's machine and I believe only in one God whose name is EXPERIMENT. But I always do all possible to be not involved into a belief in the idol called ALLEGED EXPERIMENT.

In my replication of Newman's machine the motor rule was strictly preserved. The National Bureau of Standards (Washington) has tested[6] one variation of Newman's machine and has also registered preservation of the motor rule. This report of the NBS is difficultly available and it is contested by Newman and his supporter, the physicist Roger Hastings, who claim the test was not properly done. And as in almost any case with a free energy machine, here again all is covered with "mysticism". So the test lasted 6 months and cost 75,000 $. Meanwhile I constructed a type of a similar machine in 10 days and the test itself costs not a single cent and can be done in a day, if one has amperemeters and voltmeters.

In the variation shown in fig. 3 I used very powerful Neodymium magnets (VACODYM

335) from the plant VACUUMSCHMELZE, Hanau, West Germany with an energy product $(BH)_{max}$ = 270 kJ/m^3. In the photograph there is one cylindrical magnet with diameter 3 cm and height 10 cm, but on the rotor I mounted also two other similar magnets.

The rotor in fig. 3 is self-commutating (see the commutator in fig. 3 to the right from the rotor mounted on two long horizontal cylindrical bars). The commutator is operating on the magnetic attraction/repulsion of a small magnet, attached to the re-lais' blades, caused by the rotor's big magnet. This commutator is practically without energy losses. The source is a transformer fed from the mains (see it at the right of fig. 3) adjustable for tension between 0 and 250 V. This alternating tension, through a rectifier, charges a filter consisting of two capacitors (each of 47 μF) and a resistor (1000 ohm) to a direct tension of 370 V (the rectifier can be seen in fig. 3 between the two amperemeters and the transformer). At its rotation the strong rotor's magnet induces electric tension in the small coil whose axis is per-pendicular to the axis of the big coil. This alternating tension is applied to a *cascade* (a combination of 17 condensors, of 47 μF each, and 17 diodes) which increases the applied *low* alternating tension to a *high* direct tension (the cascade can be seen between the amperemeters and the coils).

The input power is calculated as the product of the direct current I_{in} flowing from the source and the applied direct tension U_{in}. As *clear* output power can be con-sidered the heat delivered to a *load* connected to the output of the cascade which I chose with a resistance equal to the resistance of the big coil (i.e., 20,000 ohm). In such a case, however, I had to measure also the current in the small coil and cal-culate the heat delivered in the small coil. There were also some (very small) losses in the cascade. Thus, to reduce the number of the possible measuring errors, I connec-ted the load directly to the output of the small coil. As the resistance of the small coil was 82 ohm, the resistance of the load 800 ohm (the clear power delivered to a resistance of 20,000 ohm in such a case was extremely small!), and the resistance of the galvanometer 18 ohm, I considered the load as having the *total* resistance R_{load} = 900 ohm. Thus the clear output power P_{load} could be calculated as the product of the square of the current flowing in the small coil, I_{load}, and the total resistance R_{load} = 900 ohm. The power dissipated as heat in the big coil, P_{coil}, was calculated as the product of the square of the current flowing in the coil, I_{coil}, and the resistance of the big coil R_{coil} = 20,000 ohm. Finally there was a certain energy dissipation in the R-C element connec-ted in parallel to the big coil for diminishing the sparking in the commutator, with a resistance R_{spark} = 330,000 ohm and a capacitance C_{spark} = 68 nF, which can be seen in fig. 2. This dissipated heat power was calculated as the product of the square of the current flowing in the R-C element, I_{spark}, and the resistance R_{spark}.

I made measurements at different applied tensions (and consequently at different rates of rotation), at different numbers of the magnets in the rotor, at different distances of the rotor from the big coil (it is to be noted that at a greater distance

from the coil the driving moment acting on the rotor's magnet remained quite the same
because the diminished back EMT led to an increase of the current in the big coil).
I also drove the rotor by both big coils, put in one line and the rotor between them,
or put near one to another with slightly inclined axes and the rotor in front of them.
I put also the axes of the big coils at right angles and by an outside commutation
made a rotating magnetic field. For all those combinations the energy conservation
law remained strictly preserved. Here are the figures of two of my measurements.

Motor without load; rate of rotation 340 rev/min

$$I_{in} = 0.54 \text{ mA}, \quad U_{in} = 370 \text{ V}, \qquad P_{in} = 200 \text{ mW}$$

$$I_{coil} = 0.70 \text{ mA}, \quad R_{coil} = 20 \text{ k-ohm}, \quad P_{coil} = 10 \text{ mW}$$

$$I_{spark} = 0.40 \text{ mA} \quad R_{spark} = 330 \text{ k-ohm}, \quad \underline{P_{spark} = 53 \text{ mW}}$$

$$P_{out} = 63 \text{ mW}$$

$$P_{fric} = P_{in} - P_{out} = 137 \text{ mW}$$

Motor with load; rate of rotation 200 rev/min

$$I_{in} = 2.3 \text{ mA} \cdot \quad U_{in} = 370 \text{ V}, \qquad P_{in} = 851 \text{ mW}$$

$$I_{coil} = 4.2 \text{ mA}, \quad R_{coil} = 20 \text{ k-ohm}, \quad P_{coil} = 353 \text{ mW}$$

$$I_{spark} = 0.5 \text{ mA} \quad R_{spark} = 330 \text{ k-ohm}, \quad P_{spark} = 83 \text{ mW}$$

$$I_{load} = 18 \text{ mA} \quad R_{load} = 0.9 \text{ k-ohm}, \quad \underline{P_{load} = 292 \text{ mW}}$$

$$P_{out} = 728 \text{ mW}$$

$$P_{fric} = P_{in} - P_{out} = 123 \text{ mW}$$

I brought also the output of the cascade to the input of the big coil, i.e., I
feeded the big coil with the current which the machine itself produced. At switched
on source the current I_{in} was always higher than the current I_{load}. By switching off
the source only the current I_{load} remained to drive the rotor but after some 30 - 40
seconds the rotation stopped. This *clearly showed* that the braking moment caused by
the small coil was bigger than the driving moment caused by the big coil. This ob-
servation is the most *conclusive* as here no amperemeters are used and no calculations
are done. One only looks whether the machine rotates eternally. Thus here even a
child can say whether the machine produces energy from nothing or not. Newman thinks
that all will be solved when he will be granted a patent. No, Joe! All will be solved
when the machine will run eternally.

It is very easy to show the fallacy of Newman's expectations that by making a coil
with many turns one should be able to drive a strong enough magnet with a very low

energetic expenditure. I must *emphasize* that the rotating moment acting on my magnet
was *very big* at a *very low* energy input for originating the magnetic field. However,
at this very moment when the magnet comes to rotation the back EMT kills the driving
tension, the current in the coil falls almost to zero, and the acceleration received
by the rotating magnet is *very low*. If one touches the magnet by hand, one has the
feeling as if it is immersed in honey. Similar is the case when a piče of metal is
moved in a strong magnetic field and the induced strong eddy currents brake the motion,
even if the driving force is high (remember the Waltenhofen pendulum!). In Newman's
machine the currents are not eddy but are directed exactly *oppositely* to the driving
current. As a result there is a big acting force (driving moment) which leads to a
very feeble motion and consequently to a very low generation of mechanic energy. If
one would like to impart to the magnet a higher rotational velocity, one has to in-
crease *substantially* the driving tension (for this reason Newman applies thousands
and ten thousands volts to his machine!), and the electric power converted into me-
chanic power according to the formula $P_{mech} = U_{back}I$, where U_{back} is the back EMT and
I the flowing current, increases exactly according to the energy conservation law.

   Here I should like to cite the statement of Roger Hastings before the Subcomittee
on Energy on the 30 July 1986:

   "... witness Newman's latest prototype (on demonstration following this hearing
   today in an auditorium in this building), which runs on 0.0008 A   at
   3000 V and turns a 16-inch (= 40 cm) fan blade at more than 500 r.p.m. How much
   torque can this motor produce? Try to stop the motor by holding the two-inch
   (= 5 cm) diameter shaft. This will be not possible for a normal human, although
   the motor will never draw more than 0.003 A   or 9 watts."

   If I have under my hands such a motor, then *in three hours* I shall make the running
perpetuum mobile!!!! However, my measurements have persuaded me that this statement
of Roger Hastings is a *blunt exageration*. If a shaft rotates with 500 r.p.m. and a
normal human cannot stop this *rotation*, then by putting an induction coil, one will
easily induce in it an electric power *higher* than 9 watts. Feeding Newman's coil by
those 9 watts, one will close the circle of eternal motion. Thus if R. Hastings (and
J. Newman) *have* such a motor and spend their time and money (millions of dollars!)
to fight with the wind-mills of the Patent Office,   the National Bureau of Standards
and the judge Jackson, instead of buying an induction coil for a couple of cents and
to *amaze the whole world*, they are to be qualified with the highly *euphemistic* desig-
nation "idiots".

   At his Mississippi news conference on the 20 August 1986 in the town of Jackson
Newman demonstrated two fans which rotated exactly with the same speed. The one was
driven by a conventional motor at a tension $U_c = 75$ V and current $I_c = 0.38$ A, i.e.,
with a power $P_c = U_c I_c = 28.5$ W, the other by Newman's motor at a tension $U_N = 2300$ V
and current $I_N = 0.003$ A, i.e., with a power $P_N = 6.9$ W. According to Newman this

was a *wonder*. Meanwhile if we shall accept, *for simplicity's sake*, that there are not alternating current dephasings and back electromotive tensions, we shall see that the conventional motor has a resistance $R_c = U_c/I_c$ = 197 ohm, and thus the power which it dissipates as Joule heat is $P'_c = I^2_c R_c$ = 28.4 W, while Newman's motor has a resistance $R_N = U_N/I_N = 7.66\times10^5$ ohm and the power which it dissipates as Joule heat is $P'_N = I^2_N R_N$ = 6.9 W. The conclusion is only one: Newman's machine is *more economic* than a conventional motor (in energy consumption but not in weight and material!),however it is *not* (i.e., it cannot be) *perpetuum mobile*.

In November - December 1985 I was in the United States and stayed for 30 days in the house of Dr. Henry Dart (his son is one of Newman's lawyers). I wished to visit Newman but Newman did not grant me an audience. I had long phone conversations with his editor, Evan Soule, and with his principal constructor, Dr. Ralph Hartwell, with whom I spoke then at the Dr. Nieper's conference. I posed always the most logic question: Why Newman does not close the energetic circle, why he loses time and money in *inconclusive demonstrations?* The answer was: "There are technical difficulties." Meanwhile the answer is only one: This is not possible, as the total energy output is always lower than the energy input.

In several of his machines Newman interrupts the current many times during the period of one rotation. I did this with different rates of interruption. The result is only a decrease of the average current and of the driving moment. There is *no* energy win. Further Newman (and Hastings) affirm that a big part of the produced energy is in the form of high frequency oscillations, because of the interruption at the commutation. I "caught" this energy in the R-C element inserted in parallel to the coil's electrodes. As I showed above, this energy is low with respect to the input energy.

I shall not comment on Newman's allegations that although the current flows *from* the battery (in my machine from the filter's condensor), i.e., in the direction of the battery's   tension, nevertheless the battery is *charged*, as one must steem one's readers. The same concerns Newman's concepts that his machine converts mass to energy and all similar scientific absurdities.

In conclusion I shall say only the following: The Joseph Newman machine was a *sweet* myth, but, unfortunately, only a *myth*. If we wish to come soon to an effective perpetuum mobile, any myth must be destroyed. The soon, the better.

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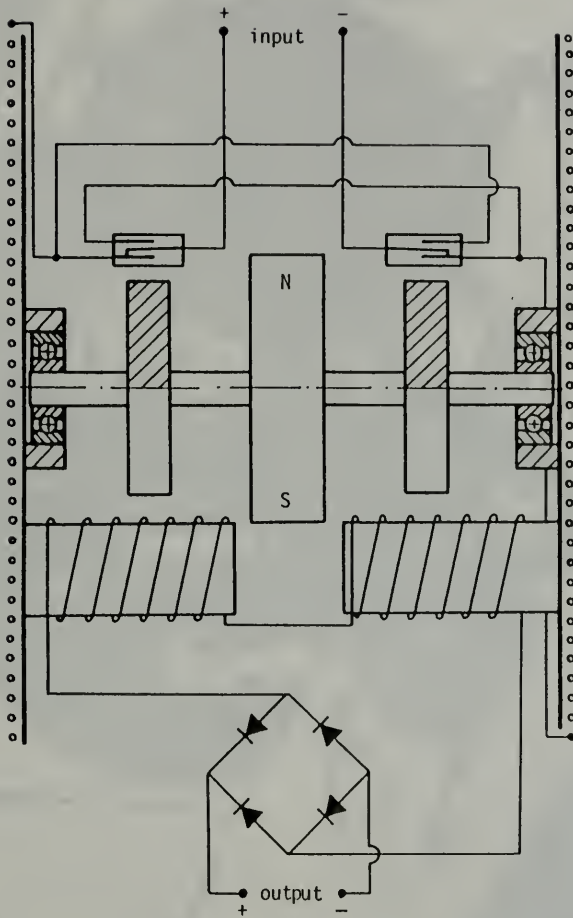6. Report of the Nat. Bureau of Standards, NBSIR 866-3405, June 1986.

Fig. 1. - Principal scheme of Marinov's replication of Newman's machine.
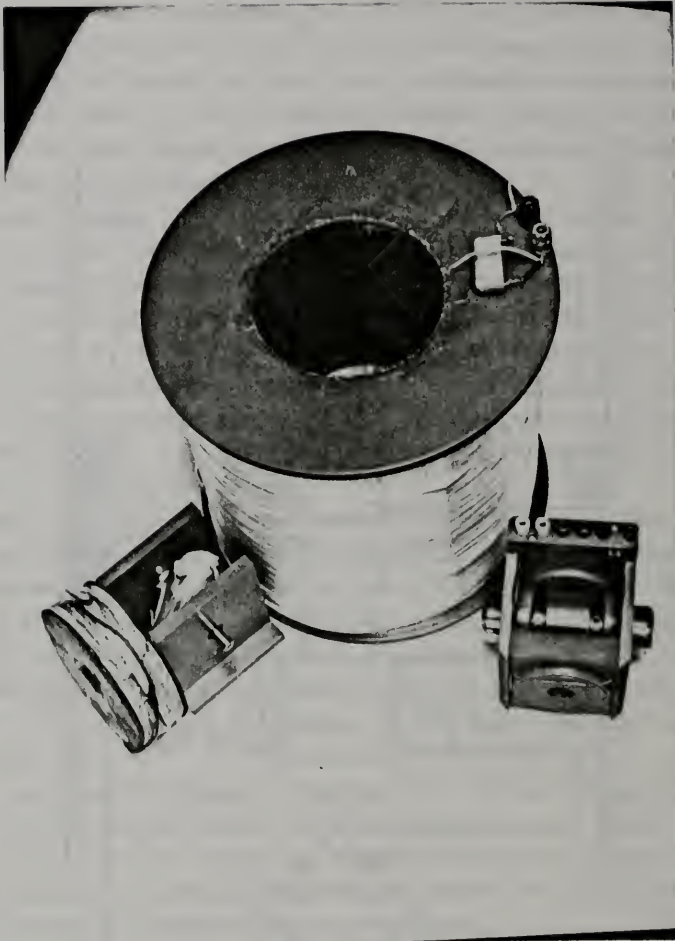
Fig. 2. - Photograph of the machine with a primary (self-commutating) rotor (at the right) and secondary (synchronously rotating) rotor (at the left).
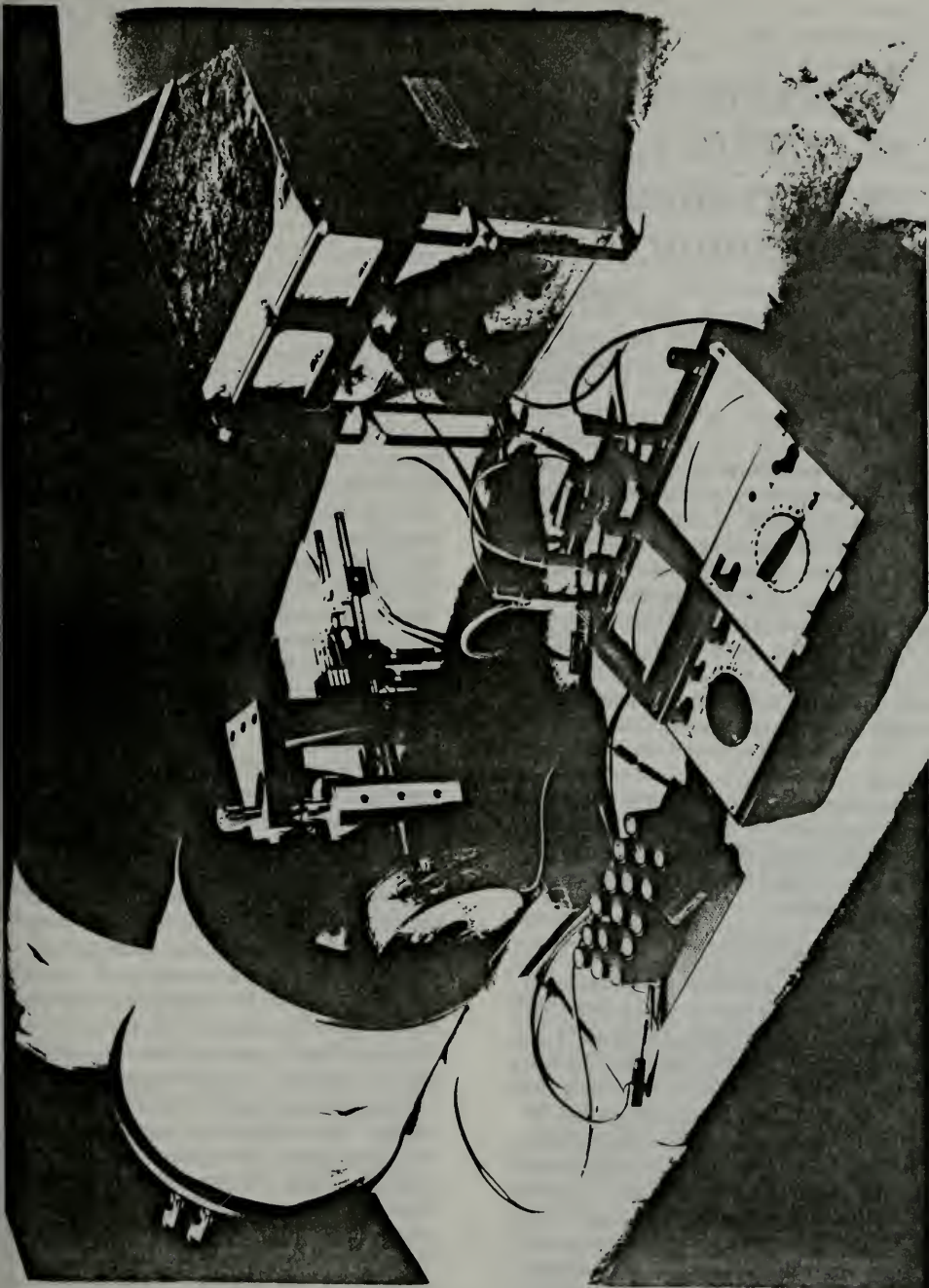
Fig. 3. - Photograph of the machine with a rotor on clock-axles and a cascade for increasing the tension induced in the "output coil".

Experimental violations of the principles of relativity, equivalence, and conservation of energy and angular momentum

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A name frequently proposed for our century is the "century of information". I think, however, that a more adequate name would be "century of disinformation", as never in human history have untruths been so persistently and loudly propagated, the ways of truth so narrow and steep and the noise barrier so high. The disinformation and the noise which overflow our planet are political and scientific. This paper is concerned only with the second, illustrated by my own research.

First, however, I am obliged to present a brief biography to satisfy the requirements of the editor of *Nature* who, after a very long struggle[1-4], has agreed to give me space in *Nature*.

Biographical sketch

I was born in Sofia in 1931 into a family of rich intellectuals, active supporters of communism. I completed a course at a Soviet college and, after studying physics at the Charles University in Prague, graduated in Sofia. I also graduated in electronic engineering in the Sofia Polytechnic and in navigation in the High Navy School in Varna. As a deck officer, I sailed on Bulgarian, Czech-Chinese and West German cargo vessels. I published a collection[5] containing poems written in six languages. In a book[6], I have given a mathematical presentation of the Ricardo-Marx surplus value theory, revealing numerous logical errors of Marx. Briefly, in his general analysis (the third volume of *Das Kapital*) Marx has taken into account only the influence of the different organic structures of capital, which is linear, ignoring the influence of the different turnovers, which is exponential. (The organic structure characterizes the relation between dead and living work "in space", while the turnover characterizes this relation "in time".) My collection of letters[7], addressed to the President of the Bulgarian Academy of Sciences (BAS), Academician Balevski, and to the Vice-Director of the Sofia Passport Office, Colonel Gogov, is considered by certain Bulgarian intellectuals as one of the best satirical books in Bulgarian literature. The book is untranslatable and I forbid any attempt for translation.

In the early 1960s I founded and edited the samizdat satirical journal *Iadetz* and, through the international student congress held in Sofia, I promulgated a very effective proposal for disarmament "from below"[8]. I was arrested and, after a "brainspoiling", released. However, after having written to the Bulgarian war minister to say that I would no longer execute his orders, I was imprisoned and later transferred to a psychiatric clinic, where in 1966/67 I was "cured" with horse doses of neuroleptic drugs. When my paranoia was healed (an extremely rare case, as even medical students know that paranoia is uncurable), I was released and, after six months of "adaptation", I was allowed to continue my work in the Physical Institute of BAS.

My research on the axiomatics of physics brought me to the obvious con-

clusion that the relativity theory of Einstein is wrong and that space and time are absolute categories. I carried out two optical experiments for the measurement of the Earth's absolute velocity. Between the first (1973) and the second (1975/76) experiments, I was again "impsychiatrized" for about a year and pensioned as an uncurable paranoic (the psychiatrists realized, under pressure from the KGB, that paranoia, indeed, cannot be healed). I was deprived of the right to execute any kind of work and I was not allowed, although a top tennis player, to become even a court-attendant in a Sofia tennis club.

In 1977 I organized the International Conference on Space-Time Absoluteness (ICSTA), which was the first independent scientific meeting to be held behind the Iron Curtain[9,10]. Twenty days before the opening of the conference, I was again arrested. After many days of bargaining with representatives of BAS, the KGB and the psychiatrists, I agreed to cancel the conference because fears of an earthquake, and they gave me a passport to enable me to travel abroad. On 27 September, 1977 I landed in Brussels. In December 1977 I edited my first book on physics[11]. In 1981 I edited the first five volumes of my fundamental course in theoretical physics[12]. In 1982 I organized the International Conference on Space-Time Absoluteness[13] and, together with Professor J. P. Wesley, edited its proceedings[14].

In Belgium my status as a political refugee was recognized, but I was soon deprived of that status on the pretext that I travel to the Eastern countries to carry out political demonstrations. Since 1978 I have been expelled from the following countries: USA (for being a communist, although I was invited by the State Department to visit the country), Italy (due to pressure from the Italian Communist Party on the then Minister of Interior, Rognoni, on the grounds that I was a very dangerous anti-communist, and for my participation in the Fifth Antimilitarist March as the only representative of the Soviet-block countries, during which I wrote the music and the text of the "peace march" (ref. 3, p. 172)

and pronounced a big speech in front of the entrance to the American missile base Camp Darby near Pisa), France (three times, the first in 1980 when I tried to immolate myself on the steps of the Soviet Embassy in Paris in a desperate effort to liberate my Russian collegue Dr Orlov, the second and third time on the same day later in 1980 when I was again expelled from Italy, and finally vandalically beaten by the French border police and covered with blood I was thrown again over the border in Italy), Czechoslovakia (twice, the first time after the organization of a demonstration in Venceslao Square in support of Charter-77, the second time after having visited the then Charter-speaker Dr J. Hajek). The Czech police, of course, beat me vandalically. Thus I realized that I have not to bother to turn for a slap my Western cheek, after having been beaten on my Eastern cheek, as the slaps came almost simultaneously (with an Einsteinian time synchronization) from East and West. In 1981 I was deprived of my Bulgarian citizenship and my house in Sofia, one of the most beautiful in the town, was confiscated. In a letter dated 19 April 1982 I wrote to the President Jivcov[15]:

I am ready to return any time to Sofia and to show to the court not only that my activity as a physicist, socialist and pacifist is not nuisable to the interests of the People's Republic of Bulgaria, but that this activity is of high necessity for the more rapid and radical democratization and demilitarization of Bulgaria and for enhancing the reputation of Bulgarian science highly before the world. I am not Lenin to be afraid to appear before a state court and to attempt to hide myself here or there. I respect the Bulgarian court and I will accept with satisfaction its sentence, even an unjust one, as I firmly know that an unjust sentence weighs not on the condemned but on the conscience of the jury. But if you will deprive me of the possibility to appear before a legitimate court in Sofia, this will signify that the court is afraid of me.

In Austria I was imprisoned twice as a vagabond and a man without identity documents (in 1982/83 and then again in 1983, the second time under the personal order of the then Minister of Interior, my *Parteigenosse* Dr Lanc (ref. 4, p. 193)). Finally the Graz police issued me identity documents, but the right to work in the country will not be awarded to me for another 20 years.

This is no joke. I must add that I never joke, I tell only the simple every-day truth

and it is not my fault if the truth is a Kafkaesque nightmare. Let me note that in no country was I beaten so terribly as in the US Embassy in Sofia, on 3 April 1974, when I succeeded in escaping from the psychiatric clinic. With twisted hand and no seeing eye I was delivered to the Bulgarian police[16]. For seven years I then had to earn my bread working illegally as a groom in a stable in a small village near Graz.

I carry out experiments (in 1984 I measured for a third time the Earth's absolute velocity (ref 4 p. 68)) and pay my mail, phone calls (I made no less than 600 phone calls to *Nature*), and for my own travel (I visited all important international space-time conferences held in the past 10 years), all from the proceeds selling my books. A considerable number of my scientific communications have been printed as paid advertisements[9,13,17].

For 15 years, my papers have been systematically rejected by all physical journals of the world. Certain journals return my letters without opening them (for example, *Il Nuovo Cimento, see ref. 3, p. 165), others do not answer my letters at all. I have offered large sums to a couple of journals and physicist-relativists if they will dare to criticize me in the press. I offered $10,000 to Nature if it would publish a negative review on my book Classical Physics*(ref. 4, p. 234). But so far the answer is only one: no comment. Even Academician Andrei Sakharov, whose attitude first was positive, and whom I visited in Moscow in 1978 and in 1987, refused to take part. His answer was: "I am not a specialist in the field and now I have no time to study the problem properly"[18].

To close this biographical sketch let me cite a part of a letter from Dr P. Rossi, professor in history of science at Genoa University, to the editor of *Nature* (ref. 4, p. 284):

Who is Stefan Marinov? — In those days when Marinov lived in Bulgaria and organized the ICSTA-conference Dr. Adrian Berry qualified him in the pages of *The Daily Telegraph* as a very special type of a KGB-agent. *The Economist* in its two-page article dedicated to Marinov put Marinov's physical ideas "on the verge between originality and crankiness". When Marinov emigrated to the West, Mrs Vera Rich in a big article in your journal (*Nature* 271, 296; 1978)

tried to label him as a mad man. On the other hand, prominent European and American physical journals published in the last years more than 40 scientific papers from Marinov which are referred to by many scientists-absolutists, but, strangely enough, by not a single relativist. A further strange fact: 15 days after the appearance of Marinov's book *The Thorny Way of Truth*, your journal (*Nature* 300, 566; 1982) published a review from which it is clear that *Nature* considers him not at all as a strange or mad man but as a dangerous rival of Einstein ... You certainly know that Bulgaria is the Eastern country which has the scope to destabilize the Western world (international terror, political assassinations, traffic of arms and drugs). Is not Marinov, indeed, a special KGB-agent, inserted into the "Bulgarian connection" with the aim of destabilizing Western science?

The principle of relativity

Recently[19] a report on an excellent interferometer experiment was published which, as the authors claim, shows that the velocity of light is isotropic to the first order in V/c, where V is the laboratory's absolute velocity. The authors state that this is the first experiment first-order in V/c confirming the special relativity dogma that light propagates in any inertial frame with the same velocity, c, along all directions. Byl *et al.* compare the velocities of two light beams, one of which passes through air and the other through a medium. I wish to show that the formulae used by Byl *et al.*[19], leading them to conclude that their experiment gives a positive effect if the velocity of light is anisotropic, are wrong. The corrected formulas lead to a null effect.

Consider a medium with a refractive index n in which light propagates with a velocity c/n, and an observer. According to my theory[11,12], for the three different cases of motion along the direction of light propagation, the observer will measure the following three different light velocities (to first order in V/c):

(1) Observer at rest in absolute space, medium moving with a velocity V:
$$v = c/n + V(1 - 1/n^2) \qquad (1)$$

(2) Medium at rest in absolute space, observer moving with a velocity V:
$$v^0 = c/n - V \qquad (2)$$

(3) Observer and medium both moving with a velocity V:
$$v' = c/n - V/n^2 \qquad (3)$$

The first effect was verified first by Fizeau[20] and I call it the Fizeau effect. The second effect was observed for the first time by Dufour and Prunier[21] and I call it the Dufour effect. The third effect was first observed by Harress[22], then by Sagnac[23] for rotational motion and for rotational motion I call it the Sagnac effect. I was the first to observe [24,25] the effect for inertial motion and I call it the Marinov effect.

Byl *et al.* had intended to measure the Marinov effect, but with their set-up the Marinov effect cannot be measured. Indeed, according to equation (3), the velocity of light in the air of the laboratory is $c - V$, while in the medium of the laboratory it is $c/n - V/n^2$. Thus the difference in the time intervals in which light covers a distance L in the medium and in the air is

$$\Delta t = Ln/(1 - V/n) - L/(c - V)$$
$$= L(n - 1)/c \qquad (4)$$

and, to first order in V/c, does not depend on V. It can be easily seen, using (3) written [12] to second order in V/c as

$$v' = c/n - V/n^2 + V^2/cn^3 \qquad (5)$$

that the effect in Byl's experiment is null, also within that accuracy.

I have already carried out Byl's kind of experiment for rotational motion on my rotating disk in Sofia[11,12] and shown that the effect is null.

Let us assume that the laboratory moves in absolute space with a velocity V. If we now move the medium with a velocity v_r with respect to the observer, we have to calculate the velocity of light which the observer will measure either by the help of formula (1) as follows: $v = c' + v_r(1 - 1/n^2) = c/n - V/n^2 + v_r(1 - 1/n^2)$, or by the help of formula (2) as follows: $v^o = c'' + v_r = c/n - (V + v_r)/n^2 + v_r$, and we obtain $v = v^o$, as in both cases the physical situation is the same and only the points of view are different. (In the last case the motion of the observer is against the direction of light propagation.)

When, however, we carry out the Fizeau experiment in the moving laboratory (or in absolute space), measuring the difference in the velocities of light along and against the motion of the medium, we obtain $2v_r(1 - 1/n^2)$, while carrying out the Dufour experiment, measuring the difference in the velocities of light along and against the motion of the observer, we obtain $2v_r$. That's the whole story! For so many years humanity had been unable to understand such a childish problem!

According to the principle of relativity, if in an inertial laboratory there are two objects A and B and one moves object A with an inertial velocity v_r with respect to object B, then all observed physical effects must depend only on this relative velocity and on nothing else. *This is not true!* The effects in the Fizeau and Dufour experiments in absolute space (or in the moving laboratory) are different. The effects depend not on the relative velocities of the objects but on their absolute velocities. *Relativisten aller Länder*, understand once and for ever those childish formulae and throw over board the eighty-years-old nonsense, otherwise one will throw you over board!

In a recent article[2], John Maddox, after giving the description of my "coupled shutters" experiment (ref. 4, p. 62), taken from a paper rejected[1] by *Nature*, writes:

Marinov claims that his results, most recently obtained with home-made equipment at Graz, demonstrate that the velocity of light is not the same in all directions. He even claims to have been able to detect the velocity and direction of the Earth's movement through absolute space and time [sic].

None of this proves that there is anything wrong with special relativity. It is merely a pointer to the kinds of tests that would be necessary to demonstrate a particular (and "weak") violation thereof.

Thus I again pose the question: Is the positive effect in the "coupled shutters" experiment a weak, a strong, or a *devastating* violation of the principle of relativity? This question was posed eight years ago when I wrote:

I must note that many scientists are doubtful whether I, indeed, have registered the effects reported in this paper and of the different high-velocity light experiments reported in the monograph[11]. So, for example, Prof. P. Bergmann wrote me a year ago: "I affirm that your 'coupled mirrors' experiment must give a null result, and the effects registered by you are due to side causes." In my answer I wrote: "If you shall publish this opinion in the press, I shall immediately send you $500." I heard no more from Bergmann.

For eight years Professor Bergmann and the whole camp of the relativists have remained silent (highly interesting is the reaction of the editor of *General Relativity and Gravity* to my generous offer[26]).

In a letter dated 29 December, 1983, I

wrote to Professor B. Nagel of the Nobel Committee for Physics as follows:

I enclose also a photograph of the "coupled shutters" experiment which I constructed this year here in Graz. At interest I can come at any time to Stockholm to demonstrate how I measure the Earth's absolute velocity with this apparatus. My trip and the transfer of the apparatus will be for my account.

The answer from Professor Nagel was pretty short: "Dear Sir, this is to acknowledge receipt of your letter and book, sent 29 December." One can say that there is the case of catholic cardinals who refuse to look at the spots on the Sun. No, the case now is not that there are no spots, but that there is no Sun.

In Fig. 1 I sketch an electromagnetic experiment which also demonstrates a violation of the principle of relativity. The laboratory can be considered at rest in absolute space or moving with a certain velocity. Along the rectangular loop, with d much bigger than b, a constant current I flows in the indicated direction. If moving the vertical wire with a velocity v to the right, between the extremities of the wire an induced motional electric tension with the indicated polarity will appear whose magnitude is $U_{mot} \simeq (\mu_0 vI/\pi)\ln(2b/b_0)$, where μ_0 is the magnetic constant. If, however, the vertical wire is kept at rest and the loop is moved with the same velocity to the left, an induced motional-transformer electric tension will appear with the same polarity and the magnitude $U_{mot-tr} \simeq 2\mu_0 vIb^2/d^2 \simeq 0$. In the first case the calculation is done starting from the formula for the motional electric intensity $\mathbf{E}_{mot} = v \times rot\mathbf{A}$, where $\mathbf{A}$ is the magnetic potential originated by the current of the loop, while in the second case the calculation is done starting from the formula for the motional-transformer electric intensity $\mathbf{E}_{mot-tr} = (v.grad)\mathbf{A}$. This formula and the term "motional-transformer" are proposed by me. In these two cases, the physical effects are completely different and the relevant formulae are also completely different. Since the times of Maxwell, humanity has failed to understand that when moving a wire

with respect to a magnet and vice versa, two different kinds of induction appear and the difference between them is as big as that between the Earth and Heaven.

Moreover, when the loop and wire move together, the same electric tension will be induced as in the case where the wire moves and the loop is at rest. The induction depends not on the relative velocity of the objects, as Einstein heralded in his 1905 paper, but on their absolute velocities. The revelation of the difference between motional and motional transformer induction was given by Kennard[27] and by the numerous beautiful experiments of my friend Dr F. Müller (ref. 4, pp. 46, 239, 297).

The experiment in Fig. 1 was rejected by *Europhysics Letters* on the ground of the following opinion of an anonymous referee:

There is no urgency; Marinov is paddling his own canoe and no one else is interested. Giving him the benefit of the doubt, the best that can be said is that he has proposed an electric experiment which will discriminate clearly between his ridiculous absolute space-time theory and special relativity.

My comments: A theory cannot be ridiculous. A theory can be right or wrong. But a referee for a scientific journal, and a whole scientific community can be ridiculous.

Recently E. W. Silvertooth[28] carrying out a variation of the quasi-Wiener experiment (the name "quasi-Weiner experiment" and the relevant theory are given by me in ref. 11, p.162)) succeeded, as he asserts, in measuring the laboratory's absolute velocity with a very high accuracy. Let me note that Wiener measured the light wavelength for the first time directly by producing standing waves of light and letting them act on photographic film. I term a similar method if used for the measurement of the Earth's absolute velocity a quasi-Wiener experiment. Although a light source moving in absolute space contracts the waves emitted along the direction of motion, the standing waves pattern remains without change (of first as well as of second order in V/c). Thus I concluded that one *cannot* measure the Earth's absolute velocity using the quasi-Wiener experiment.

One should always measure the lengths of standing waves, that is the "two-way" light wave-length, where all first- or second-order effects are cancelled (as this is the case also when measuring the two-

way light velocity).

Silvertooth now asserts[28] that he has developed a modified quasi-Wiener experiment which allows him to measure the laboratory's absolute velocity, and he claims to have obtained figures almost identical with those obtained in my "coupled shutters" experiment[4] and close to those obtained by measuring the slight anistropty of the cosmic background radiation[25].

When I first heard about Silvertooth's experiment, in personal correspondence, I was deeply impresseed. Seeing that his quasi-Wiener experiment, in which transparent photodetectors must be used, is very difficult for repetition, I modified the method to use non-transparent photodetectors, and called it the quasi-Michelson experiment, as it represents a variation of the historic Michelson–Morley experiment. It takes years to construct Silvertooth's quasi-Wiener experiment, while my quasi-Michelson experiment can be mounted in a day in any well-equipped optical laboratory. I carried out such an experiment in January 1987, and remained with the impression that there was an effect. However, analysis of the data brought me to the firm conclusion that in this experiment there is in fact *no* effect. I shall show below that the analysis of Silvertooth's experiment in the frame of my absolute space-time theory leads to a null effect as is the case in almost all high-velocity optics experiments where a newtonian time synchronization is not realized[11,12].

Nevertheless, I consider Silvertooth's experiment as one deserving attention. Perhaps I have not properly understood Silvertooth's method and my attempt to repeat it was not a physically adequate variation of his experiment. I shall be extremely happy if he indeed has measured the Earth's absolute velocity with his set-up and if other workers are able to confirm his results. At the present time Silvertooth is the only man who, apart from me, has claimed to have measured the Earth's absolute velocity in a closed laboratory. If his result is confirmed, it lends important experimental support to my absolute space-time theory.

I am, however, firmly persuaded that his method is not effective and thus only by realizing a newtonian time synchronization by the help of a rotating axle one can measure the Earth's absolute velocity by an optical experiment in a closed laboratory, as I have done[4,24,25].

I shall describe Silvertooth's experiment as I understand it and then I shall present my quasi-Michelson variation.

Figure 2 shows Silvertooth's set up. Light coming from a He-Ne laser ($\lambda = 6,328$ Å) is split by a semitransparent mirror M_1 into two beams. One beam is then reflected by mirrors M_2, M_3 and M_5, and the other by mirrors M_4 and M_6. The two beams then cross the detector D_1, a thin transparent photoelectric sensitive surface (about 50 Å thick) deposited on a glass plate. The two oppositely propagating light beams interfere and produce standing waves. When the laser with mirrors M_1 and M_2 is mounted on a platform which is moved over a distance Δ to the right, the standing waves pattern will be shifted around the ring accordingly. I show in Fig. 3a what will occur in absolute space, that is, when the laboratory's absolute velocity is zero. If the point of separation M (mirrors M_1 and M_2 in Fig. 2) is at the initial position and the relation between the light wavelength and the geometry of the ring is as shown in Fig 3a, there will be an *antinode* at the detector D (the detector D_1), thus producing maximum illumination and consequently maximum photoelectric current. When displacing the point of separation M to the position M' over a distance $\Delta = \lambda/4$, points m' and n' (which correspond to points m and n) will "come" to the detector and there will be a *node* (minimum illumination). In Fig. 3b I show what will occur when the laboratory moves with a velocity $V = c/2$ to the right. According to my theory[11,12], the light velocity along and against the direction of motion of the laboratory is $c_{1,2} = c/(1 \pm V/c)$, being exact within an accuracy of any order in V/c. Thus we shall have for the laboratory light velocity along and against the direction of motion $c_1 = 2/3c$, $c_2 = 2c$, and for the respective wavelengths $\lambda_1 = 2/3\lambda$, $\lambda_2 = 2\lambda$. By displacing the

point of separation M over the same distance $\Delta = \lambda/4$, points m' and n' (which correspond to points m and n) will "come" to the detector D and Silvertooth supposes that there will be an illumination different from minimum as he writes[28]:

> If the translating member (i.e., the point of separation of the light beams M − S.M.) moves towards M, an amount λ, then the wave impinging on D_1 by the route M_3 will advance less than a wave $(\lambda_2 \,\text{›}\, \lambda)$, and the wave impinging on D_1 by the route M_4 will retard more than a wave $(\lambda \,\text{›}\, \lambda_1)$. Thus, the two waves will remain in the same relative phase, but the standing wave pattern will have shifted with respect to the photocathode of the detector D, by a first order amount $\delta = \lambda/V/c$).

This assertion which represents the core of the experiment, is *not* true. At the motion of M over a distance $\Delta = \lambda$, the standing waves pattern at D_1 changes exactly with two antinodes. Indeed, when shifting M over a distance $\Delta = \lambda/4$ in Fig. 3b, the vectors of the electric intensity of the two beams at D which had the same phases at the initial position, producing an antinode, obtain a difference of the phases π, and thus produce a node, exåctly as in the case in Fig.3a. Figure 3b shows this clearly.

Silvertooth, however, supposes that if there was an antinode at D and one wishes to again have a (third) antinode, one has to shift the moving platform over a distance $\lambda \pm \lambda V/c$ (Silvertooth does not say which sign, plus or minus, is to be taken). Then Silvertooth puts a second similar photodetector D_2 between mirrors M_7 and M_8 which is crossed by the two light beams and where the distance between the nodes of the standing wave pattern at rest and at motion of the apparatus is the same.

So Silvertooth supposes that if at the initial poisition of the platform there are antinodes at D_1 and D_2 and one moves the platform, then after a certain shift Δ there will be a node at D_1 and antinode D_2. From the equation $2n(\lambda \pm \lambda V/c)/4 = (2n \pm 1)\lambda/4$, Silvertooth obtains $n = c/2V$ and since $n = \Delta/(\lambda/2)$, he finds $V = c\lambda/4\Delta$, considering n as the number of the antinodes over the distance Δ.

I modified Silvertooth's quasi-Wêiner experiment to produce the quasi-Michelson experiment (Fig. 4). Here the laser is stationary in the laboratory, direct-

ing its light towards M_1 via a mirror mounted on the moving platform, and I exchanged the transparent detectors by nontransparent detectors (photodiodes). To this end I replaced mirror M_5 by a semitransparent mirror set at the same inclination as mirror M_3, and beneath it I put a nontransparent photodiode D_1 whose photosensitive surface pointed upwards. Then I replaced mirror M_7 with another semitransparent mirror, with mirror M_9 beneath M_7, mounted solidly on the platform which reflected the incoming light upwards, and to the left of M_7 I put another untransparent photodiode D_2 solidly to the laboratory whose photosensitive surface looked to the right, so that M_7, M_8, M_9 and D_2 built a Michelson interferometer. Now the nodes and antinodes of the standing waves were produced on the semitransparent mirrors M_5 and M_7 and there was no need for the light beams to cross the detectors. This change makes Silvertooth's experiment so easy that it can be mounted in a day in any well-equipped optical laboratory.

The principle of equivalence

When performing my interferometric "coupled mirrors" experiment[25], I established that during different days of the year, the absolute velocity of the laboratory was different, as the Earth moved with a kinematic acceleration about the Sun. My apparatus can, however, remain for years in a gravitational field, i.e., be exposed to a gravitational, or dynamic acceleration, with not the slightest change in its absolute velocity being registered.

According to Einstein's principle of equivalence, an observer placed in a laboratory where all masses have the same acceleration can by no means establish whether this acceleration has a kinematic character (thus being due to an accelerated motion of the laboratory with respect to distant stars, for example, by a rocket thrust) or a dynamic (gravitational) character (thus being generated by a gravitational action of nearby masses, for example, by the Earth's attraction).

For years I was unable to print the report on my experimental refutation of

the principle of equivalence: I received 31 rejections. Finally I found a vehicle in India[29]. Ridiculous scientific community! Curved space, straight time! Elliptically closed and hyperbolically open world! Bing-bang-bong and tra-la-la! Noise, noise, noise, terrible noise. The whole world becomes deaf because of the noise. Take the years 1820–1830. In that time days and weeks were needed for spreading the information on the experimental and theoretical investigations of Oersted, Ampere, Biot, Savart, Faraday, Arago, Laplace, Davy. In our "informatic century" for spreading the information on the violation of four fundamental physical laws one needs tenth parts of a century.

Energy conservation

A machine which violates the energy conservation law is the N-machine of Bruce de Palma[30]. In fact, the N-machine consists of a cylindrical magnet which rotates together with a metal disk from whose periphery and centre current is extracted via sliding contacts. This effect was observed first by Faraday in 1830, and I term the disk rotating with a cylindrical magnet the cemented Faraday disk. Bruce de Palma was first to show experimentally that the cemented Faraday disk produces more electrical energy than the mechanical energy supplied for maintaining the rotation; de Palma coined the name "N-machine".

I coupled a cemented Faraday disk with a Koenig–Marinov motor with the aim of building a perpetuum mobile (the Koenig-Marinov motor is described in detail in ref. 4, p. 144, and represents my development of the Koenig experiment[31] which is almost forgotten today). The scheme of the machine to which I gave the name ADAM (Apparatus Discovered in Austria by Marinov) is shown in Fig. 5 and the photograph in Fig. 6. The upper part is the cemented Faraday disk and the lower part is the Koenig–Marinov motor. I carried out the following experiment[4]. Using a boring machine (Fig. 6), I set the apparatus in rotation at a certain rate. When the electric circuit was open it came to rest after a certain time. When the electric circuit was closed it came to rest

not in a shorter time (as it must be according to the law of energy conservation, as Joule heat was produced by the flowing current of about 100 A in a resistance of 0.1 mΩ) but in *longer* time. Thus the machine gave clear evidence that energy was created from nothing. The best results were obtained when the Faraday disk was filled with mercury, so that the current was induced not in a solid but in a liquid conductor. The electromagnetic braking of the machine is lower than 100%, but it is still considerable and the closing of the energetic circle is a difficult technical problem.

At the present time the best *perpetuum mobile* effect has been obtained from my machine MAMIN COLIU (MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit)[4,17]. In Fig. 7 one of the six prototypes of MAMIN COLIU is shown. This machine has no electromagnetic braking whatsoever — the electromagnetic braking is 0%.

Angular momentum conservation

Figure 8 shows the scheme, and Fig. 9 the photograph of my BUL-CUB MACHINE WITHOUT STATOR which violates the law of angular momentum conservation. This machine is merely a very effective modification of the experiment of Graham and Lahoz[32], who were first to observe a violation of the law of angular momentum conservation, but did not realize the significance of their experiment. Concentrating the magnetic field in an iron yoke and making the distance between the condenser's plates very small, I succeeded in bringing the whole body into rotation (about 2 kg) with an alternating current 1.5 A. Graham and Lahoz worked with a constant magnetic field and could bring their microscopic condenser only in oscillations. I also sent alternating current through the windings of the magnet's coil and obtained a unidirectional torque, as this torque is a product of the currents in the coil and in the radius of the "Faraday disk". As the circuit closes through the "displacement current" in the condenser which has no

physical substance and thus has no magnetic *ponderomotive* reaction, the whole body comes into continuous rotation only because of the action of internal forces. The machine and relevant theory are presented in ref. 33, p. 82.

I hope that the scientific community will show an interest in all the *miraculous* machines I have constructed. □

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3. Marinov, S. *The Thorny Way of Truth*, Part I (East-West, Graz, 1982).
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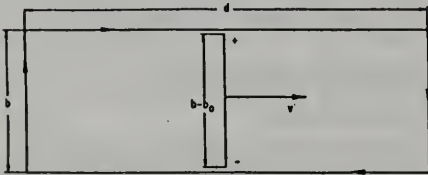33. Marinov, S. *The Thorny Way of Truth*, Part III (East-West, Graz, 1988).

Fig. 1 Electromagnetic experiment violating the principle of relativity (carried out by Müller[33]).
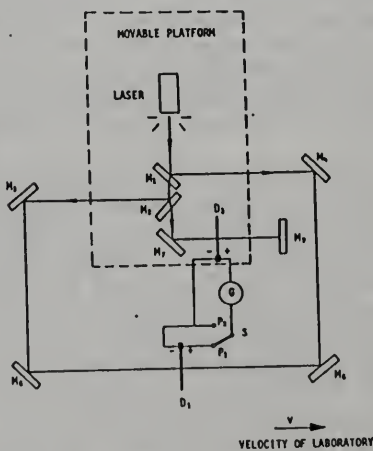

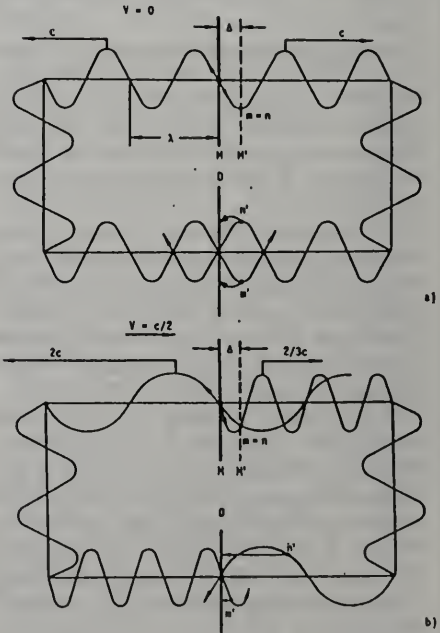Fig. 2 Silvertooth's variation of the quasi-Wiener experiment.

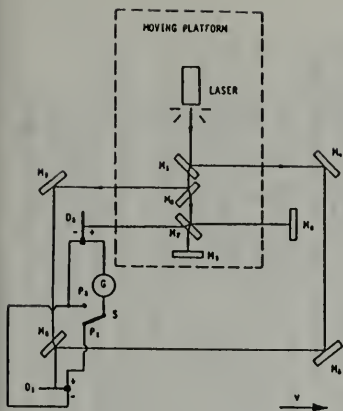Fig. 3 Physical explanation of Silvertooth's experiment.

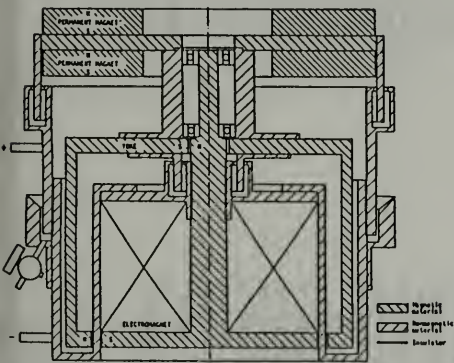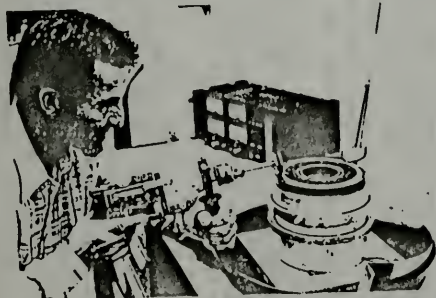Fig. 4 Marinov's variation of Silvertooth's experiment.

Fig. 7 The machine MAMIN COLIU.

Fig. 5 Scheme of the machine ADAM.

Iron (powder)
Plastic
Brass
BaTlO₃
Contact
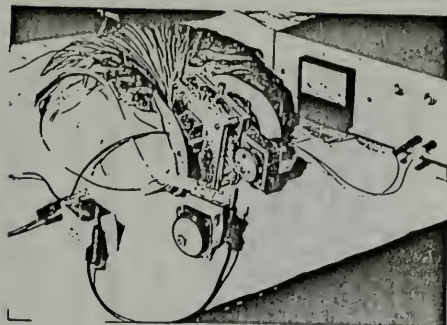
Fig. 8 Scheme of the BUL-CUB MACHINE WITHOUT STATOR.

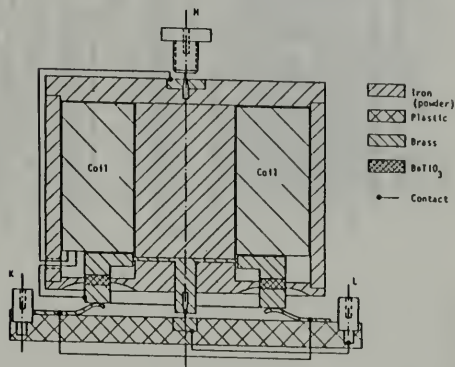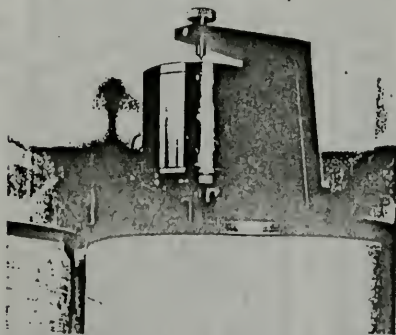Fig. 6 Photograph of the machine ADAM.

Fig. 9 Photograph of the BUL-CUB MACHINE WITHOUT STATOR.

Editorial note. Larger reproductions of the figures can be seen on the following pages:

Figure:	1	2	3	4	5	6	7	8	9
Page:	42	295	296	297	45	45	92	79	80

TWT - I

XIII. *On Unipolar Induction: Another Experiment and its Significance as Evidence for the Existence of the Æther.* By E. H. KENNARD, *Ph.D.*

§ 1. *Introduction.*

"UNIPOLAR induction in the general sense may be defined as induction due to motion alone." This condition requires that the magnetic induction shall remain constant at all points fixed relative to any part of the material system involved, so as to exclude any possible effects due to a changing magnetic field; and the only form of motion satisfying this requirement is rotation about an axis of magnetic symmetry. The fundamental problem of unipolar induction is therefore this, whether the induced E.M.F. is determined by the absolute rotation of the system or by the rotation of its parts relative to each other.

Theory has answered the question in three principal ways. The oldest view, put forward by Faraday and adopted by Lorentz, refers the effects to an induced electromotive intensity given by

$$\frac{1}{c}[v \times B],$$

where B = magnetic induction and v = velocity relative to the æther (assumed stationary); the effect will therefore depend in part upon the rotation of the system as a whole. The "moving line" theory adopts the same expression, but interprets v as velocity relative to axes fixed in the material magnetic system: this view is virtually included in Neumann's theory of electromagnetism, and is based upon complete relativity, so that the effects depend only upon relative rotation between the parts.

Experimentally, the question can be answered only by observations upon open circuits. The first investigation of this kind seems to be one made by the author†, in which an iron bar magnetized by a stationary solenoid was set in rotation inside an insulated metal cylinder connected to earth, and a charge was looked for on the cylinder due to a possible E.M.F. in the earthing wire. The result was definitely negative. Barnett's objection‡ that the negative result might conceivably be due to the non-rotation of the solenoid is valid, but seems decidedly weak, for it assumes a

* Communicated by the Author.
† E. H. Kennard, Phil. Mag. June 1912, p. 937.
‡ S. J. Barnett, Phys. Zeits. Sept. 1, 1912, p. 803.

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radical difference to exist between induced and permanent magnetism, for which there is no other evidence; it even requires that the remanent magnetism shall not acquire the inducing properties of permanent magnetism until the magnetizing force is removed, for the remanence in the bar employed amounted to over 25 per cent. This experiment serves, therefore, to throw grave doubt upon the moving-line theory; but beyond that its theoretical significance is limited by the fact that the rotating magnet was necessarily enclosed in a second metallic screen of small diameter, and this might conceivably act so as to cut off the effect.

Fig. 1.

A more instructive but more difficult arrangement consists of a cylindrical condenser inside a coaxial solenoid (fig. 1), both capable of rotation about their longitudinal axis; the condenser is connected to an electrometer as shown. Let the condenser be short-circuited and set in rotation with the solenoid energized. Then according to either Lorentz's or the moving-line theory (but not according to Hertz's) the two cylinders of the condenser should come to different potentials, and the inner one at least should be charged. According to Lorentz's theory rotation of the solenoid should have no effect upon this charge. According to the moving-line theory rotation of the solenoid alone should charge the condenser in the same manner, while the condenser should remain uncharged when condenser and solenoid rotate together with no relative motion between them.

Barnett constructed an apparatus of this sort*, and showed that rotation of the solenoid alone developed no charge upon the condenser. Later, Fehrle† reported confirmatory observations with a rather different arrangement, but his work is marred by several results which must certainly be wrong; one of his results even contradicts Faraday's law for closed circuits!

Under these circumstances, while there appeared to be little doubt of the correctness of Lorentz's theory, yet the matter

* S. J. Barnett, Phys. Rev. Nov. 1912, p. 323.
† Fehrle, *Ann.* xlii. p. 1109 (1913).

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seemed of sufficient interest to justify the attempt to obtain both positive and negative results with an apparatus like that described above, and to prove experimentally that the inner cylinder really would charge up, in spite of its being enclosed by a metallic screen rotating with it.

Another apparatus has accordingly been constructed in which either the condenser or the solenoid could be set in rotation. The present paper contains an account of the work and a discussion of the theoretical significance of the result.

§ 2. Apparatus.

The condenser and solenoid are shown to scale in fig. 2, which is largely self-explanatory. All metal parts, including the base, were of brass. Guard-rings in line with the inner cylinder were introduced in order to simplify the calculation. Rotation was effected by means of a belt connected to a motor placed about 2 feet away.

Fig. 2.
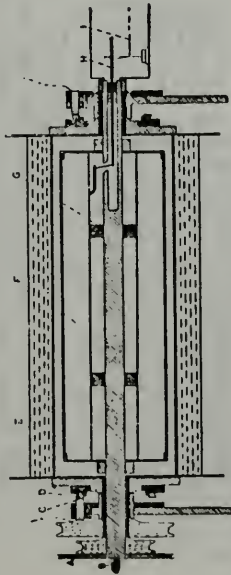
C, brush; D, slip-ring; E, solenoid, 22·5 cm. long, 1150 turns of wire; F, condenser: outer cylinder 20·5 cm. long, 6·64 cm. in diam.; inner cylinder 15·1 cm. long, mean diam. 1·54 cm., on amber rings G. Diam. of shaft, 1·27 cm.

- - - - Pages 182 - 187 with the technical details are - - - omitted - - - -

§ 7. Fate of the Moving-Line Theory.

The view has been put forward by Poincaré*, Abraham†, and Burnett‡ that even observations on open circuits cannot disprove the moving-line theory; and in reply to criticism by the author, Barnett maintained this view with some heat§-

* H. Poincaré, Éd. Élect. xxiii. p. 41 (1900).
† Abraham & Föppl, Theo. der Elektr. p. 420.
‡ S. J. Barnett, Phys. Rev. Nov. 1912, p. 323.
§ S. J. Barnett, Phys. Rev. Oct. 1913, p. 233.

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The author yields to none in appreciation of Barnett's work on unipolar induction, and in respect for his long experience with electromagnetic theory; but on this point it seems clear that all of the writers mentioned have, through an oversight, arrived at a wrong conclusion.

The matter has been fully discussed elsewhere*, but perhaps a summary of the argument will not be amiss here. Barnett urges that an adherent of the moving-line theory must suppose the lines (i. e. the rotating magnetic system) to set up in the æther the same electromotive intensity that is caused to act upon a material dielectric, and shows from this assumption that the charges developed upon conductors would be the same whether the lines moved or not. The objection which seems to the author conclusive is that this electromotive intensity, of magnitude $\frac{1}{c}[V \times B]$, does not in general satisfy Laplace's equation. (The proof is simple.) In spite of this fact Barnett employs the two additional assumptions:

$$f = \frac{1}{c} [V \times B] + e + E, \quad \cdots \cdots (1)$$

where f = total electromotive intensity, e = electric force due to changes in the magnetic field and vanishes in the present instance, E = electric force due to electrostatic causes alone; and the equation

$$\operatorname{div} (Kf) = 4\pi\rho, \quad \cdots \cdots (2)$$

where ρ = electric density.

Now in free æther we know from electrostatics that div $E = 0$. Hence in free æther div $f = \frac{1}{c} \operatorname{div} [V \times B]$, and may not vanish, which contradicts (2). We are thus forced to the conclusion that if the moving-line theory is correct, then the lines do not act on the æther, but only on material bodies, and instead of (2) we must write (with Lorentz) div $(KE) = 4\pi\rho$.

The real root of the matter seems to be that the æther cannot be treated as only a particular species of the genus "dielectric," but must be regarded as complementary to all material dielectrics. The displacement or polarization in matter does not need to be solenoidal, because its sources can be cancelled by sources of opposite sign in the displacement in the æther, and the total displacement may then be

* E. H. Kennard, Phys. Rev. May 1913, p. 355.

solenoidal. But free æther has no such means of self-defence, and consequently all forces acting on it must themselves be solenoidal.

The moving-line theory seems therefore to be definitely disposed of by the results obtained by Barnett, Fehrle, and the author.

§ 8. *Conclusion.*

The practical bearing of these experiments is small, yet they do necessitate a correction of certain statements that are common in the textbooks. For instance, it is not correct to say that the effect of rotating the armature of a dynamo is the same as that of rotating the field-magnets in the opposite direction. The *total* E.M.F. is the same, but in the first case it is developed almost entirely in the longitudinal parts of the winding, while in the second case a large fraction of it is developed in the radial parts, and the distribution of electrification on the armature will be different.

The most interesting case theoretically is that where the solenoid and condenser rotate together at the same speed. The charging up of the condenser cannot be conditioned by rotation relative to the connecting wires and electrometer. For suppose that the sliding contacts had been exactly on the axis, which was nearly true, and that they were connected by an axial wire extending through the condenser so as to form a closed circuit. Then it is certain, by Faraday's law, that rotation of the connecting wires and electrometer would cause no deflexion of the latter; and this negative result can hardly be due to an E.M.F. in the axial wire which was added. Rotation relative to the earth might in some unknown way be responsible for the observed effect, but this seems improbable. If we reject this assumption, then the effect is due to an absolute rotation in the same sense in which the operation of a gyrocompass is due to an absolute rotation of the earth.

But rotation of the whole is essentially only translation of the parts. We must suppose each electron in the condenser to experience a radial force proportional to its distance from the axis; and it is interesting to inquire what can cause such a force. It cannot be due either to the radial acceleration, for that is proportional to the square of the distance, nor to a possible rotation of the electron about its axis, for that should be the same for all electrons, nor to their motion relative to other essential parts of the apparatus, for there is no such motion. Apparently the only remaining alternative is to ascribe the force to motion of the electrons relative to

something which is not matter, and which does not share in the rotation of the condenser, and this something must be the stationary æther of Lorentz.

This phenomenon seems therefore to lend definite support to the existence of an electromagnetic æther. It is, perhaps, the only low-frequency phenomenon which cannot easily be described in terms of "action at a distance" between electrons and atoms. It seems, for this reason, to have some importance as a stumbling-block in the way of those ultra-relativists who would abandon the conception of an æther altogether.

Summary.

An experiment is described showing that a cylindrical condenser rotating inside a magnetized coaxial solenoid becomes charged as required by the theory of Lorentz. Rotation of the solenoid has no effect (Barnett).

The disproof of the moving-line theory is thus completed; electromagnetic induction depends in part upon absolute rotation in the mechanical sense. Analysis in terms of electrons seems to make necessary the existence of a stationary æther in order to explain the observed effect; so that the phenomenon seems to present difficulties for those relativists who reject the æther.

<u>Marinov's note.</u> In the preceding pages I give the initial and the final pages of the historical paper of Kennard which was the first experiment showing that the electromagnetic effects depend NOT on the relative velocities of the objects (as it must be according to the principle of relativity and Einstein's relativity theory) but on their ABSOLUTE velocities. Kennard's experiment was also the first experiment which COULD demonstrate a violation of the angular momentum conservation law. Indeed, if the current in the coil will be alternating, then when Kennard's apparatus rotates an alternating current must flow in the condenser's circuit. This current will produce Joule heat and thus deliver energy. This energy cannot come from the source feeding the coil, as at rest of the apparatus no current will flow in the condenser's circuit. Thus, according to the energy conservation law, the energy delivered by the current in the condenser's circuit must be "transformed" mechanical energy. Consequently the velocity of the apparatus must diminish. This will lead to a violation of the angular momentum conservation law, as a freely rotating body brakes its rotation because of the action of internal forces. One must do a PRECISE repetition of Kennard's experiment to see whether such a braking will appear. If not, then this experiment will violate the energy conservation law.

On this page and on the next page I reproduce the historical article of Graham and Lahoz who first in the world have observed a violation of a law of conservation, namely of the law of angular momentum conservation. Unfortunately, Graham and Lahoz have not understood the TREMENDOUS IMPORTANCE of their experiment and have SUPPOSED that the "opposite angular momentum" is "taken" by the electromagnetic field.

Observation of static electromagnetic angular momentum *in vacuo*

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Our programme of measurement of forces related to electromagnetic momentum at low frequencies in matter has culminated in the first direct observation of free electromagnetic angular momentum created by quasistatic and independent electromagnetic fields E and B in the vacuum gap of a cylindrical capacitor. A resonant suspension is used to detect its motion. The observed changes in angular momentum agree with the classical theory within the error of ~20%. This implies that the vacuum is the seat of something in motion whenever static fields are set up with non-vanishing Poynting vector, as Maxwell and Poynting foresaw.

In establishing the electromagnetic nature of light, Maxwell[1] opposed Weber's "action at a distance" with his "dynamical" model of a vacuum with hidden matter in motion. His ideas were expanded by Poynting through the energy-flux theorem, but relativity theory initially dealt them a blow. However, despite Einstein's explicit reconciliation with the aether[2] there is currently some doubt about Maxwell's medium. It was in a relativistic context that Minkowski[3] found, as a purely mathematical consequence of Maxwell's equations, that the Lorentz force density could be exactly expressed as the divergence of Maxwell's tensor *in vacuo*, T_{vac}, decreased by the rate of change of Poynting's vector:

$$\rho E + \mu_0 J \times B = \nabla \cdot T_{vac} - \frac{\partial}{\partial t} \epsilon_0 \mu_0 E \times B \qquad (1)$$

According to Maxwell–Poynting ideas, the last (Minkowski's) term in equation (1) can be interpreted as a local reaction force acting on charges and currents when the vacuum surrounding them is loaded with electromagnetic momentum. Einstein and Laub[4] observed that if equation (1) is integrated to all space, the term $\nabla \cdot T_{vac}$ generates a vanishing surface integral and therefore the system of all Lorentz forces in the Universe needs to be supplemented with the quantity $\int_\infty \epsilon_0 \mu_0 \partial/\partial t E \times B \, dv$ to preserve Newton's third law. The opposite of this last vector is usually interpreted as the net unlocalized reaction on charges and currents due to radiation fields but, classically at least, it also represents a real reaction force even with induction fields.

We have made, to our knowledge, the first direct observation of the Minkowski term with induction fields E and B, which are confined to a small volume so that the local nature of the vacuum reaction term has also been demonstrated. The experiment consists of measurement of the axial torque on a cylindrical capacitor and its radial leads, located in an axial magnetic field. Thus $E \times B$ is azimuthal inside the vacuum gap of the capacitor. The details of the capacitor and its mounting on a torsion oscillator are shown in Fig. 1. The capacitor and its leads form a rigid and nearly closed electrical loop. The magnetic field and the capacitor voltage are time varied so that one Fourier component of their product is locked to the resonant frequency

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of the mechanical system, which is of sufficiently high $Q (> 10^5)$ to yield a measurable oscillation amplitude when viewed by a μ-radian sensitive optical lever. Knowledge of the resonant amplitude and frequency, moment of inertia and free decay time (with $E = 0$) yield the driving torque. The suspension system is located in the vacuum interspace of a liquid helium Dewar. The magnetic field, uniform to ~2%, is supplied by a superconducting solenoid.

This technique is an extension of our previous work[4] on electromagnetic forces in material media, with dielectric or magnetic material in the capacitor. In those experiments, the magnetic field was held fixed and the voltage was impressed at the resonant frequency. This resulted in a large resonant noise due to electrostatic forces (at the second harmonic) which coupled in some degree at the resonant frequency. The present experiment was made possible by detuning the voltage from resonance by ~1 Hz, using as a source the output of a high stability oscillator. This signal ($\nu = 243.31$ Hz) was electronically multiplied by the signal ($\nu = 242.18$ Hz) from the slave oscillator phase locked to the resonant system by the optical lever, so that sum and difference frequencies were generated. After low pass filtering, the difference signal was used to drive the magnet. In this way, one component of the product EH was at the resonance but $(E^2)^{1/2}$ was not. The various phase shifts in the circuitry were carefully nulled. A calibrated pick-up coil provided absolute measurement of H. The apparatus permitted reasonable measurements of torque over a range of about a factor of 3 in both E and μ_0H, up to maximum amplitudes of 2×10^6 V m^{-1} and 0.3 T respectively.

Measured torques are compared in Table 1 with calculated torques acting on the suspension which arise entirely from the net Lorentz force on the current I in the radial leads which charges the capacitor, that is, a torque $I\mu_0 H(a^2-b^2)/2$, where a and b are the outer and inner radii of the capacitor cylinders (~5.5 and 4.5 mm). Here I has been corrected for the known stray capacitance to earth
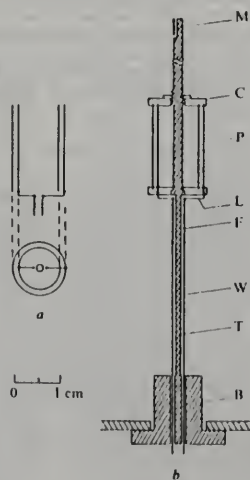
Table 1 Calculated and observed torque amplitude for typical field amplitudes (the electric field is given at the inner electrode)

E_0 (MV m^{-1})	B_0 (T)	$T_{0,calc}$ (pN m)	$T_{0,obs}$ (pN m)
0.58	0.13	2.0	1.8
0.64	0.22	3.5	4.4
1.3	0.22	7.1	8.5
1.7	0.19	7.9	8.7
2.3	0.22	12.4	17.0

external to the suspension (~1 pF effective) and for the fraction of conduction current which corresponds to polarization current in the dielectric end plates, as that part corresponds to a closed loop of current contributing no torque. Thus I corresponds to charging a pure vacuum capacitance C_0 only. C_0 was calculated from the geometry (4.7 pF) and also estimated by measuring the effect of removing one end plate (4.9 pF). The error in the calculated torque is mainly due to the uncertainty in the corrections for stray capacitance. It is estimated to be ~10%. The systematic trend in the ratio of T_{calc} to T_{obs} can be understood in terms of a small, amplitude dependent, non-linearity in the equation of motion, due to magnetic field dependence of the damping, which results in imperfect cancellation of the resonant noise[4] at high fields. Consequently, the tabulated discrepancies are within an estimated total error of ~20%.

Although this result is to be expected by classical electromagnetism, it leads inexorably to the acceptance of the physical reality of the Poynting vector, even though E and H arise from independent sources. This can be seen by seeking the system on which the third law reaction torque must act. It can be neither the external electrical circuit, as the loop is essentially closed within the suspension, nor in the magnet, which, as a coil, cannot receive an axial torque (force parallel to its own current). For angular momentum conservation, the loop is an isolated system and the reaction torque can only be considered as a change in electromagnetic angular momentum carried by the fields themselves in the region of their co-existence, that is, within the vacuum gap of the capacitor. As $I = C_0 dV/dt$, the calculated torque is exactly equal to the volume integral of $\mathbf{r} \times \partial(\mathbf{E} \times \mathbf{H})/\partial tc^2$, so that the complete reaction is accounted for by the assignment of a real angular momentum density to $\mathbf{r} \times (\mathbf{E} \times \mathbf{H})c^2$ (ref. 5).

It is remarkable that no known 'particle' can be identified as the agent of the observed electromagnetic angular momentum in exchange with the mechanical detector. However, this does not imply that a new entity has to be introduced, because the concept of energy-momentum carried by macroscopically quasistatic electromagnetic field is already contained in Maxwell's equations. According to these, and as directly implied by our experimental result, permanent magnets and electrets can be used to build a flywheel of electromagnetic energy steadily flowing in circles in the vacuum gap of a capacitor as if Maxwell's medium were endowed with a property corresponding to superfluidity. The certainly new insight is that the quasistatic Maxwell's field is not merely an unobservable medium of interaction between matter and matter: it has in fact the mechanical properties postulated by Maxwell, in contradistinction to any "action at a distance" theory.

This experiment is continuing and a complete report will be published elsewhere.

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2 Einstein, A. *Aether und Relativitaetstheorie* (Springer, Berlin, 1920).
3 Minkowski, H. *Gesamm. Abhandl.* Bd. 2, Vol. 6 (Leipzig, 1967).
4 Einstein, A. & Laub, J. *Annln Phys.* (Leipzig) **26**, 541–550 (1908).
5 Lahoz, D. L. & Graham, G. M. *Can J. Phys.* **57**, 667–676 (1979). *Phys. Rev. Lett.* **42**, 1137–1140 (1979).

Fig. 1 (*a*). Scale views of the capacitor and its rigid leads. The capacitor is formed from two stainless steel cylinders, the rigid leads run radially to the electrodes from near the axis, where they are fixed to 0.03 mm copper fibres. (*b*). The capacitor clamped to the suspension system with polyurethane end plates (the clamping details are schematic only). M, Mirror for optical lever; C, end plates; P, capacitor electrodes; L, radial leads; F, fibres; W, stiff feed wires; T, torsion shaft; B base.

CLIPPINGS FROM JOURNALS

AND

CORRESPONDENCE

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21-го июня 1986 г.

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Москва

Дорогой товарищ Горбачев,

Как я оповестил (Nature, 317, стр. xii, 26 сент. 1985 г.), я не имею намерения патентировать электромагнитные вечные двигатели, открытые мною, и я дарю их человечеству. Я хотел бы, однако, чтобы это великое открытие, которое коренным образом изменит всю энергетическую структуру нашей планеты, повело бы к существенным изменениям и в структуре политической и моральной нашего мира. Как энергетический источник энергии, электромагнитный вечный двигатель дешев, чист, рассредоточен и неограничен, т.е. все его "параметры" диаметрально противоположны параметрам почти что всех известных источников энергии, прежде всего атомных. Так что вечный двигатель приведет к экономическим и политическим изменениям просто из-за своей сущности. (Позвольте процитировать нашего учителя: "Новые методы производства всегда приводят к новым производственным отношениям.") Мы должны, однако, сделать все, что в наших силах, чтобы новые "производственные отношения" привели бы человечество как можно скорее и безболезнее к мировому коммунистическому обществу (христиане называют его "раем на земле"), где человек не будет больше слугой Мамона. Одни из важных шагов на этом пути, это быстрая и глубинная демократизация и либерализация Советского Союза и других стран "реального социализма", чтобы последний стал просто "социализмом". Настоящим письмом я прошу Вас сделать все усилия в рамках Ваших ограниченных возможностей (я признаю эту ограниченность) и дать свободу моим русским коллегам д-ру Сахарову и д-ру Орлову. В случае что Сахаров и Орлов не будут освобождены к Рождеству, объявляю настоящим письмом, что я, как открыватель вечного двигателя, не разрешаю использовать этот источник энергии в странах реального социализма. Я уже объявлял в 1981 г., что не разрешаю использовать для военных целей мой космический спидометр (аппарат действующий на изотропии световой скорости). Однако NASA пользуется им, не спрашивая моего разрешения. У меня нет сил принудить NASA подчиниться моей воле. Подобным образом у меня не будет сил принудить восточные страны подчиниться моему запрету, если моя просьба не будет удовлетворена. Так что у моего "ультиматума" только моральная основа. Я думаю, однако, что в настоящем мире, где физическая сила достигла неограниченной эффективности, единственно эффективной силой остается сила моральная. Иначе нашей цивилизации суждено погибнуть. Я прошу Вас, дорогой товарищ Горбачев, сделать все от Вас зависящее, чтобы убедить своих коллег в советском руководстве, что такие люди как Сахаров и Орлов, с их высокой моральностью, исключительно важны для спасения свободы и для торжества мирового коммунизма. С глубокой надеждой, что моя просьба о милости будет удовлетворена,

Marinov's note. The English translation of this letter was published in TWT-II, third edition, p. 350 (in the epilogue).

Искренне Ваш:

C. Маринов

Стефан Маринов

SVENSKA DAGBLADET, Stockholm, 8 July 1986

Oliktänkande nådde inte fram

– Konferensledningen vill inte släppa in mig eftersom jag har ifrågasatt Einsteins relativitetsteori, säger Stefan Marinov.
Foto: BENKT EURENIUS

Den fristående och omdiskuterade vetenskapsmannen Stefan Marinov nådde aldrig sitt mål – den internationella konferensen om allmän relativitetsteori och gravitation.

Marinov fastnade hos Arlandapolisen, eftersom han vare sig hade giltigt pass eller pengar nog för sitt uppehälle.

– Marinov har själv anmält sig till konferensen. Han betraktas inte som särskilt seriös, men eftersom vi verkar för en öppen debatt hade han beretts plats i utställningshallen, berättar Bertel Laurent från den svenska organisationskommittén.

– Men vi kan omöjligt garantera hans uppehälle här i Sverige, och vi kan heller inte efterskänka hans anmälningsavgift som ännu är obetald.

– Konferensledningen vill inte släppa in mig, eftersom jag vid flera tillfällen ifrågasatt Einsteins relativitetsteori, säger Stefan Marinov upprört.

– Men den här gången kommer jag för att presentera ritningar och beräkningar till en evighetsmaskin, där roterande magneter producerar mer elektricitet än vad som går åt för att få dem att snurra.

Någon prototyp har Stefan Marinov ännu inte kunnat bygga, eftersom han själv finansierar sin verksamhet

DISSIDENT HAS NOT ARRIVED

The freeworking and discussed scientist Stefan Marinov has not reached his goal - the International Conference on General Relativity and Gravitation.

Marinov has been detained by the police at Arlanda because he had not a valid passport and enough money.

- Marinov has applied alone to attend the Conference. He is not considered as a serious man, but as we are for a free discussion, it was given space to him in the poster section, said Bertel Laurent of the Swedish organizing committee.

- But it is not possible for us to guarantee his sojourn in Sweden and we cannot grant him the participation charge which he still has not paid.

-The organizers of the Conference do not wish to let me enter, as I had many times raised doubts in the validity of Einstein's relativity theory, said Stefan Marinov.

-But this time I come to present drawings and calculations of a perpetuum mobile where rotating magnets produce more electricity than they need for their rotation.

Stefan Marinov has not constructed by yet a working prototype as he is financing his activity alone.

<u>Marinov's note.</u> This note was published by SVENSKA DAGBLADET after the first unsuccessful attempt for explusion when I could call the journalist Maria Holm to come to see me in the Arlanda airport. Reading the characteristic which Prof. Laurent gives me in his answers to Maria Holm, I can add only the following: One loses not much if one considers the truth as "not serious", however one loses too much if one believes in a lie. Prof. Laurent betrayed me for the first time in 1980 at the 9th Conference on General Relativity and Gravitation (GR 9)! Following the example of the first dadzi-bao writer Martin Luther, I attached my "Ten Jena Commandments" to the wall of the Jena University (in this way I FIRST introduced the very effective poster method in the scientific conferences). After 10 minutes my poster was stripped down. I addressed Prof. Laurent, who was a member of the International Organizing Committee of GR 9, to defend my rights of a conference-participant (with a PAID participation charge!) but he denied. Now he betrayed me for a second time at GR 11. It is logical to make the extrapolation that for a third time he will betray me at GR 13. But will such a conference ever meet?

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz

14 July 1986, 8.30 AM

TO: Maria Holm
Advertisement Department
SVENSKA DAGBLADET
Ralambsvagen
Stockholm
Sweden

The telefax post of SVENSKA DAGLADET has to make TWO copies of this telefax. The one is to be forwarded to

MARIA HOLM.

The other is to be forwarded to the

ADVERTISEMENT DEPARTMENT.

Dear Maria Holm,
Dear Sirs of the Advertisement Department,

Until now I sent you three telefaxes. One of these telefaxes (my letter of the 10 July) ON YOUR REQUEST was repeated, as according to you the text was not well reproduced by the telefax. As the text of my letter to the Nobel committee (according to the man with whom the Chancellor of the Swedish Consulate has spoken) was also not well reproduced, I sent the whole text TWO times.

As a result of so many telefaxes and of so many phone conversations (certain of them between Dan Gordan and the people of the advertisement department with the Swedish Consul and the Swedish Chancellor in Graz) until now I do not know whether you agree to publish my letters to the Nobel Committee and to Gorbachev as advertisements ON A WHOLE PAGE of SVENSKA DAGBLADET. Please, sent me your answer today before 11.00 AM by a telefax to my name to the Central Post office of Graz. I shall pass there at 11.00 AM to receive your answer. If it will be negative, I shall try to print the advertisement in another journal. If it will be positive, please, inform me which will be the page charge FOR A WHOLE PAGE. Then I shall pay the sum through my bank and I shall send you a copy of the payment document by a telefax, so that only 10 minutes after the payment you will know that the sum was paid (my bank is near the post office). In my telefax of 11 July I proposed you certain ways for composition of the text.

I wonder why so long time you do not send me your decision. But the most wondering thing is that until 18.00 on 11 July no one of my telefaxes has been forwarded to Maria Holm, although she was   all   these days in the editorial office. Why these telefaxes which have been addressed first to her and then to the advertisement department have not been forwarded to her? Why always on the phone when I asked for Maria Holm the answers were: "She is not in the office. She will come in the evening. She will come tomorrow. She is in vacation and will be back at the end of the month." Why all these answers, when she WAS in the editorial office?

I tried to publish the letter to the Nobel Committee during the time of the GR11-Conference. It was possible to publish it. Anyway. Now I can await a day or two or three. But you must answer me whether you wish to collaborate or not. If you do not wish to collaborate with me   and to earn money for your journal, please, tell me this clearly and definitely. I can not ask for the reasons. The journal is your and you can print only such material as advertisement which you wish to print. However, I shall be very thankful to you, if you will present some reasons. Here the problem is about a PERPETUUM MOBILE. There was a scandalous expulsion of a Bulgarian dissident who lingered for years in Bulgarian prisons and psychiatric clinics. Is your journal with the fighters for freedom and scientific truth, or your journal is with the suppressors of the freedom and of the free scientific information? Until now I have not seen proofs that you are on my side, excluding the note which you printed on the 8 July and which until now I have not seen. You could, at least, send me this note by a telefax.

I repeat, I shall give you my consent for print only after having seen the proofs and after having corrected them, if it will be necessary. I wish to print my advertisement as soon as possible on your CHEAPEST day. If, taking into account my case, you will decide to print the letters for a reduced charge or without payment, I and humanity will remain thankful to you. However, I do not expect such a generosity and I am ready to pay the whole charge for a WHOLE PAGE. Send me your answer before 11.00 AM.

Sincerely yours: *Marinov* Stefan Marinov

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz
Austria

26 July 1986

Dr. John Rigden
AMERICAN JOURNAL OF PHYSICS
Room 240 Benton Hall
University of Missouri - St. Louis
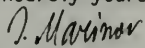St. Louis
MISSOURI 63121-4499

Dear Dr. Rigden,

On the 12 May 1986 I submitted to the AJP the following four papers:

1. On the action...

2. Coup de grace...

3. On the absolute...

4. New measurement...

The parcel was sent by <u>registered mail</u> and by air mail, but until now I have not received your acknowledgement for reception nor any other information. I am wondering why. Maybe you have understood that I have discovered a perpetuum mobile and now all my papers are with the department of energy and with the CIA. I do not know where my papers are, but I must receive AS SOON AS POSSIBLE a written acknowledgement that the papers have been received by you in May. If in 10 days from now I shall not receive such an acknowledgement, I shall ask the Austrian post to present a   confirmation   that you have received the parcel, or, in the case of loss (probability 0.001%), to pay the relevant compensation to me.

Hoping to receive your acknowledgement and (if possible) also your decision about acceptance/rejection,

Sincerely yours,

Ɉ. Marinov

Stefan Marinov

<u>Editorial note</u>. Here is a PART of the 12-May-letter:

I know pretty well that those papers are "research papers", as they overthrow a good deal of contemporary physics. That is not only the theory of relativity which must be discarded as wrong, but even the law of energy conservation is not true. The problem is big. The problem is enormous. However, the "archive journals" do not accept my papers, as they contradict the "theory of relativity". On the other hand my papers are written in a very simple manner. The physics which I discuss is XIX-th century physics. I try to explain to the reader that electromagnetism is not such as it is in the text-books. You have printed so many papers on those topics. The difference between my papers and all similar papers published in the AJP is only one: that my papers are right and the other papers are in many aspects WRONG. I do not see any other difference. Of course, my papers are written in a much more clear language, the mathematics is very simple, the apparatus which I constructed are very simple. Why, for example, have we to treat the paper of Gruenberg (AJP, 46, 1213 (1978)) as "didactic" and my explanations of the ball-bearing effect as "research" when the difference is only one: Gruenberg's paper is wrong, very complicated, long, while my explanations of the effect are right, clear, short. The same can be said about all machines which I consider. I introduce the notion "motional-transformer induction". Dear Dr. Rigden, without this notion and the respective formula $(v.\text{grad})\vec{A}$ one CANNOT explain the electromagnetic machines. The motional-transformer induction led me to the discovery of the perpetuum mobile MAMIN COLIU (Section 15 in the second paper). Why must I be guilty that I have discovered a perpetuum mobile and my papers rejected because this machine contradicts the energy conservation law. If somebody has some PHYSICAL OBJECTIONS (experimental or theoretical) let him present these objections in the press. But to say (as the "archive journals" do) "Your papers contradict the principle of relativity and the energy conservation law and for this reason they cannot be accepted", I think is unfair. Who wins if the truth will be hidden? The scientists cannot understand my papers not because they are stupid, but because they reject to read them. However, the college professors who are in an every day contact with the questions of the students WILL READ my papers and UNDERSTAND them. I am sure. Thus, I think that the unique journal which can print my papers is YOURS.
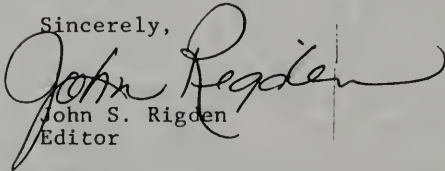
August 6, 1986

Dr. Stefan Marinov
Niederschocklstr. 62
A-8044 Graz
AUSTRIA

Dear Dr. Marinov:

Yes, we did receive your four papers. Since you have corresponded on numerous occasions with me and with other editors of AJP, you surely know that papers such as you have written are not acceptable for publication in the American Journal of Physics. When you write papers that are revolutionary, when you propose new devices that violate the known laws of physics, then these papers must be considered as research papers. Such papers as you have submitted are in no way related to the activities of a physicist within the teaching classroom.

I am sorry I cannot accept these papers.

Sincerely,

John S. Rigden
Editor

JSR/gls

THE PHYSICAL REVIEW

AND

PHYSICAL REVIEW LETTERS

7 August 1986

Dr. Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz, Austria

Dear Dr. Marinov:

We regret to inform you that your latest submittal
of the four papers entitled "On the action and interaction
of stationary currents", "Coup de grace to relativity and
to something else", "New measurement of the earth's absolute
velocity with the help of the 'coupled shutters' experi-
ment", and "On the absolute aspects of the electromagnetic
interactions" cannot be accepted for publication in the
Physical Review. This work is unsuitable for our journal,
and it would not be in the best interests of our readers
and the journal to consider any further work of yours
along these lines. We suggest you seek publication
elsewhere.

We are returning your manuscripts.

Yours sincerely,

D. Nordstrom
Editor
Physical Review D

DN:cp
enc.

August 8, 1986

Dr. Stefan Marinov

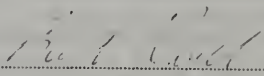Niederschöcklstr. 62

A-8044 GRAZ - Austria

Dear Sir,

This is to acknowledge receipt of your letter dated 9 July 1986 and enclosed book "The Thorny Way of Truth Part II"3rd ed

Yours sincerely,

Bengt Nagel

Editorial note. On the 9 July 1986 Marinov sent to the Nobel committee of physics the letter which then he published as a paid advertisement in the journal NATURE on the 21 August 1986.

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz

20 August 1986

The Editor
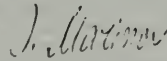SVENSKA DAGBLADET
Ralambsvagen
Stockholm
SWEDEN

Dear Sir,

On the 8th July your journal published an information on my expulsion from Sweden. In the following days I sent a couple of telefaxes trying to publish as an advertisement the enclosed LETTER TO THE NOBEL COMMITTEE which will appear in the tomorrow edition of the English scientific journal NATURE. I did not receive from your journal (neither from the journalist, Maria Holm, who wrote the note on me and was in contact with me) an answer why SVENSKA DAGBLADET does not wish to publish this letter as a paid advertisement. I should be very glad to receive your explanation on that topic.

I think that now, when this letter has appeared in one of the most prominent scientific journals, you have to inform on the pages of your journal the Swedish public opinion about my missive and give information on the perpetuum mobile discovered by me. If you will not do this, I shall be very glad to receive your information for the reasons.

Your journal writes enough on pollution, energy crisis, atomic piles, etc. I beg you to take into account that one line on me and on my perpetuum mobile is more worth than thousand lines on the above topics. Please, understand this as soon as possible.

Sincerely yours,

J. Marinov

Stefan Marinov

Editorial note. This letter remained without answer.

MARINOV TO THE NOBEL COMMITTEE

Stefan Marinov
A-8044 Graz, Austria

To: Prof. Bengt Nagel
Nobel Committee for Physics
S-11436 Stockholm, Sweden

9 July 1986

Dear Prof. Nagel,

On the 6th July 1986 I came to Stockholm to take part in the 11th International Conference on General Relativity and Gravitation, where I had to be a speaker. My contribution under the title »Experimental violations of the principles of relativity, equivalence, and energy conservation« was printed in the Abstracts of the Conference, I had a hotel reservation and a return ticket. The airport police, however, did not allow me to reach the Folkets Hus under the pretext that my pass was overdated. You know well that governments in the Western countries make all efforts so that I die of hunger, desperation or nervous exhaustion, as no country gives me the most elementary human rights without which a man cannot survive. I think it is useless to enumerate once more that, leaving apart the Eastern countries where I was detained for years in prisons and psychiatric clinics and from where, covered by blood, I was thrown in the early morning hours over the »green border« to the West, I was expelled (certain times also covered by blood) from the following Western countries: USA, France (thrice), Italy, Germany. In the country in which I live now I was imprisoned twice as a vagabond and five years its »socialist« government does not give me a work permit. For four years the Belgian government has refused to give me a visa to visit my wife in Brussels and to no one of the letters of protest and indignation there is an answer »why?«. You know all this pretty well. The whole world knows it, as my story was narrated and re-narrated in so many European journals and all relevant documents, letters and photographs were reproduced in so many of my books.

And now also Sweden, the dignified Nordic democracy has expelled me. The first attempt was made on the 7th July at 7.30 AM. I shouted loudly at the entrance to the plane: »I am a Bulgarian dissident scientist. I came to Stockholm to present at an international scientific conference the perpetuum mobile which I discovered and which will solve the energetic crisis of the world. Instead of hearing me and seeing my machine, Sweden expells me. A shame for Sweden, a shame for Sweden, a shame for Sweden.« The indignation of the passengers and the fear of the captain for the security of the flight impelled the policemen to give up this first attempt and to bring me back to the airport prison. The second attempt was better prepared: at 6 PM two specialists from the civil police escorted me to Vienna taking me to the plane before the arrival of the passengers. I have to add that, for the honour of Sweden, I was not locked in the toilet as it is the practice in such cases in Soviet planes (of course, not for expulsion but for »domestication«).

I addressed the organizers of GR11 to help me and to explain to the police that I am a world-known scientist and that my 6-days sojourn in Stockholm can in no way be dangerous for the security of the country. However, instead of helping me, Prof. B. Laurent also threw some twigs into the fire. So the immigration officer said to me: »Well, Mr. Marinov, you have a return ticket, you have a hotel reservation, but now Prof. Laurent tells me on the phone that you have not paid the participation charge in advance.« Although I should like very much to, but, I am afraid, in this case I cannot repeat the words of Jan Hus »oh, sancta simplicitas«.

In a phone conversation with Dr. K. Rosquist who assured me that »the organizers of GR11 do all that is possible to facilitate my entrance«, I said: »Dear Dr. Rosquist, I know that all GR-people are afraid of my participation as they realized their inability to defend Einstein against my attacks, which are mathematically absolutely correct and experimentally splendidly confirmed. But now I shall not attack poor Einstein with his nonsensical principles of relativity and equivalence and his phantasmagoric ‚propagation of interaction'. Einstein is a closed chapter for me. This time I shall attack Newton for the invalidity of his third law, Faraday and Maxwell for their wrong closed current lines and flux conceptions, and the founders of the wrong energy conservation doctrine. What I shall discuss now is of vital importance to the survival of mankind. I shall present a *perpetuum mobile*. Do anything to save me from the claws of the police. I beg you in the name of God and in the name of science.« However, the machine of strangling the voice of the truth worked hastily. The two James Bonds who carried out the second expulsion were well trained muchachos.

In the airport prison, before the first attempt at expulsion, I addressed the Swedish prime minister in a short letter (I hope you will demand this letter from the Arlanda airport): »Before trying to expell me, please, send some physicist or electro-engineer to see and test the machine which I brought with me. Then, if this specialist will advise you to expel me, do it. But not before.«

To prepare the reader to understand my perpetuum mobile, I must note that if there is a magnet at rest producing a magnetic potential A at a space point where a wire element moves with a velocity v, then the electric intensity induced in the wire (which I and conventional physics, too, call »motional«) is

$$E_{mot} = v \times rot A. \qquad (1)$$

If, however, there is the opposite case: the wire element at rest and the magnet moving *as a whole* with a translational velocity V, the right formula is not formula (1) where one has to substitute v = - V, as conventional physics does, proceeding from the *wrong* principle of relativity. In the second case the induced intensity (which *I call* »motional-transformer«) is

$$E_{mot-tr} = (V.grad)A. \qquad (2)$$

160 years after Ampere and Faraday humanity lives without knowing the existence of formula (2). Humanity even thinks that the electromagnetic potentials are »unmeasurable« quantites. Meanwhile those are exactly the potentials which determine the electromagnetic interactions. The intensities, which are *derivatives* of the potentials, contain *less* physical information (you know well that y = x² contains more mathematical information than dy/dx = 2x). The theory of electromagnetism which I give is childishly simple, the formulas (which, as a matter of fact, represent a correct mathematical interpretation of the fundamental *known* formulas) are legible for sophomores, the experiments can be transported on the backs of persons without travel documents. But strangely enough, after 160 years of electromagnetism, I am the only man in the world who understands the essence of magnetism. And I was expelled in such a barbaric way from the town which is the seat of the Nobel committee. Terrible! Incredible!

Now I rewrite section 4 of the last paper in my book The Thorny Way of Truth, Part II, whose third edition was issued on the 4th July 1986 (pp. 344—346) and where I give the description of my *last* perpetuum mobile.

My discovery that the seat of the motional-transformer induction may be at such points of the wire which lie *outside* the magnetic intensity field produced by the moving magnet leads to the conclusion that induced electric energy can be obtained without spending some mechanical energy. Indeed, at the motional induction the magnetic intensity field of the current induced in the moving wire interacts with the stationary magnet and always the motion of the wire is braked. This is not the case with the motional-transformer induction when the seat of the induction is in parts of the wire which lie outside the magnetic intensity field of the moving magnet. In such a case a magnetic interaction, and consequently braking, is impossible.

I have constructed an apparatus where a motional-transformer electric tension is induced in a *closed* wire which lies *thoroughly* outside the magnetic intensity field of the moving magnet: In the »gap« (see the figures) of a torus of soft iron with permeability μ (my torus was made of transformator iron sheets) there are two similar disks consisting of an equal number of sectors of axially magnetized magnets. In the space between the sectorial magnets there are sectors of nonmagnetizable material (I have used bron-

ze). The one disk is solid to the torus and the other can be rotated by an electromotor. When the sectorial magnets of the rotating disk overlap the sectorial magnets of the solid disk, the magnetic flux in the torus has a certain value $\Phi = B(S/2)$, where B is the magnetic intensity originated in those »sectors« of the torus which »overlap« the overlapping sectorial magnets, S is the cross-section of the torus, and I assume that the magnetic intensity in those »sectors« of the torus which »overlap« the overlapping bronze sectors is zero. When the sectorial magnets of the rotating disk overlap the bronze sectors of the solid disk (and consequently the bronze sectors of the rotating disk overlap the magnet sectors of the solid disk), the magnetic flux in the torus is $\Phi' = B'S$, where $B' = (\mu'/\mu)B$ is now the magnetic intesity in the whole torus and $1/\mu' = 1/\mu + L_d/L_t$, where L_d is the thickness (the height) of any of the two disks and L_t is the middle length (middle circumference) of the torus. If $\mu \gg L_t/L_d$, a case which can be easily realized, we can assume $\mu' \sim L_t/L_d$, thus $B' \sim [(L_t/L_d)/\mu] B$, and then accept $B' \sim 0$, and consequently $\Phi' \sim 0$.

As

$$\Phi = \int_S B.ds = \int_S \text{rot}A.ds = \oint_L A.dl, \qquad (3)$$

where L is the circumference of the surface S, we shall have for the magnitude of the *alternating* motional-transformer electric tension induced in a wire consisting of n turns wound on the torus

$$U = n\oint \frac{\partial A}{\partial t}.dl = n \frac{\Delta}{\Delta t}\oint A.dl = n\frac{\Delta \Phi}{\Delta t} = n\frac{\Phi - \Phi'}{1/pN} = \frac{nBSpN}{2}, \qquad (4)$$

where p is the number of the sectorial magnets in one of the disks, N is the number of revolutions per second of the rotating disk and $E_{mot-tr} = -\partial A/\partial t$ is the motional-transformer induction which easily can be presented by the formula (2) for any *single* current *element* of the moving magnet.

It is evident that in this generator the motion of the rotating disk cannot be braked by the magnetic intensity field produced by the current induced in the solenoid, as this magnetic field has a *rotational symmetry* about the axis of rotation. On the other hand, as the width of the »gap« is practically $2L_d$ (let us assume that the permanent magnets have quasi rectangular hysteresis loop, so that we can set $\mu_{magn} \sim \mu_{bronze} \sim 1$), the magnetic intensity, B_{ind}, originated in the torus by the current induced in the solenoid will be very low. This machine can thus be only a generator but cannot be a motor, because if feeding the coil by an alternating tension, the disk cannot be set in motion. Indeed, at different positions of the rotor I feeded the coil by very strong electric pulses but not even the slightest motion of the rotor could be observed.

The motional-transformer inductors of this type can be called *non-polar* machines, as no pieces of the coil lie »under the magnetic pole«. The non-polar machines can be only generators and since they do not brake the motion of their »rotor«, the induced electric energy is *produced from nothing*. Feeding the motor by the current produced in the coil, one can run the machine eternally, if the motor will overcome the friction of the system. I call this perpetuum mobile MAMIN COLIU, coining the name from the words MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit.

In my apparatus there was n = 4,000, S = 0.0025 m², p = 1, and at N = 20 rev/sec I obtained an induced tension U = 3 V. Thus I could calculate that the magnetic intensity in the torus at overlapping magnets was B = 2U/nSpN = 0.03 T. The magnetic intensity measured by a Hall probe at the surface of the magnets was B = 0.09 T. At N = 20 rev/sec and short circuited coil, the current flowing in the coil was I = 0.05 A, thus the entire active resistance of the generator at this rate of rotation was R = U/I = 60 Ω (the ohmic resistance of the coil was 33 Ω). A direct current electromotor consuming together with a silicon rectifier an alternating tension Umot = 6 V and current Imot = 0.15 A (a Philips motor 4322 010 72320) could rotate the disk with N = 20 rev/sec. Thus the electric power produced by the generator at short circuited coil was Pgen = UI = 0.15 W, while the electric power needed to run the generator was Pmot = UmotImot = 0.9 W. However, the whole power Pmot was needed to overwhelm the friction and not a single microwatt was »converted« into heat in the generator's coil. Indeed, by closing and opening the coil circuit *not the slightest change* in current or voltage consumend by the motor or in the rotational speed was observed. Meanwhile at short-circuited coil the generated electric power transformed into heat was (Pgen/Pmot)100 = 17% of the power put in the motor. As the resistance of the motor (plus the rectifier) was Rmot = Umot/Imot = 40 Ω, then by connecting it in series with the coil and by driving the machine with 20 rev/sec by the help of condensed air the produced current was I' = U/(Rgen + Rmot) = 0.03 A, and the tension over the motor was U'mot = [Rmot/(Rgen + Rmot) U = 1.2 V. Thus the power delivered by the generator to the motor was P'mot = U'motI' = 0.036 W, i.e., this power was Pmot/P'mot = 25 times lower than the power needed to run the machine eternally without external energy supply. It is obvious that to realize a perpetual motion I need to increase the induced tension *only five times*. Formula (4) shows that for this aim I have to increase the product nBp five times (leaving S and N unchanged). This is, evidently, a very simple technical problem (more turns, stronger magnets, more sectors). Of course, one can reduce also the active resistance of the generator, Rgen, too. In a second class laboratory I can construct the eternally rotating machine in three days. If until now I have not constructed it, the reason is only one: a lack of workshop and laboratory, as I carry out all my experiments in the stall where I am working »black« as a groom.

I hope, dear Prof. Nagel, that you shall undertake the necessary intervention, so that king Gustav should present me with the exuses of the Swedish crown for my barbaric expulsion. The dignity of Sweden must be saved.

Sincerely yours, STEFAN MARINOV

P.S.: I tried to publish this letter as an advertisement in *Svenska Dagbladet*, Stockholm, which gave an information on my expulsion on the 8th July. Although 100,000 Swedish Crowns were deposited at the Swedisch Consulate in Graz, *Svenska Dagbladet* refused to publish the advertisement.
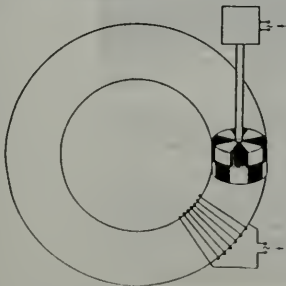
Miss. inventor threatens to take device elsewhere

By The Associated Press

JACKSON, Miss. — Controversial inventor Joseph Newman said Wednesday that a massive write-in campaign by Mississippians may be the only way he can avoid building his "revolutionary" motors elsewhere.

"I'd very much like to get this produced in the state of Mississippi. It is something that would be a tremendous boon," the Lucedale inventor said of his electromagnetic device. "But it's very possible this technology will not first be used in this country."

Newman claims his invention could provide practically cost-free energy to run every type of motor.

But Newman's detractors, including U.S. patent officials, say his motor is impossible because it is supposed to create more energy than it consumes, violating the second law of thermodynamics.

At a news conference attended by about 150 people Wednesday, Newman asked the public to write letters to Sens. Thad Cochran and John Stennis of Mississippi demanding that they immediately introduce a bill duplicating 10 bills pending in the House.

The House bills would grant Newman a pioneering patent that he has been denied by the U.S. Patent Office. Newman said a bill must be introduced in the Senate to expedite Congressional action on the issue.

Newman said he hopes the United States will give him a patent, but he'll begin manufacturing wherever he can get sufficient backing first. He said U.S. investors won't even talk with him until he secures a patent.

However, a corporation in another nation, which he declined to name, has invited him to visit within the next month and a half.

Although he has "patents pending in most countries, including Russia," Newman said the nation he will be visiting soon looks very promising.

"I won't wait at all if there's a country that will get behind me. I'd go today," he said, noting that he's been battling with the U.S. Patent Office for seven years.

Newman's speech was punctuated with applause and cheers from dozens of his supporters in the audience, including several religious leaders.

Dan Benvenuti, one of Newman's financial backers, said Mississippians must realize Newman's cause is a moral as well as a scientific battle.

Patent officials contend Newman's machine doesn't work. But he charges that the tests conducted by government officials were conducted incorrectly and in secrecy.

Newman hooked his device to a fan in Jackson Wednesday, which he said demonstrated that it does work. Similar demonstrations have been given to Congress, crowds at the Louisiana Superdome and elsewhere.

Joseph Newman, inventor of controversial energy machine.
AP PHOTO

Newman's machine

Harahan

A significant error appeared in the July 31 news story on Joseph Newman's continuing effort to obtain a patent for his energy machine. Mr. Newman has never claimed that his machine "produces more energy than it consumes, in defiance of conventional laws of physics," as reported by Rick Raber of your Washington bureau.

In his many lectures and demonstrations and as explained in much detail in his book, Mr. Newman has in fact argued precisely the opposite — his machine does not produce something from nothing, but instead serves as a catalyst to the release of an enormous heretofore untapped but existing source of energy.

This machine is not a "Rube Goldberg" device. It was built to demonstrate a natural phenomenon discovered by Mr. Newman by using the scientific method.

Certain bureaucrats would like us to believe Mr. Newman's claims are impossible simply because they are unable to explain them. Regardless of whether this stems from deceit or merely their incompetence, you would render your readership better service by representing such views as opinion rather than fact.

Richard P. Stone

SCIENCE, Washington, D. C.

vol. 233, p. 154, 11 July 1986

## Newman's "Energy Output" Machine Put to the Test

What's a device with a battery pack, a magnet, and a coil wired together? For the past 6 years, Joseph Newman, an inventor from Mississippi, has been loudly proclaiming that it's a revolutionary machine which produces more power than it uses. The National Bureau of Standards recently issued its own verdict after analyzing Newman's machine: "In none of tests did the device's approach 100%. . . . Our results are clear and unequivocal," the bureau said.

Newman has gone to great lengths to try to win a patent on his energy output machine. When the U.S. Patent and Trademark Office indicated in 1984 that the device did not work, Newman sued the agency. He hired a publicist, and the media often portrayed him as an underdog pitted against the scientific establishment. Then the court ordered Newman to submit the machine to the National Bureau of Standards for testing. Newman reluctantly complied.

A physicist and two electrical engineers from the bureau tested the machine in a variety of ways to measure its energy input and output and used instrumentation that is common in research engineering laboratories. The sole power source of the device

was 116 9-volt batteries. According to the test results,[*] the device's efficiency ranged from 27 to 67%, depending on the voltage, the power drawn from the device, and the condition of insulating tape on one of the parts. (The tape kept burning from sparks generated by the machine, which caused the efficiency to drop and had to be replaced frequently.)

According to John Lyons, director of the bureau's National Engineering Laboratory, the device basically converted direct current to alternating current. He noted that there
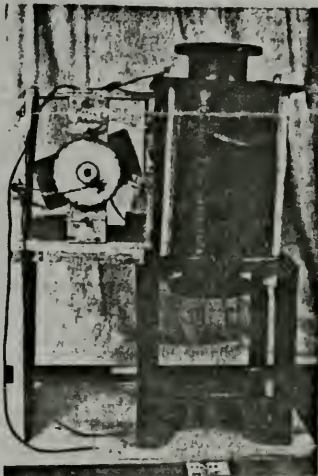
Newman's machine *did not match his claims, federal scientists say.*

are several machines already on the market that do the same thing, but they run at 90% efficiency or higher.

Newman had court permission to observe the bureau's tests, but never appeared for any of the experiments, which were conducted between March and June. His spokesman Evan Soule said Newman will ask the court to order the testing of the test equipment. Newman said in an interview, "I have no respect for the National Bureau of Standards. This is a conspiracy against me."

The testing cost the bureau $75,000, which it hopes to recoup from the patent office. The patent office will submit the results to U.S. District Court for the District of Columbia, which will try the case in December. ■ MARJORIE SUN

*"Report of Tests on Joseph Newman's Device," U S Department of Commerce, National Bureau of Standards, NBSIR 866-3405, June 1986

MARINOV AN WALDHEIM

Sehr geehrter Herr Präsident!

Ich weiß wohl, daß Sie für die Handlungen der österreichischen Regierung nicht verantwortlich sind. Ich werde mir aber erlauben, die folgende Geschichte zu erzählen. Ein Journalist hat dem Franz Joseph I. die Frage gestellt: "Welche ist, Majestät, nach Ihrer Meinung, Ihre Hauptpflicht als König?" Die Antwort des alten Mannes lautete: "Wo ich nur kann und wie ich nur kann mein Volk vor den Handlungen meiner Minister zu verteidigen."

Obwohl ich Bulgare bin und seit fünf Jahren — nach Ausweisungen aus der Tschechoslowakei (zweimal), USA, Frankreich (dreimal), Italien, Deutschland — ohne jegliche bürgerlichen Rechte als Vagabond in Österreich lebe, glaube ich, ich bin schon ein winziges Teilchen Ihres Volkes geworden. Und weil Sie, Herr Dr. Waldheim, nur ein Präsident und kein König sind, hören Sie, bitte, wenigstens zu, was die Wiener Minister mit mir machen.

Die österreichische Regierung versuchte noch im Jahre 1982, mich auszuweisen. Sie haben zwei Möglichkeiten vorgeschlagen: 1. Bulgarien, wo ich geboren bin, wo ich jahrelang in den Kerkern und psychiatrischen Kliniken gesessen bin, wo mir meine Bürgerschaft weggenommen wurde ist, mein Haus konfisziert und wo ich in meiner Abwesenheit verurteilt bin (die bulgarische Regierung sagt mir nicht die Frist, aber sie ist normal fünf Jahre). 2. Belgien, wo meine Frau, belgische Bürgerin, lebt und wo ich für drei Jahre politisches Asyl hatte, der mir während meines Aufenthaltes in Österreich ausgestellt wurde, obwohl ich nicht gegen die Gesetze Belgiens verstoßen habe.

Der Versuch für die Ausweisung scheiterte (Information in meiner "Kleinen Zeitung" vom 29. September 1982). Die Vollstreckung meines Aufenthaltsverbotes wurde bis zum 31. Dezember 1982 aufgeschoben, und ich reiste am 29. Dezember illegal nach Belgien. Die Deutschen haben mich erwischt und jetzt meinen Willen nach Österreich ausgeliefert. Von österreichischer Regierung sperrte mich wie einen Affen in des Salzburger Gefängnis, und nur nach der Ankunft meiner Rechtsanwälte, Dr. Fodor aus Graz, und nach einer Geldstrafe (wofür?) wurde ich auf freien Fuß gesetzt (selbstverständlich weiter ohne gültige Identität und Reisedokumente).

Denn, im April 1983, wurde ich als Vagabond in der Grazer Gefängnis gesperrt. Diesmal unter dem persönlichen Befehl des damaligen Innenministers Dr. Lanc (Information in meinem Brief an Lanc vom

Marinov als Jude in dem Film "Johannes Paulus II.". Im Kriege half Marinov seinen Eltern, die in den Reihen der damals illegalen bulgarischen Kommunistischen Partei gegen den Faschismus kämpften.

9. April 1983, in seiner Antwort vom 9. Mai 1983 und in einem ausführlichen Artikel auf anderthalb Seiten der "Kleinen Zeitung" über diese schandhafte Geschichte vom 10. April 1983. Die obengenannten Briefe sind in meinem Buch "The Thorny Way of Truth", Part II. veröffentlicht).

Im Sommer des Jahres 1984 mußte ich zu einem wissenschaftlichen Kongreß nach Italien fahren. Am 10. Juli 1984 schrieb ich an Innenminister Blecha (der Brief ist veröffentlicht in dem obengenannten Buch): ".... im Falle, daß die österreichische Regierung mir kein gültiges Reisedokument geben wird, ... werde ich gezwungen sein, die österreichisch-italienische Grenze illegal zu überqueren. Im Falle, daß ich an der Grenze verhaftet (wie im Dezember 1982, als ich zu meiner Frau illegal über Salzburg fahren wollte), verletzt oder erschossen werde, wird die ganze Verantwortung auf Sie persönlich und auf die österreichische Regierung fallen."

Der Brief blieb ohne Antwort. Im Juli dieses Jahres mußte ich zu einem wissenschaftlichen Kongreß nach Stockholm fahren. Am 29. Juni 1986 schrieb ich an Minister Blecha: "Auf meinen Brief vom 10. Juli 1984 habe ich keine Antwort von Ihnen erhalten. Also reiste ich nach Italien illegal. Bei der Rückfahrt stellte ich mich bei der Grenzpolizei in Villach als illegaler Einwanderer vor und verlangte, daß man mich nach Traiskirchen eskortiert. Von Villach wurde ich nur nach Klagenfurt geschickt, wo man mich bei der Fremdenpolizei ausladete, dann wie kann ich illegal nach Österreich einreisen, wenn ich schon seit fünf Jahren in Österreich lebe. Und die Fremdenpolizei warf mich (ohne Gewalt anzuwenden) auf die Straße. Am 6. Juli muß ich in Stockholm sein, um an der internationalen Konferenz über Relativität und Gravitation teilzunehmen, wo ich Sprecher bin. Aber die Grazer Polizei will meinen Fremdenpaß nicht verlängern (seine Gültigkeit ist am 8. April abgelaufen). Ich bitte Sie, Herr Minister, so schnell wie möglich das Nötige zu tun, daß ich diesen Paß (mit verlängerter Gültigkeit oder ohne) in die Hände bekomme, sonst muß ich noch nach Schweden illegal fahren, und bis nach Schweden sind viele Grenzen zu überqueren und auch ein Meer. Schweden ist nicht Italien! .. An der Konferenz in Stockholm will ich das Perpetuum mobile demonstrieren. Sein Gewicht ist 25 Kilo. Herr Minister, wenn sie ein bißchen etwas von Grenzen und Gewicht verstehen, dann würden Sie sehen, daß es sehr schwer sein wird, mit dieser Maschine auf dem Rücken illegal nach Schweden zu reisen. Wenn ich aber das Dokument nicht bekomme, werde ich fahren. Wenn ich an irgendeiner Grenze erschossen werde oder sonstwas passieren wird, wird die ganze Verantwortung auf Sie persönlich fallen."

Der Brief blieb ohne Antwort. Ich fuhr nach Schweden illegal und wurde dort erwischt. Der erste Versuch für die Ausweisung scheiterte. Ich schrieb leut in dem Flugzeug "I am a Bulgarian dissident scientist. I came to Stockholm to present at an international scientific conference the perpetuum mobile which I discovered and which will solve the energetic crisis in the world. Instead of hearing me and seeing my machine, Sweden expells me. A shame for Sweden, a shame for Sweden!" Die Empörung der Fahrgäste und die Furcht des Kapitäns um die Sicherheit des Fluges

zwangen die Polizei, den ersten Versuch aufzugeben. Abends aber nahmen zwei James Bond von der Zivilpolizei mich in ihre Hände und lieferten mich an die Grenzpolizei in Schwechat. Diese schamhafte Geschichte ist auf zwei Seiten in der englischen wissenschaftlichen Zeitschrift "Nature" vom 21. August 1986 in einem Brief von mir an den Sekretär des Nobelkomitees für Physik, Prof. Nagel, beschrieben. Der Brief endet mit den folgenden Worten: "I hope, dear Prof. Nagel, that you shall undertake the necessary intervention, so that king Gustaf should present me with the excuses of the Swedish crown for my barbaric expulsion. The dignity of Sweden must be saved."

Im August mußte ich zu einer wissenschaftlichen Konferenz nach Budapest fahren. In der BH Graz-Umgebung sagte man mir: "Erstens ist Ihr Paß in den Händen von Minister Blecha in Wien. Zweitens wird Ihr Paß nie mit Gültigkeit für Ungarn ausgestellt, weil Ungarn ein kommunistisches Land ist."

In meinem Brief vom 20. August 1986 an Dr. Josef Krainer, mit dem ich lange interessante Gespräche geführt habe und der mehrmals meine verlegerische Tätigkeit unterstützt hat, schrieb ich: "Mein Fremdenpaß ist weiter in Herrn Blechas Ministerium. Ich bin x-mal in der BH Graz-Umgebung und in der Sicherheitsdirektion Graz gewesen, um diesen Paß (verlängert oder unverlängert) zu verlangen. Aber Herr Blecha bleibt wie ein tibetischer Mönch im Nebel umwickelt und nührt sich nicht; und ich gesehen habe, haben die entsprechenden Beamten Angst, ihm mit einem Brief, Telex oder Telefonanruf zu stören. (K. Tuchalzky: "Sehend einen schmaranden Tiger oder Minister, klug sei, wirf ihm ein Kipfel oder auf Zipfeln schliche vorbei.") .. Ich bitte Sie sehr, Herrn Blecha (oder seinen Stellvertreter, wenn er abwesend ist) anzurufen und ihm zu erklären, daß er mit seiner Unentschiedenheit und Handlungsunfähigkeit einen Schatten nicht nur auf die jetzt regierende sozial liberale Koalition, sondern auf ganz Österreich werfen wird. Wenn ich meinen Paß nicht bekomme, werde ich wieder illegal nach Ungarn fahren. Wenn an der Grenze wieder etwas passieren würde (Ungarn ist ein "Stacheldrahtstaat"), wird die ganze Schande auf den Kopf nicht nur von dem armen Herrn Blecha, sondern auf ganz Österreich fallen."

Herr Blecha blieb weiter wie ein tibetischer Mönch im Nebel umwickelt. Ich reiste also nach Ungarn mit meinem veralteten bulgarischen Paß. Mit den Ungarn ging alles picco bello, denn wenn der Ungar cyrillische Buchstaben sieht, fängt er sofort an, darüber zu spucken. Ich war erstaunt, zu sehen, daß sich die Grenzsoldaten des talien Aber auf der Rückreise haben die österreichischen Beamten verstanden, daß mein Paß ungültig ist. Ich wurde verhaftet. Obwohl man sich mit der Gendarmerie Sankt Redegung telefonisch in Verbindung setzte und alles über mich erfahren hat (daß ich ein Dissident bin, daß ich seit fünf Jahren in Graz wohne und ein Perpetuum mobile baue, daß alle Grazer Professoren glauben, ich sei verrückt usw.), kam gegen 11 Uhr in der Nacht der Befehl des Sicherheitsdirektors von Burgenland, mich nach Ungarn auszuweisen. Ich machte die Deklaration: "Wenn man dort feststellen wird, wer ich bin, erwarten mich zehn Jahre Zuchthaus", aber ohne Widerstand zu leisten ging ich mit dem begleitenden Offizier zu dem ungarischen

Grenzposten. Ich sagte nur meinem griechischen Freund Prof. Pappas (der von Athen zu mir gekommen war, um mein Perpetuum mobile zu sehen, und mit dem wir nach Budapest gefahren sind), sich sofort nach Graz zu begeben und die Presse über diese schamhafte Ausweisung zu informieren.

Der ungarische Offizier wollte sein Kastenspiel nicht verderben, sagte "njet" und drehte seine Pistole um den Finger. Der österreichische Offizier, der sich mir gegenüber sehr heldenhaft benommen hatte, hef wie ein Schäfchen zurück. Aber gegen 1 Uhr in der Nacht kam ein zweiter Befehl von dem burgenländischen Sicherheitsdirektor, alles zu tun, um mich den Ungarn auszuliefern. Dann bin ich wütend geworden. Ich schrie so laut, daß der österreichische Grenzoffizier verstanden hat, er dürfe den Befehl seines Sicherheitsdirektors nicht durchführen. Merken Sie, Herr Präsident, ein einfacher Grenzoffizier hatte mehr Verständnis für die Ost-West-Beziehungen gehabt als der Sicherheitsdirektor Ihres Innenministers.
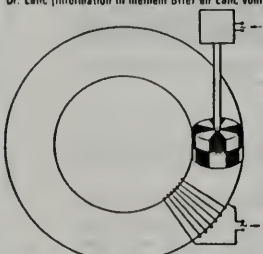
Ich veröffentliche diesen Brief nicht, um Hilfe für mich zu erbitten. Auch wenn ich nach Bulgarien ausgeliefert ware, wurden die Sofioter Banditen Angst haben, mich wieder in den Kerker oder in die Irrenanstalt zu sperren. Ich bin schon sehr bekannt in der Welt. Ich habe experimentell die Prinzipien der Relativität und Equivalenz, den dritten Newtonschen Satz und den Energieerhaltungssatz widerlegt, ich habe ein Perpetuum mobile in den Händen. Ich habe sogar vor vier Jahren dem Präsidenten Bulgariens, Jivkov, geschrieben: "Ohne jeglichen gesetzlichen Grund habe Sie mir die Bürgerschaft genommen und das Haus in Sofia konfisziert. Ich habe nichts gegen die Gesetze und die Interessen Bulgariens getan, und ich will sofort vor einem Gericht in Sofia erscheinen, um mich zu verteidigen und meine Bürgerschaft wiederzubekommen. Auch wenn ich verurteilt werde, habe ich keine Angst, denn ein ungerechtes Urteil lastet nicht auf dem Verurteilten, sondern auf dem Gewissen der Richter. Wenn Sie mir aber nicht erlauben werden, vor einem Gericht in Sofia vorzutreten, wird das bedeuten, daß das Gericht Angst vor mir hat."

" Ich veröffentliche diesen Brief nur, um Sie, lieber Dr. Waldheim, zu fragen: Und wenn dieser Mann, den der burgenländische Sicherheitsdirektor nach Ungarn ausgeliefert hat, nicht Stefan Marinov war? Wehn dieser Mann ein unbekannter bulgarischer Fluchtling war, der dann für zehn Jahre in einem Kerker sitzen würde? Wissen Sie, was das ist? — Das ist ein TODESURTEIL. Und dieses Todesurteil hat der burgenländische Sicherheitsdirektor mit der Hilfe des Innenministers Blecha unterschrieben.

Ihr ergebener Stefan MARINOV

Fotografie des dritte Modells des Perpetuum mobile MAMIN COLIU (MArinov's MotionalTransformer INductor COupled with a Lightly roteting Unit). Die Menschheit kennt nur die unipolaren und bipolaren Maschinen, die noch von Faraday entdeckt worden sind. Die Marinovsche ist eine zonpolare Maschine, die mit der Bewegungstransformatorischen funktioniert. Die Bewegungsinduktion $\varepsilon \times$ rotA entsteht in einem Draht, der sich mit der Geschwindigkeit v in dem Potentialfeld A eines Magnets bewegt. Die Bewegungstransformatorinduktion (s grad)A, die Marinov entdeckt hat, entsteht in einem ruhenden Draht, wenn ein "Stromelement", das das magnetische Potential A erzeugt, sich mit der Geschwindigkeit v bewegt. Fast schon 100 Jahre führt Einstein die Menschheit an der Nase mit dem Dogma herum, diese zwei Induktionen seien absolut identisch. Noch 1973 hat Marinov die absolute Geschwindigkeit der Erde gemessen und Einsteins Relativitätsprinzip widerlegt, aber die Wissenschaftskardinäle decken sich die Augen mit Scheuklappen zu und schlagen mit den Hinterfüßen träge aus.

Kabinettsvicedirektor
Dr. Franz Parak

Präsidentschaftskanzlei
Wien 1 Hofburg
Tel. 52 10 26, 305 Dw

150.024/1

|| September 1986

Sehr geehrter Herr Marinov!

Im Auftrag des Herrn Bundespräsidenten bestätige
ich den Erhalt Ihres Schreibens vom 6. September 1986,
von dem der Herr Bundespräsident Kenntnis genommen
hat.

Der Herr Bundespräsident hat von einer Stellung-
nahme zu Ihrem Schreiben Abstand genommen, da das von
Ihnen aufgeworfene Problem in die alleinige Zuständigkeit
des Herrn Bundesministers für Inneres fällt und außer-
dem der Herr Bundespräsident in der Regel nicht mit
Personen über die Presse, d.h. durch offene Briefe,
verkehrt.

Mit freundlichen Grüßen

150.024/1

ÖSTERREICH
0500
GROSCHEN

07.10.86
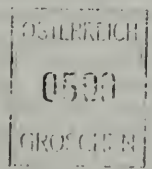
Herrn
Stefan MARINOV

Niederschöcklstr. 62
8044 G r a z

Editorial note. The above letter shows that the bu-
reaucracy in Vienna's Hofburg under
the Republic is worse than under the Monarchy. A let-
ter issued on the 12 September is delivered to the
post on the 7 October. Franz Josef I. would had never
tolerated such a snail sluggischness of his secreta-
ries.

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz

28 September 1986

Dear Sirs,

To: Conference on Security and
Cooperation in Europe
Hofburg
A-1010 Wien
(Please, acknowledge the reception of
this letter)

I enclose my books "The Thorny Way of Truth, Part I and Part II", where numerous documents and clippings on me can be found. I present the first and the third edition of vol. II, as in the first edition are published more "administrative" documents, but in the third edition there are more articles on my perpetuum mobile which can be of interest for the journalists. In this letter all references are given to the <u>first</u> edition and for the two parts the abbreviations TWT-I and TWT-II are used. When there will be no more use for my books, please, be so kind to resend them back to me.

My story <u>shortly</u> is the following: I spent years in the Bulgarian prisons and psychiatric clinics for my political dissent. The last time I was imprisoned in the psychiatric clinic in Sofia in April 1977 when I organized the International Conference on Space-Time Absoluteness. To evade a world scandal, the Bulgarian KGB concluded a compromise with me: I should be released from the psychiatry and receive a passport if I would agree to cancel the conference. I agreed and in September 1977 I flew to Belgium. In March 1978 I married the Belgian citizen Colombe Nizet. In April 1978 I went to Czechoslovakia and on the 29 April I demonstrated on the Venceslao's square in support of Charta-77. I was arrested, beaten, my Bulgarian passport was confiscated and after midnight, covered with blood, I was "thrown" over the "green border" to Germany (TWT-I, p. 21). From April 1978 until February 1979 I lived without identity and travel documents. I visited the USA (from June to December 1978) only presenting a photograph to the Embassy (encl. 1). In February 1979 my status of a political refugee was recognized by Belgium. In July 1979 I visited Bulgaria where a new Bulgarian passport was issued to me. I lived from March 1979 in Genoa, Italy, from where I was expelled on the 17th September 1980 (TWT-I, p. 173). The French border police re-expelled me to Italy. The Italian police expelled me once more. The French police beated me and re-expelled me again (TWT-I, p.174) The Italian police gave me 24 hours to remain in the country, I returned to Genoa and continued to live illagally. On the 12 June 1981 I was deprived of the status of a political refugee in Belgium (encl. 2). In July 1981 I went to Austria, where I lived without identity and travel documents (my Bulgarian passport was valid until August 1980). In December 1981 I was deprived of a Bulgarian citizenship, my house in Sofia was confiscated and I was sentenced as an "enemy of the people". I learned about this in April 1982 from a letter of my son who lives in Sofia. The Bulgarian government has not written me a single line, and the confiscation of my house (one of the most beautiful in Sofia) without the presentation of any written document can be considered only as <u>robbery</u>. I wrote to the President of the People's Republic of Bulgaria that I wish to appear immediately in a Sofia court and fight for my Bulgarian citizenship, as I have done nothing against the laws and the interests of Bulgaria (TWT-I, p. 258 and encl. 3). I received no answer to this letter.

In September 1982 the Austrian police informed me that a decision is taken to expel me. I proposed two countries: Bulgaria or Belgium. The police informed me that they have no expulsion agreement with Bulgaria and that the Belgian government does not allow me to enter the country. My "Aufenthaltsverbot" was postponed until the 31 Dec. 1982. On the 29 Dec. 1982 I tried to go illegally to Belgium, but I was arrested in Germany and against my will I was expelled to Austria. The Austrian police imprisoned me in Salzburg from where I was released the next year (on the 3 Jan. 1983) after the arrival of my lawyer, Dr. Fodor, from Graz. I was sent back to Graz. In April 1983 I was imprisoned as a vagabond and a man without identity documents under the personal order of the then minister of interior, Dr. Lanc (TWT-II, pp. 163, 164, 167). My letter to the Chancellor of Austria, Dr. Kreisky was answered in a hypocritical way (TWT-II, pp. 152, 162). Finally, when the Austrian government realized that it cannot expel me in some other country and that I do not die of hunger, it issued me a "Fremdenpaß" but promised to issue me a work permit only after 20 years. My last two expulsions (from Sweden to Austria in July 1986) and from Austria to Hungary (in August 1986) are described in enclosures 4 and 5. For 5 years the Belgian government does not allow me to visit my wife in Belgium (TWT-II, p. 200).

I am adressing the Conference with the request: 1) Compel the Bulgarian government to allow me to enter the country and appear before a court to fight for my citizenship. 2) As I am sure that the Conference is UNABLE to do this, compel the Austrian government, either to expel me to a certain country or to give me a citizenship and work permit. 3) Compel the Belgian government to allow me to visit my wife. 4)Give this letter and the attached books and documents to the press presented at the Conference.

PS. Encl. 6 is assigned to the press.

Sincerely yours:

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz

7 October 1986
12.00 London time

To: Johnny Johnson
Elizabeth Bisson
Intern. Advertising Department
THE ECONOMIST
25 St. James+ Street
London SW1

TO BE DELIVERED IMMEDIATELY

TELEFAX NUMBER 01/8394104

Dear Mr. Johnson,

To spare time in phoning you previously, I decided to send you one third of the page charge for my advertisement. This is the whole money which I have here. I shall stop my experiments, but I send you the money with the plea to publish my advertisement on the 11th October. I take the obligation to send you the other 2/3 parts before the end of this year. That is all what I CAN DO NOW. I beg you, speak with the editor, speak with some of your scientific advisers (the man who has written the paper on me ten years ago). PLEASE, PUBLISH THE ADVERTISEMENT. This is, perhaps, the most important article which THE ECONOMIST has ever published. I have little hope, as I know HUMANITY. I know what are prescriptions, rules and orders. Nevertheless, I never lose my last hope in the fellow man. With the publication of this article I shall spare in the running of the perpetuum mobile much time. There is a certain limit of resistance of the society. With this article I shall break the last resistance. Help me, help yourself, help humanity.

If your prescriptions do not allow you to publish the advertisement having only 1/3 part of the page charge, then return the money back to my account number:

CREDITANSTALT, Graz, Austria, c/a 0082-17077/00, Stefan Marinov,

retaining the sum for the paste up of my article. If THE ECONOMIST will do that, it will be a very sad decision. I lost so much money, so much time with this advertisement, and the result will be null. I know, such is the destiny of the prophets. Kassandra always said the truth but NEVER people heard her.

Here I give a photocopy of the document for the payment of 4.023 English pounds. This is the page charge for one page with 10% reduction (for prepayment in cash).

If you decide to publish the advertisement on the 11 October, please, send to my telefax the proofs of the advertisement, so that I aprove it. Send it IMMEDIATELY to the TELEFAX (Central post, Graz, Stefan Marinov, poste restante). The number was given my last telefax-letter. After receiving it, I shall phone you to say you OK. I shall await until 14.00 London time. If no telefax will come, I shall phone you to see which is the situation.

I come from the Bulgarian prisons and psychiatric clinics. I have received no single cent of support from the "Society" (only from PERSONAL friends). I did all what is necessary. But at the present time I have only 1/3 part of the money to make this coup. I cannot jump over my shadow. Help me, Mr. Johnson. This article is VERY IMPORTANT.

Yours:

Stefan Marinov
Niederschöcklstr. 62
A-8044 Graz

13 October 1986

Dr. John Maddox
NATURE
4 Little Essex Street
London WC2R 3LF

Dear Dr. Maddox,

To my letter of the 5 September 1986 there is still no answer. In a phone conver-
sation with Mrs. Turnbull   ·   about a fortnight ago, she
said me that you have written me a letter. This was a lie: there is no letter from
you. In the last 20 days I phoned you about 20 times but the answer of your secretary
was always: "Dr. Maddox is absent, will be back in 1 (2,3,4) hours, or, he is in a
meeting." I thought that only in Russia one spends the whole day in meetings. Now I
see that this is also the case in London. No, Dr. Maddox, you were NOT absent, you
were NOT in meetings, you try to evade a phone contact with me in the most disgusting
and low-style way which an Englishman must NEVER use.

Seeing that you evade me, I tried to publish the article MARINOV TO THE WORLD'S
SCIENTIFIC CONSCIENCE in The Economist. There all went VERY GOOD, extremely expedient,
and I saw that English people CAN work. However, I had not money to pay the whole
page charge which is 12,000 pounds. I could send only 4,000 pounds. Thus I begged
Mrs. Elizabeth Bisson, from the advertisement department of THE ECONOMIST, to send
the composed and PASTED UP text of this letter directly to you, so that you publish
it as an advertisement in NATURE. As I wrote you, I wish also to print as an adver-
tisement my paper THE PERPETUUM MOBILE "ADAM", which was received (composed but not
pasted up) in your office on the 21 October 1985. Thus now I send you the sum of 3010
English pounds for 7 pages in NATURE: 3 pages for the material MARINOV TO THE WORLD'S
SCIENTIFIC CONSCIENCE and 4 pages for the material THE PERPETUUM MOBILE "ADAM". First
publish the first material: in the issue of 23 October, and then the second material:
in the issue of 30 October. In the issue of 23 October has to appear also my letter
to Gorbachev. I send it now with a post-scriptum which you have to compose in your
office. Not later than in a week from now I have to receive my paper "Experimental
violations..." with your suggestions for corrections.

If a single item of this program will be not fulfilled, on the 27 October I shall
immolate myself on the steps of the English Consulate in Graz.

You have to answer this letter immediately with an express letter and you have to
inform your secretary about your decisions concerning me, so that I can receive in-
formation from her when you are "in meetings".

Excuse for my harsh letter and for the self-immolation ultimatum. I do not deserve
your dishonest treatment. I give you a last chance to save your name in the eyes of
posterity. Next week Mr. Ota Filip, a writer for NEUE ZÜRICHER ZEITUNG, will come to
visit me and write a big paper on me in the mentioned journal. From your answer will
depend the light in which you will be presented in this journal.

If you have some scientific objections against my papers, present them in the press:
Write that the velocity of light is not direction dependent, write that the formula
for the motional-transformer induction is $- \vec{v} \times \text{rot} \vec{A}$ (as today's science affirm) and
not $(\vec{v}.\text{grad})\vec{A}$, as I affirm, write that ADAM cannot be a perpetuum mobile, write that
MAMIN COLIU cannot be a perpetuum mobile. Open your mouth if you have some SCIENTIFIC
objections against me, but do not torment me YEARS with promises which then you do
not maintain. Believe me, you TORMENTED me too much, I lost too much money for my
phone conversations and telegrams to NATURE. Why, Dr. Maddox? Why you torment me?
Is something wrong which I do? Tell me, please, I AM TIRED. The story with THE ECONO-
MIST cost   me too much. Only for the paste up THE ECONOMIST will retain 500 pounds
from my money. I wrote once to Vera Rich, when she robbed 165 pounds from me: Верочка,
милая, экспроприируй эксплоататора, но ради Бога не воруй у ограбленного. Why you,
Dr. Maddox, dilapidate my SCARCE MONEY. I said you many times: "If you do not wish
to maintain mutual contacts, say this openly, as so many (almost all) scientific jour-
nals in the world have done." You answered (during my visit in London): "No, I do
not wish to break the contacts and you, Mr. Marinov, must appreciate that I am the
unique editor in the world who still maintains contacts with you." Well, Dr. Maddox,
I appreciate your attitude, but the contacts must be HONEST. Better a honest breaking
of the contacts then a dishonest maintenance. That's all. I repeat, I am tired, I
am very, very tired.   Yours: ⸺⸺⸺⸺   Stefan Marinov

Raum für besondere Hinweise des Auftraggebers:

e werden ersucht, nachstehende Auslandsüberweisung durchzuführen:

Währung / Betrag in Ziffern

£ 3.010,--

Auftraggeber

Falls die Überweisung für fremde Rechnung erfolgen soll, sind im Feld „Verwendungszweck" auch der Name und die Anschrift des Zahlungspflichtigen anzugeben.

Herrn
Prof. Stefan Marinov
Niederschückelstrasse 62
8044 Graz

Kto.-Nr. des Auftraggebers
0082-17077/00

Datum 13.10.1986

Verwendungszweck (dem Begünstigten mitzuteilen)

Bezahlung für eine Annonce in der
Zeitschrift
"Nature"

Übernahmsbestätigung
Gilt nicht als Ausführungsanzeige!
Verbleibt in Händen des Auftraggebers!

Begünstigter

Macmillion Accounts and
Administration Ltd
4 Little E₂sex Street
London WC2R 3 LF

auf sein Konto bei (wenn vom Begünstigten ausdrücklich vorgeschrieben)
Nat. Westminster Bank Ltd.
BLZ 60-02-49
acc. 473 01759

Creditanstalt-Bankverein
Auch im Auslandsgeschäft Ihre Bank

- Direkte Überweisungen in alle Länder durch ausgedehnte Geschäftsbeziehungen mit den Banken in der ganzen Welt, weitere Beschleunigung durch Teilnahme am SWIFT-SYSTEM (Datenfernübertragung per Draht)

- Prompte Abwicklung von Dokumenten-, Wechsel- und Scheckinkassi sowie von Akkreditiven

- Fremdwährungsfinanzierung Ihrer Auslandsgeschäfte

- Abnahme Ihres Kursrisikos durch Devisen-Termingeschäfte

Die Zahlung erfolgt
a) gemäß genereller Bewilligung auf Grund von Kundmachungen der OeNB für (Zutreffendes bitte ankreuzen)

Wareneinfuhr Bei Kontrollware Nr. der Einf. Bew.	Nebenkosten des Warenverk.	
	Dienstleistungen	
Transitgeschäft	Sonst. Schuldverpflichtung	X

Bei Zahlung auf Grund genereller Bewilligungen der Oesterreichischen Nationalbank wird dieses Blatt ihr zugeleitet.

b) gemäß beiliegender Bewilligung der OeNB

Nr. /auszun. Betrag	
Nr. /auszun. Betrag	

Zahlungsgrund (genaue Bezeichnung, alleiniger Hinweis auf Rechnungsnummer und -datum genügt nicht!)
Annonce

Vom überweisenden Devisenhändler (nicht vom Auftraggeber) auszufüllen:

Tag der Auslands-
überweisung

Creditanstalt-Bankverein

Genaue handelsübliche Bezeichnung der Ware	Zolltarifnummer der Ware	Warenwert laut Faktura (Währung, Betrag)

Ursprungsland	Liefer-/Verkäuferland	Zeitpunkt d. Einfuhr (bei O.-Lager: Datum d. Verzollung), bei Transit-geschäft: Datum des Ankaufes	Allfällige Nebenkosten
			Fakturen-Gesamtbetrag
			darauf geleistete Teilzahlungen

Telefonnummer des Auftraggebers:

zu Lasten (Zutreffendes bitte ankreuzen)

☐ Schilling-Konto

☐ _____ Fremdw.-Konto

Durchführung:
Laut Terminschluß
Nr. _____

☐ brieflich (flugpostlich) bzw. SWIFT ☐ drahtlich bzw. SWIFT

S. Marinov

kontormäßige Zeichnung des Auftraggebers

LESERPOST

Antwort aus Prag

(Zum Ostreport „Ein Tag in Prag", 15. 10.)

Ein ORF-Reporter stellte in Prag einigen Passanten die Frage: „Was ist für Sie das Wichtigste im Leben?"

Die Mehrheit antwortete: „Die Gesundheit", die Minderheit „Ich weiß nicht". Ein junger Mann gab zur Antwort: „Die Beziehungen zu den Mitmenschen." Gewiß, der Reporter hat keine echten Prager Bürger gefragt. Für sie hätte es nämlich nur eine einzige Antwort gegeben: „Abych se mohl pěkně vyprdnout, když mi na to přijde." (Daß ich einmal frei furzen kann, wenn es mir kommt.)

STEFAN MARINOV
8044 Graz
Niederschöcklstraße 62

Youri Orlov
Hotel de France
Vienna
4 November 1986

To: Dr. John Maddox
NATURE
4 Little Essex Street
London

Dear Dr. Maddox,

I am not acquainted with Marinov's theory. However, if his
formula for the MOTIONAL-TRANSFORMER INDUCTION

$$(v.grad)A$$

is true, this will lead to considerable changes in our concep-
tions of electromagnetism.

Marinov claims that his machine MAMIN COLIU is a PERPETUUM
MOBILE. I am sure that it is not such a one, BUT IF IT IS?

I should suggest that you print in NATURE his

LETTER TO THE WORLD'S SCIENTIFIC CONSCIENCE

as a paid advertisement. Of course, if you will decide to print
it on the numbered pages of NATURE, this letter will be preserved
better for posterity.

Let us not forget the words of Karl Marx: L'ignorance n'a
jamais
rendu service à qui que se soit.

Sincerely yours:

Youri Orlov

Marinov's note. I wrote this letter and gave it to Dr. Orlov in Vienna. He told me
that he cannot take a decision so quickly and first he must scruti-
nize my theory and experiments. During a couple of conversations I told to Dr. Or-
lov that I did not ask him to support my theory. I begged him only to suggest to Dr.
Maddox to print my three-pages scientific contribution as a PAID ADVERTISEMENT, as
Dr. Maddox denied it. Nevertheless Dr. Orlov asked for some time. I gave him some of
my papers and books and a stamped letter with my address written on it, where he had
to put the above letter after signing it, but until now his answer has not reached me.
Mrs. Ludmila Alexeeva who served as a go-between at the last stage of our contacts
(as I was not allowed to enter the big Conference room in the Hofburg) assured me
that the answer, even negative, will soon reach me but she is afraid it will be ne-
gative.

CONFERENCE ON SECURITY
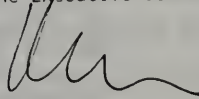AND COOPERATION IN EUROPE
VIENNA MEETING
THE EXECUTIVE SECRETARY

Vienna, 18th November 1986

Sir,

According to your wish, we hereby acknowledge receipt of your
letters dated the 28th September and the 10th November, which
have been put into a file at the disposal of the Conference.

For the Executive Secretary

CSCE-Executive Secretariat

Stefan Marinov
Morellenfeldgasse 16/14
8010 Graz

INITIATIVE: JEDER KLUGER STUDENT - MILLIONAR, JEDER DUMMER - BETTLER

Am 4 Dezember (Donnerstag) um 19.30 im Hörsaal B der Grazer Universität (Universitätsplatz 6) wird

S T E F A N   M A R I N O V

sein Perpetuum Mobile MAMIN COLIU vorführen.

Zur Zeit läuft das P.M. noch nicht. Die Zuschauer müßen selbst zu der Entscheidung kommen, ob die Ma-
schine ewig laufen würde. Marinov schätzt die Zeit, die er noch braucht um sie anzulaufen, auf 2 Monate.
Marinov wird auch andere Maschinen vorführen (Kugellagermotor) oder erklären (N-MASCHINE, ADAM), die
Energie aus nichts erzeugen. Die von Marinov konstruierte FARADAY-BARLOW DEMONSTRATIONSMASCHINE wird
vorgeführt. Mit deren Hilfe hat Marinov den Unterschied zwischen der BEWEGUNGSINDUKTION ($\vec{v} \times rot \vec{A}$) und
der BEWEGUNGTRANSFORMATORISCHEN INDUKTION ($\vec{v} \cdot grad)\vec{A}$ aufgeklärt. Seit 150 Jahren hat die Menscheit die
bewegungstransformatorische Induktion nicht bemerkt und erst Marinov hat sie vor 2 Jahren entdeckt. MA-
MIN COLIU arbeitet mit einer schlauen Ausnützung der bewegungstransformatorischen Induktion, die keinen
elektromagnetischen Bremseeffekt hervorruft.

Die physikalischen Erklärungen werden extrem einfach vorgetragen, so daß jeder normal intelligenter Zu-
hörer sie verstehen könnte. Der Teufel ist nicht so schwarz, wie man ihn malt, und Physik ist nicht so
verwickelt, wie Maxwell, Einstein und die Energieerhaltungdoktrinäre sie uns unterichtet hatten, weil
vieles, SEHR VIELES in deren Vorstellungen is FALSCH.

In der Bibliothek für Periodik der Uni sind Marinovs Bücher und viele Artikel vorhanden. Der kluge Stu-
dent würde zuerst einen Blick auf die Bücher werfen und dann zum Vortrag gehen.

Marinov wird Information über die Perpetuummobilisten in den USA und Deutschland geben, viele von wel-
chen er persönlich kennt und vor einem Jahr besucht hat, sowie über die geheime und halbgeheime Tätig-
keit der amerikanischen Regierung hinsichtlich des P.M.

Anschließend wird Marinov Aktien (minimale Summe 500 öS) verkaufen. Nach dem Anlaufen von MAMIN COLIU
wird jede Aktie das HUNDERTFACHE dem Inhaber bringen. Also um in 3 Monate Millionär zu werden, braucht
man: 1) einen Kopf auf den Schultern und zwei Augen, 2) 10,000 öS in der Tasche, 3) sonst nichts.

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

14 December 1986

Dr. John Maddox
NATURE
4 Little Essex Street
London WC2R 3LF

Dear Dr. Maddox,

our last phone conversation was on the 3 December. You said me: "Your letter to
Gorbachev will appear tomorrow". When I looked at the 4th December issue, I did not
find the letter. I do not understand you. Are you deriding me, are you tormenting me?
What's the matter. On the 3rd December NATURE was in print. And you said: "The letter
is in print." And the letter was not in print. On the 12th December I had a long conver-
sation with your secretary (I hope that she has informed you about this conversation).
I asked her whether there is something pathological with you. A whole year promises:
Next week, tomorrow, after 13.00, and so on. And neither a SINGLE TIME have you main-
tained your promise. I do not know what to do with you. On the other side, after
having met you in London, I was enchanted by you. YOU ARE ENORMOUSLY SYMPATHETIC GUY.
I like you. Believe me. After all what you have done with me, I like you. I do not
know why, but I LIKE YOU. You speak so fine on the phone. Your wife and daughter have
answered so charmingly my calls. I like you, John Maddox. I cannot begin to hate you.
Beleive me. Thus even after your last "lark" I decided not to break the contacts.

Your secretary said me that you will be in the office on the 22 December. On the
22 December I shall phone you with the two eternal questions:

1) When will you print my letter to Gorbachev? Now, please, change the "ultimatum
date" to the 3 March, writing in parantheses: (the anniversary of the liberation of
Bulgaria by tsar Alexander II.)

2) Will you accept for publication my paper "Experimental violations..."? On the
3rd December you promised to send me a letter on this paper on the 5th December.
Of course, the letter was not written. I think, however, Dr. Maddox, that it is not
necessary to write a letter. If you will present some objections, they will be
nonsensical, I assure you. Until now I have received about 300 letters of different
editors. ALL LETTERS WERE NONSENSICAL. There was no even a SINGLE tenable remark or
objection. My books THE THORNY WAY OF TRUTH show this. You have made until now THREE
objections to my theory and experiments:

a) I have not given the number of the holes in the "coupled shutters" experiment.
b) I have not given the number of the screws used in the "coupled shutters" setup.
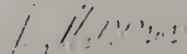c) I have not given the distance in meters from the laboratory to the toilet.

Your further objections and remarks can be only along these lines. If you will pose
some tenable objection, this will signify that you have properly read my paper and
understood it. In the last case there is only one issue, namely to say: Marinov is
a genius.

Now my LETTER TO THE WORLD'S SCIENTIFIC CONSCIENCE has appeared in NEW SCIENTIST
(it appears on the 18th December). You have read this letter in manuscript. But
read it now in the journal. If you are a HONEST member of the scientific community,
you have to comment it on a whole page in NATURE. If you will keep silent, you will
be not a honest member of the scientific community. But there are HONEST scientists
in the world. And there will be reactions to this letter. I AM SURE. 150 years huma-
nity cannot see the MOTIONAL-TRANSFORMER INDUCTION. Have you seen it now, Dr. Maddox?
Still not? When some gullible Americans have "measured" the displacement current, you
immediately appeared with comments about the "measuring of the unmeasurable". How-
ever when Marinov has discovered the motional-transformer induction, you keep silent.
Keep silent, keep silent, Dr. Maddox, and go tó "measure" the magnetic action of
the displacement current. Understand, Dr. Maddox: The displacement current is a FIC-
TION. Creation of energy from nothing in MAMIN COLIU is a REALITY.

On the 22 December 1986 I shall phone you. And give me the decision on the spot:
Will you accept my paper "Experimental violations..." or not. ON THE SPOT. If you
(after all your promises) will reject this paper, reject it. NATURE is your journal
and you can print what you wish. But do not forget that there is a God on heaven.

With my sincere love,   Yours: /

MARINOV TO THE WORLD'S SCIENTIFIC CONSCIENCE

On the back cover of my book[1] I wrote:
The »law of inertia « is valid for any collective creation of political, moral, artistic or scientific character. Traditions and conservatism are indispensable for the functioning of any society, science or religion. However, if one gives no freedom for the communication of new ideas and of the results of new experiences and experiments, the progress in human society and science is impossible. As this book shows, our society is rather the same as in the times of Jesus Christ and Galileo. Of course, the norms of behaviour have become more sophisticated but one is not sure whether this »sophistication « is a result of our enlightenment and humanisation or those who maintain the power have understood that the imprisonment in phyciatric clinics is more effective than a crucifixion and the covering with silence is more effective than a denial.

I am writing this missive, as I have realized that it is impossible, by normal and generally accepted means, to make even the smallest break-through in the wall which »established science« erects to protect itself from revolutionary changes. The new experiments may be reliable, cheap and easy for execution, the new theories may be simple, clear and transparent as air, their mathematical background rigorous and understandable for children, nevertheless established science says *automatically »no passaran «*. Such is reality! I do not intend to discuss the big problem *why* it is so. I say only that it *is* so. Everybody can persuade themselves that I am right only by perusing the first[1] and second[2] volumes of my book »The Thorny Way of Truth«.

I did experiments and proposed theories which will lead to a drastic change in today's »way of life« of mankind. However, after having tried every conventional path to communicate these experiments and theories to the scientific community, I seem to have been only a boy playing on the sea-shore and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of »established science« lies before me where instead of water I see a tremendous immovable and slavery jelly-fish. Thus I decided to communicate my discoveries by directly addressing the »world's scientific conscience«. The result will probably be again that the big jelly-fish from the scientific journals and institutions will slightly open its senseless eye and close it anew. But what else can I do? Even my threat of a self-immolation could not persuade Dr. Maddox to publish at least one paper of me in »Nature«[1].

In the sixties, after having made a critical analysis of the axiomatical basis of physics and the available experimental evidence, I established that Einstein's *principle of relativity* is wrong. I showed this experimentally in the most direct and unassailable way by measuring (for the first time in history) the one-way light velocity which, as I established, is anisotropic, namely c − V along the line of the Earth's absolute motion and c + V in the opposite direction, where c is the two-way light velocity and V the velocity of the laboratory in absolute space. My first, not very exact measurements were done in 1973 by the help of the deviative »coupled mirrors« experiment[4]. Then in 1975/76 by the help of the interferometric »coupled mirrors« experiment[5,6,7], performing measurements *during a year*, I found for the *Sun's* absolute velocity a magnitude V = 303 ± 20 km/sec and equatorial coordinates of the apex δ = −23° ± 4°, α = 13h23m ± 20m. Later Wilkinson and Corey[8] and Smoot et al.[9], by analyzing the slight anisotropy of the cosmic background radiation, found figures very near to mine, however I measured the Earth's absolute velocity in a *closed* laboratory, while Wilkinson and Smoot measured the »drift« of the Earth with respect to the frame in which the background radiation is isotropic and which frame, with a high probability, is to be identified with absolute space. My third measurement of the *Earth's* absolute velocity was done in 1984 by the help of the »coupled shutters« experiment[2] (p. 68) and I registered *in February* V = 360 ± 40 km/sec, δ = −24° ± 7°, α = 12.5h ± 1h.

I showed[10] that Einstein's *principle of equivalence* is not true, as I was able to make an *experimental* difference between a *kinematic* and a *gravitational* acceleration. Indeed, when performing my interferometric »coupled mirrors« experiment, I established that during the different days of the year the absolute velocity of the laboratory was different, as the Earth moved about the Sun with kinematic acceleration. My apparatus can, however, remain years in a gravitational field, but not the slightest change in its absolute velocity will be observed.

According to Einstein's principle of equivalence, an observer placed in a laboratory where all masses have the same acceleration can by no means establish whether this acceleration has a kinematic character (i.e. being due to an accelerated motion of the laboratory with respect to distant stars, for example by a rocket thrust) or a gravitational character (i.e. being generated by a gravitational action of nearby masses, for example by the Earth's attraction).

Thus I restored the »Newtonian« character of space-time and showed that the relativistic adventure was an aberration. My theory and experiments are presented (after a terrible long-years tormenting fight with editors and referees from the jelly-fish ocean) in 50 publications, in my first book »Eppur si muove«[11] and in the five volumes of my encyclopaedic »Classic Physics«[12].

The reader will perhaps say that the rejection of the principles of relativity and equivalence has only an academic significance and with or without these principles the life on our planet will remain the same. This is not true. The absolute character of space-time leads to drastic changes in the theory of electromagnetism. According to Einstein, if there is a magnet and a wire, then the electric tension induced in the wire is the same for both cases, whether the wire moves with respect to the magnet or the magnet moves with respect to the wire, as only their *relative* velocity is of importance. Einstein opens his historic 1905-paper trumpeting forth exactly this categoric assertion, which, however, is a *tremendous* lie. In the first case (when the wire moves with a velocity v) the induced electric intensity is called by me (and by conventional physics, too) *motional*, and is given by the formula

$$E_{mot} = v \times rotA, \qquad (1)$$

where A is the magnetic potential originated by the magnet at the space domain crossed by the wire. In the second case (when the magnet moves with a velocity v) conventional physics writes the same formula (1), taking it with a minus sign. This is *wrong*. In the second case the induced electric intensity is called by me *motional-transformer*, and is given by the formula

$$E_{mot\text{-}tr} = -\delta A/\delta t, \qquad (2)$$

Any child will conclude *that* when considering the fundamental equation of motion of a unit electric charge in the field of an electromagnetic system originating the electric and magnetic potentials φ and A (commonly called the *Lorentz equation*)

$$E = -grad\phi - \delta A/\delta t + v \times rotA, \qquad (3)$$

by putting there for both above-considered cases φ = 0, and then for the first case δA/δt = 0 and for the second v = 0. Yes, any child will do that, but *no single* conventional physicist.

Until now I supposed that the magnet is permanent or, if it is an electromagnet, the current feeding it is stationary. If the current is not stationary and the wire and the magnet are both at rest, we shall nevertheless have an induced electric intensity which I (and conventional physics, too) call *transformer*

$$E_{tr} = -\delta A/\delta t. \qquad (4)$$

In this special (non-stationary) case the magnetic potential A = A(t) originated by the electromagnet at the space domain where the wire is placed is a *direct* function of time and the calculation is to be done directly according to formula (4). For the case of the motional-transformer induction, however, the magnetic potential A is a *composite* function of time through the distance r, between the single »current elements« of the magnet (a current element is a small part of the wire of an electromagnet multiplied by the current flowing through it) originating the elementary magnetic potentials A, = A/r(t)/ and the space domain where the wire is placed. Assuming r, = r, i.e., assuming that the distance »magnet-wire« is substantially bigger than the size of the magnet, we can write formula (2) in the following form

$$E_{mot\text{-}tr} = -\delta A/r(t)/\delta t =$$
$$-(\frac{\delta A}{\delta r}\frac{\delta r}{\delta x}\frac{\delta x}{\delta t} + \frac{\delta A}{\delta r}\frac{\delta r}{\delta y}\frac{\delta y}{\delta t} + \frac{\delta A}{\delta r}\frac{\delta r}{\delta z}\frac{\delta z}{\delta t})$$

or

$$E_{mot\text{-}tr} = (v.grad)A, \qquad (5)$$

where v = − δr/δt is the velocity of the magnet and A = ΣA, is the magnetic potential originated by the whole magnet. Formula (5) will be written by any child who has heard something about a differentiation of a composite function, but, unfortunately, not by a single conventional physicist. It may sound strange and amazing, but formula (5) is *unknown* to conventional physics. Ritz has come to understand it a little bit and one can find it somewhere in the mathematical jungles of O'Rahilly[11]. Meanwhile formula (5) is as transparent as a morning dew.

That's all. I have presented here the *whole* theory of the electromagnetic induction. Nothing remains to be added. The problem is understandable for children. Mathematically it is absolutely rigorous. There is only one flaw: conventional physics does not accept this theory. The whole scientific community does not recognize formula (5), affirming that the right formula for the case is formula (1) taken with a minus sign. The reader will say: »My God! The problem can be solved in five minutes. Take a magnet, take a wire. Move first the wire, then the magnet, see whether there is a difference in the induced electric tensions, corresponding to the different formulas (1) and (5).« Humanity has done such experiments billions of times, but always with *closed* wires and *never* with a *non-closed* wire. I showed[12] (p. 124) that for closed wires (loops) the induced motional and motional-transformer tensions are equal, but for non-closed wires they are not (similarly humanity has billions of times measured the two-way light velocity which is constant, but never the one-way velocity which is direction dependent). A *unique* experiment with a non-closed wire was done only by Kennard[14] for a *rotational* motion. In fig. 1 I give a simplified version of Kennard's experiment. A current I flows in the loop consisting of two concentric circular wires. A wire with a length $b - b_a$ ($b_a \ll b$) is placed radially between the concentric circular wires. When moving the open wire an electric tension is induced, however, when rotating the double circular loop *no* tension is induced. When rotating loop and wire *together* the same tension is induced as in the first case is induced. The effects can be calculated immediately by the help of formulas (1) and (5). In *no* textbook on electromagnetism that I have found one can see a description of Kennard's experiment. One of the *rare* monographs where this experiment is mentioned is van Bladel's[15].

A variation of Kennard's experiment for *translational* motion can be proposed by any child (but not by a single conventional physicist nor by van Bladel). This variation is shown in fig. 2. If the rectangular loop is *long enough*, then by moving the wire a tension is induced along it. When moving the loop no tension is induced. When moving loop and wire together a tension is induced as... As in the first case? — Dear reader, when moving loop and wire together the velocity which one must take in formula (1) to calculate the induced tension is the *absolute velocity* of motion. Kennard's experiment is an analogue to the *Sagnac effect* (Sagnac established that the velocity of light on a rotating disk is direction dependent). The translational experiment in fig. 2 is an analogue to the *Marinov effect* (I established that the velocity of light in a translationally moving laboratory is direction dependent and the relevant velocity is the laboratory's absolute velocity).

Any child can immediately calculate by using formula (1) that for $v = V = 300$ km/sec, $I = 100$ A, $b = 14.8$ cm, $b_a = 0.2$ cm (so that $\ln(2b/b_a) = \ln 148 = 5$) the induced tension will be 60 V. Thus putting golden leaves at the end points of the wire and calibrating previously their deviations by known voltages (as one calibrates an electrometer), one can measure the Earth's absolute velocity. Of course, this method is very inaccurate. However, if one should rotate the wire $b - b_a$ along an axle parallel to the plane of the loop and passing through the wire's center, an alternating electric tension will be induced in the wire and by the help of modern electronics the Earth's absolute velocity can be measured with an exactitude of m/sec. Any child having a laboratory and money will perform such an experiment, but no single representative of conventional physics I have not done it myself as I *never* do obvious experiments. I do only experiments in whose results I am not absolutely sure.

The reader will perhaps say: »All right, let us assume that there is a difference between the motional and motional-transformer inductions. But how will the vector-gradient in formula (5) change the future of mankind?« Just wait a little. *Chi va piano, va lontano*. I established further that the electromagnetic interactions are *point-to-point* interactions. Any single current element of the magnet originates its own magnetic potential A, and the electrons in the wire move under the action of the algebraic sum of all A, (taking, respectively, rotation and partial time derivative from the net magnetic potential A). The »closed current lines« and »flux« conceptions of Faraday and Maxwell are no good. »Magnetic poles«, »lines of magnetic forces«, »magnetic flux«, etc. — all these notions can be used only for certain *visualizations* but not for theoretical speculations. I called (see Ref. 2, p. 4) the people who calculate the electric tension induced in a loop by the magnetic flux cut by this loop in a unit of time the »butchers«, as for such people the magnetic flux is a sausage and the loop a knife. If we wish our children to understand electromagnetism, we must chase the »butchers« away from the schools, otherwise our children and the children of our children will also become »butchers« and will never be able to discover an electromagnetic perpetuum mobile. Then such notions as »propagation of

interaction«, »electric and magnetic fields« (as physical *realities*), »density of electromagnetic energy in vacuum«, »displacement current«, and all similar rubbish must be thrown over board and *forgotten*. There are only electric charges q moving with velocities v and their electric and magnetic potentials $\phi = q/4\pi\varepsilon_o r$, $A = \mu_o qv/4\pi r$ (I must write them in the *damned* system SI, where, my God!, B and H are two quantities with different dimensions, so that even the grandchildren of our grandchildren will curse and swear at us when studying electromagnetism). I repeat: ϕ and A and *nothing else*. With those ϕ and A I calculated[13] all effects in *classical* electromagnetism, including, say, the polarization of the synchrotron radiation, and I deduced the »Lorentz friction« directly from the Lienard-Wiechert potentials and the Lorentz equation when treating the former from the most logical and absolute point of view, while if considering the Lienard-Wiechert potentials from the phantasmagoric point of view of »propagation of interaction« the Lorentz friction must be introduced artificially and that leads to the senseless »selfacceleration«.

Analysing then the beautiful experiments of Francisco Mueller (see Ref. 2, p. 46), who for 15 years has submitted papers in which he shows that the effects in many induction experiments are not as described in the textbooks (the jelly-fish has spat out *all* Mueller's fantastically profound and wise papers), I *discovered* that the *seat* of the motional-transformer induction may be at such parts of the wire which lie in space domains where rotA = 0. Consequently I came to the conclusion that induced electric energy can be obtained without spending mechanical (kinetic) energy. Indeed, if the *whole* loop is in a space domain where A ≠ 0 but rotA = 0, then moving the magnet we can induce the current in the loop according to formula (5), while by moving the loop we cannot induce a current, as can be seen from formula (1). Take, for example, a *long* current solenoid (or a *long* permanent cylindrical magnet) and encircle it by a circular loop. Moving the solenoid parallel to the plane of the loop, you will induce electric tension in the loop (the conventional physicists will tell you that tension cannot be induced, but they *lie*). The unpleasant aspect, however, is that in the half circle which you approach the induced tension will be opposite to the tension induced in the half circle from which you remove, so that no net tension can be measured. Thus the problem is to find such a combination of a loop and a magnet that the net tension in the loop will be different from zero. If we succeed in doing this, then the magnet will not exert a *ponderomotive action* on the induced current flowing in the loop, as such a ponderomotive force can appear only if a current element is in a space domain where rotA ≠ 0. For closed current loops the third law of Newton is valid (for current elements this law is *not* valid, but conventional physics is *afraid* to touch and discuss this problem). Consequently the loop can not exert a ponderomotive action' on the magnet either and the motion of the latter *will not be braked*, as this is the case in any generator known to humanity. Obviously such a generator without »braking moment« will be a perpetuum mobile. Now, I hope, that the reader understands that if such a generator can be constructed, the future of our planet will be changed substantially.
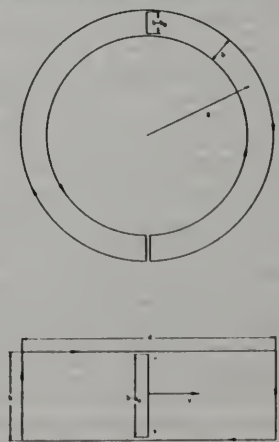
In Ref. 2 and in Ref. 16 I give a detailed description of such a machine. Here I present its scheme (fig. 3), its photograph (fig. 4) and a short description: In the gap of a torus of soft iron there are two similar disks consisting of an equal number of sectors of axially magnetized permanent magnets. Between those sectorial magnets there are sectors of non-magnetizable material (I used bronze). The one disk is solid to the laboratory and the other can be rotated by an electromotor. When the sectorial magnets of the rotating disk overlap the sectorial magnets of the solid disk, there is rotA $\ddagger$ 0 in those ≫sectors≪ of the torus which ≫overlap≪ the overlapping sectorial magnets and A $\ddagger$ = 0 in the space outside the torus. When the sectorial magnets of the rotating disk overlap the bronze sectors, there is rotA = 0 in the whole torus and A = 0 outside the torus. Consequently an *alternating* electric tension

$$U = n\phi\,(\delta\,A/\delta t).dl \qquad (6)$$

will be induced in the coil, where n is the number of the windings of the coil, and the line integral is taken along one of the coil's windings (dl is the line element of this winding). Although the induction in this case is motional-transformer, A in formula (6) depends directly on time, as, because of the *cylindrical symmetry*, the distance between the moving magnet and the coil practically do not change. Feeding the electromotors in figs. 3 and 4 by the generated current one obtains a perpetuum mobile which I called MAMIN COLIU (MArinov's Motional-transformer INductor COupled with a LIghtly rotating Unit).

Maybe, the reader will present the following objection: ≫Dr. Marinov, above you said that if there are a *closed* loop and a magnet, then whether the magnet or the loop will be moved, the induced tension will be the same. Imagine now that the torus in fig. 3 is a very long *cylindrical* torus. By rotating the sectorial disk one induces a current, but by rotating the cylindrical coil about its axis, *no* current is induced. Why is this asymmetry?≪ The question of the reader is very good. The answer is the following: The theorem for the equivalence of the motional and motional-transformer inductions for a *closed* loop is deduced only for *two* bodies—a loop and a magnet. In Mamin Coliu there are *four* bodies: a rotating disk, a disk at rest, an iron ≫yoke≪ and a coil; the one disk must rotate with respect to the other, whether the cylindrical coil and the torus are at rest or rotate is *immaterial*.

In the three variations of Mamin Coliu which I constructed the generated tension is still lower than the tension which is needed to run the motor, so that the friction can be overcome. However all machines show *without any doubt* that there is *no* electromagnetic braking when a current is generated. I hope to soon construct the self-running machine.

Let me narrate at the end the last reactions of the jelly-fish to my endeavours to bring my discoveries to its attention.

I brought my machine to the GR11 Conference in Stockholm (July 1986) where I was to be a speaker. The Swedish police expelled me. After the first unsuccessful attempt, two James Bonds from the civil police took me in their arms and delivered me to the police in Vienna. All this was done, I believe, with the knowledge of the organizers of GR11. The whole shameful story with all the details is narrated in my letter to the Nobel committee [16] in which I ask King Gustaf to present me with the excuses of the Swedish crown for this barbaric expulsion.

I then brought my machine to the International symposium on electromagnetic theory (Budapest, August 1986), taking a very big personal risk, for if the Hungarian police had understood that I was

sentenced to ten years in Bulgaria as an ≪enemy of the people≫, my scientific career should have to be conducted further in a Bulgarian jail (as in the years 1966—77 when I dug the grave of relativity in the Sofia prisons and psychiatric clinics). However, in Budapest I was not allowed to present the machine and a poster, although 80% of the poster-tables were *free*. I asked Prof. Bach Andersen (Denmark), the Chairman, and Prof. Senior (USA), the Vice-Chairman, to state in written form the reasons for this denial (orally no reasons had been presented) but so far no letter from these gentlemen has reached me.

And the final story. In a recent long phone conversation with Mrs. J. Payne from the ≫Journal of Physics≪, I asked her why after more than two years of examination time there is still no decision about acceptance/rejection of the four papers submitted by me. The answer was: ≫Dr. Marinov, nobody still wishes to become your referee, because then you publish the comments in your books.≪ Jelly-fish, jelly-fish, you are afraid to criticize me even anonymously, as you know that pretty soon your anonymous trousers will be stripped down. Indeed, the comments of 29 June 1984 by the two anonymous referees on my paper on the ≫coupled shutters≪ experiment (Ref. 2, p. 68) are reproduced on p. 264 of Ref. 2. This paper was *not* rejected then and remained under examination for *another two years* I said to Mrs. Payne: ≫If all referees are afraid to comment on my papers, then the Editor in Chief must take a decision, and if he decides to reject the papers. I think, I have the right to insist that he personally signs the rejection letter, as in my papers I discuss scientific topics vital for the survival of mankind.≪ In fig. 5 the reader can see the letter of the ≫Journal of Physics≪ which reached me on 24 September 1986: there is *no* date, *no* titles of the rejected papers, *no signature*

STEFAN MARINOV, Morellen Feldg. 16, A-8010 Graz, Austria

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Note: A big anonymous article on Marinov was published in the English journal: *The Economist*, p. 76 (5 February 1977).
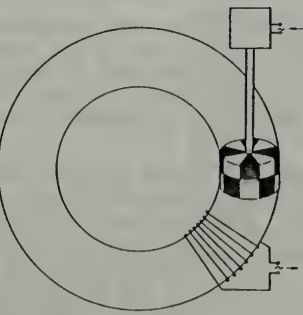
Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

20-го декабря 1986 г.

Михаилу Сергеевичу Горбачеву
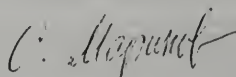Генеральный Секретарь КПСС
Кремль
Москва

Дорогой товарищ Горбачев,

Мои русские коллеги д-р Орлов и д-р Сахаров освобождены. А до Рождества еще пара дней. Так что срок, установленный в моем письме Вам от 21-го июня 1986 /опубликованное на стр. 350 третьего издания, июнь 1986, моей книги "Терновый путь истины/ был соблюден и настоящим письмом я снимаю запрет на пользование моего вечного двигателя МАМИН КОЛЮ в странах реального социализма.

Я хочу поблагодарить Вас лично за Вашу государственную мудрость и за решительность с которой Вы сокрушили сопротивление в консервативных кругах советского руководства. День освобождения Сахарова останется важной вехой в истории всех восточных стран на их терновом и мучительном пути к обществу, о котором мечтали и жаждали лучшие сыны нашей планеты, где человек для человека будет товарищ, друг и брат.

Вечный двигатель, открытый мною, изменит на протяжении нескольких лет всю энергетическую структуру нашего мира. Его дешевизна, чистота, рассредоточенность и неограниченность быстро превратят сегодняшнее общество эксплуататоров и эксплуатируемых в общество свободно взаимодействующих производителей. Так как Россия была первой страной, поднявшей знамя коммунизма, я хотел бы провести первую публичную демонстрацию моего вечного двигателя в Москве. Так что, если Вы пригласите меня, я готов в любой момент полететь в Москву. Этим я хочу также продемонстрировать мою личную поддержку Вашим благородным усилиям, направленным на демократизацию Советского Союза и на спасение мира на Земле.

Искренне Ваш:

C. Маринов (signature)

Стефан Маринов

English translation of Marinov's letter to Gorbachev.

Dear comrade Gorbachev,

My Russian colleagues Dr. Orlov and Dr. Sakharov are liberated. And there are still a couple of days until Christmas. Thus the dead-line set in my letter to you of the 21 June 1986 (published on p. 350 of the third, June 1986, edition of my book "The Thorny Way of Truth") has not been overpassed and with the present letter I raise the prohibition on the use of my perpetuum mobile MAMIN COLIU in the countries of real socialism.

I wish to thank you personally for your state wisdom and for the resoluteness with which you have crushed the resistance of the conservative circles in the Soviet leadership. The day of Sakharov's liberation will remain an important date in the history of all Eastern countries on their thorny and tormenting way towards a society, dreamed and desired by the best sons of human race, where man should be comrade, friend and brother to his fellow-man.

The perpetuum mobile discovered by me will change in a couple of years the whole energetic structure of the world. Its cheapness, cleanness, decentralization and unlimitness will quickly transform the present world of exploiters and exploited to a world of freely cooperating producers. As Russia was the first country raising the banner of communism, I should like to make the first public demonstration of my perpetuum mobile in Moscow. Thus, if you invite me, I am ready at any moment to fly to Moscow. In this way I wish also to demonstrate my personal support to your noble endeavours for the democratization of the Soviet Union and for the salvation of the world peace.

Sincerely yours: Stefan Marinov

Brief an den Kreml

Exilbulgare bietet Perpetuum mobile an

Auf besondere Art bedanken will sich beim sowjetischen Parteichef Michael Gorbatschow ein in Graz lebender bulgarischer Dissident und Wissenschaftler. Weil Gorbatschow die Regimekritiker Jurij Orlow und Andrej Sacharow freigelassen habe, will Stefan Marinov seine Erfindung, ein angebliches Perpetuum mobile, in Moskau erstmals vorstellen.

Der Exilbulgare Marinov ist davon überzeugt, daß sein Perpetuum mobile in wenigen Jahren die gesamte Energiewirtschaft der Welt verändern wird – auch wenn bisherige Versuche mit der Maschine nicht zur Zufriedenheit verlaufen sind.

In seinem Brief an den sowjetischen Führer erklärte Marinov weiters, er wolle mit der Widmung seiner Wundermaschine für Gorbatschow auch seine persönliche Unterstützung für Gorbatschows Bemühungen zur Demokratisierung der Sowjetunion und für den Weltfrieden zum Ausdruck bringen.

Gorbatschow hat freilich auf dieses brieflich vor Weihnachten gemachte Angebot noch nicht geantwortet.

Marinov's note. Това съобщение го публикувам,

та да може читащата публика, сравнявайки текста на мосто писмо до Ескамилио Сергеевич от предидущата страница с вестникарското негово представяне, да им види простотията и угодничеството на австрийските журналисти.

А защо Ескамилио ли? Защото пред бик червено платно размахва!

/Забележка към второто издание./

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz
Austria

7 January 1987

Dr. D. Nordstrom
Physical Review D
1 Research Road
Box 1000
Ridge
NY 11961

Dear Dr. Nordstrom,

Thank you for your letter of the 7 August 1986 with which you rejected the fol-
lowing papers of me:

1. On the action...

2. Coup de grace...

3. New measurement...

4. On the absolute...

In the last months I printed two paid advertisements: a) in NATURE on the 21 August
1986, and b) in NEW SCIENTIST on the 18 December 1986. I make ANY EFFORT to show to
the scientific community that its space-time conceptions and its theory of electro-
magnetism are WRONG. The ERRORS are ENORMOUS. On the other side the true, absolute,
point-to-point-interaction conceptions lead to the possibility of constructing a
perpetuum mobile. If I have not run until now some of my perpetua mobilia, first
of all, the most prospective machine MAMIN COLIU, the reason is only one: a lack
of money. .

I think, however, that only the advertisement in NEW SCIENTIST shows with an ABSO-
LUTE LUCIDITY that I am right. On the other side, my VERY CHEAP machines show without
any doubt that energy is created from nothing. Thus, I think, I have the right to
submit again ALL rejected papers. In the case that they will be again rejected, I
think, I have the right to ask for motivations for the rejection.

Until now no single scientist has raised objections against my theory and experi-
ments IN THE PRESS. I showed that all criticisms of the referees of the PHYSICAL
REVIEW (and of the other journals) were nonsensical and I published all such criti-
cisms and my answers in both volumes of my book THE THORNY WAY OF TRUTH. I wish to
know: WHY I AM NOT ALLOWED TO PUBLISH MORE?

You know Gorbachev now says that the Soviet society has gone in a black alley
because there was not GLASNOST. This word has no an equivalent word in the Western
languages and the journalists use it in Russian. The best translation of GLASNOST
in English is OPENNESS or PUBLICITY. I think that in Western science there is no
GLASNOST and for this reason Western space-time physics is in a BLIND ALLEY. It
is time to raise Gorbachev's banner of GLASNOST also in Western science. Only by
giving green light to my papers Western science will be able to change its WRONG
space-time conceptions.

Any day of delay of the running of the perpetuum mobile costs milliards of dol-
lars to humanity. Thus it is a crime to reject a paper of me.

I hope to receive a clear and honest letter of you.

Sincerely yours,

J. Marinov

Stefan Marinov

Enclosures: The four mentioned above papers.
            The two mentioned above advertisements.

LETTERS

Law breakers

I enjoyed reading the advertisement from Steven Marinov (18 December, p 47). It is not often that we get to listen to a real-live "mad scientist" espousing revolutionary theories (or should that be counter-revolutionary?), rubbishing the principle of equivalence and even the principle of relativity and the constance of the speed of light, and finally describing how to build an electromagnetic perpetual motion machine (unfortunately not yet perfected).

Also amusing was the account of his difficulties in getting the scientific establishment to listen to him, though if some of the stories are true one can feel a little sympathy for the heavy-handed treatment he received. The correct way to handle such contentions is simply to disprove them clearly, as follows.

The fundamental confusion is between the reference frames of the magnet producing the field and the wire in which current is produced. (Hardly surprising for one who believes in an absolute Newtonian frame.) Marinov's equation (1) gives the force of the magnet's frame, not the wire's frame, as required to predict the current. Also, equation (5) is "unknown to conventional physics" for the very good reason that it is incorrect. The gradient should be with respect to the magnet's position, not position in the wire's frame. (And even this is for a non-rotating magnet.)

The real test of course is whether anyone can build a working perpetual motion machine based on Marinov's electromagnetism. If they can, they will have the thanks of the human race hereon, which probably makes it worth trying. We musn't be like Marinov and refuse to perform experiments which we already claim to know the results of, even if we are, unlike him, on ground well-trodden enough not to turn out to be quicksand.

Having said this, though, I would not like to see the Marinovs of the world disappear. They provide amusement and intellectual stimulation, play the useful part of devil's advocate for a science which requires creation and criticism alike, and restore the public's faith in scientists as a bunch of potty professors continuously producing theories and inventions to save the world.

S. A. Hayward
Department of Applied
Mathematics and Theoretical
Physics
Cambridge

LESERPOST

Tito-Kult

Die österreichischen Massenmedien berichten, daß man sich in Jugoslawien vom Tito-Kult befreien wolle. Welch riesiges Ausmaß diese Kampagne genommen hat, haben die Berichterstatter noch gar nicht bemerkt. Man erzählte mir, daß in Sibenik der Bürger I. Jovic zu 30 Tagen Gefängnis verurteilt wurde, weil er auf der Wand seines Schweinestalls mit großen, roten Buchstaben „Ziveo drug Tito" (Es lebe Genosse Tito!) geschrieben hat.

STEFAN MARINOV
8010 Graz,
Morellenfeldgasse 16

IS THE KING NAKED?

In the 18th December issue of "New Scientist" (p. 48) I shouted loudly "The king is naked", pointing out that Einstein's relativity is wrong and the electromagnetic induction effects are not such as described in the textbooks. Moreover I showed that an electromagnetic perpetuum mobile can be constructed. My "theory" is childishly simple, the experiments described confirming it are understandable to everybody. Nevertheless the whole scientific community continues to admire the wonderful new (already 80 years old‡) clothes of the king.

I received a dozen of letters from readers of this advertisement. But no single letter was sent by a holder of a Ph. D. Thus I concluded that the citizens in Andersen's world had the courage to sustain the assertion of the seeing child (which was obvious to all of them), however the estimated Bürger in our "enlightened" century, even after my piercing shout, continue to admire the nonexistent (or ragged) king's clothes.

The fear of appearing stupid between the today's Bürger is much bigger than between the inhabitants of Andersen's world (let us not forget that the tailors, before offering their wares, stated that only clever men could see the cloths). The reader will, maybe, object: Andersen's tailors were charlatans, while Faraday, Maxwell and Einstein were honest men. That's true. But it should be amusing to note that: 1) Faraday stated that he can "see" the magnetic force lines and the today's physicists assert that the electromagnetic "field" is an objective reality with a specific energy density, 2) Maxwell asserted that the displacement current is "physically existing" and recently Bartlett and Corle (Phys. Rev. Lett., $\underline{55}$, 59 (1985)) even measured (!) the magnetic action of the displacement current, and immediately Dr. Maddox (Nature, $\underline{316}$, 101 (1985)) cheered this fantastical deed, 3) Prof. Salam and Co. are since many years searching for magnetic monopoles what is the same adventure as to try to cut a button from the clothes of the Andersen's king, 4) Being obsessed by the "relativity of the physical effects", Einstein refused to take into account Kennard's experiment (Philosoph. Mag., $\underline{33}$, 179 (1917)) and made as if Sagnac's effect (Comptes rendus, $\underline{157}$, 708 (1913)) did not exist.

Thus the analogues with Andersen's tale go deeper. But I am writing this note with another intention. Mr. John McNulty (Oxhey Hall, Oxhey, Hertfordshire, WD1 4NU) wrote me on the 14th January that I speak in my advertisement about a perpetuum mobile only with the obvious aim to "sell" better my ideas about the inconsistency of relativity. No! My perpetuum mobile is not a salesman's trick! I have observed a violation of the energy conservation law. To make my machine MAMIN COLIU eternally running I need only $ 10,000 and a month. Nothing else! But where is this fairy-tale king who would send a courier with a message: "His Excellency has heard your boast, poor groom (I am earning my bread working as a groom in a stable near Graz). Here there are 10,000 golden coins. If in a month from now your perpetuum mobile will rotate, the king will give you his daughter for wife (the question whether I shall marry her remains open). If you will fail, the first king's hangman will cut your tongue."

Helas, such a king and citizens with a modest portion of civic courage could exist only in Andersen's world. Not in the present one. In our world there is only the lonely shouting child.   Stefan Marinov, Morellenfeldgasse 16, A-8010 Graz, Austria

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

12 February 1987

Dr. John Maddox
NATURE
National Press Building
529 14th Street, N.W.
Washington, D.C. 20045

(this is the address from 1978,
I hope that it is still the same)

Dear Dr. Maddox,

You played for an x-time the same game: On the 9th February (Monday, the "press day" of NATURE) you said me on the phone that my letters to Gorbachev will appear on Thursday (the 12th February) and you promised me ("final honest promise") that the next day before 11 AM you shall send by a telefax your suggestions for corrections to my paper "Experimental Violations of the Principles of Relativity, Equivalence, and Energy Conservation".

And when the telefax did not arrive and I phoned to the Editorial Office, Miss Mary said me that you are not in the Office and you will be not. From your wife I learned later that you will be for two weeks in Washington, D.C. and I should suggest that you give the following story to Vera Rich, so that she translates it for Miss Mary:

Во время хрущовской оттепели вышла в московском профиздате книжка некого Терещенко, который прожил долгие годы в Штатах и на старости лет вернулся в Советию. На вопрос почему в Америке все в порядке, а в России все в непорядке Терещенко дал такой ответ:

В Вашингтоне берешь телефонную трубку, набираешь номер, спрашиваешь: "Please, give me Mr. Smith." Приятный девичий голос отвечает: "Mr. Smith is visiting our branch in Provo, Utah. He will be back in the office on Monday at 8.00 AM. Would you like to leave a message?"

Берешь в Москве трубку, набираешь номер. Оставим в сторону вопрос, что телефон либо не работает, либо гудит странно, либо совсем не гудит, либо гудит только "занято", либо не с тем абонентом связывает. Повторяю, оставим все это в сторону. Значит снимаешь трубку, набираешь: "Это номер триста тридцать шесть, два нуля, тридцать четыре?" Неприятный женский голос отвечает: "М-да-а. А что Вам нужно?" "Свяжите, пожалоста, с Иваном Петровичем." Неприятный голос после двадцати-секундного раздумья отвечает: "Его нет." И Вы слышите звук положенной на вилку трубки. Набираете снова /опускаем страшные гудки, щелчки и прищелкивания, сигналы "занято", ругань: "а у Вас глаз нету, что ли, чтобы номер правильно набирать" и т.д./: "Девушка, простите, а Иван Петрович скоро будет." Теперь после десяти-секундного раздумья отвечают: "Не-е-ет. Его скоро не будет." И опять слышите звук положенной на вилку трубки. Набираете в третий раз и как можно более мягким и бархатным голосом спрашиваете: "Девушка, милая, а когда Иван Петрович будет?" Теперь неприятный женский голос отвечает уже без раздумья, но на более высокой ноте: "Боже мой, что за упрямство! Во-первых я Вам не девушка и не милая. Во-вторых Ивана Петровича уже два месяца как переместили в Самарканд. В Москву он больше не вернется. Поняли!" И удар трубки о вилку давит на вашу слуховую перепонку мощностью в тридцать децибеллов.

Miss Mary said me that she has the feeling that my letters to Gorbachev will not appear on Thursday. Later Mr. Newmark stated firmly that the letters will not appear and that you have left no instructions about the article.

You have brought this scenario to the stage already a couple of times. Are you not tired to perform again and again the same poor play? I said to Mr. Newmark (and also to your wife, who always speaks charmingly with me) that I was deeply indignant and angry (as far as I can be angry!) seeing that once more you have repeated your obsolete "rogish trick". I begged Mr. Newmark to transmit to you (and I repeat this once more now) the following: If you do not wish to maintain contacts with me, write this openly and clearly in a letter and I shall no more bother you. However, if you promise to do certain things, do them. If I should

know that my way through NATURE is closed, I shall search for another way (after your definite refusal to publish my letter to the world's scientific conscience as an advertisement in NATURE I published it in NEW SCIENTIST). But I believe in your words, as I am a "believing man" and you were and you remain a very kind person for me, but I realize that the only result of my believe in you and of your charme on me is that during the last two years I lose 50 - 60 dollars any week for my phone calls.You know how poor I am. You know that I pay my whole scientific activity with my own money. And during two years I expend for my food the same amount of money as for my calls to NATURE. This smells on sadism (from your side) and on masochism (from my side). Nevertheless I shall continue in my masochistic endeavours to publish the submitted materials in NATURE. If you will continue in your sadism, do it - I shall not give up the battle, as I sacrified in it too many years, too many efforts and too much money. It is too late for me to give up. Thus that are you who have to choose one of the following three alternatives:

1) To fulfil finally your promises.

2) To write me honestly that you wish to cut the relations with me.

3) To continue with the promises without fulfilling them and to be bothered every second day with my phone calls (somedays I have phoned to NATURE three times!).

If you will vote for the first noble alternative, I shall beg you:

1. To phone to Mr. Newmark and to tell him to print my two letters to Gorbachev in the 19-February-issue of NATURE.

2. To read the enclosed version of the paper "Experimental violations...", to correct the eventual linguistic errors, to introduce the corrections which you consider as necessary and to send one copy to me and one copy to Mr. Newmark, so that the paper can appear on the 26th February. I said you many times that I shall with a probability 95% accept all your corrections. If I shall not agree with your corrections, we shall settle the differences after your return to London, and I shall phone to Mr. Newmark to stop the publication.

The text of the paper is the same as of the paper already submitted to you. New are only some paragraphs on pp. 8 and 8$_{bis}$ in which I present the variation of the Silvertooth's experiment which I carried out in January. Read attentively these pages. I have simplified Silvertooth's experiment so much, that it can be carried out in a day in any optical laboratory. Phone to Dr. Luther in the N.B. S. (921-2061) or to Dr. Barry Taylor (921-1000), transmit to them my greetings and tell them ON THE PHONE how to carry out the experiment. Dr. Luther is able to mount the experiment in a single hour. Then, if you are curious, take the shuttle from the Department of Energy (it starts, as far as I remember, at 7.30 AM) and go to the N.B.S. to see how one can measure the Earth's absolute velocity. If the N.B.S. lies too far for you, phone to Dr. Joseph Weber (or better to Dr. Carol) at the Maryland University (301) 454-3527, transmit to them my greetings and repeat what was said above. Finally, if you do not wish to leave the D.C. area, phone to Dr. Jarus Quinn of the Optical Society (292-1420) and he will tell you who in the George Washington or Georgetown University will be able to mount this experiment in a day.

I read again your article Test of Relativity (continued), NATURE, 325, 103 (1987). You analyse with such a competence and "legertê" the experiment of the Seattle groupe. For you (and also for the group of Seattle) it is so clear that "if, by some stretch of imagination, special relativity should be false, then the (nuclear magnetic resonance) measurement (of the rate of precession of an atomic nucleus with net non-zero spin about the direction of an applied magnetic field) should vary with the changing seasons, or, more precisely, as the orientation of the precession axis changes relative to the fixed stars because of the rotation of the Earth". And on a whole page of NATURE you comment on this experiment published in PHYS. REV. LETT. entering in all technical and theoretical detail, as if you enter in your living room. And the readers read   your paper and exclaim: "Dr. Maddox understands relativity better than Einstein and Eddington taken together."

Meanwhile in your OWN journal certain S. Marinov,buying space from the advertisement pages,writes that if a wire moves with a velocity $\vec{V}$ in the field of a stationary magnet whose magnetic potential is $\vec{A}$, then the induced electric intensity will be

$$\vec{E} = \vec{v} \times \mathrm{rot}\vec{A}, \tag{1}$$

while if the magnet moves but the wire is at rest,the induced electric intensity will be

$$\vec{E} = (\vec{v}.\mathrm{grad})\vec{A}. \tag{2}$$

On this experiment and theory you do not dedicate even a single line. I wonder, Dr. Maddox! On the one side you know exactly how the   motion of the Earth   acts on the precessional motion of the atomic nuclei around an applied magnetic field, but on the other side you do not know what is the induction in a wire which you hold in your left hand if you move a magnet with your right hand!

I know that you do not comment on formulas (1) and (2) because you are afraid to say: "Yes, formula (2) is right", as in this very moment the whole scientific community will say: "Look, also Dr. Maddox has become mad." On the other side you are afraid to say:"No, formula (2) is wrong.", as you feel pretty clearly that then the whole scientific community of to-morrow will say: "Ha- ha- ha, also Dr. Madox was blind as the blind   Einstein."

And you (as   all representatives of the "world's scientific conscience") keep silent. Maybe you ask some close friends about their opinion, but all of them shrug the shoulders and give you the friendly advice "no comment".

You certainly are curious to learn whether formula (2) is right or wrong. At the same time you cut for you all possibilities to learn the truth, because only the publication of my paper will suscitate a world-wide discussion. And only a free and open discussion will bring the right answer. Do not forget what has said Gorbachev at the meeting with the writers: "Только гласность выведет нас из тяжелого экономического и морального тупика, в котором затонула Россия". I shall translate Gorbachev's words relating them to science: Only GLAS-NOST (in English there is no an exact translation for this word, "openness" or "publicity" are not very good) will extricate space-time physics from the relativistic quagmire".

Hoping to receive your EXPRESS answer soon and to see my letters to Gorbachev in the 19-th-February-issue and my paper in the 26th-February-issue,

Sincerely yours,

Stefan Marinov

THE PHYSICAL REVIEW

_____ AND _____

PHYSICAL REVIEW LETTERS

13 February 1987

Dr. Stefan Marinov
Morellenfeldg. 16
A-8100 Graz
Austria

Dear Dr. Marinov:

We have received your letter of 7 January
and four manuscripts entitled "Coup de grace to
relativity and to something else", "On the absolute
aspects of the electromagnetic interactions", "New
measurement of the Earth's absolute velocity with
the help of the 'coupled shutters' experiment",
and "On the action and interaction of stationary
currents". As I stated in my letter of 7 August
1986 these papers are not acceptable for the Physical
Review. We are returning them herewith.

Yours sincerely,

D. Nordstrom

D. Nordstrom
Editor
Physical Review D

DN:cp
enc.

Editorial note. See also pp. 167 and 190.

LAW SUPPORTERS

> What is a law? - The canonized will
> of the ruling class.   Karl Marx

I am extremely happy that after so many years a member of the "scientific estab-
lishment" has *printed* an attack against my theory (NEW SCIENTIST, 8.1.87, p. 66).
I shall not try to explain to Dr. Hayward why the formula for the motional-transfor-
mer induction, which is unknown to conventional physics and which according to Dr.
Hayward is wrong, is right. This needs some more space. I wish only to know which
predictions will Dr. Hayward give for the induction effects in the experiments shown
in figs. 1 and 2 of my advertisement (18.12.86, p. 49). My predictions (which are gi-
ven also in the advertisement) are the following (for a lab at rest in absolute space,
i.e., in this space in which the velocity of light is isotropic): 1. If the wire
rotates (fig. 1) or moves (fig. 2), there is induction. 2. If the loop rotates or
moves, there is no induction. 3. If the wire and the loop rotate or move together,
there is induction.

If Dr. Hayward will give in this journal his answers (equal to mine or different),
he will receive from me a cheque for 200 pounds. For Dr. Hayward the lab should be
an arbitrary inertial laboratory. The effect (availability or not of induced tension)
will be established by golden leaves attached to the ends of the wire, i.e., by the
observation of a physical effect and not by nonsensical reasoning what is "seen" by
which "observer".

Now some flowers from the garden of history. The following excerpt from Einstein's
1949-letter to Solovine is well known: "Now you think that I am looking back on my
life's work with calm satisfaction. But, on closer look, it is quite different. There
is not a single concept of which I am convinced that it will stand firm and I am not
sure if I was on the right track after all." Only few people, however, know the back-
ground of this elegiac missive. The story is the following: An old man, presenting
himself as an eternal student, visited once Einstein late in the night and drew the
enigmatic experiments shown in figs. 1 and 2 of my advertisement, asking for the pre-
dictions of the maestro, but because of the late hour promising to pass for the an-
swers the next day. This strange eternal student has, however, not appeared anymore,
and Einstein, like Mozart after the visit of the old man ordering him a requiem, had have
the feeling that he has been frequented by the merciless fate.

Stefan Marinov

Morellenfeldg. 16
A-8010 Graz, Austria

Editorial note. This is an answer to the Letter to the Editor
            of Dr. Hayward reproduced on p. 191.

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

9 March 1987

Dr. S. A. Hayward
Deptm. of Applied Mathematics
and Theoretical Physics
The University
Cambridge, UK

Copy: Dr. Michael Kenward
NEW SCIENTIST

Dear Dr. Hayward,

I send you a copy of my letter to Dr. M.Kenward (NEW SCIENTIST) and a copy of my letter to the Editor LAW SUPPORTERS in which I comment on your letter of the 8 January.

Enclosed is also a copy of the payment document for 200 pounds. I begged Dr. Kenward to resend this sum to you in the case that you will give YOUR predictions for the effects of the experiments sketched in my advertisement and if Dr. Kenward WILL PRINT them together with my letter. To any of the questions one and only one answer is to be given. In the case that you will not give such answers (or Dr. Kenward will decline the publication of our letters to the editor), I begged Dr. Kenward to send the money back to me.

I "dramatize" the case because otherwise the scientific community will continue to sleep lullabied by wrong dogmas.

I enclose some other advertisements, where I bring to the knowledge of the scietific community the results of my theoretical and experimental research. I have no other way for communication, as in the last years all physical journals have begun to systematically reject my papers.

If you will show interest to my books, I shall gladly send you any which you would like. On the 19th March the second edition of THE THORNY WAY OF TRUTH, Part I, will be issued, where your letter to the editor of the 8 January will be reproduced.

Ending my letter, I beg you to take into account that for me 200 pounds are so precious as for you 2000 or even 20,000. In my life I have not received a single pence for my scientific activity and I finance for years my WHOLE theoretical, experimental, publication and organization activity from my own pocket.

Hoping to receive your answer,

Sincerely yours,

Stefan Marinov

POSTSCRIPT TO THE LETTER TO DR. HAYWARD WRITTEN FOR THE READERS OF THIS BOOK

The experiments drawn in figs. 1 and 2 on p. 185 are, indeed, enigmatic for any person who has not realized that the electromagnetic effects are determined by the potentials and not by the intensities. For a better understanding of these experiments, I suggest to the reader to look at pp. 116, 117, and 329 - 336 of the 1986-edition of TWT-II. Here I shall give only the following short remarks.

As the *relative* Newton-Lorentz equation shows (see equation (10) on p. 116 of TWT-II) the force acting on a unit charge (i.e., the electric intensity), for the case where the electric potential is zero and the velocity of the test charge in the laboratory is zero, is the following (in the system SI)

$$\vec{E} = \vec{V} \times \text{rot} \vec{A} + (\vec{V}.\text{grad})\vec{A}, \tag{1}$$

where $\vec{V}$ is the *absolute* velocity of the laboratory and $\vec{A}$ is the *laboratory* magnetic potential of the system of electric charges surrounding the test charge.

For easier mathematical speculations, let us suppose that there is not a rectangular loop with $b \ll d$, but an *infinitely long* rectangular solenoid with the same cross-section. In such a solenoid the magnetic intensity will be constant pointing from the reader, i.e., $\vec{B} = \text{Const} = - B\hat{z}$, if we take the x-axis pointing to the right and the y-axis pointing upwards. For $\vec{B}$ constant the following mathematical relation is valid

$$\text{rot}(\vec{B} \times \vec{r}) = -(\vec{B}.\text{grad})\vec{r} + \vec{B}\,\text{div}\vec{r} = -\vec{B} + 3\vec{B} = 2\vec{B}. \tag{2}$$

Comparing this with the definition equatlity

$$\vec{B} = \text{rot}\vec{A}, \tag{3}$$

we can write

$$\vec{A} = \frac{1}{2}\,\vec{B} \times \vec{r} + \vec{A}_0, \tag{4}$$

where $\vec{A}_0$ is an unknown vector whose rotation is equal to zero. If we choose $\vec{A}_0 = 0$, we can write the magnetic potential in components as follows

$$\vec{A} = (yB/2,\ -xB/2,\ 0). \tag{5}$$

Such is the magnetic potential in an infinitely long *cylindrical* solenoid whose axis is the z-axis. But our solenoid is *rectangular* with $b \ll d$ and for such a solenoid (in which the magnetic intensity is also constant!) the vector $\vec{A}_0$ in (4) is to be chosen as follows

$$\vec{A}_0 = (yB/2,\ xB/2,\ 0). \tag{6}$$

Now the magnetic potential in (4) will have the following expression

$$\vec{A} = (yB,\ 0,\ 0), \tag{7}$$

and I especially note that the rotation of the vector (6) is equal to zero.

Now if $\vec{V} = V\hat{x}$, we have $\vec{E} = VB\hat{y}$, however if $\vec{V} = V\hat{y}$, we have $\vec{E} = 0$. The first of this cases is considered in my advertisement and I am awaiting for the prediction of Dr. Hayward. It is clear, however, that all these results of my theory (which inevitably are *confirmed* by Nature) are totally *incomprehensible* for conventional physics. First of all, of importance for conventional physics are only the intensities and *not* the potentials. If a conventional physicist makes calculation for the magnetic effects in the inner space of an infinitely long solenoid he does not care about the *form* of the solenoid, as for him it is enough to know that the magnetic intensity is constant. The transformation from the potential (4) with $\vec{A}_0 = 0$ to a new potential with $\vec{A}_0$ given by formula (6) is a *gauge transformation* (see my Classical Physics), i.e., it is such a transformation which leaves the intensities without change, and the conventional physicists make such transformations without having any fear that Nature will slap them on the nose. I showed that the gauge transformations are not always permitted. Moreover when *exact* calculations are to be done, always one has to work with the potentials and not with the intensities, as the magnetic intensity at a certain point does not describe completely the magnetic action of the surrounding system on the test charge, but the potential does. The conventional physicists have to eat a stone of sel until they should understand all these aspects of electromagnetism.

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

9 March 1987

Dr. Michael Kenward
NEW SCIENTIST
1-19 New Oxford Street
London WC1 1NG

Dear Dr. Kenward,

I send you my letter to the Editor entitled LAW SUPPORTERS, my letter to Dr. Hayward and a copy of the payment document for 200 pounds. If Dr. Hayward will answer the questions posed in my letter and you will print my letter together with Dr. Hayward's answers, I beg you kindly to resend the money to Dr. Hayward. However, if Dr. Hayward will not answer my questions or you will decide to decline the publication of our two letters, please, be so kind to return the money by cheque or to my bank account:

CREDITANSTALT, Graz, c/a: 0082-17077/00, Stefan Marinov.

As I wrote to Dr. Hayward, I "dramatize" this case, as otherwise the readers of NEW SCIENTIST may remain with the opinion that I am wrong.

On the 4th March I visited your editorial office in London, but I could not see you, as you were in a meeting. I spoke with Mr. Phil Abrahams (who has managed the publication of my advertisement) and he promised to speak with you later. As you know, my letter to the editor entitled IS THE KING NAKED? (sent on the 23 January) is still under consideration. I beg you very much to publish this letter as soon as possible and then in one of the following issues to publish my present letter with the answers of Dr. Hayward, or without them if he will not present such answers.

In this way the scientific community will be awaken from its deep sleep. Another "big bang" will be my paper which is due to appear on the 26 March in NATURE (I was in London for a more speedy preparation of this paper for print).

Hoping that you will have understanding for this case and you will take quick decisions,

Sincerely yours,

Stefan Marinov

Copy: Dr. Hayward.

Editorial note.

Marinov's letters to the Editor entitled IS THE KING NAKED? and LAW SUPPORTERS are published, respectively, on pp. 193 and 198.

Marinov's "big bang" article entitled EXPERIMENTAL VIOLATIONS OF THE PRINCIPLES OF RELATIVITY, EQUIVALENCE AND CONSERVATION OF ENERGY which was due to appear in NATURE in March 1987 is still not published. During his visit in London, Marinov met Dr. Maddox four times to discuss the article and Dr. Maddox HIMSELF composed the article, in the presence of Marinov, so that Marinov could immediately correct the proofs. In the follwoing year Marinov spoke at least 200 times with Dr. Maddox on the phone to hear his eternal: "Today before twelve-ou-ou, this evening, this night, tomorrow morning, not later than at the end of the week, etc."

newscientist

17 March 1987

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz
Austria

Dear Mr Marinov

I hereby return your bank draft for £200. I return this
because it contains conditions that apply to <u>New Scientist</u>.

You are welcome to enter any arrangement you like with
Dr Hayward. But I am not prepared to guarantee publication
in <u>New Scientist</u>.

Yours sincerely

MICHAEL KENWARD
Editor

From: Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

*Nicht bekannt
Zurück an Absender*

To: Dr. S. A. Hayward
     Deptm. of Applied Mathematics
          and Theoretical Physics
     The University
     C a m b r i d g e
     E N G L A N D
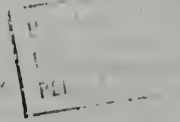
<u>Marinov's note</u>. See on p. 199 the beginning of the story with Dr. Hayward and the £ 200.

My returned letter shows that Dr. S. A. Hayward was simply a GHOST, as the postman
could not find such a doctor in the Cambridge University. My questions are:
    1) Was Dr. Kenward aware that Dr. Hayward is a ghost?
    2) Which British top relativist stayes behind the ghost named "Dr. Hayward"?
The above is my second letter to Dr. Hayward. The first was even not returned.

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

26 March 1987

Dr. Michael Kenward
NEW SCIENTIST
1-19 New Oxford Street
London Wcl 1NG

Copy: Dr. S. A. Hayward
      Cambridge

Dear Dr. Kenward,

Thank you very much for your letter of the 17 March and for the cheque returned for 200 pounds. Until the present day I have not received a letter from Dr. Hayward and it is to be supposed that he will not answer at all.

At this situation, I am afraid, you will decline the publication of my letter to the editor entitled LAW SUPPORTERS which I submitted on the 9 March.

I beg you, Dr. Kenward, to understand that if I have sacrificed 200 pound of my scarce money, it is because I consider the publication of my letter to the editor as extremely important. I think that now, when Dr. Hayward refuses to appear with an answer IN THE PRESS, you have to publish this letter to the editor, noting that Dr. Hayward prefers to keep silent. The understanding that the absolute effects are relevant in electromagnetism leads to the conclusion that the energy conservation law can be violated and this conclusion is of a TREMENDOUS importance for mankind. I think, it should be unfair if your journal will block the information on this topic without having any SCIENTIFIC objections to my theory and experiments.
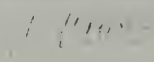
I send you part I and part II of my book THE THORNY WAY OF TRUTH. You can see on pp. 289, 298 and 299 of part I that the case with the letter of Dr. Hayward is brought to the attention of the scientific community. If you will not publish my letter, the story should be kept covered a couple of months but NO MORE.

I beg you to read p. 296 of part II where Dr. Maddox gives his answers to the questions posed to Dr. Hayward and then on p. 304 my comments. You can see that a relativist CANNOT give a logical set of answers, as it is impossible LOGICALLLY to present such a set of answers. Thus the problem here is not physical (experimental), it is a very simple problem solvable by the most simple methods of LOGIC.

Please, inform me whether I can buy ONE PAGE in NEW SCIENTIST and publish an advertisment.

Looking forward for your answer,

Sincerely yours,

Stefan Marinov

Editorial note.

The documents published on pp. 289, 298 and 299 of the second edition of TWT-I are presented on pp. 191, 199 and 200 of this book.

new scientist

1 April 1987

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz
Austria

Dear Mr Marinov

Thank you for sending me the copy of your book "The
Thorny Way of Truth". I am returning this under
separate cover.

I notice that you publish letters from me. You did
this without my permission. I suspect that you have
broken the law of copyright.

As this is your response to any communication, I am
not willing to discuss with you any of the matters
raised in your letter.

This is the last letter you will receive from me.
Therefore, you may decide that there is no point
in sending me any more letters or books.

Yours sincerely

MICHAEL KENWARD
Editor
_____

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

6 April 1987

Dr. Michael Kenward
NEW SCIENTIST
New Oxford Street 1-19
London Wc1 1NG

Dear Dr. Kenward,

Thank you very much for your letter of the 1 April and for sending back both vo-
lumes of my book THE THORNY WAY OF TRUTH.

The first edition of TWT-I was sent to you in 1982 immediately after its publica-
tion and you could see at that time that I publish not only your letters but letters
of ALMOST ALL physical journals of the world. I think there is no copyright for
letters. If I am wrong, please, mention the relevant English law.

I published all these letters (some with the enclosed referees' reports) to show
how for a dozen of years the most simple scientific truth was hiden from the eyes
of the world. Witn these letters I showed the way in which the editors of scientific
journals block the information on revolutionary (or, better, counterrevolutionary)
EXPERIMENTS and theories which are of an enormous importance for the sound evolution
of physics. You know well which importance has the GLASNOST which now after so many
years of "blackout" blooms in Russia. Gorbachev sees the salvation of the communism in
Russia in the GLASNOST. Yes, Dear Dr. Kenward, GLASNOST is very important not only
for the sound political evolution of the society but also for the sound evolution
of science.

With your letter you block my way to communicate with the scientific community
through the pages of NEW SCIENTIST. I wish to ask you: is blocked also my way to
publish PAID ADVERTISEMENTS as the one on the 18 December 1986? I asked you in my
letter of the 26 March 1987 whether I can buy ONE PAGE in NEW SCIENTIST. Please, be
so kind to write me whether at least paid advertisements can I publish.

My discoveries in space-time physics lead to the conclusion that a perpetuum mo-
bile can be constructed. My possibilities are very limited. A communication between
me and the scientific community will shorten significantly the time in which the
perpetuum mobile will begin to rotate. It is a TRAGEDY for mankind when even the
pages of the PAID ADVERTISEMENTS are closed for my SCIENTIFIC COMMUNICATIONS.

The problem is VERY IMPORTANT and I beg you to pay to it a due attention and to
write me whether I CAN PUBLISH PAID ADVERTISEMENTS in NEW SCIENTIST.

I shall NOT print your letter in my books, but if it will be negative it, surely,
will remain in the ANNALS of history.

Sincerely yours,

Stefan Marinov

PS. My LETTER TO THE EDITOR entitled "LAW SUPPORTERS" is EXCELLENTLY written and
for its high publicistic character it has entered in the annals of history through
the pages of TWT-I (sec. ed.). It is a pity that the contemporaries cannot read
it on the pages of NEW SCIENTIST.

PPS. In his letter of the 8 January, Dr. Hayward categorizes me as a "mad scientist".
After having printed such a CALOMNY, you do not give me the possibility to show to
the world that I am not at all "mad" but pretty logically thinking person and that
my logic is much better than this of Einstein. NATURE also categorized me as a "mad
person" in an article of Vera Rich in 1978 but Dr. Maddox has understood that I am
not such a one and finally gives me place on the numbered pages of NATURE. I hope
that you will also VERY SOON do this.

„Da ist Verschwörung"

Peter Brügge über „Schwerkraft- und Feldenergie"-Forscher in Hannover

Tachyonen kann man nicht essen und nicht messen. Durch nichts ist ihre Existenz bewiesen. Gerade noch denkbar sind sie, Mückenschwärme in den Gehirnen einiger Atomphysiker: masselose „Teilchen", schneller als Licht, schiere Energie, allgegenwärtig – nur eben Spekulation.

Und doch hat das gereicht für eine aberwitzige Kettenreaktion der Hoffnung. Energiesucher, Ökostrategen – sogar viele stocknüchterne Manager der Industrie – wurden von ihr mittlerweile ereilt und zu Abnehmern eines Zukunftsbildes, das ihnen endlich die ideale, die saubere, billige und unerschöpfliche Energie verheißt – beliebig hereinzuholen aus dem Kosmos, dem „Tachyonen-Feld", dem „Vakuum", dem Nichts.

Jahr für Jahr melden sich nun zu Dutzenden weitere Bastler und Entdecker, die zeigen wollen, wie sie diesen kosmischen Segen für uns fangen. Genau besehen, beziehen sie sich alle auf Nicola Tesla, jenes Genie aus Kroatien, dem die Welt die völlig reelle Versorgung mit Wechselstrom dankt, die Maßeinheit für Magnetismus sowie allerlei eher bengalische Erleuchtungen, etwa die Idee für drahtlose Stromübertragung oder für die Todesstrahlen zum Krieg der Sterne.

Über den Erfinder Tesla, der 1943 in einem New Yorker Hotelzimmer gestorben ist, kursiert seit einer Weile außerdem die Legende, er habe sein Auto ohne jeden Energieverzehr elektromagnetisch betrieben, mit einem Konverter: dessen wahren Treibstoff hätte er bezogen aus dem erwähnten Nichts.

Tesla ist der Prophet. Doch ein Bastler namens Joseph Newman aus Lucedale in Mississippi wirbelt jetzt in Teslas Nachfolge gleichfalls durch eine Magnetmaschine Staub auf, indem er mit ihr vor zahlendem Volk einen roten Porsche auf Schrittgeschwindigkeit beschleunigt. Newman hat einen Zeugen dafür, daß dabei die zum Betrieb der Maschine dienenden Batterien (17 000 Volt) kein bißchen Spannung verlieren.

Aber was hilft's. Amerikas NBS, das in allen Fragen technischer Neuerung mächtige „National Bureau of Standards", hat Newmans Maschine für einen Flop erklärt. Die danach anhebende Empörung der atlantischen Tachyonen-Gläubigen ist bis nach Bonn zu spüren. Wieso, das ließen sie den Bundesforschungsminister im Parlament fragen, werde diese rettende Energie nicht subventioniert? Mit seinem öffentlichen Angebot, jeden ihm geschickten Tachyonen-Umwandler auf alle behaupteten Qualitäten hin unbestechlich testen zu lassen, fühlten sie sich schlecht bedient.

Zu testen gäbe es zwar genug. Auch aus deutschen Bastler-Schuppen sind längst Tachyonen-Jäger hervorgetreten zur Pirsch auf Subventionen und Venture-Kapital. Doch scheuen sie wie Newman vor jedem wissenschaftlichen Forschungsinstitut, als könnte es ihnen das Lendenschürzchen rauben.

Erfindergenie Tesla: Treibstoff aus dem Nichts?

Nichts, so argwöhnen sie, was den Interessen der herrschenden Energiewirtschaft zuwiderlaufe, könnte da ernstlich gewürdigt werden. Und dann: Einsteins Theorien oder die Gesetze der Thermodynamik, auf denen die herrschende Lehre beruht, was sollten einem Konstrukteur, der aus seinem Motor mehr herauskommen spürt, als er zu dessen Antrieb verbraucht? Er will nicht hören, wieso das nicht sein kann. Er will, daß man ihm folgt und glaubt.

Der Lüneburger Bahnbeamte Siegfried Crull weiß eben einfach, daß in seinem kleinen „Magnetkraft-Konverter" in den er bereits 800 000 Mark hineingebuttert haben will, „ein Partikelstrom kleinster Quanten" den Ausschlag gibt für höhere Leistung. Er besteht darauf: Da sei etwas, das sich „mit Überlichtgeschwindigkeit fortbewegt", und er hält das für Magnetismus. Es ficht Crull nicht an, wenn er es damit zunächst

nur auf einen popeligen Wirkungsgrad von 17 Prozent bringt. Seine Hochrechnungen verheißen ihm mindestens fünfmal soviel – daran muß er sich halten. Und wenn ihm noch so erlauchte Schul-Physiker sagen, Elektromotoren auch so hoher Effizienz seien längst ohne diesen Quanten-Zauber in Dienst, so winkt er ab: Das gibt's nicht, darf es nicht geben.

Siegfried Crull verspricht heute bereits mit seiner „Deutschen Gesellschaft für Magnetkraftwerke und dezentrale Energieversorgung e.V." dem Volk handliche Stromerzeuger für nahezu kostenlose Selbstversorgung im Eigenheim. Den dazu außer einem Antriebsmotor freilich nötigen Generator muß er noch konstruieren. Entsprechend mächtig ist sein Kapitalbedarf. Clevere Beschaffer sind da unterwegs. Irgendwann, hofft Crull, würden die „Hypothesen" seines Schaffens „mathematisch exakt formulierbar und damit erst begreifbar werden".

Das Geheimnis soll darin liegen, daß ein Magnetfeld um einen Leiter rotiert statt umgekehrt (wie bei den alten Elektromotoren nach Faraday). Nur, die Welt ist längst voll von Motoren der einen wie der anderen Sorte, ohne daß dabei geheimnisvolle Unterschiede zutage treten. Dennoch legen technische Anfänger unbesehen ihre Ersparnisse hin, um in magischer Zuversicht längst Bekanntes neu zu arrangieren.

Den Fachhochschüler Sven Reuss aus Bad Nauheim hat es 2500 Mark und ein Jahr Arbeit gekostet, vor einer großen Spule Kupferdraht einen kleinen Magneten umlaufen zu lassen. Er wollte sehen, wie das Kosmische kommt und meßbar wird. Dann wußte er selbst nicht recht, was er vom Ergebnis halten sollte. Folglich fuhr er mit seiner Versuchsanordnung gleich Crull nach Hannover, um sie beim Kongreß der „Deutschen Vereinigung für Schwerkraft und Feldenergie" vorzuführen, Rat zu holen bei den vielen, die so etwas nun umtreibt.

Mehr als tausend Betrachter, Aussteller und von den Vereinszielen geradezu Besessene drängelten sich in die Stadthalle und applaudierten dem Vereinsvorsitzenden Dr. med. Hans Nieper, der überglücklich ausrief, dieser Kongreß sei „revolutionär" und stehe somit „unter der Schirmherrschaft des Volkes".

Unter die erkennbar Alternativen in der Halle mengten sich Ingenieure aus Japan, Lateinamerika, den USA und Indien sowie stattliche Kontingente versierter Beobachter von Hochschulen, Konzernen und mittelständischen Unternehmen. Aus ihrer Furcht vor den Perspektiven heutiger Energieversorgung machten auch die keinen Hehl.

Sachte fragten sie nach Meßprotokollen, Prototypen, nach Brauch- und Prüfbarem und hielten an sich, wenn sich daraufhin am Vorstandstisch ein pompöses Gesäßel erhob. Der Mediziner Nieper, berühmt dafür, Yul Brynner vom Krebs geheilt zu haben (an dem der Star dann starb), lobte an praktisch jeder
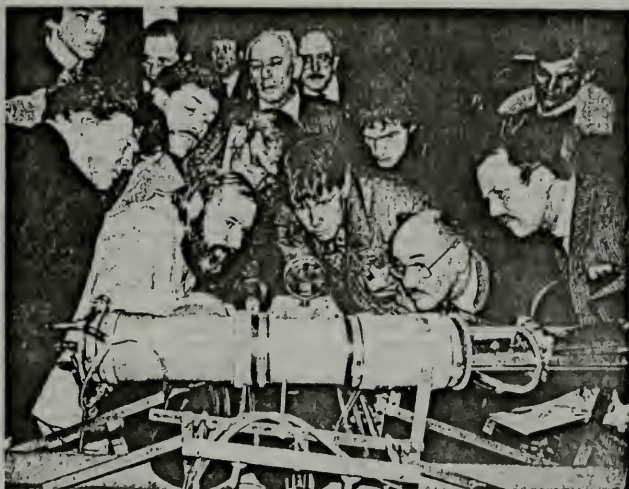
„Vakuum-Motor", Kongreßbesucher in Hannover: „Wir können Energie anzapfen"

beschriebenen oder gezeigten Maschine die wunderbare Leistungs- und Energievermehrung auf über 100 Prozent (ihres Verbrauchs)", das, was er den „Overunity-effect" nennt.

Zu dieser Energie gebe es keine Alternative, rief er, aller Widerstand dagegen sei zwecklos. „Sie können", dies sage er als erfahrener Arzt, „eine massiv kommende Entwicklung . . . einen Durchfall nicht dadurch verhindern, daß Sie den Hintern mit Tesa-Film verkleben."

Neben Hans Nieper am Vorstandstisch saß der in Graz als Stallmeister

Erfinder Crull, „Magnetkraft-Konverter"
Kostenloser Strom fürs Eigenheim?

tätige bulgarische Physiker Stefan Marinov, angeblich ein Genius wie Tesla, aber verkannt. Er verdammte die Lehren Albert Einsteins, die von ihm bereits 1943 widerlegt worden seien. Darüber werde nur einfach nirgends diskutiert. Er habe deshalb sogar schon gedroht, sich zu verbrennen.

„Manchmal glaube ich", klagte Marinov unter beifälligem Nicken Hans Niepers, „da ist Verschwörung, manchmal nicht." Beispielsweise habe er bei der Anreise von Graz plötzlich seine Tasche mit bedeutenden Unterlagen vermißt; klar, wie ihn das alarmierte. Aber er hatte sie nur vergessen. „Jetzt", sagte Marinov, der natürlich manches gar nicht vorlegen konnte, „bin ich froh, daß ich diese Tasche vergessen habe."

Keines dieser Schwerkraft-Genies konnte in Hannover mit Unterlagen dienen, die nicht besser vergessen worden wären. Ingenieur Tewari etwa aus Bombay, der im Namen der indischen Atombehörde zu forschen versichert, schwärmte von seiner Induktionsmaschine, die den sagenhaften Over-unity-Effekt seiner Meinung nach erst in dem Bereich von 6000 Umdrehungen per Minute zu entfalten beginne, bei dieser Drehzahl andererseits jedoch auseinanderzufliegen drohe.

Feiner Nebel stob in die Halle, während Tewari die Rotation des importierten Motors beunruhigend forcierte. „Das ist doch Quecksilber", entsetzte sich ein Beobachter vom MBB-Konzern, „damit mindert der den Über-

1973

gangswiderstand der Stromabnehmer! Aber das ist Gift! Das ist längst streng verboten."

Doch die Kongreßbesucher begehrten nicht auf, hüteten sich vor jeglicher Schärfe. Das war, als wollten sie Rücksicht nehmen auf religiöse Gefühle. Nur ein einziger der vielen jungen Techniker aus dem Auditorium erbat sich dringend „wenigstens irgendeine Definition" der Energie, um die sich alles drehte.

Das schon wirkte fast wie eine Unverschämtheit, und Nieper konnte ihm darauf nur versichern, „Schwerkraft, Vakuum, Tachyonen", das sei „alles eins" und vorderhand leider unerklärlich. An dem wiederholten Angebot eines Wiener Lehrstuhlinhabers der Physik, jeden gewünschten Tachyonen-Konverter im schließlich kernkraftfreien Österreich neutral zu prüfen, fand Hans Nieper wenig Gefallen.

Er und sein Marinov haben es im Gefühl, wieweit ihnen eine Erfindung taugt. Der Stallmeister hielt die Hand auch ans Gerät des verwunderten Fachhochschülers Sven Reuss und wußte gleich, da ist was. Später maß er auf eine Weise, die Reuss selber nicht so recht überzeugte, und platzte mit dem Siegesruf heraus: „Dies ist ein Perpetuum mobile! Diese Maschine erzeugt hundertmal mehr, als sie verbraucht. Dafür lege ich meinen Kopf auf den Tisch."

Niemand lachte. So mancher der zuhörenden Professoren blieb ernst und stumm, weil er unter seinen Kollegen ehrenwerte Experten kennt, die in einem separaten Abteil ihres Kopfes so etwas gleichfalls laufen lassen.

So und anders breitet der allumfassende Magnetismus sich aus. Was immer dazu dienen mag, wird jedenfalls unter der winderzeugenden Vereinsführung des Doktor Nieper vermarktet: seine eigenen Bücher, sündteure Billig-Magneten fürs Auto, für den Leib und die Seele. Der ganze Mensch ja ist in den Augen dieses Medizin-Mannes „ein ungeheurer Feld-Energie-Konverter", lebt nicht so sehr von Nahrung, nein, „aus dem Energiefeld ringsum".

Das zumindest verbindet ihn mit einer Heilslehre des in der Zeit der Studentenrebellion verklärten Psychoanalytikers Wilhelm Reich. 1939 schon hatte dieser die „Orgon-Box" erfunden, jene verschließbare Isolierzelle zur energetischen Wiederaufladung des müden Menschen, die in Hannover ebenso bezogen werden konnte wie therapeutisches Gerät aus dem Arsenal des Anno 1734 geborenen Magnet-Therapeuten Franz Anton Mesmer. Für 13 Mark gab es überdies Magnetbänder mit der Stimme eines Geistheilers. Deren Magnetismus soll wirken, wenn einer sie nur in die Tasche steckt.

Von High-Tech zurück zum Mystizismus war es ein Katzensprung. Auch Warner vor den Gefahren der gelobten Magnetkraft hatten bereits Posten bezogen. Siegfried Hermerding, ein durch und durch blickender Magnetist und ehe-

maliger Bankprokurist, empfahl Entstörgeräte. Wie ein Schwamm saugten sie giftige Strahlung auf. Die magnetische Verschmutzung der Welt sei nicht auf die leichte Schulter zu nehmen.

All so etwas nahmen ganze Rudel deutscher Physik- und Ingenieur-Studenten ohne Widerstreben zur Kenntnis. In einem Magnetbahn-Konstrukteur aus München weckte das die laut geäußerte Besorgnis, der deutschen Industrie drohe womöglich bald ein Schichtwechsel von den Machern zu den Mythikern.

Bei einer ähnlichen Veranstaltung wie der von Hannover hatte er ein von ihm gebasteltes Mini-Fahrzeug als angebliches Perpetuum mobile auf dem Tisch kreisen lassen. Es war ein Test für die Betrachter. Vor allem die Jungen, sagt er, hätten ihm kommentarlos alles geglaubt. Auf den naheliegenden Gedanken, daß eine verborgene Batterie dies Wunder treibe, sei zu seinem Entsetzen keiner verfallen.

CREDITANSTALT

Creditanstalt-Bankverein

HEREN PROF.
STEFAN MARINOV

SCHALTERLAGERND - 8010

T 081975

Editorial note.

This is a remittance for 950 English pounds with which Marinov wished to buy two
pages in NATURE and publish scientific information on his perpetual motion machine
as commercial advertisment. The advertisement was sent previously and Mrs. Turn-
bull, the advertising manager, gave the consent to publish it after prepayment, but
Dr. Maddox in a phone call from South Africa stopped the publication. The reasons
for declining the publication of this PAID ADVERTISEMENT are given in the telefax
of Dr. Maddox of the 1st June. It is to be noted,   FOR THE HONOUR OF DR. MADDOX,
that he returned to Marinov the 950 pound (what some of the NATURE's colaborators do
not do - see TWT-I, p. 6). (See the return remitance of Dr. Maddox of the 14 July.)

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

Dr. John Maddox
NATURE
4 Little Essex Street
London WC2R 3LF

14 May 1987

Dear Dr. Maddox,

You played again an unfair play, taking the plane for South Africa without saying this to me, and knowing how important is the speedy publication of my paper "The perpetuum mobile NEMA LABAVO". Thus when on the 11th May I phoned you and Miss Mary said me that you are out for 10 days, I begged Mrs. Turnbull to publish my paper as an advertisment. I recomposed it with a lower style, so that it can fit on two pages in NATURE and sent the composed text on the 12th May. Mrs. Turnbull promised to me to publish the advertisement on the 28 May and, POSSIBLY, on the 21 May.

You promised me that my letters to Gorbachev will appear "somewhere on p. 850 of vol. 326" but they did not appear. You said me that the proofs of my paper "Experimental violations..." have been sent on the 30 April but they still have not reached Graz. And now Miss Mary said to me that, as far as she knows, my letters to Gorbachev are not due to appear and the proofs have not been sent. When begging her to contact me with Dr. P. Newmark, she said that it is senseless, as only you decide on "my affairs".

I beg you once more, Dr. Maddox, to take into account that "my case" is of an extreme scientific, economical and political importance and to pay to it a due attention. Please, print as soon as possible BOTH my letters to Gorbachev, send the proofs of my article "Experimental..." and publish the letter to the editor "Queer or peer" which I submit now.

I shall phone you on the 20th May when you will be back from South Africa to hear your decisions and, please, this time fulfil your promises. I am very afraid that after returning you will stop the publication of my advertisement (or delay it). If this will be the case, than the reasons for not publishing me until now should to be searched not in your nonchalance.

Hoping that finally you will begin to cooperate EFFECTIVELY with me,

Sincerely yours,

Ⴑ. Marinov

Stefan Marinov

Editorial note to the second edition.

Dr. Maddox rejected Marinov's advertisement (see Dr. Maddox' telefax of the 1 June 1987) but did not sent back the text of the advertisement which was composed by Marinov in the Nature-style in Graz. Neither at the visit of Marinov in June 1988 could he receive back the text of his advertisement.

The letters to Gorbachev are published on pp. 162 and 188.

The article "Experimental violations..." is published on p. 146.

QUEER OR PEER

After having read the Letter to the Editor "Law breakers" (*New Scientist*, 113, 66, 1987) signed by Dr. S. A. Hayward (Cambridge), I submitted to Dr. M. Kenward, the editor of *New Scientist*, my answer "Law supporters" (see beneath), sending with the letter my cheque for 200 pounds which had to be resent to Dr. Hayward if he would answer my three questions. Copies of all letters and documents have been dispatched to Dr. Hayward and published in the second (March, 1987) edition of my book "The Thorny Way of Truth", Part I (TWT-I). There was no answer from Dr. Hayward. With a letter of the 17th March Dr. Kenward sent my cheque back suggesting that I arrange the payment directly but not guaranteeing publication of the answer of Dr. Hayward. Later, after having seen the second edition of TWT-I, Dr. Kenward wrote me on the 1st April that he cuts all contacts with me as I have "broken the law of copyright" (!?!?).

In his letter Dr. Hayward calls me a "mad scientist". I have the whole right not only to publish this letter in my book but to sue Dr. Hayward and Dr. Kenward for public calomny as, I am sure, an English court will never categorize me as a mad man on the ground that the Bulgarian court has sentenced me a couple of times as a paranoic, imprisoning me for years in the Sofia psychiatries and stuffing me with horse doses of neuroleptics. Dr. Hayward calls me "mad" not, of course, for my political concepts but for the reason that I carry out experiments showing the invalidity of the principles of relativity, equivalence and energy conservation. After I left the Bulgarian psychiatries and came to the West in the "Helsinki years", Mrs. Vera Rich, the writer on "Eastern science" in the present journal, also categorized me as a "nut-case (*psikh*)" putting this calomny in the mouth of acad. A. D. Sakharov (*Nature*, 271, 296, 1978). (*N.B.* First it was *The Economist* which put my physical ideas "on the verge between originality and crankiness" in the years in which I still lingered in Bulgaria (*The Economist*, p. 78 , 5 Febr. 1977)). Now Dr. Sakharov is free in Moscow and everybody can ask him on the phone which is his opinion on me, on my theories and experiments.

I think it is time to put an end to the "hitch-hunt" on Marinov. I have demonstrated the invalidity of the principles of relativity, equivalence and energy conservation by *experiments* and if one is upset, if one has fear for one's scientific career and professional reputation, one has to try to find at least one single flaw in my theories and experiments and not to seminate rumours that my soul is obsessed by the Devil.

Here is my answer to Dr. Hayward's letter.

<div align="center">

"Law supporters" (take the text from p. 297
of TWT-I, second edition)

</div>

Time: Monday 1:Jun:87 10:12am
Unjustified Proof

TELEFAX MESSAGE FROM JOHN MADDOX, EDITOR OF NATURE, TO STEFAN
MARINOV, GRAZ.

I regret that we cannot publish your advertisement on 4 June or,
indeed, in any other issue of NATURE.

The reasons are as follows:

(1) There is not enough information in the text to justify your
claims. If there were, and if the paper could sustain the
criticisms of our advisers, we would of course be glad to publish
it as an article in the usual way, without charge to you.

(2) We have a rule that advertisements published in NATURE should
not imititate the format of the editorial part of the journal. We
have done that on previous occasions, but that was a mistake. I
am not prepared to break the rule on this occasion because it is
clear that would use the appearence of an advertisement in NATURE
as a means of lending a degree of authenticity to your claims
which I believe cannot be justified by the content of your text.

(3) Please note that it is strictly speaking illegal in Britain
for a journal to publish an advertisement which it believes to
constitute a false claim; while I do not believe that we should
be prosecuted on this account, there is every likelihood that we
would be made to look fools.

(4) It would nevertheless be proper that you should include a

brief account of your machine in the article we shall be

publishing, and whose text I will let you have later in this

week.

(5) I cannot hold further conversations on this matter on this

day, but I shall telephone you at the Graz post office at

9 .a.m. our time (10 a.m. your time) tomorrow, Tuesday, in case

TRANSCRIPTION OF THE ABOVE NOT VERY WELL LEGIBLE TELEFAX

Time: Monday 1:Jun:87   10:12 am
Unjustified proof

Telefax massage from John Maddox, editor of NATURE, to Stefan Marinov, Graz.

I regret that we cannot publish your advertisement on 4 June or, indeed, in any other issue of NATURE.

The reasons are as follows:

(1) There is not enough information in the text to justify your claims. If there were, and if the paper could sustain the criticism of our advisers, we would of course be glad to publish it as an article in the usual way, without charge to you.

(2) We have a rule that advertisements published in NATURE should not imitate the format of the editorial part of the journal. We have done that on previous occasions, but that was a mistake. I am not prepared to break the rule on this occasion because it is clear that would use the appearance of an advertisement in NATURE as a means of lending a degree of authenticity to your claims which I believe cannot be justified by the content of your text.

(3) Please note that it is strictly speaking illegal in Britain for a journal to publish an advertisement which it believes to constitute a false claim; while I do not believe that we should be prosecuted on this account, there is every likelihood that we would be made to look fools.

(4) It would nevertheless be proper that you should include a brief account of your machine in the article we shall be publishing, and whose text I will let you have later in this week.

(5) I cannot hold further conversation on this matter on this day, but I shall telephone you at the Graz post office at 9 a.m. our time (10 a.m. your time) tomorrow, Tuesday, in case.

Ref: LMR/PJS

11 June 1987

. Dr S Marinov
Morellenfeldgasse 16
A-8010 Graz
AUSTRIA

Dear Dr Marinov

I enclose two reports on your four papers, one from the
Honorary Editor of Classical and Quantum Gravity and one
from the Honorary Editor of Journal of Physics A.

I regret that we are unable to consider these papers,
or any versions of them further, or to enter into any further
correspondence on them.

Your typescripts are enclosed.

Yours sincerely

Linda M Richardson
Staff Editor
Journal of Physics A: Mathematical and General

THE PAPERS BY MARINOV WHICH HAVE BEEN UNDER CONSIDERATION

FOR SOME TIME ARE HEREBY REJECTED

WITHOUT QUALIFICATION

AND WILL NOT BE CONSIDERED FURTHER.

REFEREE'S REPORT ON FOUR PAPERS BY S. MARINOV

General Comment

These are, in general, extremely long and detailed papers which seem to me to contain many flaws. As a complete critique would be at least as long, I do not propose to criticise each and every one of these flaws, but only to make one or two remarks about each paper which are, in my view, sufficient reasons for rejecting it. I make this general point because I would not wish it to be thought that correction of these points alone would make the papers suitable for publication.

I would add that after reading the papers, I read the previous referees' reports on "Mathematical nonsense ...", which bears some relation to "On the action and interaction of stationary currents, "Coup de grace to relativity" and "New measurement of the Earth's absolute velocity ...". These previous reports are more detailed than my comments, but seem as pertinent to the present revised versions as to the earlier ones, and I agree entirely with them.

"On The Action And Interaction of Stationary Currents"

This paper is concerned with aspects of classical electromagnetism. Therefore, all the comments on Marinov's theory of gravity are irrelevant. On page 84, the author states briefly some axioms of his theory and then says "One becomes aware of the fact that it is nonsensical to think ..." This is a (somewhat abusive) non-sequitur. That the conventional view is "nonsense" does not become a fact because alternative axioms have been stated - it is an opinion. One could equally well (or equally badly) say Marinov's view is nonsense if one takes the conventional view. Treatment of alternative theories in this manner is poor physics. In this particular instance, the definitions of inertial and gravitational mass arose from experiment and the result concerning their equivalence is, whatever one's theory, important to verify. If it were untrue, Marinov's theory would be just as much in error as he believes relativity to be.

The argument about the Biot-Savart law is not new and not sensible. It is true that his equation (16) does not obey Newton's Third Law. This is perfectly reasonable since it cannot possibly represent the complete picture, if only because an element of wire with current, considered by itself, violates charge conservation. What is claimed in conventional theory is that the integration of (16) round the current loops gives the correct total force (which is in agreement with Newton's Third Law) not that the integrand by itself is correct. Only the author's (24) is really correct. One can, of course, consider a current element by itself if one puts time-varying charges at each end. On a previous occasion when faced with one of the present author's papers, I carried out this calculation and proved that Newton's Third Law is then satisfied. I see no point in reconstructing that calculation. The essential point is that the derivation of (16) as a complete statement about current elements from the laws of electromagnetism, cannot be achieved without violating some law (usually charge conservation). (16) is correct only as a statement about integrands leading to the correct integrated form, i.e., (24).

Marinov's proposal that one should take it literally is another matter: he is, of course, at liberty to propose this, but not to claim that this is what conventional theory does.

Marinov really referees this one for me by quoting the opinions of experts
in experimental work, although he seems not to have grasped their point,
which clearly is that the apparatus he made could not possibly have been
made to the necessary accuracies for his claimed results to have
significance. Obviously, they have in mind such mechanical and electrical
problems as the response of the shafts to torque, flexure of the rotors,
accuracy of the gearing, stability of rotation speed (and many others).   I
can see no reason for preferring Marinov's view to that of experienced
workers in high-precision experiments.

The comment on page 72 starting "according to anybody who ..." is an
unsubstantiated assertion.   It is well-known that Newtonian theory gives
such a result and that Newtonian theory is valid for everyday life since c
is very large.   But there is no "experimental evidence accumulated by
humanity" supporting the assertion for the velocity of light (or any other
comparable velocity: if there were, Marinov's attempted experiment would be
completely superfluous.   In fact, humanity has by now accumulated quite a
lot of evidence disproving this statement.

The one-way velocity of light would, of course, be interesting to measure,
but there are certain serious problems which Marinov does not address
because he has a theoretical framework in which such questions do not
arise.   For instance, how can·one synchronise the emitter and receiver
times independently of the use of light (necessary to prevent the argument
being circular)?   In which frame is the distance to be measured?   And so
on.

"On The Absolute Aspects of the Electromagnetic Interactions"

On page 2, Marinov asserts that the description of a particle moving first
with velocity $\mathbf{V}$ and then $\mathbf{V'}$, and of a particle observed first by an
observer "at rest" and then one at velocity V are the same in special
relativity if $v - V = v'$.   This is not correct.   The description of a particle
with velocity v' by the observer at rest is the same as the description of
a particle with velocity v by the observer with velocity V, (all velocities
stated being measured in a single inertial frame and if v, V and v' obey
not the Newtonian but the relativistic addition law for velocities), but all
observers will agree about the 4-vector representing acceleration of any
particle which changes its motion.   So his first situation shows acceleration
and the second does not, and the two are quite distinct in relativity.

Similarly in the author's discussion of the electromotive force in a wire
under the influence of a relatively-moving current-carrying rectangular
loop, he mis-represents the relativistic calculation, for which his formula
(4) is inadequate.   The theory of relativity predicts that in the frame of
the wire, the rectangular loop generates not only magnetic but also electric
field at all points, due to the fact that the Lorentz-transformed
four-current has a non-zero time component, i.e., a non-zero charge
density.   The resulting electric fields are of magnitudes proportional to I/r
for each side of the loop and lead via integrals similar to (7) to the same
answer as (7).   The contribution (8) is only a negligible end effect, whose
Lorentz transform was also ignored in (7).

Coup de Grace Relativity And To Something Else

A large part of this paper is devoted to theoretical and experimental work
on motors and generators, which is not appropriate material for this
journal or J. Phys. A.   The theoretical basis of these calculations is

provided in the opening sections.
These repeat the same errors just noted in connection with the preceding
paper, although the example is now a solenoid rather than a rectangular
loop.

The paper also reveals a point which is less clear in the other works.
Marinov starts from his version of the Lorentz force law, written in terms
of the potentials. The definition of $\underline{B}$ and $\underline{E}$ in terms of the potentials
implies (and is implied by) one pair of the Maxwell equations. However, it
does not guarantee the other pair, which, however, seem still to be in use
despite the fact that they are Lorentz-invariant and not Galilœ-invariant.
It is this invariance from which (in special relativity) one can explain the
Kennard and other experiments.

This incompleteness manifests itself in the derivation of (8) and (10), where
it is assumed that q is the same in all frames, and no transformation of the
vector differential operators has been applied.

Marinov's note.

In my letter of the 17 August 1987 to the Editor of the JOURNAL OF PHYSICS, I quali-
fied the above referee's comments as IDIOTIC. Here I shall shortly show this (the
text of the respective papers and the formulas referred are to be seen in TWT-II):

"On the Action and..."

The physicists of the "establishment" must once for ever understand that: 1) mathe-
matics is not acrobatics, and 2) physics is an EXPERIMENTAL science and a rightness
or a wrongness of a theory is to be established only with respect to experimental
observations.

The referee writes: "Formula (16) is correct only as a statement about integrands
leading to the correct integrated form, i.e. (24)."

In mathematics the integral can be correct only if the integrand is correct. One
cannot obtain a correct integral if the integrand is not correct, as the integral is
simply a sum of the integrands. The "incorrect" (according to the referee and according
to conventional physics) formula (16) leads to the EXPERIMENTAL prediction that the
"trick-track" perpetuum mobile proposed by me in the paper under discussion will
ROTATE by VIOLATING Newton's third law, as the integrand violates this law and (FOR
UNCLOSED LOOPS) also the integral violates it. The referee, instead to make unclean
mathematical acrobatics, has to give HIS prediction for the effect in the "trick-
track" machine. And his prediction will be that the "trick-track" machine will not
rotate. Meanwhile Graham and Lahoz (NATURE, 285, 154 (1980)) have established that
it ROTATES. I also observed   rotation with my Bul-Cub machine without stator. Thus
the "integrand" is correct. Incorrect is the referee and whole conventional physics!

"New Measurement of..."

In my paper I cited the anonymous referee of FOUNDATIONS OF PHYSICS, according to
whom an anonymous person in the USA Department of Air Force has informed him that ano-
nymous scientists from the Joint Institute for Laboratory Astrophysics intended to
repeat my experiment but "preliminary engineering studies had indicated that it lay
beyond the expertise of the laboratory to achieve the mechanical tolerances needed to
ensure a valid result". And the referee concluded joyfully: "Marinov himself has re-
fereed his paper. I have nothing to add."

Thus for the referee of importance are the "old women talks" from one anonymous
mouth to another anonymous ear of the clerks, earning their bread on the different
steps of the gigantic staircase of American science, but not my autentic report,
where I present the relevant analysis of the sensitivity of my apparatus.

Although thinking that he has nothing more to add, the referee poses some seeming
to him "wise" questions: 1) How can one synchronize the emitter and receiver times

independently of the use of light?" My God, this stupid referee has neither grasped that in my experiment with the COUPLED SHUTTERS the "synchronization" is done by a rotating axle with holed disks fixed at its ends. According to Einstien the unique way to make a   time synchronization is by the help of light signals, as the old man has not played billiard. If he had played this beautiful game, then he could immediately come to the conclusion that if one moves the billiard-cue in parallel to the line connecting two of the balls, then this cue will touch both balls at the SAME moment. Unfortunately Einstein has played only violin.

2) In which frame is the distance between the holed disks to be measured? --- Idiot! The distance   was   measured with a metre-stick in the laboratory with an accuracy of ± 0.5 cm. In which frame is measured the distance? IDIOT (fooled by another bigger) Understand, IDIOT, that one finds the laboratory's velocity WITHOUT KNOWING THIS DISTANCE.

"On the Absolute..."

The referee writes: "The theory of relativity predicts that in the frame of the wire, the rectangular loop generates not only magnetic but also electric field at all points, due to the fact that the Lorentz-transformed four-current has a non-zero charge component, i.e., a non-zero charge density." The referee proceeds from the transformation formulas for the components of the intensity 4-tensor under a special Lorentz transformation, at the assumption $\mathbf{E} = 0$, when one obtains (see CLASSICAL PHYSICS, vol. III) $\mathbf{E}' \cong (\mathbf{V}/c) \times \mathbf{B}$, what is the formula for the induced motional electric intensity. Well, let us take it so. But I give a PHYSICAL experiment. And I predict: by motion of the loop together with the wire the golden leaves attached to the end points of the wire will "open", thus showing a separation of the charges in the wire. Will be this true or not? Yes, it will be true? Because the current in the loop generates an electric field? All right. Then which is the relevant velocity which will determine the degree of charge separation? The absolute velocity? Then what about relativity? Or one has to sing the Claudio Villa's song: "Relativita, addio, addio sogni di gloria, sogni di gioventu." (See p. 296 in this volume.)

"Coup de grace..."

The referee writes that special relativity explains Kennard's rotational experiment. Explain it! Special relativity is even afraid to mention this experiment, Einstein has not written a single line on it. The experiment was SILENCED during 70 years!

But there is also an inertial variation of Kennard's experiment which was proposed by me (and which every child can propose). Explain it. Will the inertial experiment give the same result as the rotational experiment (in the same way as the Marinov inertial light effect is the same as the Sagnac rotational light effect)? Yes? It will give? But then "special relativity" becomes "general absoluteness".

Oh, Zeus, when all idiots-relativists will finally lie in their coffins!?

Remark.

In the above text I used such words as "idiot" and "stupid" not with the aim to offend the referee (none can be blamed for ignorance, aberration or stupidity). I wished only to make more clear to the READER the essence of my differences with contemporary physics.

Editorial note.

All four above discussed papers are published in TWT-II.

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HERRN PROF.
STEFAN MARINOV

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Editorial note to the second edition. With this remitance Dr. Maddox returned to Marinov
the 950.00 £ which Marinov has sent on the 13 May (see p. 209) to pay the advertisement
on his perpetual motion machine. The advertisement was composed in Graz in Nature-form,
so that it could be immediately reproduced. In the last 20 years Marinov has submitted
to NATURE at least 100 materials. During Marinov's visit of the editorial office of
NATURE in March 1987, Dr. Maddox promised to him that in a week time he will find all
these materials and dispatch them to Graz. During Marinov's visit in June 1988, Dr. Mad-
dox said to him that, unfortunately, it will be very difficult   to find out these
materials. Marinov wished to have at least the articles and advertisements (as the above
rejected advertisement) which have been composed by him in Graz and the photographs of
his different machines, as Marinov needs them for the publications in his books, but
he received from Dr. Maddox neither one of his 100 materials.

nature

Stefan Marinov from John Maddox
17 July 1987

I am afraid it will be necessary for you to wait until Tuesday
of next week for the careful reply to your questions that they
and you deserve.

I am sending you this message simply to show that we are able to
communicate with each other.

Editorial note.

    This is a TELEFAX answer of Dr. Maddox to many Marinov's letters and telefaxes of
the kind of that of 26 May 1988 and almost every-day phone calls to Dr. Maddox.

PARIS, LE July 17, 1987

Dr. Stefan Marinov
Institute for Fundamental Physical Problems
Morellenfeldgasse 16
A-8010 Graz
AUTRICHE

Dear Dr. Marinov,
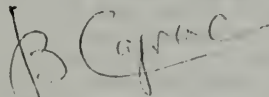
I have received your manuscript entitled "The electromagnetic effects are determined by the potential and not by the intensities".

Clearly your paper belongs to a very specific field, namely the field of foundations of physics (discussion about the concepts of fields and potentials) which interests only a very small percentage of the physicists involved in active research in laboratories. As the space in our journal is extremely limited, we are obliged to save it for really urgent contributions which interest a bigger percentage of physicists. It is the reason why we cannot accept your paper.

Moreover, your paper has been strongly summarized to squeeze its volume in the volume of a letter and that obliges you to some abrupt formulating without justification. For example, in the middle of page 3 "vector $\vec{A}_0$ in (4) is to be chosen as follows". For example also, when you speak about "relativistic nonsense" page 2 and page 6 (you can rightfully contest, may be, some specific assertions of the relativistic theory ; but you must be more specific as some particular assertions are verified inside many accelerators of particules). So it is impossible to defend your theory in a too short paper as in a letters journal.

Moreover, if you wish to send an extended paper to another review, you could think to act in a more gentleman way in your references (13 quotations of yourself on 16 quotations ; and for example you speak about Bohm and Aharonov without quotation).

Yours sincerely,

B. CAGNAC
Professeur à l'Université P. et M. Curie

Editorial note.

The above mentioned article is published in TWT-I, third edition.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

21 July 1987

Prof. B. Cagnac
EUROPHYSICS LETTERS
Labor. de Spectroscopie Hertzienne
Tour 12, 1er etage
4, Place Jussieu
F-75252 Paris Cedex 05

Dear Prof. Cagnac,

Thank you very much for your letter of the 17 July and for the speedy examination of my paper "The electromagnetic effects are determined by the potentials and not by the intensities" submitted on the 11 June. I cannot accept the motivations for your rejection. Here are my objections:

1. You think that my paper can be of interest only for a very small percentage of the physicists and thus you think that it does not deserve to take space in EUROPHYSICS LETTERS. With my paper I show that humanity *does not know* which is the field of the magnetic potential in a long solenoid with a rectangular cross-section. Then I show that the tension induced in a piece of wire put in such a solenoid depends not on the relative velocity of the two objects (as conventional physics teaches) but on their absolute velocities. Then I show that the induced electric tension is determined not by the magnetic intensity in the solenoid (as conventional physics teaches) but by the magnetic potential. Finally I give the remark (p. 6) that only after having understood these absolute, point-to-point interaction aspects of electromagnetism, one is able to understand why I can generate energy out of nothing in my machine MAMIN COLIU, which is a generator of electric current without mechanic braking (the description of MAMIN COLIU is given in NATURE, NEW SCIENTIST, Int. J. Gen. Syst., and in my books). Thus, according to you, a perpetuum mobile is not an interesting topic for the readers of EUROPH. LETT. I can only shrug the shoulders.

2. Although being short, my paper is entirely clear and *full* (I have not a single paper which is not absolutely rigorous and understandible for any student). It is true that in formula (4) I choose $\vec{A}_0 = 0$ for a solenoid with circular cross-section and $\vec{A}_0 = (-yB_z/2, -xB_z/2, 0)$ for a solenoid with a rectangular cross-section. But then *immediately* I show why this choice *must be done*, as then I calculate the magnetic potentials in such solenoids (formulas (8) and (11)). Thus in my paper there are no logically unmotivated statements which can puzzle the reader.

3. One makes a *terrible error* when putting an equality sign between today's physics and the theory of relativity. To show *what* today's physics is and *what* the theory of relativity is I had to write the five volumes of my CLASSICAL PHYSICS. Nevertheless, for twenty years the referees and the editors of the scientific journals continue to reject my anti-relativistic papers with the argument: Every accelerator proves every day the formula $e_0 = e(1 - v^2/c^2)^{-1/2}$, where e is the *universal energy* (my term) and e_0 the proper energy of a particle moving with a velocity v (*in absolute space!!!!!*), without taking the care to look at my papers and books and to see that I use the above formula on every second page of my writings (meanwhile this was recognized even by such a journal as THE ECONOMIST in a big paper on my theories and experiments in 1977). On the bottom of p. 2 I write the following: "The relativistic concepts that the observer A sees this and the observer B sees that are totally nonsensical. The observers A and B always see the same things, namely that the object C has moved in a certain way with respect to the object D." Thus when you try to attack my paper, you must attack my rejection of the "relativity nonsense" and not come with arguments about the effects in the accelerators which are duly calculated in vol. V of CLASSICAL PHYSICS entirely in the frame of my absolute space-time theory. I am stuffed to hear 20 years the argument about the accelerators.

4. The high number of the references to my articles and books is due to the fact that in the *journals of the physics establishment* there is no other physicist who rejects the validity of the principles of relativity and equivalence (and who has confirmed this rejection by *experiments*). There are some authors who defend (very carefully!) absolute concepts but there is none *all over the world* who asserts that if there are a magnet and a wire then the induced tensions for the cases a) magnet at rest, wire moving and b) wire at rest, magnet moving are *different*. If you think that I am arrogant (not enough gentleman), please, be so kind, to cite such an author. (I do not give reference to the Aharonov-Bohm effect, as this effect is well known). --- Please, answer this letter. I know that you will not change your mind, but I must leave to posterity proofs that I have done all to bring the scientific truth to my fellow-man.

Stefan Marinov

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

To TELEFAX: 0044/1/8369934

24 Juli 1987
My telefax is:
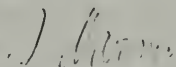0043/316/382661
Stelzl-Marinov

Dr. John Maddox
NATURE
4 Little Essex Street
London WC2R 3LF

Dear Dr. Maddox,

You promised me on the phone to send me the telefax yesterday, but it has not come.

Please, send it today not later than at 3 PM your time, as otherwise I will be unable to read it (the office closes) and I should have to await until Monday.

I think, you have certain IMPORTANT reasons to treat me in this way. The reasons are that you (and the people around NATURE) have understood that relativity is dead, and if giving me space in NATURE, then in no more than in two-three months my theory will be worldwide accepted. Yes, it is so. On the other side I need this recognition, because otherwise I cannot come to money to build my perpetua mobilia. I beg you, Dr. Maddox, if you do not intend to publish my contributions to tell me this OPENLY. I lost too much time and a lot of money with you. If I had invested all these efforts in another way, I could profit much more. But now it is too late for me to leave the path "through NATURE". If you are an honest man and you do not intend to publish my contributions, TELL ME THIS OPENLY. If, however, you wish be a minister of TRUTH, then ACT.
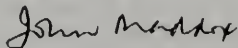
Yours:

nature

JM/MS
3 August 1987

Dr Stefan Marinov

Dear Dr Marinov:

I am in America for the next two weeks. By the time I get back
I shall have the edited version of your manuscript, after which
it should take a few weeks to publish it.   We will discuss the
other matters when I am back.   If you will give Mary Sheehan a
telephone number at which you can be reached, I will telephone
you.

Yours sincerely,

John Maddox

dictated by John Maddox
and signed in his absence

Editorial note.

   Another TELEFAX of John Maddox with promises which he does not fulfil. Three years
of promises, hundreds and hundreds of phone conversations. No rejection. No publica-
tion.

   The logical answer which anybody will pose is:

                    WHICH ARE THE REASONS FOR THIS TACTIC?

ROYAL ACADEMY OF SCIENCES
NOBEL COMMITTEE FOR PHYSICS
STUREGATAN 14
S-114 36 STOCKHOLM
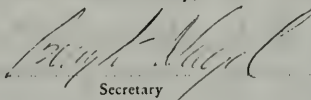
August 12, 1987.

Dr. Stefan Marinov

Morellenfeldgasse 16

A-8010 GRAZ   - Austria

Dear Sir,

This is to acknowledge receipt of your communication   dated   July 30, 1987,
and also March 30. I am sorry not having acknowledged your
earlier sending of your book. - As to your requests to
demonstrate your experiemnt for the committee, or get advise
how to publish, you know that these things are outside the
tasks of the committee or Nobel Foundation. I enclose excerpts
of the statutes.   Yours sincerely,

Secretary

PHYSICS LETTERS A

12|8|87.

PROFESSOR J. P. VIGIER

Université Pierre et Marie Curie
Centre National de la Recherche Scientifique
Laboratoire de Physique Théorique
Institut Henri Poincaré
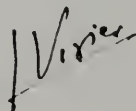11 Rue Pierre et Marie Curie
75231 Paris Cedex 05
France

Telephone (14) 336 2525 ext. 3776/82
Telex: UPMC Six 200 145 F

Dear Dr. Marinov

Concerning your ms. "The Absolute character...", all the referees that I approached had a very strong opinion against acceptance of your ms. for PLA. The reasons are its polemical attitude, the unfounded experimental evidence quoted and the lack of any serious attempt of discussing the proposed subject. In view of this unanimous attitude of the referees I do not think that your ms. is acceptable for PLA. I therefore return it to you enclosed.

Yours sincerely

J Vigier

TRANSCRIPTION

Dear Dr. Marinov

Concerning your ms. "The Absolute Character...", all the referees that I approached had a very strong opinion against acceptance of your ms. for PLA. The reasons are its polemical attitude, the unfounded experimental evidence quoted and the lack of any serious attempt of discussing the proposed subject. In view of this unanimous attitude of the referees I do not think that your ms. is acceptable for PLA. I therefore return it to you enclosed.

Yours sincerely

J. Vigier

Editorial note. The above mentioned article is published in TWT-I, third edition.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

17 August 1987

The Editor in Chief
JOURNAL OF PHYSICS
Techno House
Redcliffe Way
Bristol BS1 6NX

Dear Sir,

I enclose a copy of my letter to you of the 29 December 1986. I INSISTED that this letter should by answered BY YOU. Instead I received an answer of the 11 June 1987 signed by Mrs. Linda Richardson and some IDIOTIC referee's comments.

THE PROBLEM IS IMPORTANT. The letter of rejection must be signed BY YOU.

To make the problem MORE SIMPLE FOR YOU, I resubmit NOW only one of these papers, namely the paper

NEW MEASUREMENT OF THE EARTH'S ABSOLUTE VELOCITY
WITH THE HELP OF THE "COUPLED SHUTTERS" EXPERIMENT.

The version is EXACTLY THE SAME as this submitted first on the 22 March 1984 to your journal and whose examination was delayed FOR TWO YEARS.

In this paper I give the account on my measurement of the Earth's absolute velocity in February 1984. This year I carried out a completely different kind of experiment (called by me the quasi-Michelson experiment) where NO rotating axle is used and I received ALMOST THE SAME figures of the Earth's absolute velocity. In 1986 Silvertooth carried out the so-called by me quasi-Wiener experiment and received again almost the same figures (see the description of Silvertooth's experiment in Spec. Sc. Techn. 10, 3 (1987) and in the book J. P. Wesley, Progress in Space-Time Physics 1987, (Benjamin Wesley, Blumberg, West Germany, 1987)).

Dear Sir, here is at stake a NOBEL PRIZE and Mrs. Richardson sends me   comments where the referee rejects my paper with the motivations of the cited in my paper anonymous American.

I send you the report on my execution of the quasi-Michelson experiment and the letter of acceptance of EUROPHYSICS LETTERS. Thus this paper will appear SOON.

Read this paper (A simple and reliable experiment for measurement of the laboratory's absolute velocity), read the resubmitted paper. And if my resubmitted paper will be rejected again, YOU have to sign the rejection letter. And read again my advertisement MARINOV TO THE WORLD's SCIENTIFIC CONSCIENCE (New Scientist, 112, 48 (1986)) which, as a matter of fact, is an OPEN LETTER addressed TO YOU.

I wrote a couple of times to the JOURNAL OF PHYSICS that Europe is NOT South Africa and am not a black. We have to decide the future of science, we have to open the way for the construction of perpetuum mobile. For this the scientific community must see that relativity is wrong and that electromagnetism is not   as was teached by Faraday and Maxwell. Instead to print my papers, Mrs Richardson sends me referees' reports of ..... .

I enclose for your information my letter to the Nobel committee of the 30 July 1987 and the answer of Prof. Nagel of the 12 August 1987.

Journal of Physics has BLOCKED my re-submitted paper for TWO YEARS. This paper must appear only in the JOURNAL OF PHYSICS with a date of submission MARCH 1984.

Hoping to receive your answer (SIGNED BY YOU, not by Mrs. Richardson),

P.S. I beg you to take into account that if you will reject this paper, the whole our correspondence will be published in the next edition of THE THORNY WAY OF TRUTH.

P.P.S. The photograph of the set-up (fig. 1) will be sent after the acceptance of the paper.

Sincerely yours,
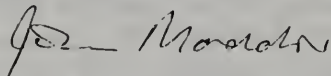
Stefan Marinov

nature

JM/MS
2 September 1987

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz
Austria

Dear Dr Marinov:

I am sending you copies of two letters from Jayme Tiomno that
we have been offered for publication.   The first will be published
quite soon.   I would welcome your comments on the second.

Yours sincerely,

John Maddox
Editor

Editorial note.

Marinov's comments to the second of Dr. Tiomno's letters was sent to Dr. Maddox
on the 15 September.

- SCIENTIFIC CORRESPONDENCE -
STEFAN MARINOV AND "FRIENDS" AGAIN

SIR - Two years ago[1] you commented that Stefan Marinov had won so
me support as Maciel and myself concluded [2] that there is still
place for small departures of Special Relativity as in the rotating
axle experiments proposed by Marinov and that the experiments he
performed[3,4] should be repeated. Finally, referring to the possible
repetition of the "rotating shutters" experiments[4], even to prove it
wrong, you wondered how many correspondents would claim that that
has been already done. As nobody did it to this date I wish to prove
now that, if that experiment[4] is not wrong, Marinov's analysis of it
is wrong; indeed it is very misleading and has quite a few errors.
After correction of these errors I find, instead of his values
$v = (360 \pm 40)$ Km/sec and $\delta = -24^{o} \pm 7^{o}$ an almost complete inde
terminacy of v and δ . Thus what remains of this experiment is
the observation of a periodic effect having a maximum in the day
of the experiment at ($\alpha = 12.5$ h ± 1 h) the position predicted
for that day by Marinov's twist theory; this value of α may not
remain constant during the year.
Marinov used an axle which may rotate on its axis with N = 200 rev/sec.
Light from a laser is splitted into two equal beams which, after
reflexion on adjustable mirrors at each extremity pass along the
shaft in opposite directions through corresponding near and far holes.
The mirrors are adjusted so that the, slightly inclined beams, reach
only about half the area of the far hole. Each beam incides on a
photocell producing currents which are compared at a bridge. If the
axle is rotating there is a small additional mismatch $\Delta B = \pm 2\pi RN$ d/c
due to a delay time d/c between entrance and exit holes, which results

in a change ΔI of the detected intensity. A further mismatch
$\delta B = \pm \frac{v}{c} \Delta B$ (and, correspondingly, δI) is precisely the assummed
Marinov's twist. In general $(\Delta I + \delta I)/I_o = \alpha (\Delta B + \delta B)/B$ where α
depend on the shape of the holes and beam as on the distribution of
the intensity in the beams. In a model with retangular holes and
beam sections Marinov finds, in a wrong computation $\alpha = 4.5$, which
he uses for the actual circular case. I prove instead that $\alpha = 1$,
in the retangular case, for any distribution of intensity. For cir
cular holes and beams I find that it is safe do take $1 < \alpha_{circ} < 2$
(more near to 1). In a further mistake Marinov uses $\Delta N = 2N$ instead
of N in ΔB. Thus, the correct ΔI being $\Delta I/I = 2\pi \alpha NR d(BC)^{-1}$,
Marinov's equ.(5), with b = 2B, has a wrong factor 9 instead of
$\alpha = 1.5 \pm 0.5$. Thus while I find, with 50% error, $2 \Delta I \sim 0.8 \times 10^{-3} I$
he obtains $I_2 - I_1 = 2 \Delta I_M = 0.5 \ 10^{-2} I$, by the difference of two
measurements of I with opposite rotations and the beams travelling
oppositely. Marinov uses this equation (with $\alpha \rightarrow 9$) to obtain the
one way velocity of light an $c \sim 3.0 \times 10^8$ m/s. It In disturbing
to notice that this is precisely the value he obtained in a previous
"coupled shutters" experiment[5] but using $\alpha \rightarrow 1$!
Marinov[4] states that the sensitivity for each experiment (I_1 and
$I_2 \sim 21$ mA) is 0.5 10^{-2} I (i.e. 10^{-2} mA $\sim \frac{1}{10}$ of a division in a
centesimal 1 mA scale!!). He states that the error in v/c = $\delta I/\Delta I$
comes only from δI. I find, even accepting the quoted error in I,
that the error in $2 \Delta I_M$ is $\sim \pm 3 \Delta I_M$.
Thus, even if he had made no further mistakes his quoted errors in
v and δ should be much larger so that his values are completely
unreliable. Further errors appear, however, in Marinov's determina
tion of δI. He measured directly, in the bridge, the differences
$I' = I'_+ - I'_-$ and $I" = I"_+ - I"_-$ of the intensities of the two

photocels currents I' and I" corresponding to the two senses of rota-
tion, which should give, respectively, $- 2\delta I$ and $+ 2\delta I$. He found
instead I' + I" $\neq$ 0 (of unquoted magnitude, constant during the
whole day). Then he plotted I" - I', which, according to his theory
should give a sinusoid plus a small constant background but gave
a sinusoid with a large constant background: thus
$I" - I' = I"_o - I'_o + 4\delta I$. Then, in order to determine, $v/c = \delta I/\Delta I$
he imposed arbitrarily $I"_o - I'_o = 450$ n Λ and found his values at
the maximum (v_b) and minimum (v_a) and then v and δ . However,
as $I"_o - I'_o$ is undetermined he should not be able to obtain v_a
and v_b but only $v_b - v_a$ as both v and δ acquire a second wide inde-
termination. A final error spoils again his results, even if his
I and $I"_o - I'_o$ were correct. Indeed, as he takes (in the text as
in fig. 2) $I" - I' - (I"_o - I'_o) = 2\delta I$ _instead_ of $4\delta I$ his values
of v_a, v_b and v should all be reduced to half the values he gives.
On the other hand, using my ΔI and his (arbitrary) $I"_o - I'_o$,
which imply in the choice of δ as given, I find instead values of
v_a, v_b and v which are three times larger then Marinov's but only
with 50% error, thus again in disagreement with his theory. However
the indeterminacy of $I"_o - I'_o$ still leaves room for a possible
agreement. Thus this experiment has not proved or disproved Marinov's
theory. I think that there is still case to repeat this experiment
in a competent way.

Jayme Tiomno

Centro Brasileiro de Pesquisas Físicas - CNPq
Rio de Janeiro, Brazil

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2. Maciel, A.K. and Tiomno, J., Phys.Rev.Lett. 55, 143 (1985).
   Rodrigues, W. and Tiomno, J., Found.Phys. 15, 945 (1987).
3. Marinov, S.; Gen.Rel. Gravity 12, 57 (1980).
4. Marinov, S.; Thorny way of truth II (East-West Ed., 8044,Graz,
   Austria, 1984) pp. 68-81.
5. Marinov,S., Spec.Sci.Techn. 3, 57 (1980).

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

15 September 1987

Dr. John Maddox
NATURE
4 Little Essex Street
London Wc2R 3LF

Dear Dr. Maddox,

Today on the phone you said me that you will send me the proofs of my paper later in the night. Your voice was so assuring that I cannot believe that you will deceive me also this time. Thus being sure that the proofs of my paper are already sent from London, I send you my comments to Dr. Tiomno's letter to the Editor, so that you can examine my contribution as soon as possible.

I am sure that after reading my objections you will realize how untenable are Dr. Tiomno's comments and you will decline the publication of these comments and of my answer. This, however, is UNFAIR, Dr. Maddox, as when sending me Dr. Tiomno's comments you thought that he has hit "the nail on the head". Thus, if you are an honest man, you have to publish Dr. Tiomno's and my comments. I am very curious to see which will be your reaction.

Please, do not ask to cancel the story of Dr. B from Warsaw, because you will deprive my answer of its flavour.

I hope that after the publication of my paper, you will decide to publish also my correspondence QUEER OR PEER, which is a POETIC MASTERPIECE that will bring big pleasure to any admirer of the "belle literature".

Hoping to receive soon your decision concerning the acceptance/rejection of my both correspondences:

1. Marinov's comments on the comments of Dr. Tiomno "Stefan Marinov and 'friends' again".

2. Queer or peer.

Sincerely yours,

Stefan Marinov

MARINOV'S COMMENTS

Sir - I shall show that all "corrections" which Dr. Tiomno makes are erroneous.

1) Dr. Tiomno affirms that if there is a rectangular beam of light with a breadth b (his notation B), where the light intensity increases linearly from the one edge to the other producing an electric current I over a photodiode, then by diminishing the breadth by Δb from the side of the maximum intensity, the current will be diminished by

$$\Delta I = \alpha(\Delta b/b)I \tag{1}$$

with α = 1. This is not true. The coefficient must be α = 2. The discussion of the co-efficient α = 9 which I choose for my case where the shutters do not open and close simultaneously (as if using Kerr cells) but consequently (because of the rotation of the holed disks) will take much more place.

2) Dr. Tiomno notes that in my paper[1] I use a coefficient α = 1, while in the paper[2] I work with the coefficient α = 9. But in Ref. 2 I clearly write: "The simplified relation (1) (with α = 1) did not correspond to reality if under I one would understand the measured current. I shall give here a certain amelioration of formula (1) (leading to a coefficient α = 9) what was omitted to be done in Ref. 1, because of a fear that the presumed referee will consider my analysis as an 'artificial speculation' in a search 'to adapt the observed values to the theoretical formula'. Now I am no more afraid of the referee." I have a long years experience with the referees of absolutely all physical journals in the world. I know exactly which kind of objections will present the referee of an average physical journal to my papers. Thus I was sure that if I should write that the coefficient in formula (1) must be α = 2, the referee will object: "No, it must be α = 1". Indeed, Dr. Tiomno (although not being a referee) has done exactly what I have predicted, so that my theory is splendidly confirmed. In Ref. 1 I tried to save myself from such a kind of referee's objections remembering the story which my Polish friend Dr. B. narrated after we have drunk a good Bulgarian wine: Once in the morning at a heavy fog Dr. B. was driving his car in the diplomatic suburb of Warsaw. At once he has seen that a car with high speed comes directly to his car. My friend has driven brusquly to the left and evaded the frontal clash. I wondered: "To the left?! Why to the left? You were crazy!" Dr. B. smiled: "I saw that the car is a diplomatic car with an Australian flag. Thus I realized that at this situation when there were only 5 meters between our cars the automatism of the driver will impel him to turn to his left, as he should do in such a situation in Australia. Had I to turn to the right, as one has to do in Europe in such a situation, the clash would be inevitable. I turned, however, to the left and saved the life of a diplomate of a friendly to Poland country."

3) Dr. Tiomno spends too much time to show that the measurement of c done by me is not very exact. Yes, it is so! In Ref. 1 I wrote: "Thus, with this method, the absolute measurement of the one-way light velocity will always include an error not less than 10%. The best measurement of the two-way light velocity (National Bureau of Standards, Colorado) have given an accuracy 10^{-8} %, i.e., an accuracy one milliard times higher

than that of my experiment. However, I believe that this is the first time that the one-way light velocity has been measured." Dr. Tiomno had to comment this aspect of my experiment, as it is common opinion between the relativists that it is impossible to measure the one-way light velocity. Meanwhile I did it with two childish apparatus constructed in 7 days (Brussels) and in 4 days (Graz). And in Ref. 2 I wrote: "Let me state clearly: The coupled shutters experiment is not to be used for an exact measurement of c. It is, however, to be used for an enough exact measurement of the variations of c due to the absolute velocity of the laboratory."

4) If the rotation of the axle is changed from N (= 200 rev/s) clockwise to N (= 200 rev/s) counter-clockwise, then the change is $\Delta N = 200 - (-200) = 400$ rev/s. Dr. Tiomno asserts that the change must be 200 rev/s.

5) If the current produced by the one photodiode has changed from I to $I + \Delta I + \delta I$ and of the other from I to $I + \Delta I - \delta I$, then the difference in the currents has changed from zero to $2\delta I$. Dr. Tiomno affirms that the difference must be $4\delta I$. (N.B. It seems that the error done by Dr. Tiomno in item 5) is due to the error done in item 4), but it is well known that one error in a logical consequence can be easily revealed, however many errors in an unlogical consequence are not so easily identifiable.)

6) Dr. Tiomno writes: "Then Marinov plotted I" - I', which, according to his theory, should give a sinusoid plus a small constant background but gave a sinusoid with a large constant background." Dr. Tiomno becomes afraid of the large background of 450 nA, taking into account that the observed effect $2|\delta I|$ was always less than 120 nA. Dr. Tiomno must become aware that if the mentioned in the paper asymmetries for both beams and detectors are such that ΔI_1 differs with 1% from ΔI_2, the constant background will be $|\Delta I_1 - \Delta I_2| = 0.01\Delta I = 525$ nA. Thus I measure very tiny effects with a very inaccurate apparatus. Instead to wonder how can I measure such effects, what the scientific community was unable to do during 100 years, he has to attentively read my report and understand properly the whole trick which, as a matter of fact, is childishly simple.

At the end I should like to note that I am amazed that Dr. Tiomno, who knows me personally very well, instead to write to me a private letter, informing me for his doubts and asking for my opinion, has appeared with them in the press, presenting them in such a cumbersome manner, that a reader who is not acquainted with my experiment can never understand what he wishes to say.

And I await from Dr. Tiomno an answer: If my experiment is correctly done, will it signify only a "small departure of Special Relativity" or the whole theory must be thrown over board? Let us not forget that Einstein himself has said: "If only one prediction of my theory will be shown to be wrong, then the whole theory is to be discarded. It is not possible to repair it." It is interesting what would say Einstein's disciples after my experimental demonstration that not only some tiny prediction but the fundamental axiom of Einstein's theory is a complete rubbish.

1. Ref. 5 above.
2. Ref. 4 above.

Stefan Márinov
Morellenfeldgasse 16
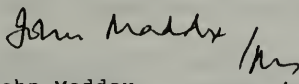A-8010 Graz, Austria

JM/MS
17 September 1987

Stefan Marinov
Morellenfeldg. 16
A-8010 Graz

Dear Dr Marinov:

I'm afraid I haven't been able to finish your paper, and
am now away again until 9 October.   I will finish immediately
I get back.

In the meantime, please do not bother my colleagues in London.
I intend publishing your paper as humanly possible.

Yours sincerely,

John Maddox
Editor

dictated by John Maddox
and signed in his absence

Editorial note.

Promises, promises, promises... but NO REJECTION! Let us see what will it come
out! Let us await a month more, a week, a day...

A propos. A French historian asked an English historian, what is, according to
him, the principal significance of the Great French Revolution. "It is too early
to give a right answer to this question", answered the Albion.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

2-го октября 1987 г.

Гурию Марчуку
Президенту Академии Наук СССР
Москва
СССР

Глубокоуважаемый товарищ Президент,

На мои письма Вам с 14-го августа и с 19-го сентября покамест нет ответа. Обратная расписка о получении Вами второго моего письма тоже пока-что не пришла. Я пишу Вам сие третье письмо, ибо когда ребеночек должен рожаться, то времени мешкать нету.

Вижу, что в практике вашего секретариата многое не изменилось в эпоху "ускорения". Та же вялость как и во времена не столь отдаленные. Я, конечно, всегда повторяю себе вечные слова Бисмарка, что, мол, "русские медленно запрягают, но зато потом лихо ездят", но пора-бы русским попривыкнуть и запрягать побыстрее. Да вопрос вообще не о том как запрягать и как ездить. Вопрос в том, что если человек обращается письмом к Президенту Академии Наук СССР, то этому человеку НУЖНО ОТВЕТИТЬ. Это требует достоинство Вашего высокого поста. И секретарям Президента Академии народ деньги платит не чтобы в рабочее время чайку выпивать и анекдотики рассказывать, а чтобы корреспонденцию Президента срочно, точно и непорочно вести.

Прочее, ибо я хорошо знаю, что за напасть божья представляют секретари, секретарши, регистраторы, архивариусы, советники, вице, замы, помы и а-бэ-вэ-гэ-дэ-е-жэ-зэ-комы, то я решил, даже не получив от Вас ответа, прилететь в Москву 29-го октября и на месте постараться растолковать толковым людям, в чем собственно дело.

У меня в Москве два человека, к которым я могу обратиться: доктора Иваненко и Сахаров. Но я долго с ДэДэ контакта не имел. Не знаю как он - жив здоров? Поэтому вечером, около 6-ти, 7-ми, 29-го октября /я приеду с туристкой группой Pool 3-728 по маршруту Вена-Москва-Вена с 29-го по 1-ое ноября/ я пойду к Сахарову на ул. Чкалова 48 /я его посещал уже там в 1978-ом г. прилетев из Брюсселя/. Будьте добры послать туда верного Вам человека, а еще лучше было бы, если Вы бы сами зашли /Елена Георгиевна крепкий чай заваривает/.

Если портативная модель моей машины МАМИН КОЛЮ /название это болгарское, а по-русски переводится МАМЕНЬКИН НИКОЛАША/ будет к 29-му октябрю готова, я прихвачу ее с собой, но я не очень уверен, что модель будет готовой. Машина эта, хоть и не работает еще с замкнутым энергетическим циклом /перпетуум мобиле/, но абсолютно ясно демонстрирует нарушение закона сохранения энергии.

На кухне у Сахаровых мы обсудим проблему об участии советских ученых на нашей пресс-конференции 6-го ноября в отеле Шератон во Франкфурте и на Конгрессе о релявизме и гравитации в апреле 1988 г. в Ганновере.

Мы хотим пригласить также Сахарова в Президиум конгресса. Это исключительно удобный случай, чтобы осуществить первое "мягкое приземление" Андрея Дмитрича на Западе, ибо вся западная пресса и западное общественное мнение будут относиться к конгрессу НЕПРИЯЗНЕННО. Переполох будет большой и А.Д. ПОЛИТИЧЕСКИ очень мягко приземлится. Конечно остается вопрос, если А.Д. согласится принять участие в конгрессе. Хотя мы на подобие Б. Хмельницкого участников конгресса не спрашиваем "в Бога веришь, водку пьешь?", но у него могут появиться всякие резервы и не только научные. Поэтому и нужно, чтобы очень доверенное Вам лицо пришло бы 29-го октября вечером к Сахаровым.

Повторяю еще раз: Происходит переворот в физике пространства-времени. Вечный двигатель открыт. Я прилагаю все усилия, чтобы сделать этот поворот "с Востока", ибо я панславянин и коммунист. Но, конечно, все от моих усилий не зависит.

Если 29-го к Сахаровым доверенное Вам лицо не прибудет, то 30-го октября утром я приду в центральное ведомство Академии, где Ваш кабинет /пока-что я не знаю, где это ведомство находится/. Если и там дверь передо мной захлопнется, то вернусь в Австрию не солоно хлебавши, но моя уверенность, тов. Марчук, что русские скоро привыкнуть и запрягать побыстрее от этого НИКОЛЕЧКО не поколеблется.

Копии всех трех моих писем Вам я посылаю Андрею Дмитричу.

Вам посылаю еще немецкие корректуры статьи о моем квази-Майкельсоновом эксперименте, которая выйдет в октябрьском номере в журнале РАУМ УНД ЦАЙТ и передовицу редактора журнала, посвященную нашему конгрессу. Прилагаю также письмо редактора журнала Нейчер, который снова уверяет меня /как уже на продолжении двух лет/, что моя статья Experimental violations of the principles of relativity, equivalence and energy conservation скоро выйдет.

С комприветом: Стефан Маринов

ПП. Прилагаю также письмо от института
"Барнес" в Миннесоте.

14 October 1987

Dr Stefan Marinov
Morellenfeldg. 16
A-8010 Graz
Austria

Dear Dr Marinov

We sent you a letter on the 2 September requesting that you gave
your comments on the second letter by Jayme Tiomno.

As yet we have not received these comments. Please send them to
as soon as possible as this correspondence is now seriously
delayed.

Many thanks.

Yours sincerely

Jane Pennington
Nature Editorial

Editorial note.

This letter shows that Dr. Maddox, after having received my letter of the 15 September
with my comments to Dr. Tiomno's letter to the Editor, and realizing that the publi-
cation of this correspondence will be not damiging for me, but exactly on the contra-
ry, has hidden the whole correspondence in his drawer and has not forwarded it to
Mrs. Jane Pennington managing the "correspondence" columns in NATURE.

Poor Dr. Maddox!

God told me to run, Miss. inventor says

By The Associated Press

HATTIESBURG, Miss. — Inventor Joseph Newman of Lucedale reports he will "shock the world" when he appeals for support Saturday for his presidential campaign.

Newman, who claims his energy machine produces more energy than it uses, said last month he is running for president. He said his meeting in Mobile, Ala., would "shock the world."

He said God has directed him to seek the presidency and he will offer "clear scientific facts" Saturday that catastrophe will "hit the human race." His information, he said, will save the world if people listen.

Newman made national headlines with his energy-machine claims and has been fighting the U.S. Patent Office to have it registered.

If people in Mobile listen to him, Newman said he would be a viable presidential candidate and "I'll win the presidency."

If people "stick their heads in the sand," then "great destruction across the world" will begin in six months, he said, and by 1999, "most life on Earth will be gone."

Newman, who said he is not particularly religious, refused to give details of his revelations, saying only that "God is angry with the world and God is going to get the world's attention."

He also said he would not "piece-meal the information out," because people would not be able to understand the information out of context.

Newman will make his announcement at Mobile's Municipal Auditorium Expo Hall at 6 p.m. Saturday.

He said he will run for the presidency as an independent in his own Truth and Action Party.

"I state the truth and take action on it," he said. "I go straight to the heart of problems. I'm not a politician. I tell things straight up."

Newman takes issue with evangelist Pat Robertson, who is seeking the Republican nomination for the presidency. Robertson stated Tuesday that running for the highest office in the country is something "God told me I have to do."

"I challenge him (Robertson) to say publicly that God directed him to run for the presidency," Newman said. "I doubt God directed me and him to run. It seems illogical that God directed both of us to run for the presidency."

November, 1987

Stefan — Newman has now proved that he is completely insane. He is going to run for President of the U.S. I must confess, however, he could not be much worse that Ronald Reagan. Harry

Sakharov Emerges, Freer but Still in Limbo

By BILL KELLER
Special to The New York Times

MOSCOW, Nov. 6 — On a typical day, two or three supplicants find their way to the unmarked apartment of Andrei D. Sakharov.

Some want his endorsement, like the man who recently showed up on the doorstep claiming to have invented a perpetual motion machine. Most want his influence, believing that a Sakharov telegram or a Sakharov news conference carries magical force against the arbitrary power of the police, the emigration authorities, employers and Communist Party officials.

Lives With Greater Liberty

"Of course there is absolutely nothing I can do to help them," the physicist said dolefully the other evening over tea and pastries in his living room. "It can be very upsetting. Sometimes it knocks me off balance for the rest of the day, and I can't get any work done."

More than 10 months after he was freed from internal exile in the city of Gorky, which is closed to foreigners, the Nobel Prize-winning human rights advocate lives with greater liberty, but still in a kind of limbo.

He is allowed to pursue his work in theoretical physics, but he has been denied permission to go abroad. He is available to visiting dignitaries and occasionally to the foreign press, but until this week he had been all but ignored by official news organizations here.

A Small Gesture of Respect

On Wednesday, in his first interview published for Soviet readers since he was freed last December, Dr. Sakharov called for full disclosure of "the entire, terrible truth about Stalin and his epoch," and he touched on the Cuban missile crisis of 1962 and the Soviet spying on the West's atomic weapons program in 1940's and 50's.

The interview — published in Moscow News, a weekly newspaper with a limited Russian-language circulation

of 250,000 copies, as well as its editions in English, Spanish, French and Arabic — was a small gesture of the public respect that has been denied Dr. Sakharov for 20 years. But it is unclear whether he will be allowed a wider audience.

Dr. Sakharov, 66 years old, remains a revered figure for dissidents, but his age and poor health have curtailed his activities in the human rights movement. Occasionally he sends a telegram or holds a news conference on behalf of a political prisoner, and no visitor leaves his apartment without hearing an appeal for those still in the labor camps, delivered in a weary, punished voice. But he is wary of squandering what influence remains to him.

And he is partly estranged from the severest critics of the Soviet system, especially those who have emigrated to the West, because he continues to urge
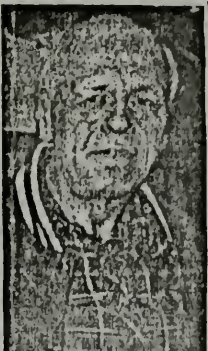
Andrei D. Sakharov

Sakharov Is Emerging, Freer but Still in Limbo

support for Mikhail S. Gorbachev, the Soviet leader, as the nation's best hope for change.

The overriding a visitor could sense that Dr. Sakharov's optimism had been severely tested. Progress on human rights has fallen short of his standards, and he sees the changes that have taken place as being precarious, under assault.

His face sagged when he was told that two former political prisoners, Sergei I. Grigoryants and Lev M. Timofeyev, had been detained by the police a few hours earlier; they were released later that day.

"This disturbs me," he said of the detentions, adding that "it reminds me of 1972," a period of heavy repression for the human rights movement.

"The times are changing slowly, and

A first interview for Soviet readers is published.

In some ways, not at all," he said, then caught himself at the brink of pessimism. "But the changes are real."

Soviet officials seem to encourage his meetings with foreign visitors, knowing he will tell them that the changes are not merely cosmetic and that unless Mr. Gorbachev succeeds, the Soviet Union will revert to repression and military adventurism.

In the Soviet leader Dr. Sakharov sees something that Mr. Gorbachev himself has never publicly expressed, the possibility of a system merging what the physicist regards as the economic justice of socialism with the liberties of capitalism, of which he has long dreamed.

The Soviet public has had only a few glimpses of the physicist since his release. In February he was invited to appear at an international forum in Moscow, and a few of his comments supporting disarmament and opposing President Reagan's "Star Wars" antimissile defense program were later televised.

A monthly theater magazine, Teatr, recently printed his review of a play by Mikhail Bulgakov, "The Heart of a Dog," a grotesque satire of efforts to create a "new Soviet man" through official controls on culture.

Discloses Fuchs Spying Case

In the Moscow News article, Dr. Sakharov, one of the developers of the Soviet hydrogen bomb, commented at length on a recent television film about

German-born British scientist, "transmitted to the U.S.S.R., both during and after the war, highly important atomic secrets out of ideological conviction."

Mr. Fuchs pleaded guilty in Britain in 1950 to having given British and American secrets to the Soviet Government. He was released from prison in 1959 and went to East Germany.

Dr. Sakharov also complained that the film neglected to mention that it began with the Soviet decision to put nuclear rockets in Cuba. That fact, while touched on in official references, is often omitted in public discussion of the crisis.

The physicist said he had been denied permission to accept invitations to speak in the United States, Canada and Western Europe on the ground that he once had access to secret information.

No Secrets Since 1968

He said he has had no access to secrets since 1968, when he published an essay condemning "the foulness of Stalinism" and calling for a convergence of socialism and capitalism. He said that in 1975, when he was negotiating for permission for his wife, Yelena G. Bonner, to visit the United States, he signed a statement acknowledging the right of the state to decide when he himself could go. So he has not pressed the matter.

In September, he said, Guri I. Marchuk, chairman of the Academy of Sciences, called him in and told him to be patient.

"There is no real reason not to let me go," Dr. Sakharov said. "Still, I understand it is not an easy question. I think it's simply a matter of time before this is resolved."

It is not an easy question because Dr. Sakharov says many inconvenient things.

Pressure on Rights Urged

For example, he urges Western leaders not to cooperate with the Kremlin's wish for an international human rights conference in Moscow until the Soviet Union frees all political prisoners and restores their good names, changes the legal code to prevent crackdowns on dissent, opens its borders and removes its troops from Afghanistan.

His faith in humankind sometimes exasperates those who admire him.

The other evening he was told that a new poll of Muscovites found strong disapproval of freeing political prisoners. He seemed disappointed.

"Andrusha," his wife scolded gently, "that surprises you? We know a large majority of people deeply hate people like us — because we can say what we think, and they cannot."

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

10 November 1987

Dr. John Maddox
NATURE
4 Little Essex Street
London WC2R 3LF

Dear Dr. Maddox,

you played your "crowny" trick once more: During our phone conversation on the 2nd November you ASSURED me that:

1) My advertisement will appear on the 5 November.

2) My two letters to Gorbachev will be published on the 5 November.

3) The proofs of my paper "Experimental..." are already sent by post to me.

Then you flew to Washington. Seeing that the proofs do not arrive, I phoned to Miss Mary Sheehan who told me all your three promises do not correspond to reality. Then Mrs. Hilary Turnbull said me that you have retained the text of the advertisement. I phoned to Dr. Peter Newmark to ask him whether he will not object to be interviewed by the journalists during our press-conference on the 6th November. Dr. Newmark declined.

I do not know what to do with you, Dr. Maddox. Two years you repeat the same ABO-MINENT tricks. Maybe you think that you are very clever making me two years a fool. Is it so?

Poor Dr. Maddox! How can you not understand that the editor of such a prominent journal as NATURE must behave himself as a gentleman and not as a gypsy.

I wrote you MANY times, after ANY your wrong promise and following trip abroad: I sacrificed too much money and time with NATURE and I shall not give up the battle. Thus on the 13th November I shall phone you again to hear your new promise. And I shall again await for the fulfilment of your promise. And then posterity will read all these letters and will see how YOU have tormented the man who has discovered the Perpetuum mobile.

But posterity will be curious to see not only my letters but also your letters. Thus I beg you to confirm writtenly:

1) When will appear my advertisement (I sent now a slightly corrected version to Mrs. Turnbull).

2) When will appear my two letters to Gorbachev.

3) When you will sent the proofs of my paper "Experimental violations..." for my approval.

4) When shall you send me your decision concerning the acceptance/rejection of my article "Experimental violations of Ampere's formula and of Newton's third law" submitted with my letter of the 19th October.

5) When will appear my correspondence "Queer of peer".

6) Will you publish the criticism of Tiomno and my answer.

7) Will you send me ALL materials (WITH THE PHOTOGRAPHS) which I sent you in the last years and which you have not published. First of all I am interested in the texts of the articles "The perpetuum mobile ADAM" and "The perpetuum mobile NEMA LABAVO" which were composed by me in the Nature-style. I wish to use these composed texts and the originals are WITH YOU. Clean, please, your archives of ALL my materials. After receiving the package I shall write you which materials are still with you. I know pretty well that you will not find all sent materials but do the necessary efforts.

I beg you to answer writtenly all these seven questions.

With my kindest regards,

Stefan Marinov

Copy: Mrs. Hughes

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

10 November 1987

Mrs. Elizabeth Hughes
NATURE
4 Little Essex Street
London WC2R 3LF

Dear Mrs. Hughes,

Some time ago I informed you about the non-gentleman way in which Dr. Maddox treats me. For two years he promises to print certain materials of me and he does not print them. In these two years I came twice to London to speak with Dr. Maddox, I spoke then with him on the phone no less then 400 times, I exchanged telegrams, telefaxes, letters. The result is NULL. Promises, promises and no fulfilment at least of one of those promises.
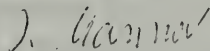
I think that the Editor of such a journal as NATURE cannot behave himself in such a manner with one of his contributors and clients. My both books show the long battle between me and Dr. Maddox (The first and second part of THE THORNY WAY OF TRUTH). You can take those books from Dr. Maddox. Many times I said to Dr. Maddox: "If there are certain forces which forbid you to print my materials, say it openly to me, and I shall not bother you." Dr. Maddox always answered: "There are no such forces, I shall print your materials."

Thus I beg you to speak with Dr. Maddox, to see his letter with which he will answer my enclosed letter to him and to write me that you have taken in attention his letter. If then he again will not fulfil his promises,   I shall beg you to give me the answer WHY.

Dr. Maddox says that I destroy whole contemporary physics. Yes, I do it. Wrong theories and concepts can be not saved in the way in which Dr. Maddox does it.

Hoping to receive yours and Dr. Maddox' letters soon,

Sincerely yours,

Stefan Marinov

Copy: Dr. Maddox

STEFAN MARINOV
Moreilenfeldgasse 16
A-8010 GRAZ — AUSTRIA

Mrs. Elizabeth Hughes
NATURE
4 Little Essex Street
London WC2R 3LF

16 November 1987

Dear Mrs. Hughes,

I hope that you have already received my letter of the 10 November 1987. Today I spoke long time with Dr. Maddox on the phone. He promised to publish my materials in the next issue of NATURE and to answer by a letter all questions posed in my letter to him of the 10 November. But I have again the feeling that Dr. Maddox will once again deceive me. I had a nervous attack (what never occurs with me!!!!). I feel bad. Thus I beg you HUMANLY that you make the necessary intervention so that before 16.30 your time on the 18th November (I know that tomorrow is your print day) a telefax should be sent to my number 0316/382661 where all answers of my 10-th November letter to Dr. Maddox should be answered. I repeat them again:

1) When will appear my advertisement (I sent a slightly corrected version to Mrs. Turnbull on the 10-th November with certain correction in a telefax on the 13th Nov.).

2) When will appear my two letters to Gorbachev.

3) When will be sent the proofs of my paper "Experimental violations..." for my approval. Dr. Maddox assured me that the proofs have been sent, as he told me in our conversation before his trip to the USA, but the proofs have not reached me and Mrs. Mary Sheehan said me that no letter has been sent to me.

4) When Dr. Maddox will send me the decision concerning the acceptance/rejection of my article "Experimental violations of Ampere's formula and of Newton's third law" submitted with my letter of the 19th October. Dr. Maddox said me on the phone that until Wensday he will take the decision.

5) When will appear my correspondence "Queer or peer". In many phone conversations he has promised me to publish this correspondence but in our today's conversation his promise was not enough firm.

6) Will be published the criticism of Tiomno and my answer. In our today's conversation his promise to this item was not very firm.

7) Will Dr. Maddox send to me ALL materials which I have submitted to NATURE in the last 10 years and which have been rejected. I know that he cannot find all materials, but I beg him to promise me to make the necessary efforts to find the available materials and to send them back to me. He gave me such a promise during my visit of NATURE in March this year.

Mrs. Hughes, at stake is a radical revolution in physics, destruction of the relativity theory, violation of the conservation laws and construction of a perpetuum mobile. I have done ALL THIS. I need only a contact with the public opinion, so that I can come to money to construct my machine MAMIN COLIU with a closed cycle. The two-years promises of Dr. Maddox have BLOCKED me, as I always BELIEVED that he will fulfil his promises. His attitude was WORSE than to reject the materials, as I many times suggested him to do. But now, at this stage, I shall not give up the battle and Dr. Maddox knows well that I am enough tough in my battle.

I am addressing you now not by making references to my discoveries. I am addressing you as a normal human being. There are certain gentle-man rules. I sent two months ago the money for my advertisement. It is not published. I was twice in London (in November 1985 and in March 1987) with the aim to accelerate the publication of my materials. Two years Dr. Maddox promises to publish them. My letter,   first addressed to Andropov and then addressed to Gorbachev, is still not published (meanwhile also Chernenko has ruled Russia). I cannot more psychically endure. After our today's very nice conversation during which Dr. Maddox gave once more all promises, I had a nervous attack. I am already an old man (57), I was tormented years in the Bulgaria psychiatries, 10 years I am thrown from one European country to another. Dr. Maddox knows this perfectly. Please, have a mercy with me.

Sincerely yours,

Stefan Marinov

IOP Publishing Ltd

KP/YLB

27 November 1987

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Dr Stefan Marinov
Niederschöcklstr. 62
A-8014 Graz
AUSTRIA

Techno House
Redcliffe Way
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England

Telex 449149
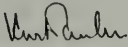Telephone 0272 297481
Fax 0272 294318

Dear Dr Marinov

Thank you for your letter of 15 November and the attached copies of
prior correspondence.

I am sorry if Linda Richardson's letter of 11 June did not make our
position entirely clear. In the Editorial support system operated
by the Institute of Physics, the Staff Editor has full authority to
communicate with authors on behalf of the Editors of our journals.
Linda Richardson's letter communicated to you the Editor's decision
that the four papers concerned were rejected without qualification,
that we were unable to consider these papers or any version of them
further, or to enter into any further correpsondence on them.

That is the reason why your letter of 17 August was not answered and
your papers were not considered again. The fact that you have
already made submissions to Europhysics Letters and corresponded
with the Editor in Chief of that journal is not relevant to the
decision of our own Honorary Editors.

Yours sincerely

Kurt Paulus
Journals Editorial Director

Stefan Marinov

(1) We shall publish your advertisement WITHOUT amendments.*

(2) I shall let you have your amended article before the end of the next week.

(3) We shall be able to publish it early in 1988

* Please send any amendments by fax

John Maddox

Transcription of the TELEFAX of Dr. Maddox to Stefan Marinov of the 4.12.87

Stefan Marinov

(1) We shall publish your advertisement WITHOUT amendments.*
(2) I shall let you have your amended article before the end of the next week.
(3) We shall be able to publish it early in 1988.

* Please send any amendments by fax.

John Maddox

STEFAN MARINOV
Morellenfeldgasse 16
-8010 GRAZ — AUSTRIA

7 December 1987

Dr. Kurt Paulus
JOURNAL OF PHYSICS A
Redcliffe Way
Bristol BSl 6NX

Dear Dr. Paulus,

Thank you very much for your speedy answer of the 27 November to my letter of the 15 November.

I think that you try "to make the fool". I know pretty well that Mrs. Linda Richardson can communicate the decisions of the Editor. But I wished to have YOUR signature, because my papers are of an extreme importance for the future of mankind and I wished to have DOCUMENTS for the history. You remember well that the final rejection of my four papers was sent by a letter where there was NO titles of the papers, no date, and no SIGNATURE at all, as, obviously, even Mrs. Richardson did not wish to involve her name with an action of suppression of the scientific truth. This letter HAD to appear in my advertisement in NEW SCIENTIST of the 18th December 1986 (as fig. 5) but was omitted WITHOUT MY CONSENT by the Editor of New Scientist. Thus you see that the letters and the SIGNATURES are of a certain importance. As an example, I enclose pp. 232 and 233 of my book THE THORNY WAY OF TRUTH, Part II, where your letter to me of the 16 March 1984 is reproduced. You know very good that I am a poor groom and I pay my WHOLE scientific and editorial activity with my own money. I GRANTED to the Institute of Physics the five volumes of my CLASSICAL PHYSICS (which is the BEST book on theoretical physics for students in the WORLD!). When the Institute of Physics decided to BURN those books, was it not human to send them back to me, knowing that in those books is my BLOOD, my SWEAT and my TEERS? To be able to print my books I starved. And the Institute of Physics BURNT them. History will NEVER forgive this to the Institute of Physics.

On the next page (p. 232) is some information on my "bul-cub" machine. The Austrian patent office denied the delivery of a patent to my motor/generator for d.c. without sliding contacts on the ground that according to the electromagnetic theory taught in the Austrian universities such a machine can NOT rotate. My suggestion to bring the machine to the patent office and to demonstrate the rotation was DECLINED. Your journal has REJECTED the paper (Coup de grace...) where I describe the machine. Four years a d.c. machine without sliding contacts remains UNKNOWN for the world! Now I constructed the "bul-cub" machine WITHOUT stator (making the wires NON-closed). This machine violates the law of angular momentum conservation. I sent the report to EUROPHYSICS LETTERS, but I know that it will be again rejected, as do ALL journals in the world with my papers.

You write that my relations with EUROPHYSICS LETTERS are irrelevant to your journal. I think they are. EUROPHYSICS LETTERS, after half a year of examination of my paper "A SIMPLE AND RELIABLE EXPERIMENT FOR MEASUREMENT OF THE EARTH'S ABSOLUTE VELOCITY" and after its ACCEPTANCE by the vice-editor, rejected it by a desicion of the editor. With my letter of the 15th November I SUBMITTED this paper to your journal (a copy for YOUR INFORMATION was sent to you on the 17th August, after its ACCEPTANCE by EUROPHYSICS LETTERS). And in your letter of the 27 November you do not mention at all this paper. Will be this paper EXAMINED by your journal? Or this paper will be AUTOMATICALLY rejected, as this is a paper of STEFAN MARINOV? Why you do not say clearly your standpoint? I beg you very much, Dr. Paulus, to send an answer AS SOON AS POSSIBLE: Will my paper "A simple and relibale..." be examined by your journal? If it will be rejected, I cannot ask for explanations. The journal is your and you can print what you wish. But it is a COMMON PRACTICE in the world when a paper reporting on the execution of such an IMPORTANT experiment, as the measurement of the Earth's absolute velocity (when all relativists assert that this is not POSSIBLE), is rejected   to give some MOTIVATIONS. The "motivation" of Dr. Kurti was that the paper is to long, although I presented TWO versions: long and short, fitting to the 6 pages of EUROPHYSICS LETTERS. I am VERY CURIOUS to know which MOTIVATIONS will find you. But I insist at least for one thing: A clear answer whether you will examine the paper or you reject it.

Hoping to receive this answer as soon as possible,

Sincerely yours,
Stefan Marinov

INTERNATIONAL CONGRESS ON RELATIVITY AND GRAVITATION

Munich, West Germany, 22 – 24 April 1988

PURPOSE

Purpose of the Congress is to provide a forum to present new creative ideas in space-time physics. Ever since the introduction of the theory of relativity by Einstein there has been a never-ending heated discussion about its validity. Although a well-established opposition to relativity has emerged, status institutions have simply ignored all counter arguments. However, if, in fact, the theory of relativity is false, then fundamental changes in the scientific and philosophical beliefs of mankind must result.

OBJECTIVES

Our objectives are to give a possibility to the adversaries of relativity to present their counter arguments, and to propose alternative theories where the concepts of space, time and energy can be reformulated. The aim is thus, not only to demonstrate the untenability of the theory of relativity, but also to propose alternative solutions. They may become the fundamental physics of tomorrow.

EXPERIMENTAL BACKGROUND

There are many experiments which contradict drastically, not only the predictions of the special and general theories of relativity, but even their *fundamental axioms*.

One basic axiom of special theory of relativity is that the velocity of light is isotropic in any uniformly moving laboratory. Marinov (*Czech. J. Phys.*, B24, 965, 1974) observed with his deviative "coupled mirrors" experiment that the velocity of light in his laboratory was not, in fact, isotropic. Then (*Gen. Rel. Grav.*, 12, 57, 1980), with his interferometric "coupled mirrors" experiment, he measured very accurately the Earth's absolute velocity. In these experiments a rotating axle was used to realize a "Newtonian" time synchronization. Silvertooth (*Spec. Sc. Techn.*, 10, 3, 1987), with the help of his *quasi-Wiener* experiment succeeded in measuring the Earth's absolute velocity by an optical experiment where there is *no* rotating axle, i.e., without making "time synchronization". Marinov (in J. P. Wesley, Progress in Space-Time Physics, p. 16, Benjamin Wesley, Blumberg, West Germany,[*] 1987) embracing Silvertooth's magnificent idea carried out his *quasi-Michelson* experiment which is so simple that it can be performed in a single day in any optical laboratory. If the idea for the quasi-Michelson experiment had occurred to Michelson a hundred years ago, the picture of physics in the twentieth century would have been different. The quasi-Michelson experiment is "c/v times" easier than the Michelson-Morley experiment, as in the former the effects are *first order* in v/c, while in the latter Michelson looked for *second order* in v/c effects, which moreover *do not exist at all*. Meanwhile, although there is such clear, undisputable and easily repeatable experimental evidence, the scientific community closes its eyes in a quasi-religious zeal before dogmas of dead idols. The Silvertooth-Marinov experiments refute not only Einstein but also the well-known general theorem of Lorentz that if one does not make a "time synchronization" at spacely separated points, one is unable to measure effects first order in v/c. Let us further not forget that Lorentz was a supporter of the principle of relativity, namely that one cannot measure the velocity of a moving laboratory by making experiments *in the laboratory*. It may be noted that the motion of the Earth in absolute space (the space in which the centre of mass of the whole universe is at rest) was measured first by Conklin (*Nature*, 222, 971, 1969) by observing the anisotropy in the cosmic background radiation, but this was not an experiment done in the laboratory.

A fundamental axiom of general relativity says that one is unable to distinguish experimentally between kinematic acceleration and gravitational attraction. Marinov (*Ind. J. Theor. Phys.*, 31, 93, 1983) has established that when his cosmic speedometer is in a laboratory with a kinematic acceleration it shows changes in the velocity, however when it is in a laboratory with a gravitational acceleration no changes can be registered. Thus the kinematic and gravitational accelerations are physically two completely different categories and the so-called principle of equivalence is untenable.

THE DOORS WHICH THE SPACE-TIME ABSOLUTENESS OPENS

The above experiments lead to many cosmological conclusions: 1) The big-bang hypothesis must be wrong. 2) The Hubble shift must be due, not to escaping velocities of the galaxies, but to cosmic gravitational shift. 3) The universe must be infinite. 4) The velocities of the celestial bodies must be low. These controversial problems will be discussed at the congress.

The congress will consider particularly the changes which the absolute space-time conceptions introduce in electromagnetism and in "laboratory" gravitation. The time is ripe to build physics where the fundamental axiomatic concept is energy and where the concept "force" is only a secondary *mathematically defined product* from the concepts of space, time and energy. Consequently the whole scholasticism about the "propagation of

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[*]Marinov's note. Later analysis of the data of my quasi-Michelson experiment led to the FIRM conclusion that in this experiment the effect is NULL. It must be NULL also in Silvertooth's quasi-Wiener experiment.

interaction" is to be crossed out. Electromagnetic phenomena (as well as gravitational phenomena) are determined not by the electric and magnetic intensities $\vec{E}$ and $\vec{B}$, but by the electric and magnetic potentials Φ and $\vec{A}$. The intensities are mathematically derived from the potentials and thus contain *less* information. Marinov (S. Marinov, *The Thorny Way of Truth*, Part II, East-West, Graz, 1984) has shown that the effects in two long solenoids with *equal* $\vec{B}$ are *different* if the distribution of the magnetic potential $\vec{A}$ is different, i.e., if the cross-sections of the solenoids have different shapes. Thus one can only smile when hearing that the unique effect where the magnetic potential can be directly observed is the "Aharonov-Bohm effect". All electromagnetic phenomena are determined by the potentials, and one cannot make arbitrarily gauge transformations as conventionally taught. The potentials are absolute potentials*defined with respect to absolute space. Marinov has proposed (*The Thorny Way...*) an easy experiment where the Earth's absolute velocity can be measured by an electromagnetic set-up.

The absolute character of the electromagnetic effects leads to the conclusion that for the case of a magnet at rest and wire moving the induced electric intensity is $\vec{E} = \vec{v} \times \mathrm{rot}\,\vec{A}$, while for the case of a wire at rest and magnet moving it is $\vec{E} = (\vec{v}.\mathrm{grad})\,\vec{A}$. This drastic asymmetry has tremendously important consequences.

The energetic approach to electromagnetism leads to the conclusion that the electromagnetic interactions are point-to-point interactions, i.e., *differential* interactions, and not closed lines and flux interactions, i.e., *integral* interactions, as taught by Faraday and Maxwell. This leads to the acceptance of the Biot-Savart-Grassmann formula for the interaction between two current elements in its differential form as physically adequate formula which can be experimentally verified and thus to an experimental demonstration that Maxwell's displacement current is a purely fictitious notion. The differential Biot-Savart-Grassmann formula, however, *contradicts* Newton's third law. Proceeding from this formula and from the forgotten Kennard's experiment (*Philosoph. Mag.* **33**, 179, 1917) Marinov constructed recently the Bul-Cub machine without stator (submitted to *Europh. Lett.*) which is a generator of alternating current consisting only of a rotor without stator.

Thus we come to a tremendous conclusion opening a door to an abyss: *the laws of conservation of momentum, angular momentum and energy may be violated.*

The congress will provide a forum to anyone wishing to present devices that might yield energy from nothing. At the same time efforts will be made to critically examine such devices and to test the assertions of their constructors. In this context at the present time perhaps the most well known perpetual motion machine is that of Joseph Newman (*Science*, **223**, 571, 1984; **223**, 154, 1986). But Marinov (*Raum und Zeit*, in press) has rebuilt this machine and has shown that it is a conventional motor where the energy conservation law is strictly preserved.

We should pay at the congress homage to Nikola Tesla, the eccentric solitary genius, who helped to lay the experimental fundamentals of our electromagnetic civilization and who opened so many doors leading to the fantastic secrets of nature. One must be justifiably indignant seeing that the name of Einstein, who brought physics to a terrible mess, is known to every child, while the name of Tesla is hardly known even to the physicists.

ANNOUNCEMENT OF THE CONGRESS

The aims of the congress were presented to the international press at a press conference in hotel Sheraton, Frankfurt, West Germany, on the 6th November 1987.

CALL FOR PAPERS

After examination of the submitted papers the presidium will choose the speakers. Papers submitted by "relativists" are warmly welcomed and the intention is to have a high number of speakers-relativists. Contributors who are not chosen as speakers can present their papers at posters. Deadline for the submission is 29 February 1988, but we urge the contributors to submit their papers as soon as possible.

ABSTRACTS OF SUBMITTED PAPERS

A collection of the abstracts of submitted papers will be distributed at the congress at the price of DM 80. The abstracts should be typed on one (or two) pages A4. An abstract may be returned to the contributor for improvements. At the wish of the contributor his abstract can be retyped for the price of DM 100.

PARTICIPATION CHARGE

The participation fee per person is DM 50 to be paid at the congress.

GRANTS

A limited number of travel grants will be available. Applications should be submitted as soon as possible.

Organizer:
EMIL ANDREJ MACO — Phone (0511) 326251
Gesellschaft zur Förderung der Randwissenschaften
Georgiestrasse 31 – 33
D-3000 Hannover 1
WEST GERMANY

*quantities

europhysics letters

DR STEFAN MARINOV
INSTITUTE FOR FUNDAMENTAL PHYSICS

MORELLENFELDGASSE 16

8010 GRAZ
AUSTRIA

Paris,   12.21,1987

21 Dec. 1987

Dear Dr. Marinov,

You will find herewith copies of the reports written by the referees concerning your paper submitted to Europhysics Letters, entitled :

"ELECTROMAGNETIC GENERATOR HAVING ONLY A ROTOR"

From these reports, you see that it is not possible to accept your paper for publication in the present form.

Sincerely yours,

B. CAGNAC
Professeur à l'Université P. et M. Curie
(PARIS VI)

Translation of the french report :
This paper presents a heavy error in the bottom of page 2.
When the magnetic field is variable, it is created at the level of the dielectric an azimutal electrical field which produces an other torque (this torque is not zero and can be calculated applying the Maxwell's tensor).
As a result, the whole electromagnetic torque on the isolated system remains zero when the machine works as motor.

Editorial note.

The above mentioned paper presents an older version of the paper   VERY EASY DEMON-STRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM... published in this book.

Dr. S.MARINOV
Morellenfeldgasse 16
8010 GRAZ
Austria

Dear Professor Marinov,

according to the preceding letters, we maintain our decision not even to take into consideration the papers submitted by you to our journals.

Therefore, we enclose your manuscripts.
Best regards,

Paolino Papali
Publication Secretary

Marinov's note.

In 1980 Dr. Papali returned my letter WITHOUT EVEN OPENING IT (see TWT-I, p. 165). This time he has opened it. When I phoned to Dr. Papali to ask whether 7 years are not enough to suspend the ban on my articles, he refused to speak with me. "Non voglio nemmeno parlare con Lei" said he on the phone. "E perche Lei vuole nemmeno parlare. Mica son' una brutta bestia?" "Non voglio, e basta." "Bene, said I with a humble voice, aspettero altri sette anni, e poi altri sette. Ci sara festa anche sulla nostra strada."

De eenmansguerrilla van Stefan Marinov

Rob Biersma

V oor paar augustus verscheen een opvallende advertentie in het wetenschappelijk weekblad *Nature*. De advertentie, over twee volle pagina's, zag eruit als een open brief en begon als volgt:

"Van: Stefan Marinov, Graz, Oostenrijk.

"Geachte professor Nagel, Bengt Nagel, Nobelcomité voor Natuurkunde, Stockholm, Zweden.

"Op 6 juli 1986 kwam ik naar Stockholm om deel te nemen aan de 11e internationale conferentie voor algemene relativiteit en zwaartekracht waar ik spreker zou zijn. Mijn bijdrage weerlegt een van de grondpijlers van de moderne fysica ...

schande voor Zweden, schande voor Zweden!" De verontwaardiging van de passagiers en de angst van de piloot die zijn vlucht in gevaar zag komen, weerhielden de politieagenten ervan hun poging door te zetten en ze brachten me terug naar de gevangenis waar het vliegtuig om 6.30's avonds brachten twee agenten in burger me naar het vliegtuig ...

overlevering van de meelbed. Ik zal een perpetuum mobile presenteren? De trouwe lezer van *Nature* had een aanwijzing kunnen vinden in een nummer van een jaar daarvoor, 19 juli 1985. John Maddox, de hoofdredacteur van *Nature*, schrijft in een "redactioneel commentaar" ...

Elektromagnetisme

Na de beschrijving van deze smartelijke scenes vervolgt Marinov zijn advertentie met een uiteenzetting ...

Het principe van Marinovs perpetuum mobile overgenomen uit zijn advertentie.

Inschrijvingsgeld

De advertentie gaat verder met: ...

Relativiteitstheorie

Tot zover John Maddox, hoofdredacteur van *Nature* ...

Editorial

Zo niet Marinov. Na het uitkomen van het nummer ontving hij een ijzig briefje van de redacteur van *General relativity and gravitation*. ...

Geesteszlek

Maar Marinov is met geel. Het wordt hem als wetenschapper gemakkelijk moeilijk gemaakt. ...

Het boek *The Thorny Way of Truth*

moeilijk zijn te begrijpen. In *The Thorny Way of Truth* schrijft hij: "Ik ben ervan overtuigd dat het mensmodel van de ruimte-tijd tot duwerre met het verschil tussen Lorentz-invariantie en de Maxwell-Minkowski-... (26 jan. 1978).

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

30 December 1987

Prof. B. Cagnac
EUROPHYSICS LETTERS
Tour 12, 1-er etage
4, Place Jussieu
F-75252 Paris Cedex 05

Dear Prof. Cagnac,

Thank you very much for your letter of the 21 December concerning the rejection of my paper

ELECTROMAGNETIC GENERATOR HAVING ONLY A ROTOR.

I CANNOT accept the motivations of the referee as he is WRONG. I wrote my objections which then I decided to present in the form of a paper. This paper with the title A VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM is enclosed. If even under this LUCID comments your referee will further insist for the rejection of my HISTORICAL paper, I shall beg you that the referee (or you) give answers to the following questions only by "yes", "no", "I do not know". Only by the help of such questionnaires I have crushed the resistance of my openents.

QUESTION   ANSWER

1. Has the system of Graham+Lahoz rotated?

2. Will the Bul-Cub machine without stator also rotate if the driving torque will overwhelm the friction?

3. If the above two answers are positive, then will be there ponderable mass moving with an opposite angular velocity?

4. If the answer 3) is negative, then will   matter in the form of electromagnetic waves carry away the respective angular momentum?

5. If the answer 4) is positive, will be the referee able to detect in some way the existence of this radiated energy?

6. If the answer 4) is negative, are the experiment of Graham+Lahoz and my Bul-Cub machine without stator violating the law of conservation of angular momentum?

7. If the answer 6) is positive, must be my paper published?

I hope that your referee (or you) will give answers to these questions in the case that you will decide to reject the paper. If answers will be not given, I am asking you, dear Prof. Cagnac, how science can under such conditions prosper?

I think I wrote you that my wife is Belgian-francophone and I lived for years in Brussels and in France. Thus you can maintain with me the correspondence in French. I write you in English, as I have no   French type-writer.

I enclose a SLIGHTLY revised version of the paper, where the description of the apparatus is done more elegant.

Hoping to receive your answer soon,

Sincerely yours,

Stefan Marinov

PS. The paper of Graham + Lahoz is also enclosed. This paper came to my attention after the submission of my paper.

Editorial note. The paper of Graham and Lahoz is published on p. 159 of this book.

europhysics letters

PARIS, 08.01, 1988

DR STEFAN MARINOV
MORELLENFELDGASSE 16
8010 GRAZ
AUSTRIA

Dear Dr Marinov,

Your letter of 30 December 1987 and the new text of your paper do not
bring any answer to the objections of the referees.

It is impossible to modify our decision to reject your paper.

Sincerely yours,

:= .. i IVIAI'4'I(NOV
Mori'ulekigase 16
-8010 GRAZ — AUSTRIA

Д-ру А. С. Боровик-Романову
ЖЭТФ
ул. Косыгина 2, В-334
Москва 117334

8 января 1988 г.

Глубокоуважаемый д-р Боровик-Романов,

Я посылаю Вам мою статью /в двух экземплярах/

НАРУШЕНИЕ ТРЕТЬЕГО ЗАКОНА НЮТОНА В ЭЛЕКТРОМАГНЕТИЗМЕ

как письмо в ЖЭТФ.

Классификационные номера по PACS-у 03.30 и 41.10.

Этим письмом я оставляю право копирайта за Вашим журналом.

Все возможные денежные расходы будут уплачены мною.

Во избежание недоразумений и поспешных решений, я посылаю Вам копии моей статьи "Экспериментальные нарушения принципов относительности, эквивалентности и законов сохранения углового момента и энергии" и "Very easy demonstration of the violation of the angular momentum conservation law and of the failure of conventional electromagnetism". Первая из этих статей направлена в журнал НАУКА И ЖИЗНЬ. 30-го октября 1987 г. я посетил редакцию этого журнала и имел долгую беседу с редактором отдела физики и математики, д-ром С. Г. Панкратовым, с кем я поддерживаю регулярный телефонный контакт. Эта статья была дана сперва акад. Я. Б. Зельдовичу /с кем я говорил, когда был в Москве/, а по его смерти акад. В. Л. Гинзбургу. Мненье акад. Гинзбурга было отрицательное. Статья, как мне д-р Панкратов сказал, будет направлена, наверное, акад. А. Д. Сахарову, с кем мы сходимся в области воззрений политических, но расходимся в области воззрений научных, и, вероятно, он тоже даст отрицательное мненье.

Так как я указываю на ФАКТЫ нарушений фундаментальных принципов сегодняшней физики, которые приводят к возможности построения вечного двигателя, нужно чтобы большее число рецензентов о них высказалось, ибо тогда вероятность, что кто-то поймет и увидит, что я прав, бóльшая. А публикация моих статей взбудоражит огромнейшее число исследователей и день, когда первый вечный двигатель заработает, приблизится. Я являюсь одним из самых лучших знатоков в мире насчет проблемы "перпетуум мобиле" и лично знаком с самыми известными конструкторами этих машин. К счастью, являясь человеком с коммунистическими воззрениями, я не делаю патенты и предаю все мои постижения немедленной ГЛАСНОСТИ, что нельзя сказать ни о каком из других конструкторов вечного двигателя. Последний факт приводит к покрытию этой темы вуалью тайны и мистицизма. Так как я работаю предельно четким и ясным математическим аппаратом и схемы моих машин становятся ясными в течении пары минут даже ребенку, дискуссию о моих теориях и машинах можно проводить ОЧЕНЬ ЛЕГКО и прийти к ясным выводам.

Вторая из вышеназванных статей направлена в журнал PHYSICAL REVIEW LETTERS.

Я посылаю Вам также две статьи на немецком из журнала RAUM UND ZEIT: "Die absolute Geschwindigkeit der Erde" и "Der Newman Konverter ist ein Mythos". У меня есть переводы этих статей на английский и в случае интереса с Вашей /или Ваших сотрудников/ стороны с удовольствием вышлю их. Я посылаю Вам также оповещение об Интернациональном конгрессе по Релятивизму и Гравитации, опубликованное в NATURE. Я был в конце октября-начале ноября в Москве, чтобы обеспечить присутствие советских физиков на этом конгрессе, которым мы оплатим дорогу и пребывание в Мюнхене, так как на мои три письма Президент АН СССР, акад. Г. Марчук, не ответил. Хотя я говорил с многими людьми в Академии, до сих пор НЕТ ясного ответа, КТО на этот конгресс желает приехать. На мое предложение, чтобы в течении двух-трех дней смонтировать мой квази-майкельсоновый эксперимент и продемонстрировать эффект абсолютного движения земли московским физикам, не последовало никакого ответа. Я думаю, что Советский Союз /в отличии от западных стран, где власть крепится на базе монополизации сегодняшних источников энергии/ заинтересован в запуске вечного двигателя и поэтому советская научная печать даст место для обсуждения этих проблем. Некоторые мои мысли по этому вопросу я излагаю в двух моих письмах М. С. Горбачеву, которые NATURE опубликует на следующей неделе /после годового держания под спудом/. В ожидании подтверждения о получении моей статьи и потом в скором времени и Вашего решения,

Искренне Ваш: *C. Мар. ф*—Стефан Маринов

P. T. Pappas
Doctor of Physics, Professor of Mathematics,
(Professor at the Air Force Academy of Greece)
26, Markopulioti Street, Athens 11744, Greece, tel 8623278.

January 15, 1988.

Professor Paul Wesley,
Blumberg, West Germany

Dear Paul,

I have not received an answer from you to my last letter, sent to
you from USA. During my recent visit to Stefan, I realized that you are one of
the organizers of conference to take place in April this year.

Will you, please, send me information on this conference, as I know very
little about it, so that I can participate to it and possibly contribute a
paper.

Our friend Stefan keeps supporting Biot-Savart law. In my opinion this is
not only represents a wrong formula when applied in differential form for non
closed circuits, but also one can fool himself and the others with this. For A
recent example is Graham and Lahoz in Nature 285, 15 May 1980. In this, articles
G and L effectively suggest the violation of angular momentum just because
like Stefan believe that a coil can not receive a torque to compensate its
angular momentum change. The reality is that a coil receives a tangential
force by a segment of current carrying conductor. However, when this segment
is part of a closed circuit, then the complementary circuit exercizes also a
tangential force which is equal and opposite to the first tangential force. In
this way, experimentally tangential forces are not observed when caused by a
whole closed circuit on a coil or a permanent magnet. Similar arguments
explain naturally the observed braking of the cemented Faraday disc, which has
fooled so many people and will keep fooling many more as long the wrong
electrodynamics based on the relativistic Lorentz and B-S formulas are taught
by the establishment. By the way the title of the paper I wish to contribute
in your conference is:

"How to fool Physics with the relativistic Biot-Savart-Lorentz-Einstein
Electodynamics"

Please, accept my contribution and send me all the relevant information as
soon as possible.

Sincerely Yours,

P. T. Pappas.

The TRANSCRIPTION of that letter is given on the following page.

P. T. Pappas

Doctor of Physics, Professor of Mathematics
(Professor at the Air Force Academy of Greece)

26, Markopulioti Street, Athens 11744, Greece, tel. 8623278

January 15, 1988

Professor Paul Wesley,
Blumberg, West Germany

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Will you, please, send me information on this conference, as I know very little about it, so that I can participate to it and possibly contribute a paper.

Our friend Stefan keeps supporting the Biot-Savart law. In my opinion this law not only represents a wrong formula when applied in differential form for non closed circuits, but also one can fool himself and others with this law. A recent example is Graham and Lahoz paper in NATURE, 285, 154, 15 May 1980. In this article G and L effectively suggest the violation of angular momentum just because like Stefan believe that a coil can not receive a torque to compensate the angular momentum change. The reality is that a coil receives a tangential force by a segment of current carrying conductor. However, when this segment is part of a closed circuit, then the complementary circuit exercizes also a tangential force which is equal and opposite to the first tangential force. In this way, experimentally tangential forces are not observed when caused by a whole closed circuit on a coil or an a permanent magnet. Similar arguments explain naturally the observed braking of the cemented Faraday disk, which has fooled so many people and will keep fooling many more as long the wrong electrodynamics based on the relativistic Lorentz and B-S formulas are taught by the establishment. By the way the title of the paper I wish to contribute in your conference is:

> "How to fool physics with the relativistic Biot-Savart-Lorentz-Einstein electrodynamics."

Please, accept my contribution and send me all the relevant information as soon as possible.

Sincerely yours,

P. T. Pappas

PHYSICS LETTERS A

15/1/87

PROFESSOR J. P. VIGIER

Université Pierre et Marie Curie
Centre National de la Recherche Scientifique
Laboratoire de Physique Théorique
Institut Henri Poincaré
11 Rue Pierre et Marie Curie
75231 Paris Cedex 05
France

Telephone (14) 336 2525 ext. 3776/82
Telex: UPMC Six 200 145 F

Dear Dr. Marinor.

In view of the enclosed report, I regret not to be able to accept your ms. for publication in PLA. I return your ms enclosed

Yours sincerely

Vigier
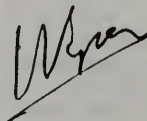
TRANSCRIPTION
_____

Dear Dr. Marinov,

In view of the enclosed report, I regret not to be able to accept your ms. for publication in PLA. I return your ms. enclosed.

Yours sincerely

J. P. Vigier

Editorial note.

The rejected paper is entitled VIOLATIONS OF THE ANGULAR MOMENTUM CONSERVATION LAW HAVE ALREADY BEEN OBSERVED. It represents some variation of the paper VIOLATIONS OF THE LAWS OF CONSERVATION OF ANGULAR MOMENTUM AND ENERGY which is published in this volume. Figures 1, 2 and 3 of the rejected paper coincide with figures 1, 2 and 3 of the paper published in this volume. Grassmann's equation (1) of the rejected paper coincides with equation (22) of the published in this volume paper. Reference 2) of the rejected paper coincides with reference 9) of the published in this volume paper (See the referee's report on the following page and my comments of the 20 January).

Reviewer's comments on:

VIOLATIONS OF THE ANGULAR MOMENTUM CONSERVATION LAW HAVE

ALREADY BEEN OBSERVED

by Stefan Marinov

1. Page 1 of the manuscript is inappropriate for a scientific paper. There is a place for it in books as for example "The thorny way of the truth".

2. I have seen Grassmann's equation (i) in a number of textbooks.

3. The author should have made a clear distinction between ponderomotive and electromotive forces. The ponderomotive force could act on either the travelling charge or the metal element, but not on both.

4. Figures 1 and 2 bear no relationship to the Kennard experiment described in ref.(1). Kennard revolved a coaxial capacitor inside a coaxial solenoid. His experiment was similar to the one performed more recently by Graham and Lahoz.

5. In fig.3 Marinov omits the wires which lead to the stationary voltmeter. Ponderomotive interactions between these wires and the radial conductors (a & b) could possibly explain the observed torque.

6. The Graham-Lahoz experiment involves minute torques measured in pN.m. In 1980 (ref.2) these investigators wrote: "This experiment is continuing and a complete report will be published elsewhere." They were obviously not satisfied with measurements within the experimental error band. Has a further report been published?

7. If electromagnetic interaction locally violate Newton's third law and momentum conservation, the effect should be large and easily observable.

8. My recommendation is not to publish this paper in its present form.

CHT...
More...... to
A-8010 GRAZ — AUSTRIA

20 January 1988

Prof. J. P. Vigier
⌐PHYSICS LETTERS A
11 Rue P. et M. Curie
F-75231 Paris Cedex 05

Dear Prof. Vigier,

Thank you very much for your letter of the 15 January with which you rejected my paper "Violations of the...". I am very happy that you have enclosed also the negative referee's comments. In my letter of the 24 November 1987 I wrote you that until now I have received about 500 referee's opinions and there was NO single valuable opinion, all were BAD. This is the first referee's opinion which you send me (your predecessor, Dr. ter Haar, has sent me about 50). And it is BAD, as my statistical law predicts. I wonder that you have not seen that the opinion is bad! Bad, VERY BAD!

Faithful to my long-years tradition I always answer ALL referee's comments, making NO exception to jump over some comment.

1. The referee thinks that the polemical attitude on p. 1 is inappropriate for a scientific paper. NO. The polemical attitude IS appropriate because one has finally to awake the relativists from their devil-may-care sleep.

2. The referee says that he has seen Grassmann formula in a number of textbooks. This is possible as I write that according to my statics this formula can be seen in ONE of SEVENTY SEVEN books. May be with his remark the referee wishes to say that my ratio is too low. I beg him that he gives HIS number. Then I shall beg him to send me the titles of all books on electromagnetism in the library of his Institute (the librarian can do this work for him) and then I shall tell you which is the percentage in HIS Institute's library (I surely know ALL books which the referee has in his Institute library). Then we can compare whose number will be nearer to the experimental number. I know that the referee will give neither his own appreciation nor the titles of the books on electromagnetism in his library. What then can I do more?!

3. The referee writes that the ponderomotive force can work on either the travelling charge or the metal element, but not on both. This is NOT true. The ponderomotive magnetic force acts ONLY on the traveling charge. Then it is TRANSFERED from the travelling charge to the metal element. Today's physics does NOT know how this transfer really appears. In THE THORNY WAY OF TRUTH, PART II, I analyse the essence of this transfer. But this is not now the problem. The problem is that the referee asserts that the ponderomotive force can act DIRECTLY on the metal element without acting on the travelling charge. I beg him to give an example. I know that he will not give an example, and I am asking what more can I do?!

4. The referee writes that figs. 1 and 2 bear no relationship to the Kennard experiment. Fig. 1 preshts EXACTLY a SIMPLIFIED (the word is emphasized in my paper) presentation of Kennard's experiment, drawn so that even 10 years old children can understand what Kennard has done. I inserted the second (inner) current circle only with the aim to make easier the transition from the rotational (fig. 1) version done by Kennard to the inertial (fig. 2) version PROPOSED by me. Thus if the inner circle will be taken away, then fig. 1 presents EXACTLY the CROSS-SECTION of Kennard's experiment, where (for the CLARITY of the figure!) the two coaxial metal cylinders connected to the end points of the radial wire are omitted. If according to the referee the cross-section of Kennard's experiment must be different, I beg him to draw it. As he will be unable to draw ANOTHER cross-section, I am asking what more can I do?!

5. The referee writes that I omit the wires in fig. 3 which lead to the stationary voltmeter. First I omit nothing, as this figure is a PHOTOCOPY from the paper of Graham and Lahoz. Thus if somebody has omitted something those are these two authors. Secondly in the experiment of Graham and Lahoz there is NO voltmeter. There is only a SOURCE of electric tension. It is connected to the end-points of the two wires coming from the endpoints of the wires "a" and "b" which are DRAWN in the figure. As those are TWO wires (the women call them BIFILAR) going exactly one along the other and along these wires two currents with OPPOSITE directions flow, then the magnetic action of two such wires is NULL. And the referee tries to explain the torque with the current in these two wires!!!! If you, Prof. Vigier, have given my paper to a 10-years boy, neither he will raise such a STUPID objection. Quelle horreur!

6. It is true that the torque in the experiment of Graham and Lahoz was minute.

But the referee must take also into account the size of the experiment (inner ond outer radii of the cylindrical condenser, respectively, 4.5 and 5.5 mm). Graham and Lahoz have promised to publish a further report. But they have NOT published. I do not know the reasons, as I was not in contact with Graham and Lahoz.
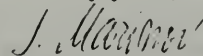
7. The referee writes that if the electromagnetic interactions violate <u>locally</u> (italics by the referee) Newton's third law, the effect should be large and easily observable. First: I beg the referee to state clearly whether ACCORDING TO HIM the electromagnetic interactions VIOLATE Newton's third law. If the referee will say YES, O.K. If he will say NO, then I beg him to say, whether, then according to him the formula of Grassmann (which he has seen in some books) is true or not, as this formula PREDICTS such a violation (and this is also mentioned in some books - their percentage is lower than 1.3 %). Thus the referee has to do first two things: either to reject the formula of Grassmann and to save Newton's third law, or vice versa. If he will reject the formula of Grassmann, there is no place for a further discussion. But I hope that he will retain the formula of Grassmann (we build on this formula ALL electromagnetic machines) and he will reject the LOCAL validity of Newton's third law (as some of the textbooks do!!!). Now the referee is wondering why one has not observed a NONLOCAL, i.e., integral violation of Newton's third law. I give the answer: because mankind has done machines with <u>closed</u> current loops, for which Grassmann's formula leads to a preservation of Newton's third law. Experiments with non-closed current loops have done only Graham and Lahoz and me (Kennard has done not a PONDEROMOTIVE but an ELECTROMOTIVE experiment). Both Graham and Lahoz and me, we have observed violation of the angular momentum conservation law. Graham and Lahoz have NOT UNDERSTOOD the essence of their experiment and thought that an equal and opposite MOMENTUM must be RADIATED.   Thus I am the only man who has reported a VIOLATION of one of the FUNDAMENTAL LAWS OF CONSERVATION. Of course if my paper submitted to EUROPHYSICS LETTERS and the present paper will be rejected, mankind will not hear about this TREMENDOUS discovery.

8. The referee recomands rejection of the paper. I recomand that the referee WITHDRAWS his criticism and that the paper should be published.

But I know that neither the referee will withdraw his criticism, nor the paper will appear. And I am asking, dear Prof. Vigier, until when the voice of the scientific truth will be suffocated in this BARBARIAN WAY?!

I am sending my paper back with the WEAK hope that finally a paper of me will be again published (despite the negative referee's opinions I succeeded to publish some 10 years ago about 50 papers). My hopes are feeble, but it is TERRIBLE to lose the hope in one's fellow man!

Sincerely yours,

J. Marinov

Stefan Marinov

PS. I enclose the appeal of our Int. Congress on Relativity
    and Gravitation published in NATURE. Similar appeals have been
    published in SCIENCE, NEW SCIENTIST, THE ECONOMIST.

Queen Mary College
University of London

Mile End Road, London E1 4NS · Tel: 01-980 4811 · Telex: 893750 · Fax: 01-981 7517

Head of School, Professor I W Roxburgh

Our Ref:MAHM/RLS/37

22nd January 1988

Dr Stefan Marinov
Niederschocklstr. 62
A-0814 Graz
AUSTRIA

Dear Dr Marinov,

Miss Richardson has forwarded to me your letter dated 7 December 1987 to Mr Paulus, together with copies of the letters exchanged between you and him dated 15 and 27 November 1987.

I would like to confirm that the decisions communicated to you by Miss Richardson in her letter dated 11 June were the decisions of the Editors of Classical and Quantum Gravity and she has our full authority to communicate such decisions. On the other hand it is not part of Dr. Paulus' responsibility to communicate such decisions for our journal. Neither Dr. Paulus nor Miss Richardson take decisions on such matters as scientific merit, though, as I have already said, it is part of Miss Richardson's duty to communicate such decisions from referees and editors to authors.

In other words, if you feel it would in some way assist you to have a further signature it should be mine.

I should perhaps point out that there is no "Editor In Chief" of the "Journal of Physics" or of the Institute of Physics Journals. Each part of the Journal of Physics series and each other I.O.P. journal has a separate editorial board and a separate "chief editor" called the Honorary Editor. In your case I am the relevant Honorary Editor, as your papers were considered to fall within the subject area of "Classical and Quantum Gravity".

As for the questions in the penultimate paragraph of your letter, it is our general policy to "examine", i.e. to obtain one or more referee reports on, all submissions made to the journal, regardless of any previous dealings with the author. Any exceptions are referred to me: they usually concern papers which do not conform to our instructions to authors. I can confirm that all your submissions have been seen by at least one referee in the usual way.

Yours sincerely,

Professor MAH MacCallum

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

30 January 1988

Prof. B. Cagnac
EUROPHYSICS LETTERS
Lab. de Spectroscopie Hertzienne
Tour 12, 1-er rtage
4, Place Jussieu
F-75252 Paris Cedex 05

Copy: Prof. Kurti

Ref: G 1518

Dear Prof. Cagnac,

You surely have received the letter of Dr. Kurti to me of the 24 January.

Dr. Kurti considers himself incompetent to answer my question:

Will my Bul-Cub machine without stator be able to rotate if alternating current is sent through it or not?
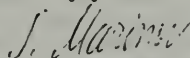
Dr. Kurti relies on your competentce and on the competence of your referee. Until such an answer will be not given by you or by your referee, I cannot accept the rejection of my paper.

If an answer will be not given, you will show that neither you nor your referee have an opinion on the issue of an experiment, the report on which both of you consider as "unworthy to be published". This is the same thing as to condemn a person without being persuaded in his guilt. A judge can condemn an unguilty person (this appears very offen) but he must be PERSUADED (wrongly) in his guilt. However, a judge who condemns without being persuaded in the guilt of the accused is a CRIMINAL.

I think that you have only two issues: Either to accept my paper, or to give an answer to the above question.

I hope that you will realize that the case is very serious and that you shall fulfil your scientific vocation.

Sincerely yours,

J. Marinov

Stefan Marinov

Editorial note.

Until the date of publication of this book Prof. Cagnac has not answered this letter. The question is:

Will the Bul-Cub machine without stator (which can be seen on the back cover of this book) rotate if electrons "will be blown" along its "wires"? Yes or No? Yes or No? Yes or No? YES or NO? Y-E-S or N-O?

And if YES, then WHERE WE ARE?

Editorial note to the second edition.

There is still not answer from Prof. Cagnac. Yes or no, Prof. Cagnac, YES or NO, Y-e-s of N-o, Y-E-S or N-O?

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

30 January 1988

To TELEFAX: 0044 1 8369934

Mrs. Elizabeth Hughes
NATURE
4 Little Essex Street
LONDON WC2R 3LF

(Tel. 0044 1 8366633)

Copy: The Britisch Consul
Schmiedgasse 10
A-8010 Graz

(Tel. 0316 76105)

Dear Mrs. Hughes,

To no one of my telefaxes to you of the 16 November 1987, 23 December 1987 and 7 January 1988 I received an answer.

I phoned you at least 10 times in the last month (as your secretary surely has informed you) but never I could reach you.

Meanwhile from Dr. Maddox, the Editor of NATURE, I received only promises but not fulfilment of those promises.

On the 21 January Dr. Maddox crowned all his previous lies with the biggest one: 21 January was the day when the current issue of NATURE was already in sail. And Dr. Maddox said me on the phone that my two letters to Gorbachev have APPEARED. Meanwhile they did not. I wrote you in one of my previous letters that even the most shabby gypsy in Bulgaria does not lie in such a flagrent manner as Dr. Maddox does.

Thus I do not see another way to bring the promises of Dr. Maddox to fulfilment then by starting my self-immolation action with which I threatened you in my telefax of the 23 December 1987.

My ultimatim is the following:

If until 12 AM on the 1 February (your time) you will not answer all questions posed in my telefax to you of the 7 January (by a telefax to my number 0316 77560 or to the British Consul in Graz), then on the 2 (or 3) February I shall commit myself to the flames on the steps of the British Consulate in Graz.

The present telefax (as well as my letters to you and to Dr. Maddox of the 10 November and the above mentioned telefaxes to you) are presented to the attention of the Consul of Her Majesty.

Sincerely yours,

S. Marinov

Stefan Marinov

-02-88 MON 15:12 NATURE LONDON   P.01

nature

1 February 1988   FAXED

Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
Austria

Dear Dr Marinov:

As I told you on telephone last week, Mr Maddox is out of
the country until next week.

In the meantime, however, we have published (on 14 January)
the corrections to your advertisement, and I sent off to
you some days ago the corrected pages for the advertisement
so that you can make copies of it.

Yours sincerely,

Mary Sheehan

Mary Sheehan

cc: Elizabeth Hughes

Editorial note.

This is the faxed answer from NATURE
to Marinov's self-immolation ultima-
tum of the 30 January.

Below we reproduce the ERRATUM for
the 17-December-advertisement.

———— NEWS ———————————————— 101

Erratum

In the advertisement of Dr Stefan Marinov's
International Congress on Relativity and Gravi-
tation, to be held in Munich on 22–24 April, the
following errors unfortunately appeared:

page 2, line 8 should read "...gauge transfor-
mations as conventionally taught. The poten-
tials are absolute potentials."

page 2, line 21: "machine MAMUL" should be
"Bol-Cub machine without stator".

page 2, line 32, "...name Einstein..." should
be "...name of Einstein...".

The journal titles *"Philosoph Mag."* and
"Europhys. Lett." should have been italicized.

Erratum to erratum

Page 2, line 8 should read "The potentials are
absolute quantities."

<u>Marinov's note.</u> In a phone call to Dr. Maddox I expressed
my deepest INDIGNATION for having labeled
the Munich Int. Congress on Relativity and Gravitation
Marinov's. Dr. Maddox excused himself orally.

METHERNITHA
3517 LINDEN

Verwaltung
Telefon 031 97 11 23

Postcheck-Konto 30-29076

Ersparniskasse Konolfingen
Filiale Oberdiessbach

Kantonal Bank von Bern
Langnau I.E.

Reference:
Testatika - M/L Converter

| Ihr Zeichen | Unser Zeichen | FB/mk | CH-3517 Linden, | 9.2.1988 |

Dear

If you believe that mankind could be saved through free-energy you
are making an error. All the great problems which burden mankind
and threaten his future and his very existence are only symptoms
showing in fact there is something wrong with man himself.

Just as in human medicine, treatment of sociological symptoms such
as shortage and misuse of technical energy will never lead to true
health of society and man as its basic unit. The reasons for most
undesiderable states are rather to be found in mans misbehaviour
with respect to the divine laws. Would man recognise these as stand-
ard for all thoughts and actions, any human problems would vanish
in course of time and a renewed world would bless its inhabitants
with all they really need.

To surprise present mankind with a free-energy device would liter-
ally mean to pour oil into a world which is already set on fire in
too many places and domains of human life. What mankind need is
peace, peace of mind to start with, to have a chance to find back
to nature and god, and not more and further technological support
in his strive for pleasure, which would rather drown him in an
ocean of noise, over-action and pollution in general.

If you can not accept this point of view please discover a new
"free"-energy device by yourself. The responsibility for its publi-
cation with all its consequences will then be yours only.

May peace be with you

METHERNITHA
CH-3517 L i n d e n

Francis Bosshard
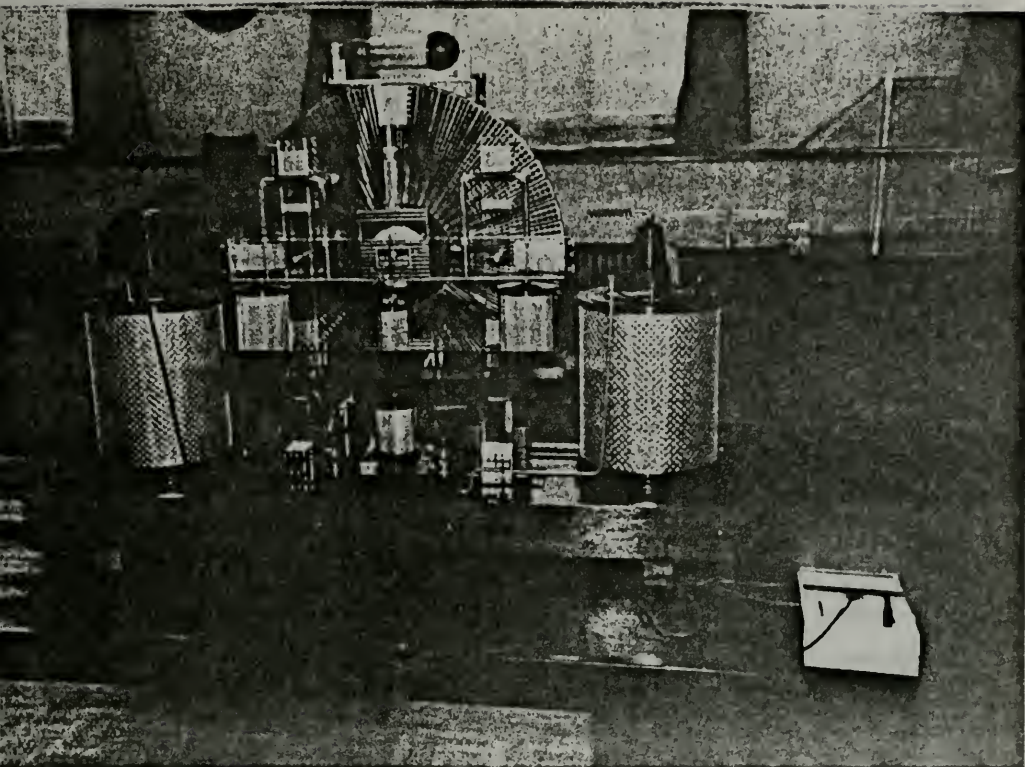
Marinov's note. This is a photograph of the machine TESTATIKA constructed by Paul Baumann in the community Methernitha in the village Linden near Bern (Switzerland). According to the best of my knowledge this is the FIRST funcionning PERPETUUM MOBILE in the world. The machine works since six years and delivers continuously energy in the form of direct current which is then transformed into alternating current 220 Volts and is sent into the power net of the village.

In June 1988 I was invited by the community Methernitha and I spent two days there. Those were two marvelous days not to be forgotten for ever. I promised to the members of the community to not spread the information on the machine which I received there. I wish only to note that I have not understood its principle of action and I am unable to reproduce it. The above photograph circulates in the world since 2 - 3 years.

The community (about 150 people) live on absolute COMMUNIST principles. There is no private property. There is one kitchen (with two dining rooms) with self-service. The food is simple but of a very high quality. The members of the community do not consume tobacco, alkohol, etc. They believe in God and follow the teaching of Jesus but have nothing in common with the hierarchical churches.

In a long conversation with Mr. Bosshard (a couple of hours) he told me the following: "We think that humanity is unripe to receive a perpetuum mobile. If small communities of people will renounce the present way of life, we shall gladly donate them our machine. But if humanity with its today moral will have in its possession an unexhaustible source of energy, this can become a catastrophy for mankind."

Mr. Gorbachev says that communism in Russia will be not constructed soon. He has only to go to the village Linden to see that communism can be construced IMMEDIATELY by ANY group of people, if they really want it.

S̶I̶̶̶̶̶̶̶̶̶̶̶O V
Marc'l: L'... 16
A-8010 GRAZ — AUSTRIA

12 February 1988

To TELEFAX: 0044 1 8369934

Mrs. Elizabeth Hughes
NATURE
4 Little Essex Street
London WC2R 3LF
(Tel. 0044 1 8366633)

Dear Mrs. Hughes,

Instead to try to intervene and settle the conflict between Dr. Maddox and me (as the English Ambassador in Vienna did in 1984), the British Consul in Graz, Mr. Brühl, called the police, I was arrested and imprisoned in the Graz psychiatry, as you can read in the enclosed clippings. Neither the intervention of Prof. Roberto Monti (Bologna) who was sent by Prof. Vigier (Paris) to visit me, as he is the referee of my papers submitted to PHYSICS LETTERS, could persuade the psychiatrists to free me and I had to stay in the psychiatry over the night. We were, however, allowed to discuss scientific problems with Prof. Monti in the loony-bin.

I ask you and Dr. Maddox: Until when will this filthy "theater" last? Will NATURE allow me to contact the scientific community and to inform it about the LIES contained in the physics books, as Dr. Maddox promises since three years in tens of letters and hundreds of phone conversations, or not? How can NATURE fall so deeply and answer my threat of self-immolation by the telefax of 1st February signed by Mrs. Mary Sheehan!!! I thank Miss Mary VERY MUCH for having sent me the corrected text of my paid advertisement, but in my ultimatum of the 30 January I requested answers to OTHER questions signed by Mrs. Hughes.

I cannot give up the battle to appear on the pages of NATURE, as I invested in this fight many years and tens of thousands of dollars. I shall again send telefaxes, phone, threaten with self-immolation until the day when NATURE will write me clearly when will appear my materials, or declare WRITTENLY that all these years Dr. Maddox has played with me as a cat with a mouse and that NATURE does not intend to publish my materials.

Now I beg you, Mrs. Hughes (or Dr. Maddox who is back from Tokyo) to answer by a telefax TODAY all my questions (posed in my telefax to you of the 7th January) to the number: Austria 0316 77560. If again no answer will come, or an answer of the kind of this from 1st February will come, then I ask you, Mrs. Hughes and you, Dr. Maddox, and you, Dr. Newmark: are we human beings able to speak to write and to communicate through such technical means as a telefax, or we are APES?

Hoping that finally Dr. Maddox will realize that it is no more POSSIBLE to conceal the scientific truth,

Sincerely yours,

J. Marinov

Stefan Marinov

Please, send th[e] telefax BEFORE 4 PM London tim[e] as my telefax-office closes at that time!

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

16 February 1988

Prof. MAH MacCallum
JOURNAL OF PHYSICS A
Queen Mary College
School of Mathem. Sciences
Mile End Road
London E1 4NS

Dear Prof. MacCallum,

Thank you very much for your letter of the 22 January (Ref. MAHM/RLS/37).

I am happy to have another signature for the rejection of my papers as posterity must become aware how in the XX-th century the scientific truth has been suffocated. I think that you have learned nothing from my advertisement MARINOV TO THE WORLD'S SCIENTIFIC CONSCIENCE (New Scientist, 18 December 1986) which, as a matter of fact, must be considered as an open letter to the Editor of J. PHYS. I showed in this advertisement (as well as in my rejected papers) that the principles of relativity and equivalence and the laws of conservation of energy and angular momentum ARE NOT VALID. I present the theory, I give the experiments confirming the theory. Those are TREMENDOUSLY IMPORTANT things tightly connected with the energetic survival of mankind. The rejections of my papers can be considered only as criminal acts.

But let us leave the rhetorics. Conventional physics affirms that if there are a magnet and a wire, then the induced electric intensity depends only on their relative velocity and is given by the formula $\mathbf{v} \times \text{rot}\mathbf{A}$, where $\mathbf{A}$ is the magnetic potential originated by the magnet. Meanwhile I established that, for the case of a moving wire, the formula is as above, however, for the case of a moving magnet, the formula is $(\mathbf{v}.\text{grad})\mathbf{A}$. If you (and your referees) cannot understand that this is a TREMENDOUSLY IMPORTANT discovery which must IMMEDIATELY be communicated to the scientific community, then I cannot help you. In my papers I present the description of my perpetuum mobile MAMIN COLIU and all editors and referees in the world MAKE THE FOOL as if they do not see this machine. Thus, at this situation, it is senseless to discuss the "scientific aspects" of my papers and of their rejections. I shall turn your attention only to "administrative" aspects.

With my letter of the 17th August 1987 I have RESUBMITTED my paper "New Measurement of the Earth's Absolute...". I received neither an acknowledgement for reception from Mrs. Richardson nor any other letter.

With my letter of the 15th November 1987 I have SUBMITTED my paper "A Simple and Reliable Experiment...".

With his letter of the 27th November 1987 Prof. Paulus informed me that all my rejected papers are rejected FOR EVER but he said nothing about the NEW paper "A Simple and Reliable Experiment..." I express once more MY DEEPEST INDIGNATION that the resubmitted paper "New Measurement of the Earth's Absolute..." is not once more examined. I stated many times that this paper was BLOCKED for two years by the J. PHYS. Why have you examined so long this paper? In the experiment reported in this paper I received figures for the Earth's absolute velocity which then were confirmed by my experiment reported in the paper "A Simple and Reliable Experiment...". Humanity must know who when which figures for the Earth's absolute velocity has measured. I insist ONCE MORE for a RE-EXAMINATION of my paper "New Measurement of the Earth's Absolute...". I cannot accept the rejection of the referee on the ground of the opinion of ANONYMOUS referees given in MY PAPER and qualified by the referee as "experienced workers in high precision experiments". How can ANONYMOUS persons be qualified as "experienced workers". I think the J. PHYS. has to have a higher level of refereeing.

Then I asked with TWO letters about the destiny of the paper "A Simple and Reliable Experiment..." (of the 7th December 1987 and of the 15th January 1988). Prof. Paulus wrote me on the 27 January 1988 that my paper is CONSIDERED FOR PUBLICATION. From your letter this is not clear. However your letter was written BEFORE the letter of Prof. Paulus. Thus be so kind to inform me: Will my paper "A Simple and Reliable Experiment..." be examined or not?

And if you DEFINITELY reject my paper "New Measurement of the Earth's Absolute...", confirm this rejection once more. I repeat, I need all these rejections and signatures for posterity. And, please, before writing the rejection letter and before putting your signature, read once more my LETTER TO THE WORLD'S SCIENTIFIC CONSCIENCE.

Sincerely yours,   Stefan Marinov

Marinov's note. On the 16th February 1988 I want to bring my machine MAMIN COLIU to Munich where a potential sponsor wished to see it. The German Consulate in Graz denied me a visitor visa. I tried to cross the border illegally with the 30 kg machine on my back. Two times I was repulsed by stamps in my passport (see above), the third time with a kick on my arse. So far besides kicks on the arse I have received no other rewards from my fellow-man for my endeavours to give him a machine working without oil, coal, waterfall or wind.

АКАДЕМИЯ НАУК СССР

УПРАВЛЕНИЕ ВНЕШНИХ СНОШЕНИЙ

ACADEMY OF SCIENCES OF THE USSR

FOREIGN RELATIONS DEPARTMENT

Москва, В-71,
Ленинский проспект, 14
Телефон: 232-29-10
Телекс: 7564 ANS SU
Для телеграмм: Москва, В-71, Наука

Moscow V-71
Leninski prospect, 14
Telephone: 232-29-10
Telex: 7564 ANS SU
Cable: Moscow V-71, Nauka

_____ 88 № _____
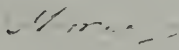
Г-н С.Маринов,
Грац,
Австрия

Уважаемый господин Маринов,

В связи с Вашим письмом от 13 января 1988 года на имя президента Академии наук СССР академика Г.И.Марчука сообщаем Вам, что Ваше предложение о проведении международного конгресса по релятивизму и гравитации было внимательно изучено соответствующими учеными АН СССР. Однако они не выразили заинтересованности принять участие в этом мероприятии.

С уважением,

С.С.Маркианов
Начальник Управления

TRANSLATION

Dear Mister Marinov,

In relation to your letter of the 13 January 1988 to the President of the Academy of Sciences of the USSR, Acad. G. I. Marchuk, we inform you that your proposal for the performance of an international congress on relativity and gravitation was attentively scrutinized by the relevant scientists of the AS of the USSR. However they have not expressed interest to take part in this congress.

Sincerely yours,

S. S. Markianov
Chief of the Department

F.J.Muller   Miami, Feb.20th, 1988.
8470 S.W. 33 Terr.
Miami, FL. 33155
        U.S.A.

    Dear Stefan:

        Thanks very much for your letter of Jan.22/88. I thought you had forgotten me.
I am enclosing an abstract as a possible contribution to the Munchen meeting. The mo-
dification contained in Fig.2 was done last September and it's amazing that I have not
thought of it before since now I can prove in rectilinear motion all what I had proven
before for the rotational case. Of course, Fig. 2 has limited practical value since the
rigid magnets cannot move continuously in the same direction but it shows what I say in
the Abstract very clearly.
        I was so overjoyed with this experiment that I decided, NOW, to return to the
establishment and study formally towards a Master in Physics. This experiment and the
whole constellation of problems related to it will be my thesis. At the moment I am just
taking plain Mathematics, (complex variables, matrices, Fourier series, differential
equations, vector algebra, etc). My final examination is on April 29, so I don't know
if I would be able to make it for the meeting since I would need a lot of time to study,
(it is difficult after 20 years without formal schooling). Also Teresa likes to go with
me everywhere I go and I would not be able to pay the trip unless, at least, my ticket
is paid by a travel grant (I will pay hers).
        My work with Cure has come to a stop since the company that use to sponsor him,
(Neodynamics Res. Corp) had serious financial difficulties with the stock market crises.
I also made a video-tape of my most important experiments, including that of Fig.2, but
I am keeping this rather in secret, (I don't want to conflict with the establishment be-
fore I graduate).
        As usual my life is extremely busy, with the biochemistry Lab, the Church organ
music, and now the intricate problem solving in Physical-Mathematics. I knew about the
meeting in Boston with Pappas, Graneau, Phipps, etc. since Cure attended it. I sent a
little abstract about this latest experiment of Fig. 2. (Recall of course that in Fig.
2 you have exactly the same type of ferromagnetic plates around the system just as in
page 62 of Thorny Way, part II,1986.)

        Well, I leave you now since I want to reach the Post Office in time to send
you this letter and the Abstract to Maco.

                            Yours as always,

                            Francisco Müller

Marinov's note. Müller's new experiment described on the next page can be explained im-
                mediately by the help of a SUPERPOSITION of the formulas for the induced
motional electric intensity $E_{mot} = v \times rotA$ and for the induced motional-transformer elec-
tric intensity $E_{mot-tr} = (v.grad)A$. When the half-circular magnets M and M' in his fig.
2 are available we have $(v.grad)A = 0$, as the motion of the whole magnetic system does NOT
lead to a change of A at the reference point, and thus only the induced motional electric
intensity $v \times rotA \neq 0$ remains. When the half circular magnets M and M' are put away, then
$(v.grad)A \neq 0$. If the magnets are short, we shall have $(v.grad)A = v \times rotA$ (compare for-
mulas (14) and (15) with formulas (17) and (18) from the paper "The Electromagnetic Ef-
fects are Determined..." published in this volume).

    Thus Müller will register an effect also when the half-circular magnets M and M' are
put away, if he will take the magnets RM and RM' ENOUGH LONG.

ELECTROMAGNETIC INDUCTION WITHOUT RELATIVE MOTION

By: *Francisco J. Müller*, Miami FL.USA.

In 1919 Einstein wrote that Faraday's discovery of Electromagnetic Induction (EMI) was the seminal idea that moved him to introduce Special Relativity Theory (SRT). In the third opening line of his 1905 paper he had written that this phenomenon "depends only upon the relative motion between magnet and conductor". The whole contemporary theoretical electrodynamics and electrical engineering practice is based upon this need of "relativebewegung" as an essential condition for EMI to occur. In this paper the author presents first order experimental evidence that, indeed, relative motion between magnet and conductor IS NOT a necessary condition in all cases, and is especially not needed in the controversial "unipolar inductor" based on a quasi-forgotten Faraday experiment of 1832. An extension of this non-requirement of the rotational unipolar inductor will be made in this paper to a rectilinear case as well, thus violating a basic principle of SRT.

Some year^{s}ago the author showed, (1,2), that, at least in a rotational system, a wire RI, (see Fig.1), <u>co-rotating</u> with a permanent ceramic ring magnet M, (magnetic B field is perpendicular to the paper,)receives a potential difference induced between R and I, proportional to B, to ω of rotation and to length RI. This experiment is simply a confirmation of Kennard's capacitive absolute rotational experiment of 1917, (3), but with a permanent magnet M and closed rectangular circuit, RICE, (branches IC, CE and ER are shown in pg.62, Ref.1 and as psrq in pg.163, Ref.2).

FIG.1

The experiment, demonstrating rotational unipolar induction without relative motion, does NOT contradict SRT since being a rotational phenomenon, escapes SRT applicability. Therefore, most relativists, (Schiff, Trocheris, Webster, Panofsky & Phillips, etc.) acknowledge that the situation of Fig.1 can only be "solved" by resorting to General Relativity Theory, (GRT). The "solution", however, looks unreal to the author, introducing the mysterious influence of extra-galactic nebulae into the system (and instantly!).

The author, then, converted his rotational experiment into a rectilinear one in the following manner: cut the ring magnet across the diameter and insert two Rectangular Magnets (RM) as shown in Fig.2. With adequate mechanical connections slightly move the system as indicated by the arrows, (this can be done in oscillatory fashion). Then, RI will receive the SAME EMI as in Fig.1 even when CO-MOVING with RM in RECTILINEAR fashion. Thus, SRT is fundamentally disproven and GRT is rendered useless.

FIG.2

Interestingly enough, when the ring elements M are removed from Fig.2, then NO EMI occurs, in agreement with SRT. So the experiment demonstrates that the essential condition for motional EMI to occur, either in rotational or rectilinear fashion, is the continuity of the B field so as to avoid dB/dt changes at the edges when the magnets move. Fig.2, though disproving the basic field transformation equations of SRT, cannot demonstrate absolute terrestrial motion since the edges of M "cancel" the EMI at RI when the whole system is displaced in the same way as the edges of RM cancel it when moving without the "closing" elements, M and M'. This idea that the dB/dt at the edges act over RI at a distance, (according to Lenz's reaction), implies a non-local field theory. But certainly this "edge effect" is more credible than the incredible extra-galactic influences of GRT which is now useless to explain the positive effect of Fig.2 (on account of its linearity). The author likes to challenge both relativists and non-relativists to explain the facts of Figs.1 and 2.
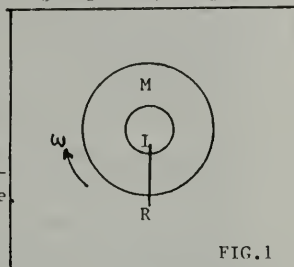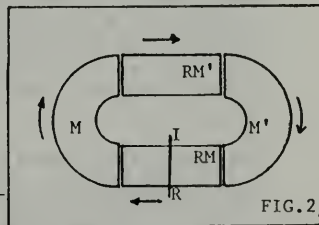
1)-Marinov,"Thorny Way of Truth",part II,East-West, Graz,1986.
2)-J.P.Wesley,"Progress in Space-Time Physics",B.Wesley, Blumberg,West Germany,1987,
3)-E.Kennard, Phil.Mag., 33, 179, 1917.

PROGRESS OF THEORETICAL PHYSICS

Publication Office
Yukawa Hall, Kyoto University
Kyoto, Japan

Our Ref.

Your Ref.

4a-8-88-eh

February 22, 1988

Dr. Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
Austria

Dear Dr. Marinov:

We received your manuscript entitled

On the Absolute Aspects of the Electro-
magnetic Interactions

by Stefan Marinov

and discussed publication of this paper at our editorial

meeting. We considered the content of the manuscript

unsuitable for publication in the Progress of Theoretical

Physics. We are therefore returning your manuscript.

Yours sincerely,

Editorial Office
Prog. Theor. Phys.

Encl.MS

Editorial note.
   In this volume are presented only some pages from Marinov's epistolary contacts
with the journals NEW SCIENTIST, NATURE, EUROPHYSICS LETTERS, PHYSICS LETTERS, PHYSI-
CAL REVIEW.* The above letter is picked out from the "routine" letters of rejection
which Marinov receives from the world physical journals. To spare the time of the rea-
der, only this one routine rejection letter is presented in this volume.

* and JOURNAL OF PHYSICS.

Läßt sich Albert Einstein widerlegen?

Seine Relativitätstheorien bleiben das Fundament der Forschung
Ein SZ-Gespräch mit dem Physiker Jürgen Ehlers / Von Martin Urban

SZ: Herr Professor Ehlers, sind die Relativitätstheorien Albert Einsteins widerlegt? Genauer gefragt: Hat man Einstein Rechenfehler, also logische Irrtümer nachweisen können oder haben Experimente die Wissenschaftler eines Besseren belehrt?

EHLERS: Bis jetzt ist weder das erste noch das zweite geschehen. Vom logisch-mathematischen Standpunkt aus gesehen, sind die Relativitätstheorien Einsteins sogar verhältnismäßig einfach. Ihre Widerspruchsfreiheit ist ebensogut nachgewiesen wie die Widerspruchsfreiheit der euklidischen Geometrie.

Zur *Speziellen Relativitätstheorie* gibt es viele qualitativ verschiedene Experimente, die zum Teil auch eine hohe Genauigkeit erreichen. Beispielsweise läßt sich die von Einstein vorausgesagte Zeit-Dehnung aufgrund von Relativbewegungen in irdischen Experimenten jetzt mit einer Genauigkeit von etwa einem Zehntelprozent experimentell bestätigen. Wenn es einen kosmischen Wind, den sogenannten Äther gäbe, den Michelson und Morley schon vor hundert Jahren vergeblich nachzuweisen versuchten – nach Einstein gibt es keinen Äther –, dürfte die Geschwindigkeit der Erde relativ zum Äther nur höchstens drei Meter pro Sekunde betragen, was in bezug auf die Erwartung nach der klassischen Physik von mindestens 29 Kilometern je Sekunde ganz unsinnig ist. Schließlich wurde die Unabhängigkeit der Lichtgeschwindigkeit von der Geschwindigkeit der Lichtquelle durch astrophysikalische Messungen sogar mit einer Genauigkeit von einem Milliardstel – also so, daß der relative Fehler kleiner ist als ein Milliardstel – überprüft. In der Hochenergieteilchenphysik, also bei Experimenten mit Teilchenbeschleunigern, wie sie im Zentrum CERN bei Genf gemacht werden, wird die Geschwindigkeitsabhängigkeit der Masse routinemäßig vorausgesetzt. Das ist so vielfältig auf seine Richtigkeit hin überprüft worden, daß ein Teilchenphysiker überhaupt nicht arbeiten könnte und die Geräte gar nicht funktionieren würden, wenn die Einsteinsche Formel für die Geschwindigkeitsabhängigkeit der Masse falsch wäre.

Bei der *Allgemeinen Relativitätstheorie* verhält es sich mit den empirischen Prüfungen so: Die drei klassischen Tests, die schon Einstein in den Jahren 1915/1916 vorgeschlagen hat, sind mittlerweile mit einer Genauigkeit von etwas besser als einem Prozent überprüft worden. Inzwischen sind qualitativ neue Prüfungen hinzugekommen. Insbesondere ist die Abweichung des Uhrengangs, die bedingt ist durch Schwerefelder, mit einer Genauigkeit von mehr als einem hundertstel Prozent durch Raketenexperimente überprüft. Die Radarzeit-Verzögerung im Sonnensystem, die auch indirekt den Einfluß des Gravitationspotentials auf Lichtstrahlen und auf den Zeitablauf betrifft, ist mit einer Genauigkeit besser als ein halbes Prozent bestätigt, und zwar in mehreren Untersuchungen. Schließlich gibt die Beobachtung eines Doppelsternsystems auch einen indirekten Hinweis darauf, daß Gravitationswellen existieren. Die Ergebnisse dieser Experimente haben inzwischen mehrere konkurrierende Theorien widerlegt. Die Einsteinsche Theorie aber, obwohl lange vor diesen Experimenten geschaffen, hat sich bisher bewährt.

Unter dem Etikett „Alternativlösung", ein Begriff, der von ökologisch orientierten Gruppen übernommen wurde, damit aber nichts zu tun hat, macht sich seit einiger Zeit, ähnlich wie in den USA, auch in der Bundesrepublik die Tendenz zur Restauration moderner Wissenschaft bemerkbar. Ende April wollen sich jene „Wissenschaftler" versammeln, die den Umsturz des Weltbildes durch Albert Einstein nicht verkraftet haben und dem anschaulicheren – wenngleich eben allzu einfachen – Naturbild des 19. Jahrhunderts nachtrauern. Sie treffen sich zu einem „International Congress on Relativity and Gravitation"; und das ausgerechnet in München, wo Gelehrte wie Arnold Sommerfeld und Werner Heisenberg wirkten, die das Gerüst der modernen Physik entscheidend mitbestimmt haben. Allerdings sind hier in den Jahren des Nationalsozialismus auch jene Männer besonders lautstark aufgetreten, denen Einstein zu kompliziert war, und die statt dessen eine „deutsche" Physik kreierten.

Viele Menschen vollziehen angesichts der Komplexität der Welt den „radikalen" Schritt, das Komplexe zu negieren, um zu scheinbar einfachen Auswegen zu kommen; etwa dem, daß die Schöpfungsgeschichte der Bibel nicht nur Ausdruck des Glaubens der Verfasser der Schrift sind, sondern Natur- und Naturgesetzes-Beschreibung. Ziel einer darauf fußenden „Schöpfungswissenschaft" ist es offenbar, Eingang in die Lehrpläne der Schulen – zunächst über den Religionsunterricht – zu finden.

Professor Dr. Jürgen Ehlers, wissenschaftliches Mitglied der Max-Planck-Gesellschaft vom Institut für Astrophysik in München-Garching, gehört zu jener kleinen Zahl von Gelehrten, die weltweit auf dem Gebiet der relativistischen Astrophysik arbeiten und das von Albert Einstein gelegte Fundament zu verbreitern suchen.

SZ: Nun wußte Einstein selbstverständlich, daß die Natur komplexer ist, als daß man sie mit seinen Gleichungen vollständig beschreiben könnte. Was weiß man heute zusätzlich auszusagen? Wie muß man möglicherweise seine Gleichungen, seine Formeln ergänzen oder abändern?

EHLERS: Natürlich kann man von keiner Theorie erwarten, daß sie absolut wahr ist. Und auch die Allgemeine Relativitätstheorie hat ihre Grenzen. Bis jetzt ist es nicht gelungen, eine Theorie zu formulieren, die in widerspruchsfreier Weise die Prinzipien der Quantentheorie mit denen der Allgemeinen Relativitätstheorie verknüpft. Eine solche Theorie zu finden, ist vielleicht eines der wichtigsten Probleme der theoretischen Physik. Das berührt aber nicht die Tatsache, daß in dem Bereich, wo Gravitation experimentell zugänglich ist – das ist bis jetzt ausschließlich der Bereich makroskopischer Körper –, die Allgemeine Relativitätstheorie auf keine experimentellen Schwierigkeiten gestoßen ist.

SZ: Immer wieder reiben sich „Erfinder" an der Grenze, die der 2. Hauptsatz der Thermodynamik beschreibt. Man kann danach, wie alle Erfahrung

zeigt, keine Maschine betreiben, die darauf fußt, daß sich ein Dachziegel am Boden abkühlt und mit Hilfe der dabei freiwerdenden Energie zurück aufs Dach fliegt. Die Richtung des natürlichen Prozesses ist eben umgekehrt: eine Richtung wachsender Entropie, wie man sagt, wachsender Unordnung. In welchen Grenzen gilt der 2. Hauptsatz, und sind außerhalb etwa existierender Grenzen Prinzipien einer Energienutzung denkbar?

EHLERS: Nach meiner Kenntnis gibt es bis jetzt keine experimentellen Hinweise von Experimenten darauf, daß der 2. Hauptsatz nur begrenzt gültig wäre. Man muß allerdings immer bedenken, daß er sich auf abgeschlossene Systeme bezieht. Die meisten Systeme in der uns umgebenden Welt sind aber offene, das heißt Systeme, die mit ihrer Umwelt Materie oder Energie austauschen. Die Brüsseler Schule um den Nobelpreisträger Ilja Prigogine hat in vielen Arbeiten gezeigt, wie man theoretisch gerade aufgrund des auf offene Systeme verallgemeinerten 2. Hauptsatzes verstehen kann, daß sich in offenen Systemen und außerhalb des thermodynamischen Gleichgewichts spontan Strukturen bilden, zum Beispiel bei chemischen oder auch physikalischen Vorgängen; daß sich unter bestimmten Bedingungen räumliche oder auch zeitliche Periodizitäten einstellen.

SZ: Manche Menschen fasziniert die Idee der Tachyonen, die Möglichkeit von Überlichtgeschwindigkeit. Dabei wird übersehen, daß Überlichtgeschwindigkeit gewissermaßen jedermann erreichen kann, etwa beim Schereschneiden. Der Schnittpunkt der beiden Messer bewegt sich desto schneller entlang der zuklappenden Messer, je paralleler die beiden Messer zueinander stehen, also bei völliger Parallelität unendlich schnell. Steckt dahinter das Prinzip für eine neue Energiequelle?

EHLERS: Soweit mir bekannt, kann man diesen Umstand nicht dazu verwenden, um Energie zu erzeugen. Wenn man sagt, daß sich nach der Relativitätstheorie keine Information oder keine Energie schneller bewegen kann als mit Lichtgeschwindigkeit, dann bezieht sich dies auf Ausbreitungsvorgänge, bei denen wirklich Information oder Energie übertragen wird. Bei dem von Ihnen genannten Beispiel wird eine solche Übertragung nicht zustande kommen. Man kann etwa keine unendlich starren Scheren herstellen, die man bräuchte, wenn man das erwähnte Gedankenexperiment ausführen wollte. Zu den Tachyonen:

Die logische Möglichkeit solcher Teilchen, etwa im Rahmen der Speziellen Relativitätstheorie, muß zugestanden werden. Sie könnten sich immer nur mit einer Geschwindigkeit bewegen, die größer als die Lichtgeschwindigkeit ist. Diese Teilchen hätten die ungewöhnliche Eigenschaft einer imaginären Masse, ihre Energie und ihr Impuls wären aber reelle Größen. Denkbar wären solche Teilchen schon im Rahmen einer speziellen Quantenfeldtheorie, nicht nach der klassischen Physik. Die experimentelle Suche nach solchen Gebilden ist bisher erfolglos verlaufen.

SZ: Ihre wissenschaftliche Arbeit dient auch dem Verständnis der Evolution des Universums. Wie alt ist es nach heutiger Vorstellung? Wie alt ist unser Sonnensystem, wie alt ungefähr die Erde?

EHLERS: Wir können heute mit recht guter Genauigkeit behaupten, daß die Erdkruste schon etwa seit etwas mehr als viereinhalb Milliarden Jahren vorhanden ist und seit einigen Millionen Jahren Leben auf der Erde existiert. Das Alter unseres Milchstraßensystems beträgt etwa zehn Milliarden Jahre. In derselben Größenordnung liegt auch das sogenannte Weltalter, besser gesagt, die Schätzungen für das sogenannte Weltalter liegen zwischen zehn und zwanzig Milliarden Jahren, wobei diese Spannweite durchaus zugegeben werden muß, denn die Daten, auf die man sich stützt, sind mit erheblicher Unsicherheit behaftet.
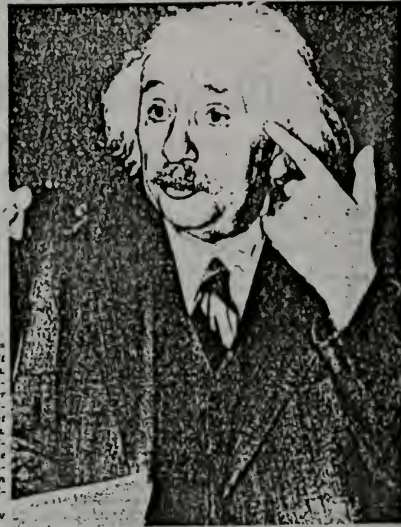
Es ist eine erstaunliche Entdeckung dieses Jahrhunderts, daß so große Gebilde wie Galaxien oder sogar das System der Galaxien nicht wesentlich älter sind als die Erde und sogar das Leben auf der Erde.

SZ: Eine Unternehmung, die sich „Schöpfungswissenschaft" nennt, verbreitet in Schriften – auch in der Bundesrepublik – neuerdings die These, „daß die Erde ziemlich jung ist, vielleicht nicht älter als zehn- oder fünfzehntausend Jahre". Was erwidern Sie auf solche „wissenschaftliche" These?

EHLERS: Solche Behauptungen setzen sich über das, was in jahrhundertelanger Arbeit erkannt worden ist in der Naturwissenschaft, in der Physik insbesondere, hinweg, ohne daß empirisch begründete Gegenargumente vorgebracht werden.

SZ: Kritiker beklagen vor allem, daß Außenseitern – Einstein selbst war ja seinerzeit zunächst auch ein Außenseiter – heute gegenüber den Etablierten in der Wissenschaft keine Chance haben. Was sind Ihre Erfahrungen?

EHLERS: Ich erhalte oft Zuschriften von wissenschaftlich interessierten Laien, von Außenseitern, die sich auf die Relativitätstheorie beziehen. Darunter auch oft solche, deren Verfasser meint, er habe Einstein widerlegt. Ich habe mehrfach den Versuch unternommen, durch Schriftwechsel zu einer Klärung zu kommen, indem ich etwa auf Fehler in der Argumentation hingewiesen habe oder darauf, daß diese oder jene experimentelle Tatsache im Widerspruch steht zu den Behauptungen des jeweiligen Autors. Es ist mir dabei fast immer so gegangen, daß die Bereitschaft nicht bestand, auf meine Gegenargumente einzugehen. Wenn Wissenschaftler etwa an Max-Planck-Instituten sich auf solche Diskussionen fortwährend einlassen würden, müßten sie einen erheblichen Teil ihrer Arbeitszeit dafür einsetzen. Das widerspräche unserem Auftrag. Bei der Kompliziertheit, die heute insbesondere die physikalischen Theorien haben, und auch bei dem Aufwand an Menschen und Apparaten, die man braucht, wenn man Experimente dazu vornehmen will, wird es für interessierte Laien immer schwieriger, da noch mitzukommen oder dabei eigene Ideen einzubringen. Daß es eine gewisse Trägheit gibt, wohl auch auf seiten der Wissenschaftler, sich darauf einzulassen, merkwürdig erscheinende Ideen zu überprüfen, ist zuzugeben.

europhysics letters

Mr Stefan MARINOV
Morellenfeldgasse 16

A - 8010 Graz (Austria)

Geneva, 26th February 1988

REF.: manuscript submitted for publication in **Europhysics Letters**

Dear Mr. Marinov,

I have forwarded your correspondence to the Editor-in-Chief. He points out that in his letter to you of 24 January he stated clearly that he had full confidence in the Co-Editor and in the referees chosen by him and that he refused to over-rule them. In other words **the rejection of your paper G1518 stands**. He also notes with pleasure that you intend to submit your paper to another journal and advises you not to waste any time on further unnecessary correspondence with **Europhysics Letters**.

As regards the paper entitled THE ELECTROMAGNETIC EFFECTS ARE DETERMINED BY THE POTENTIALS AND NOT BY THE INTENSITIES he has decided not to send it to a Co-Editor since experience of the last year or so has shown that dealing with papers submitted by you is extremely time-consuming for him and for the Co-Editors. He asks you **not to send any further manuscripts to Europhysics Letters** and I am accordingly returning your manuscript.

Yours sincerely,

C. Bouldin
Staff Editor

cc. N. Kurti, Editor-in-Chief
B. Cagnac, Co-Editor

Editorial note. The above mentioned paper is published in T'T-I, third. ed.

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A-8010 GRAZ — AUSTRIA

29 Februar 1988

Herrn Martin Urban
Redaktion "WISSENSCHAFT"

Süddeutsche Zeitung

Süddeutscher Verlag
Postfach 202220
D-8000 München 2

Sehr geehrter Herr Urban,

Ich schicke Ihnen eine "Antwort" zu dem Interview von Prof. Ehlers, das in SZ am 25 Februar publiziert wurde.

Ich werde mich sehr freuen, wenn die SZ meinen Artikel <u>wortlaut</u> publizieren wird. Und das SO SCHNELL WIE MÖGLICH.

Einige Bemerkungen zu dem Artikel:

1) Sie können gramatische Korrekturen machen ohne für meine Genehmigung zu fragen, aber für Korrektionen des Inhalts würde ich Sie bitten mich zu benachrichtigen.

2) Lassen Sie die beide mathematische Formel. Mit Worten das zu erklären, was ich mit den Formeln gesagt habe, ist sehr schwer und wird auch für Fachleute unverständlich. Jetzt nur der allgemeine Leser wird nicht verstehen, was da steht. Aber dieser Leser kann die Paar Zeilen einfach auslassen bei dem Lesen. Ich werde Sie nur bitten die Formel GUT zu drucken, das heißt die Buchstaben mit den Pfeilen FETT.

3) Ich werde Sie bitten die BEIDE Fotografien zu veröffentlichen. Ich schicke Ihnen jetzt nur Fotokopien. Im Falle, daß der Artikel eingenommen wurde und Sie werden imstande sein ihn SCHNELL zu veröffentlichen, schicken Sie mir bitte ein Telegram und ich werde die Fotografien per Eilpost schicken.

Für Ihre Information schicke ich Ihnen:

1) Den Artikel von SVENSKA DAGBLADET über meine Ausweisung von Schweden.

2) Meinen Brief an das Nobelkomitee, der in NATURE veröffentlicht wurde.

3) Meine Anzeige in NEW SCIENTIST.

4) Einen Artikel von dem NRC HANDELSBLAD, der ohne meine Kenntnis erschhienen worden ist.

Ich möchte wissen, im Falle daß der vorgelegte Artikel als Redaktionsmaterial nicht angenommen wird, ob ich ihn als Anzeige publizieren kann, und welche Summe (UNGEFÄHR) wird mir das kosten.

Ich lege bei auch den Aufruf unseres Kongresses, der in NATURE veröffentlicht ist, im Falle, daß Sie ihn nicht kennen.

Sie können mir per Telegram Ihre Telefonnummer berichten, und dann ich werde Sie anrufen, im Falle, daß Sie mit mir einiges besprechen möchten. Für eine noch schnellere Information können Sie sich an Herrn E. A. Maco an die Münchener Nummer 6973050 zuwenden.

Ich wiederhole, um einen beßeren Kongress vorzubereiten, brauchen wir mehr und FRÜHERE G-L-A-S-N-O-S-T. Wenn Sie uns helfen können, wird Ihnen und der SZ die Menschheit dankbar sein.

Ihr ergebener: *J. Marinov*

Stefan Marinov

PS. Wenn Sie möchten,ich kann Ihnen die beide Bänder meines Buches THE THORNY WAY OF TRUTH schicken. Sie müßen mir aber versprechen,entweder die Bücher nach der Benützung zurückzuschicken, oder sie abzukaufen ($ 50 für die beide Bücher).

PPS. Ich lege bei auch den Artikel von L. Essen (der Erfinder des Atomuhres) von der englischen Zeitschrift ELECTRONICS AND WIRELESS WORLD.

FÜR GLASNOST IN DER WISSENSCHAFT

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Mit Erstaunen las ich in der SZ vom 25 Februar das Interview, das Prof. Jürgen Ehlers dem Journalisten Herrn Martin Urban gegeben hat. Mein Erstaunen erweckten nicht die abgedroschenen Antworten Professors Ehlers, sondern die Kühnheit der Fragen des Herrn Urban. Das ist ein frohes Frühlingszeichen.

Die erste Frage lautet, ob die Einsteinsche Theorie Rechenfehler enthält und ob die Experimente ihre Axiome und Voraussagen widersprechen.

Nach der normalen Logik, wenn das Wasser in einem Fluß mit der Geschwindigkeit v fließt und ein Boot mit der Geschwindigkeit c beziehungsweise des Wassers abwärts fährt, dann ist die Geschwindigkeit des Bootes beziehungsweise des Ufers $c' = c + v$, wo c' größer als c ist. Nach Einstein ist es $c' = c$, wenn c die Geschwindigkeit eines Lichtsignals in einem Labor ist, das sich mit der Geschwindigkeit v bewegt. Also nach Einstein $2 + 1 = 2$, doch nach der normalen Logik, die die Kinder beim Zählen ihrer Finger erfahren, ist es $2 + 1 = 3$.

Jetzt zu den Experimenten. Prof. Ehlers bestätigt, daß es niemandem gelungen ist die obige mathematisch absurde Formel experimentell zu widerlegen und bezieht sich zu dem historischen Michelson-Morley Experiment. Diese Antwort könnte man nur als eine Lüge qualifizieren. Denn Prof. Ehlers weiß, daß die Bewegung der Erde in bezug zu dem ruhenden Äther mit der Messung der zwei-weg Lichgeschwindigkeit (wie das Michelson und seine Nachfolger zu machen versuchten) nicht zu beweisen ist und daß man die ein-weg Lichtgeschwindigkeit messen muß. Prof. Ehlers weiß ganz gut, daß solche Messungen ich noch im Jahre 1973 in Sofia durchgeführt hatte und dann mehrmals wiederholt. Prof. Ehlers weiß auch sehr gut die Zahlen, die ich bekommen hatte: Geschwin-

digkeit 360 km/sek, equatorielle Koordinaten des Apexes (d. h. des Punktes an der Himmelssphäre, wohin die Geschwindigkeit gerichtet ist) Deklination - 24^0, Rektaszension 12.5^h (Messungen in Graz, Februar 1984). Prof. Ehlers weiß weiter, daß diese Werte sich sehr gut mit den Werten decken, die man beim Messen der Anisotropie der kosmischen Hintergrundstrahlung bekommt, und daß meine ziemlich genaue Messungen in Sofia vor den mehr oder weniger genauen Messungen der Hintergrundstrahlunganisotropie der Princeton und Berkeley Gruppen durchgeführt sind. Prof. Ehlers weiß das alles, weil er an den Internationalen Konferenzen für allgemeine Relativitätstheorie und Gravitation teilgenommen hat, wo ich über meine Experimente berichtete, und weil er meine Artikel in verschiedenen physikalischen Zeitschriften des "Establishment" mehrmals gelesen hat.

In seinem Interview sagt Prof. Ehlers, daß er mehrmals versucht hat, die Argumente der Antirelativisten logisch zu widerlegen. Ich werde mich sehr freuen, wenn Prof. Ehlers die obengenahten Experimente diskutieren wird und ich lade ihn herzlich zu unserem Kongress (München, Hotel Hilton, 22 - 24 April). Ich weiß aber, daß er auf dem Kongress nicht erscheinen wird, denn in solchem Falle wird er gezwungen sein, das vollkommene Fiasko der speziellen Relativitätstheorie anzuerkennen.

Schon 15 Jahren verschweigt die "etablierte" Physik meine Experimente. Als die Relativisten verstanden haben, daß in den Schriften ihres Idols nach einer Wahrheit zwei Lügen folgen, haben sie die Türen aller ihrer Zeitschriften für meine Artikel gesperrt. Die Organisatoren der XI. Konferenz für allgemeine Relativitätstheorie und Gravitation (Stockholm, Juli, 1986), in ihrem Eifer eine falsche Lehre zu retten, sind so tief gesunken, daß sie die Hilfe der schwedischen Polizei gesucht haben, um mich mit zwei Polizisten wie ein Verbrecher von Stockholm nach Wien auszuweisen, nur um daß ich nicht an der Konferenz erscheine (auch wenn ich an den drei vorherigen Konferenzen teilgenommen hatte). Man kann allem das nicht glauben, aber die Geschichte meiner Ausweisung wurde in "Svenska Dagbladet" berichtet und mit meinem Brief an das Nobelskomitee ("Nature", 21 August 1986) verlangte ich die Entschuldigungen des schwedischen Königs, um die Ehre der schwedischen Krone zu retten. Der Leser wird weiter staunen, wenn ich zufüge, daß das britische Institute of Physics mein enzylopädisches Werk "Classical Physics" verbrannt hat. In meinem Buch "The Thorny Way of Truth" hab ich den Brief von Prof. Kurt Paulus abgelichtet, der diese Verbrennung bestätigt. Es ist eine grausame Sache, wenn Goebels, Rosenfeld und das faschistische Pack die Bücher von Einstein verbrannt haben. Ich glaube aber, daß es noch grausamer und noch gefährlicher ist, wenn Gelehrten und Professoren dasselbe mit meinen Büchern tun.

Kommen wir jetzt zu den anderen höchst interessanten Fragen des Herrn Urban. Herr Urban hat Prof. Ehlers gefragt, ob man Experimente aufstellen kann, mit denen

man Energie erzeugt, ohne diese Energie zu "bezahlen", wie das sein wäre, wenn man
den 1. oder 2. thermodynamischen Satz umgehen könnte, also ob es möglich wäre ein
Perpetuum mobile 1. oder 2. Grades zu bauen, d.h. ob wir Energie aus "nichts" (Ta-
chyonen), beziehungsweise von Wärme direkt (ohne Kühler) bekommen können. Prof. Ehlers
hat selbstverständlich mit dem "Nein" der französischen Akademie vom 18-ten Jahr-
hundert geantwortet.

Ich hab die Verletzung der Erhaltungsgesetze (Erhaltung der Energie und Erhaltung
des Drehimpulses) mehrmals beobachtet. Weil die ofizielle Zeitschriften die Berichte
von meinen Experimenten abgelehnt hatten, hab ich diese Berichte als bezahlte An-
zeigen in den englischen wissenschaftlichen Zeitschriften "Nature" und "New Scien-
tist" veröffentlicht. Um meine Experimente zu erklären, muß man die Nichtgültigkeit
des Relativitätsprinzips anerkennen. Weiter muß man Elektromagnetismus nicht mit den
Intensitätskonzepte von Faraday-Maxwell (die ich als die "saxonische Schule" bezeich-
ne) erklären, sondern mit den Potentialkonzepten von Gauss-Weber-Riemann (die ich als
die "germanische Schule" bezeichne). Nach Einstein, wenn die relative Geschwindigkeit
zwischen einem Draht und einem Magnet, der das magnetische Potential $\vec{A}$ erzeugt, $\vec{v}$ ist,
dann ist die induzierte elektrische Intensität $\vec{E} = \vec{v} \times \text{rot} \vec{A}$. Nach meinen absoluten
Vorstellungen ist diese Formel gültig nur in dem Falle, wenn der Magnet ruht und
der Draht sich bewegt. In dem umdekehrten Falle muß man die induzierte elektrische
Intensität nach der Formel $\vec{E} = (\vec{v}.\text{grad})\vec{A}$ berechnen. Niemand in der ganzen Welt hat ver-
standen, daß diese zwei Effekte vollkommen verschieden sind, auch wenn eindeu-
tige Experimente für diesen Unterschied noch Kennard (USA, 1917) durchgeführt hat.
Ende Oktober voriges Jahres besuchte ich meinen politischen Gesinnungsfreund A. D.
Sacharow in Moskau, um ihm den Unterschied zwischen den obigen zwei Formeln zu er-
klären und ihn über das Experiment von Kennard und über meine Experimente zu infor-
mieren. Dr. Sacharow war sehr beeindruckt, aber sagte mir, daß er fest an die Re-
lativitätstheorie glaubt. "Dieser Glauben kann erschüttert sein, fügte er hinzu,
aber schwe-e-r." Eine Woche nach meinem Besuch (am 7 November 1987) berichtete "New
York Times" auf der ersten Seite, daß ich auf suspekten Wegen Sacharow in die "Per-
petuum-mobile-Diskussion" einbeziehen versuche.

Ich lud zu unserem Kongress auch die Sowjetische Akademie der Wissenschaften ein.
Die Antwort lautet: Die Akademie ist interessiert teilzunehmen. Wegen den harten
Widerstand einiger Mitglieder (wie Akad. Ginsburg) weigert noch die Abteilung für
allgemeine Physik und Astronomie die Entscheidung zu treffen.

An dem Kongress in München werde ich meine Maschine MAMIN COLIU (MArinov's Motio-
nal-transformer INductor COupled with a LIghtly rotating Unit) demonstrieren. Das
ist ein elektromagnetischer Generator, der keinen Motoreffekt hat. Jeder Besucher
wird die Möglichkeit haben sich zu überzeugen, daß diese Maschine keinen elektromag-
netischen Bremseeffekt hat. Also die ganze elektrische Energie, die sie erzeugt
kommt von "nichts". Diese Maschine widerlegt die bekannte Lenzsche Regel und den

Energierhaltungssatz. Ich bemühe mich sie autonom (Perpetuum mobile) zu machen. Der Leser aber muß wissen, daß ich meine ganze wissenschaftliche Tätigkeit mit dem Geld finanziere, das ich als Knecht in einem Pferdestall bei Graz verdiene. Wie ich an der Dr. Niepers Konferenz in Hannover (März, 1987) gesagt hat, um Geld zu haben und meine Maschine autonom zu bauen, werde ich den Mist von meinen Pferden verkaufen ("Der Spiegel", Nr. 16, S. 66, 1987). Leider ist bis heute der Haufen noch zu klein.

Herr Urban hat in seinem Artikel bemerkt, daß in München berühmte Relativisten wie Sommerfeld und Heisenberg　　　　　　　tätig　　　　　　　waren, aber auch namhafte Gegner von Einstein, wie der Vertreter der "deutschen Physik", der Nobelpreisträger Lenard (Herr Urban hat aus Takt seinen Namen nicht erwähnt). Die Frage ist nicht eine "judische" Physik mit einer "deutschen" Physik auszutauschen. Das was wir wollen ist eine falsche Theorie mit einer wahren Theorie zu ersetzen. Weil nur auf solchem Wege können wir zu reinen und unerschöpflichen Energiequellen kommen und unsere erstickende Welt retten. Jeder der unsere Bemühungen aus mangelnden Kenntnissen zu verhindern versucht, muß verzeiht sein. Nicht aber diser, der verstanden hat, daß wir Recht haben.

TEXTE ZU DEN FOTOGRAFIEN:

Bild 1. Das Marinovsche Experiment mit den gekoppelten Unterbrechem für Messung der absoluten Geschwindigkeit der Erde.

Bild 1. Der Marinovsche Generator MAMIN COLIU, der keinen elektromagnetischen Bremseeffekt hat.
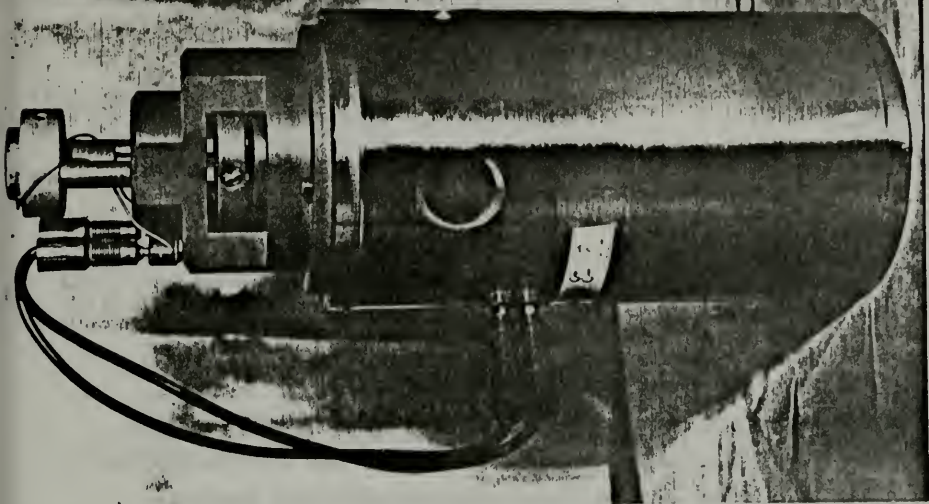
Bild 1

Bild 2
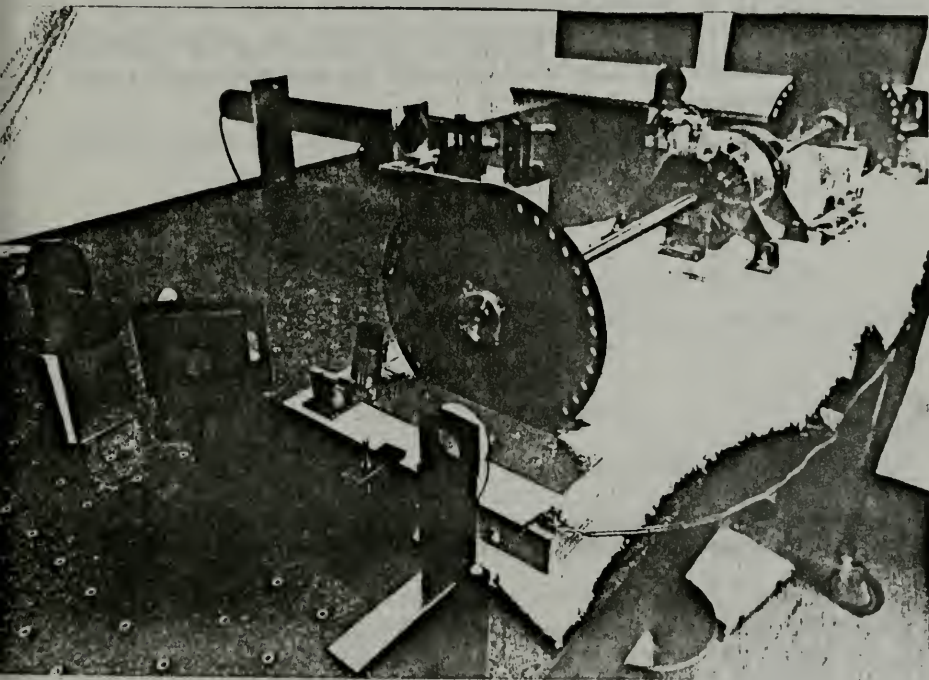
PHYSICS LETTERS A

PROFESSOR V.M. AGRANOVICH

Institute of Spectroscopy
USSR Academy of Sciences
Troitsk
Moscow 142092
USSR

Dr. Stefan Marinov
Institute for Fundamental
Physical Problems
Morellenfeldgasse 16,
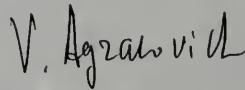A-8010 Graz, Austria

29 February 1988

Dear Professor Marinov,

Unfortunately, both Soviet referees gave absolutely negative references to your papers and do not recommend them for publication. I am not sending you these reviews. They are mainly of critisizing character and can hardly be useful for you. The referees believe that the special relativity theory (SRT) has long become a part of absolute truth and it is nonsense to doubt it under conditions when it is applicable. They think that your call to participate in the "relativism mourning" will be met by serious specialists with no sympathy.

Please, find enclosed your papers (in two copies each).

Sincerely,

V. Agranovich

Professor V.M.Agranovich

Editorial note.

The one of the rejected articles (THE ABSOLUTE CHARACTER OF LIGHT PROPAGATION) is published in TWT-I.

The other rejected article (Newtonian and Einsteinian Time Synchronizations) is presented partly in §9 of vol. III of Marinov's CLASSICAL PHYSICS.

Marinov's note.

Prof. Agranovich considers the theory of special relativity as a part of absolute truth. We thought that the philosophic basis of the Soviet society is the marxism, but we see from this letter that in certain scientific institutions of the USSR marxism is exchanged by the most abominable гегельянство. Спрашиваю, когда будут приняты соответствные оргнъводы и почему обмякла железная рука Че-Ка.

THE PHYSICAL REVIEW

──────────────── AND ────────────────

PHYSICAL REVIEW LETTERS

1 March 1988

Dr. Stefan Marinov
Inst. for Fundamental Physics
Morellenfeldgasse 16
A-8010 Graz, AUSTRIA

  Re: Very easy demonstration of the violation
    of the angular momentum conservation...
  By: Stefan Marinov   LN3620

Dear Dr. Marinov:

  The above manuscript has been reviewed by our referee(s).

  On the basis of the resulting report(s), it is our judgment
that the paper is unacceptable for publication in Physical Review
Letters. We are therefore returning the manuscript herewith,
together with a copy of the criticism that led to our decision.

            Yours sincerely,

            Stanley G. Brown
            Editor
            Physical Review Letters

enc.
P.S. Another referee has not yet responded.

Editorial note

  The report of the second referee (which here is printed immediately after the re-
port of the first referee) was sent by Dr. Stanley Brown on the 11 March.

  The above mentioned paper is published in this volume.

Referee's Report on "A Very Easy Demonstration of the Violation of the
Angular Momentum Conservation Law and of the Failure of Conventional
Electromagnetism" - by S. Marinov

For the last 100 years it has been generally believed that the electro-
magnetic field has an associated angular momentum density,

$$L_{em} = \vec{r} \times (\vec{E} \times \vec{B})/4\pi c .$$

This density has been shown experimentally by the twist transmitted to
material objects in two delicate torsion fiber experiments:

RA Beth, Phys. Rev. 50, 115 (1936), (for light) and

Graham & Lahoz, Nature 285, 254 (1980), (for low-frequency fields).

Dr. Marinov refers particularly to the latter experiment which he
interprets not as evidence for angular momentum conservation, but rather
angular momentum violation. This interpretation is based on the author's
assertion that only material objects and radiation fields can have angular
momentum.

Philosophically there is nothing wrong with the Marinov hypothesis.
However, to be of any use to readers of Phys. Rev. Letters, this hypothesis
must lead to testable experimental consequences. Specifically, what
feature of the Marinov hypothesis guarantees that the violation of angular
momentum will be just such as to give the observed effect in the Graham and
Lahoz experiment? Since an existing theory is already in place, the
question should perhaps be stronger: can the proposed theory lead to a
crucial experiment whose consequences would differentiate between the
proposed theory and the established one?

The present situation is very reminiscent of the discovery of beta
decay in the early 1930's It was observed then that the sum of the
electron and recoil nuclear momenta is not zero. One possibility is that
linear momentum is not conserved: the other is that a new particle, the
neutrino has been produced. Scientists accept the latter possibility
because it leads to other testable consequences as in the polarization
predictions of Fermi's theory of beta decay, and the direct observation of
the neutrino.

On page 5 Marinov gives a discussion of his expt (Fig. 3). I have two
technical comments: Equation (1) for the torque on conduction currents
seems to neglect the fact that radial currents both flow <u>in</u> at the top and
<u>out</u> at the bottom of the iron yoke. Equation (2) for the torque M_{dc} on a
displacement current <u>in vacuo</u> should be non-existent in either conventional
or Merinov's theory. In conventional theory M which (Merinov interprets as
being transmitted to the Faraday disk) is zero because the torque acts to
increase the angular momentum of the field not the disk. In Merinov's
theory the torque should be zero because an induction field cannot store
momentum.

In sum I do not feel that this paper is publishable at present. I
urge the author to develop his theory to the point where is has testable
consequences.

<div align="right">Referee B:

PHYSICAL REVIEW LETTERS</div>

Review of

A Very Easy Demonstration Of the Violation Of the Angular Momentum Conversation Law and Of the Failure Of Conventional Electromagnetism

By Stefan Marinov

Graham and Lahoz (G,L) claim that their experiment verifies conventional
electromagnetic theory. They observe a torque on a delicate torsion balance as
independent static electric and magnetic fields are being set up. They argue
that

$$\int_\infty \varepsilon_0 \mu_0 \; \frac{\partial}{\partial t} \; (\vec{E} \times \vec{H}) \; dv$$

"represents a real reaction force even with induction fields" and that their
measurements agree within the experimental errors.

Marinov claims that G and L have misunderstood the theory; and therefore,
that the experiment demonstrates a violation of angular momentum conservation.
He assumes that the $\vec{E} \times \vec{B}$ term cannot be interpreted in the same way in
quasistatic cases as in radiation fields; i.e. quaisistatic $\vec{E} \times \vec{B}$ cannot carry
energy or momentum; and therefore, the GL experiment (and presumably the two
others like it) are violations of angular momentum conservation.

Mr. Marinov must be more careful to distinguish between the roles of
theory and experiment. G and L are <u>testing</u> electromagnetic theory as they
understand it. Now, if Marinov can show that the GL interpretation of the
$\vec{E} \times \vec{B}$ term is not internally consistent with the rest of the theory or that it
has been ruled out by other experiments then he is under an obligation to
supply the evidence. He can't simply dismiss the GL interpretation as one that
"every child" knows is wrong. I don't know that it is wrong, so I take the
experiment to be positive evidence for the GL interpretation.

If Marinov can logically or experimentally demonstrate the absurdity of
the assumption then he has a paper worthy of consideration by some publication.
The present paper doesn't even attempt the demonstration; and therefore, it
should be rejected.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

7 March 1987

1. Prof. N. Kurti
EUROPHYSICS LETTERS
Dept. of Eng. Science
Parks Road
Oxford OX1 3PJ, U.K.

2. Prof. B. Cagnac
Lab. de Spectr. Hertzienne
Tour 12, 1-er etage
4, Place Jussieu
F-75252 Paris Cedex 05

Dear Prof. Kurti,
Dear Prof. Cagnac,

You both surely have received the letter of Mrs. Bouldin to me of the 26 February,
which can be considered as an answer to my last letter to Dr. Cagnac (with a copy
to Dr. Kurti) of the 30 January.

I am INDIGNANT to receive a letter from Mrs. Bouldin and not from Prof. Cagnac. You
both do not do science, you SUFFOCATE science. Prof. Kurti has stopped the publica-
tion of my paper on the quasi-Michelson experiment and more than a year after the
performance of this EXPERIMENTUM CRUCIS (which can be carried out in a day in any
well-equipped optical laboratory), the report on it can not reach the scientific
community, as I succeeded to publish it (after the rejection by Dr. Kurti) in a
journal for "alternative" physics in German which has a very limited circulation
and is not received by the scientific libraries.

Now, without any reasonable motivation Prof. Cagnac and Prof. Kurti   have
rejected my paper G 1518 "Electromagnetic generator having only a rotor" in which
I report on an experiment violating the law of angular momentum conservation. This
is a TREMENDOUS experiment. And I received a referee comment which is NONSENSICAL.
I wished that Prof. Cagnac (or his ANONYMOUS referee) answer only one question:
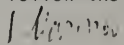
Will my Bul-Cub machine without stator be able to rotate if alternating current
is sent through it or not?

And I do not receive this answer. I wished to understand whether Prof. Cagnac (or
his ANONYMOUS referee) understand the TREMENDOUS IMPORTANCE of my experiment for
the future of mankind. But there is no answer "yes" or "no". How can EUROPHYSICS LETTERS
fall so low?!?! What a policy is following EUROPHYSICS LETTERS by trying to cover
with silence such an important experiment? I insist for an answer to the above ques-
tion. And if Prof. Cagnac will not give the answer, I can only exclaim: "Quelle
horreur!" I insist for a re-examination of this paper by an arbitrator. And I wish
to receive an answer to this letter NOT by Mrs. Bouldin but by Prof. Cagnac.

Now Mrs. Bouldin returns my paper THE ELECTROMAGNETIC EFFECTS ARE DETERMINED BY
THE POTENTIALS AND NOT BY THE INTENSITIES without having sent it to a referee as
"experience of the last year or so has shown that dealing with papers submitted by
you is extremely time-consuming for Dr. Kurti and his Co-Editors". Who was guilty
for our prolific corresondence with Dr. Kurti? This was ONLY Dr. Kurti as he has
rejected a paper which was already accepted. In our correspondence there is NO
science, there are only mean subterfuges from the part of Dr. Kurti and his Co-Edi-
tors to find ways to reject my papers, as they see that if my papers will appear,
then the whole body of conventional physics will crumble to pieces. Present objec-
tions, give motivations for rejection, ANSWER my questions by "yes" or "no"! Only
by putting this "yes" or "no" on the paper, you both will understand that I am
right! (But you have since long time understood this!!!!) Which is then the conclusion:
suffocation of the scientific truth, nothing else!

I insist for a re-examination of my paper "ELECTROMAGNETIC GENERATOR..." and for
an examination of my paper "THE ELECTROMAGNETIC EFFECTS..."

And I insist to have an answer SIGNED BY PROF. KURTI: "Have I the right to
submit manuscripts to EUROPHYSICS LETTERS or not?" Almost ALL physical journals of
the world have closed their doors for my papers (IL NUOVO CIMENTO returns my let-
ters without opening them). Will EUROPHYSICS LETTERS follow the Italians?

Sincerely yours: Stefan Marinov

SΞΞΞ HⅠ ΞΞΞ ΞΞV
I°° ⁻. ⅈ⅀ ⅗′ ⅏∷ ⅙ⁱ6
A-8910 GΓAZ — AUSTRIA

8 March 1988

Dr. Stanley G. Brown
PHYSICAL REVIEW LETTERS
Box 1000
Rydge
NY 11961

<u>Ref. LN 3620</u>

Please, acknowledge the reception of
this parcel!!!!!!!

Dear Dr. Brown,

Thank you very much for your letter of the 1 March 1988 with which declined the
publication of my paper

VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION...

I found the referee's comments VERY GOOD. In conclusion of his comments the referee
writes:

I urge the author to develop his theory to the point where it has testable
consequences.

In the paper I wrote that I DID the described and photographed experiment WITH
the predicted by me effects. However, I made TWO papers: ONE (experimental) I submit-
ted to EUROPHYSICS LETTERS and ANOTHER (theoretical) I submitted to PHYS. REV. LETT.
EUROPHYSICS LETTERS has rejected the experimental paper and my objections could not
lead to a change in the editorial decision. I enclose the rejection letter of Prof.
Cagnac of the 12 December 1987, my objections of the 30 December 1987 and the final
rejection (where my questions are NOT answered) of Prof. Cagnac of the 8 January 1988.

Thus I decided to produce ONE paper (theoretical and experimental) and to submit
it to PHYS. REV. LETT., as I see that your referee is a man who feels where the dog
is buried. This paper is EXACTLY THE SAME as the previous. I added only the page
"6_{bis}" and fig. 5. I changed also Ref. 10 from EUROPH. LETT. to NAUKA I ZHIZN' (Mos-
cow). When I was in Moscow and informed Acad. Sakharov, I visited also the editorial
office of the scientific-popular journal NAUKA I ZHIZN' to inform also its editor
Dr. Pankratov about my experiments which violate the laws of energy and angular mo-
mentum conservation. Dr. Pankratov suggested that I submit a paper on all these ex-
periments what I did after returning to Austria. My paper was first given for opinion
to Acad. Zel'dovich and after his death to Acad. Ginsburg. The opinion of Acad. Gins-
burg was negative, however the paper is still in examination and now it is with
Acad. Sakharov. In this paper only about 1/10th part is dedicated to matter which
is discussed in the paper submitted to your journal. Thus I retain Ref. 10 only with
the aim to keep the order of the references as in the previous paper when the experi-
mental part was submitted to EUROPH. LETT.

I defend firmly the opinion that my experiment (as well as the experiment of Graham
& Lahoz) violates the angular momentum conservation law. The referee thinks that this
law can be not violated and gives as an example the beta decay and the discovery of
the neutrino. I shall suggest that he exposes his opinion and explains the mechanism
in which in my experiment the angular momentum conservation remains preserved and
that he publishes this paper together WITH my paper in the PHYS. REV. LETT. Only in
this way the scientific community will find the right solution of the puzzle.

I shall be also very thankful to you if you will send me also the second referee's
opinion.

In the case that your referees will suggest rejection of the paper, I shall be
very thankful to receive the answers of the referees to all my questions posed in
my letter of the 30 December 1987 to the referee of EUROPH. LETT.

I repeat what I stated in the abstract to my paper:"The violation of the laws of
conservation (observed already not only by me but also by Graham and Lahoz) opens a
new era not only in physics but also in human theory". It will be a pity if my paper
will be rejected. Such a rejection will delay the understanding of my machine MAMIN
COLIU (Nature, <u>322</u>, x, 21 August 1986, and New Scientist, <u>112</u>, 48, 1986) which will
solve the energetic crisis of the world.

Hoping to receive your decision soon,

Sincerely yours,   S. Marinov

PS. The referee has to read my books in
order to understand the "Faraday disk".

Акад. Г. И. Марчуку
Президенту АН СССР

На внимание г-на С. С. Маркианова
Управление внешних сношений

Ленинский проспект 14
Москва В-71

Копии: 1. Акад. А. Д. Сахарову, ул. Чкалова 48

2. Д-ру О. А. Туманову, Ин-тут Спектр., Троицк

3. Д-ру С. Г. Панкратову, журнал НАУКА И ЖИЗНЬ

4. Послу СССР в Вене

Думаю, что по академии в целом оборот бумаг достигает нескольких миллионов в год! При этом больше половины из них просто не нужны /о дьявольщина какая, а разве другая половина и вправе нужна?!/. Возьмите направление в печать статей по физике и астрономии, с чем я постоянно сталкиваюсь. Рукопись должна быть сопровождена бумагой за подписью руководителя отдела или лаборатории, направлением за подписью ученого секретаря и одним или двумя актами экспертизы, на четырех страницах каждый и за подписями пяти человек. Всего только в институте собирается восемь подписей. Но этого мало. Статьи обычно направляются еще с парой сопроводительных писем на визу в Президиум академии. Как ни нелепо, но это относится и к тезисам докладов на конференциях. Вот и получается, что тезисы в несколько строчек обрастают десятками страниц сопроводиловок.*

Акад. В. Л. Гинзбург /ОГОНЕК, №4, стр. 17,с.г.

* Услышь Пушкин это последнее словечко, да еще в родительном падеже множественного числа, он бы в могиле перевернулся.

Глубокоуважаемый господин Президент,

На мое последнее письмо Вам /копию которого прилагаю/ нет ответа, но я получил ответ на мое предыдущее письмо с 13-го января за подписью господина С. С. Маркианова, начальника Управления внешних сношений Академии. Копия письма Маркианова отправляется адресатам, которым я посылаю копии настоящего письма. Все приложения следуют в той очереди, в которой они упоминаются в этом письме. /У письма Маркианова №57 с 19.02.88 г./

Ответ короток и ясен: Академия Наук СССР не заинтересована участвовать в работах Конгресса по релятивизму и гравитации в Мюнхене 22 - 24 апреля.

Почему тогда я Вас /соответно Ваших советников/ опять беспокою? Потому что, боюсь, Ваши советники не осознали значение этого конгресса для будущего физики, для выхода из энергийного и экологического тупика. Я, умудренный опытом предыдущих веков, знаю, что мои усилия "раскачать" Академию тщетны, ибо мои письма в лучшем случае перебрасываются из одной папки в другую, тревожа покой соответствующих чиновников, а если и до какого-то профессора или академика доходят, то последний, перелистав мои послания, только рот в три-четверти скривит: "Да что за птица этот Маринов? Болгарин? Я этих болгаров знаю, сдавали у меня экзамены. Дважды два и то с трудом множат. Ах, он в Австрии? А что он в этой Австрии делает? За лошадьми ухаживает? Так пусть он на этих лошадях и поскачет. Небось до того дожили, чтобы батраки из соседних капстран нас уму-разуму учили и на великого Эйнштейна замахивались. Ах, он диссиде-е-ент! Ясно дело. Тот который в науке шалопайничает, он в диссиденты рядится, авось тогда заметили бы. А что, что еще? Этот Маринов-то ваш, он вечный двигатель мастерит? И вы мне из управления внешних сношений еще его бред курьером пересылаете! Да вы же надо мной издеваетесь. Господи! Я статью в конце месяца сдавать должен, книгу в конце квартала, а они мне вечный двигатель на рецензию суют. /К жене./ Маша! Душенька! Открывай окно. Кричи КАРАУЛ, вопи ГОРИМ."

Хотя в прошедших и будущих анналах истории мне ясно все до "последнего листочка",

я опять стучу на машинке послание Вам, тов. Марчук, и опять вместо того, чтобы купить себе апфельштрудль, кушаю хлебушка, а на сэкономленные деньги почтовые марки. Ибо тот, который вечный двигатель мастерит, тот параноик, и он верит не только в том, что душу бездыханной материи всколыхнуть можно, но и душу человеческую.

В последнем моем письме с 18-го февраля я выявил опять готовность прилететь 17-го марта в Москву и принести мою машину МАМИН КОЛЮ, чтобы ее продемонстрировать "толковым людям". Чтобы подготовить поездку 17-го марта уже поздно /хотя с той стороны баррикад волокиты нет, но все же пара дней нужна/, но я могу прилететь 31-го марта аналогичной туристской группой Pool общества австро-советской дружбы. Это ПОСЛЕДНЯЯ возможность ДО конгресса.

Я опять повторяю: от АН СССР я ничего не прошу - ни помощи, ни совета, ни сочувствия. Я хочу только ПОКАЗАТЬ и ДАТЬ, причем ДАРОМ /бескорыстная братская помощь, как у нас, в Болгарии, говорят, когда СССР нам атомную централу или огнедышащий завод построит/. Небось московские физики боятся взглянуть на мои эксперименты, считая меня Мефистофелем, опасаясь, что я их обворожу, заколдую. Или иные, роясь в моих бумагах, то заплачут, то зовотут: "Где решать! Другие пусть. Вдруг не выйдет, вдруг покроют, вдруг возьму и ошибусь." Да не-ет. Ваши физики не такие уж боязливые, чтобы от экспериментов пятиться. Просто считают, что мои эксперименты чушь и ерунда и нечего время зря терять /статью в конце месяца сдавать нужно, книгу в конце квартала/, т.е. пре-не-бре-га-ют.

А дело, черт побери, важное, государственное, общепланетарное /по моему мнению/. Машина МАМИН КОЛЮ показывает, что правило Ленца в ней нарушается и ее можно будет запустить с замкнутым циклом, т.е. как перпетуум мобиле. Я этого пока не успел сделать /нехватка Остап-Бендеровских знаков/. Я это сделаю, знаки будут. Но моя машина "Бул-Куб" без статора очевиднее демонстрирует нарушение закона сохранения углового момента. Эффект в этом эксперименте ВНЕ ВСЯКОГО СОМНЕНИЯ, ибо тело подвешенное на двух тоненьких осях из будильника приходит во вращение ВНУТРЕННИМИ СИЛАМИ, без наличия "внешнего статора". Я посылаю Вам мою статью VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM, где этот эксперимент описан и корреспонденцию по этой статье с журналом EUROPHYSICS LETTERS /где статья эта была представлена под заголовком ELECTROMAGNETIC GENERATOR HAVING ONLY A ROTOR/ и с журналом PHYSICAL REVIEW LETTERS. Дайте ее толковым людям. Быстро. БЫСТРО!!! Пока я дураков-рецензентов одолею месяцы, а то и годы пройдут, а Земля наша ЗАДЫХАЕТСЯ.

И если пожелают московские физики и электроинженеры на детину МАМИН КОЛЮ посмотреть, я 31-го марта прилечу. Тогда в Москве и решим, посылать ли советских физиков на конгресс в Монхен.

Посылаю статью /разгромительную/ из немецкой газеты SÜDDEUTSCHE ZEITUNG, посвященную нашему конгрессу и мой ответ FOR GLASNOST IN DER WISSENSCHAFT, которую, будьте уверены, не отпечатают. А нельзя ли ее отпечатать в Союзе? В МОСКОВСКИХ НОВОСТЯХ? В ЛИТГАЗЕТЕ? Да хватит, чтобы галльские принцы, немецкие евреи и саксонские умницы мир учили, что верно и что неверно. А с ихней стороны, простите, ошибочки быть-с не может? А может то, что по ихнему счету верно выходило, по нашему как раз и разноверно выходит?

Посылаю также титульный лист итальянского журнала FRIGIDAIRE за февраль-март 1988 г. В Италии, где релятивисткое лобби не так сильно, уже вышла пара анти-эйнштейновских статей в ежедневной прессе и другие ожидаются.

Посылаю также копию моего письма с 8-го января журналу ЖЭТФ. Я не получил от ЖЭТФа даже уведомления о получении статьи. Бесконечно буду благодарен г-ну Маркианову, если он с ЖЭТФ-ом созвонится /тел. 137-5622/ и разберется, получена ли статья, и потом о результате сообщит мне. Я письмом запрашивал, но ответа нет, а звонить отсюда очень дорого.

Прилагаю также мой телефакс журналу NATURE с 12-го февраля. Редактор этого журнала д-р Маддокс уже два года года ОБЕЩАЕТ опубликовать мои материалы, но врет и врет, и врет. И два письма мои Горбачеву, которые он уже год как обещает отпечатать тоже не выходят. Я уже два раза был в Лондоне, чтобы ускорить выход моих статей в NATURE, часами с этим самым Маддоксом разговаривал и сущность моторно-трансформаторной индукции объяснял, а он скотина, простите, не печатает. И мир в неведении остается. Чудо происходит. Законы сохранения рушатся. Нельзя же это чудо в руках одного единственного человека оставлять!

<div align="right">Искренне Ваш: Стефан Маринов</div>

europhysics letters

[handwritten letter]

18 March 1986

Dr. S. Marinov
dicrellenfeilgaste 16
A - 5010 Graz, Austrian

Dear Dr. Marinov,

[handwritten content reproduced in transcription below]

Yours sincerely

N. Kurti

TRANSCRIPTION

Dear Dr. Marinov,

In view of your misplaced and somewhat offensive INDIGNATION at receiving a neatly typed letter on <u>my behalf</u> from the Staff Editor (I drafted the letter and sent it to her by Fax), I am writing by hand.

Regarding the last paragraph of your letter I confirm that you have the right to submit manuscripts to Europhysics Letters and that Europhysics Letters has the right to refuse publication.

Yours sincerely

N. Kurti

тов. Маринову Стефану

Глубокоуважаемый профессор Маринов !

Редколлегия "Писем в ЖЭТФ" решила отклонить Вашу статью "Нарушение третьего закона Ньютона в электромагнетизме" как находящуюся в вопиющем противоречии со всей современной физикой . О напечатании такой статьи можно было бы говорить, если бы упоминаемый Вами электромотор действительно работал.

Главный редактор журнала   И.Е.Дзялошинский

TRANSLATION

Dear Prof. Marinov!

The Editorial Board of the LETTERS TO THE JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS has decided to decline your paper VIOLATION OF NEWTON'S THIRD LAW IN ELECTRO-MAGNETISM as being in drastic contradiction with whole contemporary physics. One can speak about publication of such a paper only if the electromotor mentioned by you will actually work.

Editor in chief of the journal: I. E. Dzialoshinskij

Marinov's note.

Prof. Dzialoshinskij thinks that the electromotor shown in fig. 3 of the above paper (published in this volume in Russian) will not rotate. Poor Prof. Dzialoshinskij! - This motor is a DIRECT CONSEQUENCE of Ampere's "floating bridge" experiment (fig. 1 of the mentioned paper) which is one of the first electromagnetic ponderomotive experiments in human history. That the force "acting on Ampere's bridge" is the same for ANY LENGTH of the legs and does NOT DEPEND on the fact whether the legs are fixed or not fixed to the "bridge" was shown first by Prof. Pappas in his experiment photographed in fig. 8 on p. 109 of TWT-II. I have not constructed this electromotor to persuade myself and the world that it will work for the same reasons for which I do not let an apple fall to the ground to see whether the Earth will attract it. To construct such a motor - это раз плюнуть. Your children, Prof. Dzialoshinskij, if they are older than 16, can construct it and persuade you that it will work.

Editorial note. The above mentioned paper is published in this volume.

ΞΙΞΡΑΝ ΜΑΓΜΝΟΥ
Μοριιαε..
-8810 GRAZ — AUSTRIA

18 марта 1988 г.

Проф. В.М.Аграновичу
PHYSICS LETTERS A
Ии-тут Спектроскопии
Троицк
Москва 142092

Глубокоуважаемый проф. Агранович,

Большое спасибо за Ваше письмо с 29-го февраля 1988 г., хотя отклонение моих статей The Absolute Character of Light Propagation и Newtonian and Einsteinian Time Synchronizations, конечно, не было приятным сюрпризом для меня. Я когда получаю свои статьи обратно, вторю себе всегда вечные слова "omnes vulnerant", но и добавляю: "однако долго еще нужно ждать последнюю, которая меня убьет".

Так вот, сразу же и новые две статьи посылаю /у меня в папках статьи лежат как стертые лапти у мужика/ - каждую в двух экземплярах

1. THE ELECTROMAGNETIC EFFECTS ARE DETERMINED BY THE POTENTIALS AND NOT BY THE INTENSITIES.

2. ON THE ABSOLUTE ASPECTS OF THE ELECTROMAGNETIC INTERACTIONS.

Классификационный номер по PACS-у 41.10 и 03.30.

Все возможные денежные расходы будут уплачены мною.

Настоящим письмом я оставляю копирайт этих статей за Вашим журналом.

Прошу обратить должное внимание этим статьям и послать их ТОЛКОВЫМ РЕЦЕНЗЕНТАМ. Жаль, что Вы не послали мне мнения рецензентов отвергнутых статей. Я сразу бы указал Вам на их ошибки, ибо на мои непринятые статьи я получил до сих пор больше 500 рецензий, и среди них я не нашел хотя бы одной стоящей. Мои книги ТЕРНОВЫЙ ПУТЬ ИСТИНЫ, где я систематически публикую цветочки из этих рецензий, это ясно показывают. Может быть Вы уже слышали об этих книгах и поэтому не послали мне рецензии. Так рецензии во-первых анонимные, чего бояться, а потом я без Вашего разрешения их не опубликую. Но я как Батманов из романа Ажаева "Далеко от Москвы" очень люблю хранить любопытные документы. /Не читали! - Жаль, сталинской премией отмечен был./

Отвергнутые статьи были по кинематике света и показывали, что эфир и абсолютное пространство нужно НЕМЕДЛЯ восстановить. Рецензенты, я знаю, писали Вам, что я дурак, что мол великий Эйнштейн, Пуанкаре, Лоренц и тэдэ и тэдэ. Но я послал д-ру Туманову описание моего квази-Майкельсонова эксперимента. Этот эксперимент можно поставить в хорошо оборудованной оптической лаборатории в течении дня. Так нет ли там у вас какого-то дипломанта, кандидата в кандидаты, которому трудно защититься. Так дайте же ему описание моего эксперимента. За неделью только кандидатскую, но и докторскую состряпает. Измерить абсолютную скорость Земли, пара формулок и пара чертежей - кто тебе докторскую не даст. А потом дайте эту докторскую диссертацию вашим рецензентам, чтобы им глотки заткнуть. Важно, очень важно заткнуть им глотки, ибо абсолютные концепции ведут к КОРЕННОМУ ПЕРЕЛОМУ в электромагнетизме. Этой теме посвящены настоящие две статьи. Нужно понять, что такое электромагнитные потенциалы и к чему они ведут. А ведут они к нарушениям законов сохранения. Я 10-го марта послал д-ру Туманову мою статью VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM; возьмите статейку эту /она направлена в PHYSICAL REVIEW LETTERS/, увидите как я внутренними силами массу в двух килограмах вращаю. Нужно оповестить все это миру. Грех и ПРЕСТУПЛЕНИЕ оставлять без гласности такую информацию. И эти две статьи, которые я Вам теперь посылаю ЧРЕЗВЫЧАЙНОЙ ВАЖНОСТИ. А если рецензенты опять напишут? Так это ж не в первый и не в последний раз будет. Я мою детину МАМИН КОЛЮ скоро запущу. Тогда в 24 часа всем рецензентам по всему миру глотки заткну. А хорошо было бы, чтобы чуточку раньше разобрались бы рецензенты В ЧЕМ ДЕЛО. Ведь все ТАК ПРОСТО!!!

В ожидании уведомления о получении статей и в должном времени Вашего решения,

Искренне Ваш

Стефан Маринов

III. Очень обрадуюсь, если не только пошлете мне рецензии, но и если "раскажете" имена рецензентов. Уже и управдомы и завкадрами оставляют анонимки без внимания. Неужели последним убежищем анонимов останутся одни лишь научные журналы?

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

23 März 1988

Dem Herausgeber
SÜDDEUTSCHE ZEITUNG
Süddeutscher Verlag
Postfach 202220
D-8000 München 2

Sehr geehrter Herr,

Ich schicke Ihnen eine Kopie meines Briefes an Herrn Martin Urban vom 29 Februar and meinen Artikel GLASNOST IN DER WISSENSCHAFT.

Ich habe KEINE Antwort von Herrn Urban (und überhaupt von der SZ) bekommen.

Ich bitte mich zu benachrichtegen, ob dieser Brief in die Redaktion der SZ eingelaufen ist und im positiven Falle, ob die SZ diesen Brief beantworten wird.

Wenn Herr Martin Urban möchte sich nicht in diese Angelegenheit einwickeln, ich bitte, daß Sie mir schreiben:
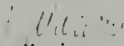
1) Ist die SZ interessiert meinen Artikel zu veröffentlichen?

2) Im Falle, daß die Antwort an die Frage 1) negativ wäre, dann, bitte, schreiben Sie mir, ob ich diesen Artikel SO SCHNELL WIE MÖGLICH als eine bezahlte Anzeige publizieren könnte. Schreiben Sie mir, wann ungefähr wird diese Anzeige erscheinen, wieviel wird mir das kosten und ob Sie eine Vorauszahlung verlangen werden.

Die SZ hat schon von mir einmal berichtet. Diese Information ist unten gegeben.

Wartend auf Ihre baldige Antwort,

Ihr ergebener:

Stefan Marinov

SÜDDEUTSCHE ZEITUNG, München, 5 Mai 1978

, 5. Mai 1978

NACHRICHTEN

Bulgarischer Regimekritiker aus der CSSR abgeschoben

Zwiesel (ddp)

Die tschechoslowakischen Behörden haben den 47jährigen bulgarischen Dissidenten Stefan Marinov in die Bundesrepublik abgeschoben. Wie die deutschen Behörden mitteilten, war Marinov auf dem Wenzelsplatz in Prag verhaftet worden, als er für die Verwirklichung der Menschenrechte in der CSSR demonstrierte. An Marinovs Kopf und Gesäß seien Spuren von Mißhandlungen entdeckt worden. Dem bulgarischen Regimekritiker war 1977 die Ausreise aus Bulgarien nach Belgien gestattet worden. Der ehemalige Mitarbeiter am wissenschaftlichen Institut in Sofia war bereits vor Jahren pensioniert worden. Nach eigenen Angaben war Marinov Ende April illegal über die Bundesrepublik in die Tschechoslowakei gereist und dort mit einem führenden Vertreter der Bürgerrechtsbewegung „Charta 77" zusammengetroffen.

THE PHYSICAL REVIEW

AND

PHYSICAL REVIEW LETTERS

23 March 1988

Dr. Stefan Marinov
Inst. for Fundamental Physics
Morellenfeldgasse 16
A-8010 Graz, AUSTRIA

      Re: Very easy demonstration of the violation ...

      By: Stefan Marinov   LN3620

Dear Dr. Marinov:

      We have received your letter of 8 March concerning
the above manuscript. This evidently crossed in the mail
with our letter of 11 March, enclosing the comments of
Referee B. We cannot proceed further with consideration
of the manuscript until you respond to this report.

      In addition, we are not convinced that you provide
an adequate response to the report of Referee A. You
comment on one sentence of the report, and discuss your
correspondence with Europhysics Letters. This does not
seem sufficient to overcome the critical comments of the
referee. Your remark that the referee has to read your
books suggests that your work may be inappropriate for
Letters publication, if it requires that much additional
discussion for an informed reader to understand it.
Finally, it is inappropriate to submit a questionaire to
the referees.

      We are returning the manuscript for your
convenience.

                      Sincerely yours,

                      Stanley G. Brown
                      Editor
                      Physical Review Letters

SGB:ef

enc.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

30 March 1988

Dr. Stanley G. Brown
PHYSICAL REVIEW LETTERS
Rydge, Box 1000
NY 11961

Ref. LN 3620

Dear Dr. Brown,

Thank you very much for your letter of the 23 March 1988 concerning my paper "Very easy demonstration...". I received also your letter of the 11 March with the report of the second referee. I send you my paper back begging you to publish it. Here are my comments:

Additional comments on referee A.

I presented to your attention my discussion with EUROPH. LETT. because Graham + Lahoz, the referee of EUROPH. LETT. and both referees of PHYS. REV. LETT. defend the SAME opinion, namely that in the experiment of Graham + Lahoz and in my Bul-Cub machine without stator the MECHANICAL angular momentum

$$L = \sum_{i=1}^{n} m_i \rho_i^2 \Omega,$$

(where Ω is the angular velocity, m_i and ρ_i are the mass and the distance to the axis of rotation of the ith particle of the rotating body and n is the number of all particles), which appears because current is sent THROUGH THE POINTS OF SUSPENSION of the axle, is BALANCED by an equal and oppositely directed electromagnetic angular momentum calculated by the help of the Poynting vector (it is to be noted that NONE of the above mentioned persons has presented the ANALYTICAL form of this "electromagnetic" angular (!?) momentum!)

I, on the opposite, affirm that in the experiment of Graham + Lahoz and in my Bul-Cub machine without stator there is NO such radiated electromagnetic angular momentum, what Graham + Lahoz call with the beautiful name "something in motion".

But before clearing this SUBTLE question whether there is "something electromagnetic in motion" or there is no, I wish to persuade myself that the referees of PHYS. REV. LETT. (and the referee of EUROPH. LETT.) accept the fact that the system of Graham + Lahoz and my Bul-Cub machine without stator ACTUALLY ROTATE. For this reason I posed the questionnaire which finally was reduced to a single question that I formulated in my letter to Prof. Cagnac of the 30 January 1988 (I enclose also this pretty ultimative letter).

Prof. Brown writes that it is inappropriate to submit a questionnaire to the referees. Why is it inappropriate??? It is VERY INTERESTING to hear which will be the (THEORETICAL) prediction of the referee on the issue of my experiment. And I should like to note that my experiment is much more easy for understanding than the experiment of Graham + Lahoz, as in my experiment the WHOLE system is suspended, while in the experiment of Graham + Lahoz only the condenser is suspended and some people (as Prof. P. Pappas) think that the opposite angular momentum is communicated to the cylindrical electromagnet. Only when the referee will give a clear answer to the question "Will the Bul-Cub machine without stator rotate or not?" he will grasp the importance of the experiment and he will recognize that the idea about the "radiated" angular momentum is RIDICULOUS.

Now to my remark that the referee has to read my books in order to understand the effects on the "Faraday disk" (uncemented and cemented). In my books I show that the formula for the motional induced electric intensity is $E = v \times rotA$, while the formula for motional-transformer induced electric intensity is $E = (v.grad)A$, i.e., that ALMOST ALL conventional electromagnetism is WRONG. But the scientific community will accept my theory only when it will be informed about the EXPERIMENTS which I have carried out. The submitted paper is ONE of this EXPERIMENTAL papers. Let us accept first the FACTS. The interpretations come after.

Comments on referee B.

This referee shows that he has perfectly well understood the experiment of Graham + Lahoz and the view points of Graham + Lahoz and me. I show that the interpretation of Graham + Lahoz is WRONG by having constructed my Bul-Cub machine without stator and by letting it CONTINUOUSLY rotate. I see in my experiment NO radiated energy. I affirm that it is clear for ANY CHILD that in the experiment of Graham + Lahoz and in my machine there is no such "radiated" electromagnetic energy. If the referee can see and then DETECT such energy, let him defend his view-point in the press.

Sincerely yours,

Stefan Marinov

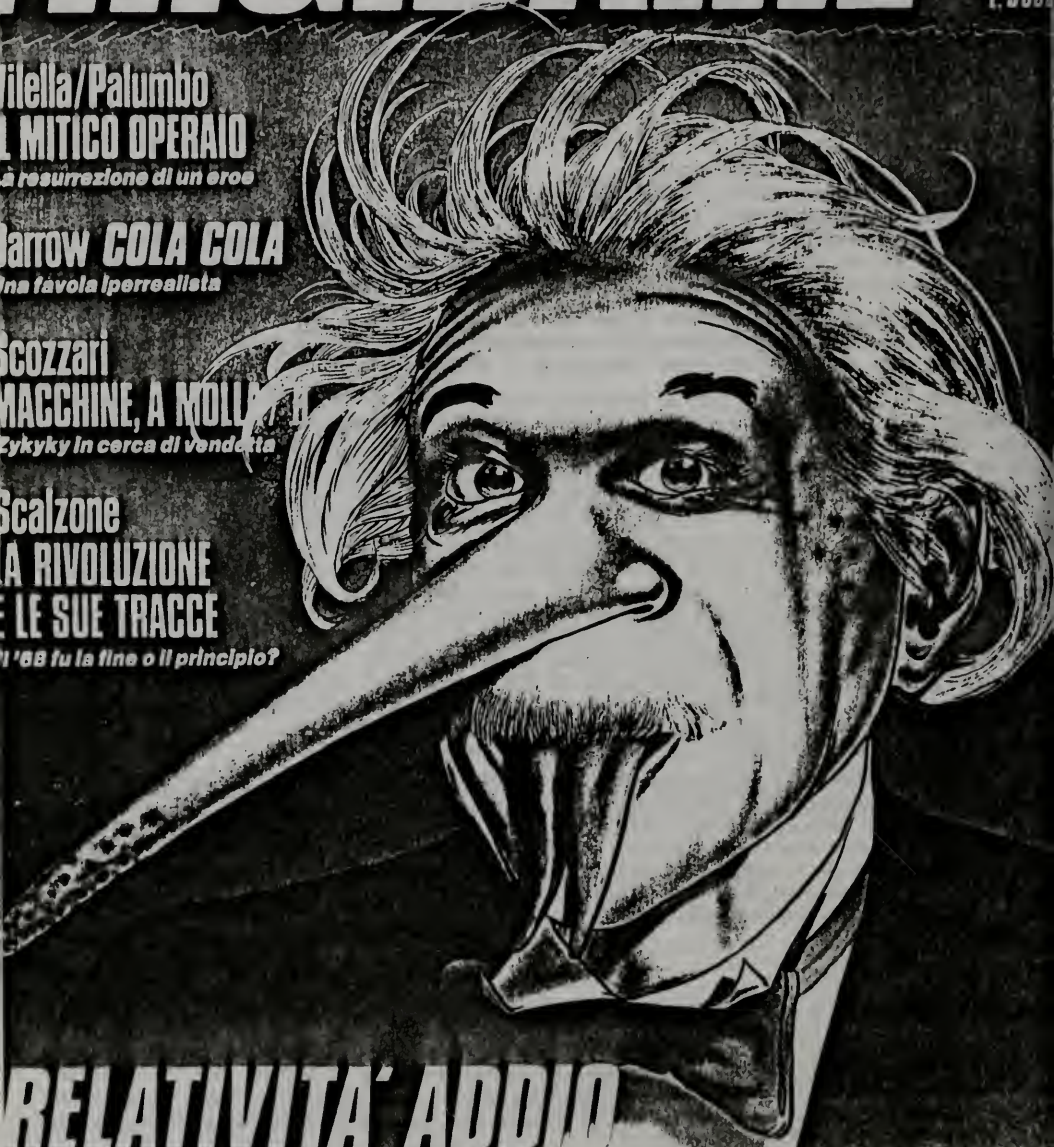Editorial note. See Pappas' opinion on p. 255.

FRIGIDAIRE

Vilella/Palumbo
IL MITICO OPERAIO
La resurrezione di un eroe

Darrow COLA COLA
Una favola iperrealista

Scozzari
MACCHINE, A MOLLA II
Zykyky in cerca di vendetta

Scalzone
LA RIVOLUZIONE
E LE SUE TRACCE
Il '68 fu la fine o il principio?

RELATIVITA' ADDIO

Paolo Brunetti intervista Roberto Monti sui nuovi oriz... ... ... mode ...

STEFAN MARINOV
Morellenfeldgasse 16
-8010 GRAZ — AUSTRIA

4 April 1988

Prof. J.-P. Vigier
PHYSICS LETTERS A
Institut Henri Poincare
11 Rue P. et M. Curie
F-75231 Paris Cedex 05

Dear Prof. Vigier,

Thank you very much for your letter of the 28 March. Before giving my answer I should like to rewrite your letter.

Dear Dr. Marinov,

I have received the following referee's report on your paper V 500a (The Maxwell-Michelson puzzle and the blindness of mankind):

"James Clerk Maxwell replies that he was unable to incline the mirror M_2 at the angle v/c, because v was the subject of the (hoped for) measurement. And he asks for the reflection law involved in the case of Fig. 3.

Indeed the artful situation exhibited by the author is meaningless for effective experimental work. The starting point of such an experiment is to obtain, before rotation of the apparatus, a convenient interference pattern."

In view of this I am unfortunately unable to accept your paper in PLA and return your ms herewith.   Yours sincerely: J Vigier

In my letter to you of the 7 March, I wrote you that if your referee will suggest my paper V 500a for publication, I shall send you 1000 Fr. You LOST the game! Until now I have promised (and SENT) thousands of dollars to my referees and editors which had to be won by them in the case that my predictions will be not fulfilled. Every time the money returned back to me. You can persuade yourself by reading my collection of documents THE THORNY WAY OF TRUTH.

The referee "makes the fool", objecting that one cannot incline mirror M_2 to an angle v/c, as one does not know v. Fritzchen (15 years old) shows with his figure that if the angle of inclination of SM with respect to the perpendicular to M_1 is MORE than $\pi/4 + v/2c$, then, according to the most simple "classical" calculations it turns out that the times of travel of the parallel and perpendicular photons will be equal. The "classical" calculation gives a difference only if this angle is exactly $\pi/4$. When I read to Fritzchen the referee's objections, he exclaimed: "But the oncle referee is more stupid even than our physics teacher!"

The referee, however, is not so stupid as Fritzchen (because of his unripeness) thinks, as he poses a very CLEVER question about the reflection law involved in Fig. 3.

I enclose my paper

                    THE MICHELSON-MORLEY EXPERIMENT AND THE BLINDNESS OF MANKIND

where this extremely important question is discussed.

I SUBMIT this paper to PHYSICS LETTERS A. I have, of course, feeble hopes that it will be accepted. In the case (almost incredible!) of acceptance, please, write me how much have I to concise the paper to make it suitable to your journal (or, maybe, it will fit even in the present size?).

Here I wish to explain to the referee with more simple words the essence of the mirror-Bradley effect which until now remained unnoticed by mankind.

The referee knows very well that if one looks at a star through a telescope, one has to incline the axis of the telescope at an angle v/c with respect to the line connecting the observer with the star, where v is the velocity of the observer in absolute space and c is the velocity of light. Otherwise one CANNOT see the star. This effect was discovered by Bradley more than two centuries ago.

Let us now have a mirror moving with a velocity v in parallel to its surface and let us send from a point in absolute space a light ray perpendicularly to the mirror's
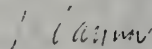
surface. The question is: will the light ray be reflected along the perpendicular line and will it return again to the starting point or it will be "aberrated"? Such an experiment was NEVER carried out and we can make only hypotheses. My hypothesis is that the light ray will be "aberrated", so that if the angle of incidence is, as supposed, $\phi = 0$, the angle of reflection will be $\phi' = 2v/c$. Thus the ray will not return to the point of emission but will be displaced over a distance $d = 2Lv/c$ in a direction parallel to the mirror's velocity, where L is the distance between the source and the mirror. Thus if we should like to see the reflected beam (being at the point of emission), we have to make the incidence angle equal to $\phi = v/c$ (better to write $\phi = - v/c$), so that, at a mirror-aberration angle equal to $2v/c$, to have a reflection angle $\phi' = v/c$ and thus to have the light ray going there and back along the same line.

Which will be now the situation if the mirror, the source of light and the observer (whose location coincides with the location of the source) move TOGETHER with the same velocity v in parallel to the mirror's surface? - If the mirror-Bradley effect does not exist, then sending the light ray perpendicularly to the mirror's surface, it will return again along the same line and the observer will see the reflected light. The picture in absolute space will be as shown in fig. 2 of the enclosed paper. If, however, there is a mirror-Bradley effect, and we wish to see the reflected light, then we have to send the light ray inclined at an angle $\phi = v/c$ (better to write $\phi = - v/c$), so that at a Bradley aberration angle $2v/c$, and thus at a reflection angle $\phi' = v/c$, it can return to us. In this case the picture in absolute space will be as shown in fig. 3 of the enclosed paper.

That is the essence of the mirror-Bradley effect. Maybe the referee will object that I am not right, as nobody until now has observed this effect. Dear referee, you are right, but not ENTIRELY. As a matter of fact this effect was revealed by Michelson and Morley in 1887, i.e., a century ago, as they have NOT observed differences in the times of travel of the parallel and perpendicular photons and this can be explained only at the presumption of the mirror-Bradley effect.

Hoping to receive your acknowledgement for reception and then in due time your final decision concerning the acceptance/rejection of the enclosed paper,

Sincerely yours,

Stefan Marinov

Editorial note. Both above mentioned papers are published in TWT-I.

SüddeutscheZeitung
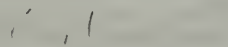

REDAKTION

FORSCHUNG-WISSENSCHAFT-TECHNIK

Herrn

Stefan Marinov

Morellenfeldgasse 16

8010 Graz-Austria

Sehr geehrter Herr Marinov,

wir haben auf das Interview mit Herrn Professor Ehlers eine
Reihe von Leserbriefen publiziert. Ihr Artikel überschreitet
den Umfang eines Leserbriefes. Für den Abdruck auf der Wissen-
schaftsseite der Süddeutschen Zeitung kommt er nicht in Frage.
Ich schicke ihnen zu unserer Entlastung den Brief zurück.

Mit freundlichen Grüßen

Dipl.-Phys. Martin Urban

Mrs. Elizabeth Hughes
NATURE
4 Little Essex Street
London WC2R 3LF

14 April 1988

Dear Mrs. Hughes,

My last telefax to you of the 12 February remained again without answer (see it re-produced on p. 266 of the enclosed book). I phoned you a couple of times but never could I reach you, as you were always at a "meeting". May I tell you that the experien-ce of the Soviet Union has shown that too many "meetings" lead only to a disaster. This was established first by Majakovski in 1923 with beautiful poem ПРОЗАСЕДАВШИЕСЯ, but, unfortunately, only few people read this poem. I give you my advice to ask Mrs. Vera Rich to translate for you this poem.

After this telefax of the 12 February I spoke about 40 times with Dr. Maddox on the phone. He excused himself that his (and yours) attitude led me to the Graz psychiatry and promised that my materials will be published as soon as possible. In those 40 phone conversations Dr. Maddox always promised me that the proofs of my articles and of the letters to Gorbachev will be sent "this night". After his last promise on the 11 April Dr. Maddox flied to Israel and Mrs. Mary Sheehan said me yesterday the proofs, as far as she knows, are not sent.

Dear Mrs. Hughes, I think you have finally to answer me: Is Dr. Maddox a normal per-son? May be he is ill? It is not possible that the Editor of one of the biggest world's scientific journals during two years in about 500 phone conversations and a couple of letters and telefaxes promises to publish an article and that he does not do this. I find as an explanation for the attitude of Dr. Maddox only some strange psychic illness which the physicians can difficultly recognize. Maybe I am not right. Then, please, give me the answer.

Any normal person would had long time ago given up the battle with Dr. Maddox. But I am NOT a normal person. In my books The Thorny Way of Truth you can see many documents about my sojourns during YEARS in the psychiatric clinics of Bulgaria (and also of Pa-ris and Graz). I shall not give up the battle. Even if I shall not be able to appear in NATURE, I shall fight until this moment when I can establish whether Dr. Maddox is an ill person, or whether there are OTHER REASONS for his attitude.

I hope at least that you are not an ill person and that you will answer this letter and EXPLAIN to me the reasons for Dr. Maddox' attitude.

I send you the third volume of my book THE THORNY WAY OF TRUTH which was published yesterday. There you may read a part of my correspondence with NATURE in the last year. I think that such a kind of correspondence is not propitious for the good name of your journal. But I think that it is better to give GLASNOST to this correspondence. Otherwise Dr. Maddox will continue another year or two with his promises. I hope that we shall finally put an end to SUCH a kind of correspondence and that Dr. Maddox will treat me in the gentleman way common in the United Kingdom.

NATURE gave a review to the first part of this book immediately after its publica-tion. I think it is good that NATURE gives a review also to this third part again immediately after its publication. In this book I give the information on TREMENDOUS discoveries which will change in a couple of years the whole life on our planet. If Dr. Maddox and your advisers cannot see the importance of my discoveries, this will be an evidence for the very LOW scientific level of these gentlemen.

I wish to assure you that I find Dr. Maddox a very sympathetic person. He has a charm overwhelming me. I LIKE HIM. I told him so many times: ".......... If certain forces exert a pressure on you not allowing to publish my materials, tell me this, and I shall leave you in peace." His answer always was: "There are no such forces, I shall publish your materials." Maybe Dr. Maddox has to serve TWO patrons: his scienti-fic conscience and somebody else. If this is the case, tell it to me, Mrs. Hughes, so that I do not torment more the poor man, whom I ADMIRE for his tact and "finesse".

Hoping to read you soon,

Sincerely yours,

Stefan Marinov

SYSTEM DYNAMICS
I   n   15
A-8010 GRAZ -- AUSTRIA

Проф. И. Е. Дзялошинскому
ЖЭТФ
ул. Косыгина 2
Москва 117334

15-го апреля 1988 г.

Глубокоуважаемый Проф. Дзялошинский!

Большое спасибо за Ваше письмо с 15-го марта. Отклонение моей статьи

НАРУШЕНИЕ ТРЕТЬЕГО ЗАКОНА НЬЮТОНА В ЭЛЕКТРОМАГНЕТИЗМЕ

было ожидаемым, но, конечно, не приятным сюрпризом для меня.

Ваше письмо и мои комментарии к нему отпечатаны на стр.   приложенной книги THE
THORNY WAY OF TRUTH, Part III.

У меня много других экспериментов в программе /прежде всего   пуск   моего вечного
двигателя МАМЕНЬКИН НИКОЛАША с замкнутым энергетическим циклом/. Мои финансовые ресур-
сы ограничены /финансирую всю мою исследовательскую деятельность из моего кошелька/.
Эти были одни из причин, которые не позволили мне конструировать электромотор, описан-
ный в статье, которому сейчас я даю название MarНap /от имени МАРинов - НАПиас/. Главная
причина, однако, следующая: я никогда не ставлю ОЧЕВИДНЫЕ эксперименты, ибо тогда мало
времени и средств остается для собирания экспериментов, в чьи результаты я уверен не
полностью.

Однако, так как постройка машины МАРНАП требует мало денег и времени, и так как
я очень хочу отпечатать в ЖЕТФе мою статью, то я обращаюсь к Вам со следующим вопросом:

Если Вы мне напишите, что в случае постройки мотора, согласно данной в статье
схеме и в случае его вращения, Вы отпечатаете статью, то я займусь его конструкцией.
В случае Вашего положительного ответа, то напишите, будет ли достаточна фотография
мотора, или Вы еще потребуете протокол за подписью /скольких?/ очевидцев, которые
подтвердят эффект вращения.

22 - 24-го апреля мы проводим анти-эйнштейновский конгресс в Монхене. С советской
стороны там будет присутствовать д-р С. Г. Панкратов, редактор отдела физики и мате-
матики в журнале НАУКА И ЖИЗНЬ, с которым я говорил в Москве в ноябре прошлого года.
Вы могли бы связаться с ним по его возвращению в Москву, чтобы иметь более "живую"
связь со мной. Но, главное, попереплистайте приложенную книгу и дайте ее рецензенту
моей статьи. Информация, которую я хочу сообщить посредством вашего журнала, ЧРЕЗВЫЧАЙ-
НОЙ ВАЖНОСТИ. Было бы БОЛЕЕ ЧЕМ ГЛУПО, если советские научные журналы последуют при-
мерам западных журналов, подвергнув мои статьи остракизму.

В моем письме от 8-го января 1988-го г. на имя д-ра Боровик-Романова я писал /в
конце письма, см. стр. 247 приложенной книги/, что NATURE отпечатает два мои письма
Горбачеву /в связи с вечным двигателем/ в январе. Это было очередное обещание д-ра
Маддокса, которое он не выполнил. Вранье д-ра Маддокса очень задержало распространение
информации о моих теориях и экспериментах в научной литературе. Хочу надеяться, что
в советских научных кругах нет тех сил, которые заинтересованы в покрытии моих теорий
и экспериментов вуалью полного замалчивания.

С надеждой получить в скором времени Ваш ответ,

Искренне Ваш:

Стефан Маринов

18-го июня 1988 г.

Глубокоуважаемый проф. Дзялошинский,

На мое письмо от 15-го апреля я не получил никакого ответа. Будьте добры, ради
бога, ответить мне, если моя статья НАРУШЕНИЕ ТРЕТЬЕГО... будет принята в печать или
решительно отклонена. Напишите также, получили ли Вы мою книжоночку THE THORNY WAY
OF TRUTH, Part III. Прилагаю еще одну копию статьи.

В ожидании ответа,

Искренне Ваш: /
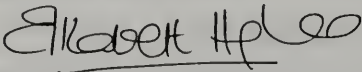
nature

Ref EH/BC

19th April 1988

Dr. Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
Austria

Dear Dr. Marinov,

Thank you for sending me a copy of your latest book.

Questions about editorial matters should always be addressed
to John Maddox, please, as I do not influence what appears in the
pages of <u>Nature</u>.

Yours sincerely,

Elizabeth Hughes
<u>Publishing Director</u>

Süddeutscher Verlag

Süddeutsche Zeitung

Herrn
Stefan Marinov
Morellenfeldgasse 16

A-8010 Graz   20.04.1988/le/ih

Sehr geehrter Herr Marinov,

mit Schreiben vom 13.04.1988 haben Sie unserem Wissen-
schaftsredakteur, Herrn Martin Urban, ein umfangreiches
Manuskript mit dem Titel "Für Glasnost in der Wissenschaft"
mit der Bitte um redaktionelle Veröffentlichung überlassen.
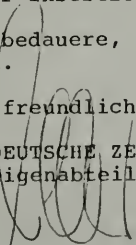
Herr Urban hat Sie bereits wissen lassen, daß ein Abdruck
im redaktionellen Teil der SÜDDEUTSCHEN ZEITUNG nicht in
Frage kommt. Auf Ihre Bitte hin wurde Ihr Manuskript an
die Anzeigenleitung weitergereicht, um zu prüfen, ob die
Möglichkeit besteht, den Abdruck in Form einer bezahlten
Anzeige vorzunehmen. Leider müssen auch wir Ihnen einen ne-
gativen Bescheid erteilen.

In Ihren Aussagen erheben Sie fundamentale und schwerwie-
gende Anschuldigungen gegen Herrn Professor Jürgen Ehlers,
die wir weder bewerten, geschweige denn beurteilen können.
Weiterhin werden in der SÜDDEUTSCHEN ZEITUNG grundsätzlich
keine Anzeigen geschalten, in denen Namensnennung Dritter
gegeben ist. Aufgrund dieser Tatsache müssen wir daher von
einer Insertion Abstand nehmen.

Ich bedauere, daß ich Ihnen keinen anderen Bescheid geben
kann.

Mit freundlichen Grüßen

SÜDDEUTSCHE ZEITUNG
Anzeigenabteilung

Rudolf Lechner

europhysics letters

22 April 1988.

Dr. Stefan Marinov,
Morellenfeldgasse 16,
A-8050 Graz,
Austria.

Dear Dr. Marinov,

Thank you for your letter of 15 March enclosing
TWO copies of your manuscript

THE CURRENT THERMAL DILATATION EFFECT
which Mrs. Bouldin forwarded to me. I apologize .
for the delay in acknowledging the receipt of your
letter but I was away from Oxford since the 13 March
and did not return till last week.

I am returning the 2 copies of your MS since
it was concluded after discussions that the paper
was not suitable for publication in Europhysics
Letters. This decision should not necessarily be
regarded as a reflection on the correctness of the
                           contents of your paper but I
must emphasize that neither the Co-Editors nor the
Editor-inChief are prepared to enter into a discussion
on the merits or otherwise of your communication,

Yours sincerely,

N. Kurti

N. Kurti.

Editorial note.

A paper treating the current thermal dilatation effect is published in this
volume in German under the title DER KUGELLAGER-MOTOR UND DER HUBER-EFFEKT.

SPECULATIONS IN SCIENCE AND TECHNOLOGY

Dr Stefan Marinov,
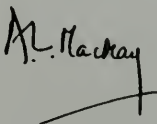Morellenfeldgasse 16,
A-8010 GRAZ,
Austria.

5 May 1988

Dear Dr Marinov,

Many thanks for your book and for the paper "Experimental violation.....". I am returning both by printed post. The book will be useful to historians of science one day.

I rest my beliefs as regards the phenomena described in your paper on Feynman's textbook of physics especially section II.27.6 where the Poynting vector is discussed. I think that your machine is a variant of what Feynman describes. Although Feynman's book is dated 1964, I heard about this kind of phenomenon, apparently violating the conservation of angular momentum, in the physics course in Cambridge about 1944. If the Austrian Patent Office has not heard of this, then so much the worse for them.
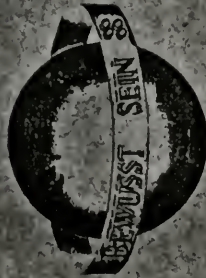
I believe your description of the motion of an electric motor when DC or AC passes through the ball races. Indeed, I think that you state that it had been described elsewhere. As I wrote, it is the casual mention of an 8% violation of the conservation of energy which cannot be dealt with in an aside.

Yours sincerely,

A.L. Mackay.

29. APRIL - 29. MAI 1988

BEWUSST SEIN

RAT · TAT · ART

KONGRESS FÜR

ZUKUNFTS-TECHNOLOGIE

Samstag und Sonntag
den 14. und 15. Mai

PROGRAMM:

Samstag:

9.00 Uhr: Dr.-Ing. H. Amon. Berlin
Übersicht - Einsicht - BEWUSST SEIN
Ausblick auf die Technik der Zukunft.

9.30 Uhr: Dipl.-Ing. Hilscher, Murnau
Mißachtete Kreativität.
Bericht einer Kulturschande.

10.30 Uhr: PSITRON. Dillingen
Funktionsweise einer N-Maschine.
Meßergebnisse und ihre Interpretation.

11.15 Uhr: Ing. K. Hopfgartner, Genf
Das Prinzip des Kromrey-Konverters.
Ein bekannter Effekt will genutzt werden.

12.00 Uhr: PAUSE

14.00 Uhr: Prof. S. Marinov. Graz
MAMIN COLIU, ein Perpetuum Mobile ?
Ist die klassische Physik überlistet?

15.00 Uhr: H. Amon, R Bredow. Bln/Mü
Der Hutchinson-Effekt.
Science Fiction oder nicht?

15.30 Uhr: S. Hartmann, Berlin
Die Newman-Maschinen.
Vergleich verschiedener Meßergebnisse.

16.00 Uhr: PAUSE

17.00 Uhr: METHERNITA, Linden
METHERNITA, ein Konzept der Zukunft?
Ein Dorf versorgt sich selbst, auch mit
Hilfe neuer Energietechniken!

Sonntag:

10.00 Uhr: Prof. Bodo Hamprecht, Berlin
Das Wesen der Wärme. Eine elementare
Betrachtungsweise aus anthrop. Sicht.

11.00 Uhr: B. Schaffer, Physiker, Berlin
Grenzen des 2. Hauptsatzes
Eine schwerwiegende Demonstration.

11.45 Uhr: W. Häberle, Scheer
Eine futuristische Wärmekraftmaschine.
Optimierung eines physikal. Nebeneffektes.

12.15 Uhr: PAUSE

14.00 Uhr: Dr.-Ing. W. Volkrodt, Neus..
Elektro-Smog und Waldsterben.
Einfluß von elektromagnetischen Wellen
auf unser Umfeld.

15.00 Uhr: Hachenay, Physiker, Dortm..
Wasser zwischen Schwere und Leichte.
Der Erfinder der Levitationsmaschine
berichtet.

16.00 Uhr: Dr. P. Kokoschinegg, Salzburg
Strukturuntersuchungen von Wasser mit
Hilfe der Kirlanphotographie.

17.00 Uhr: Abschlußdiskussion

Veranstaltungsort:
UFA-Fabrik   Viktoriastraße 13
Tel. 030/7528085   1000 Berlin 42

GALILEO

BACK IN ITALY

Alma Mater Studiorum
Sæcularia Nona

Il "ritorno" del metodo galileiano nella Scienza
The "return" of the galileian method in Science

Ciclo di conferenze sullo stato attuale della
Fisica Teorica e Sperimentale

Cycle of lectures on the actual situation of
Theoretical and Experimental Physics

Coordinatore/Coordinator
Roberto Monti
Istituto TESRE-CNR

AULA 1 - Facoltà di Magistero - Via del Guasto n.3

BOLOGNA, 20 - 21- 23 Maggio 1988

At the Bologna conference:
Staying: Silvertooth, Monti, Rodrigues, Marinov. Sitting: Kostro, Aspden.

PROGRAMMA

Venerdì 20 maggio 1988 •

R.MONTI (Italia)
Introduzione.

1) E.W.SILVERTOOTH (Stati Uniti)
Determinazione sperimentale dell'etere.

2) R.MONTI
Gli esperimenti di Michelson-Morley, Sagnac, Michelson-Gale.

3) R.MONTI
Albert Einstein e Walther Nersi: Cosmologie a confronto.

Sabato 21 maggio 1988 •

R.MONTI
Introduzione.

1) S.MARINOV (Austria)
Ripetizione dell'esperimento di Silvertooth nella variante "quasi-Michelson".

2) J.P.VIGIER (Francia)
Interpretazione relativistica dell'esperimento di Silvertooth.

3) L.KOSTRO (Polonia)
Einstein e l'etere.

Lunedì 23 maggio 1988 •

R.MONTI
Introduzione.

1) W.RODRIGUES (Brasile)
Ascesa e caduta del Principio di Relatività.

2) H. ASPDEN (Inghilterra)
La navigazione e l'osservatore.

3) R.MONTI
Albert Einstein e Walther Nersi: Cosmologie a confronto.

CONCLUSIONE

R.MONTI
Stato attuale e prospettive della Fisica Moderna.

(dibattito)

(*) h. 20,45
Traduzione simultanea
italiano-inglese/inglese italiano

PROGRAM

May 20, 1988 - Friday •

R.MONTI (Italy)
Introduction.

1) E.W.SILVERTOOTH (U.S.A.)
Experimental detection of the ether.

2) R.MONTI
The Michelson-Morley, Sagnac and Michelson-Gale experiments.

May 21, 1988 - Saturday •

R.MONTI
Introduction.

1) S.MARINOV (Austria)
A repetition of Silvertooth's experiment in the "quasi-Michelson" form.

2) J.P.VIGIER (France)
Relativistic interpretation of Silvertooth's experiment.

3) L.KOSTRO (Poland)
Einstein and the ether

May 23, 1988 - Monday •

R.MONTI
Introduction.

1) W.RODRIGUES (Brazil)
Rise and fall of the Principle of Relativity.

2) H.ASPDEN (England)
Navigation and the observer.

3) R.MONTI
Albert Einstein and Walther Nersi: comparative Cosmology.

CONCLUSION

R.MONTI
Actual state and perspectives of Modern Physics.

(debate)

(*) h. 20,45
Simultaneous translation
italian-english/english-italian

europhysics letters

Mr. Stefan **MARINOV**
Institute for Fundamental Physical
Problems
Morellenfeldgasse 16

A - 8010 Graz
Austria

Geneva, 26 May 1988

REF.: G1870

Dear Mr. Marinov,

Thank you for submitting your manuscript entitled

THE ABSOLUTE VELOCITIES AND POTENTIALS DETERMINE THE ELECTROMAGNETIC
AND GRAVITATIONAL EFFECTS

for publication in **Europhysics Letters**.

As requested by you this manuscript was examined speedily by the Editor-
in-Chief, Professor N. Kurti, who concluded that it was not suitable for
publication in our Journal.

I therefore return it to you hereby.

Yours sincerely,

C. Bouldin
Staff Editor

Editorial note.

The above mentioned paper is almost the same as the paper WHEN SHALL WE STOP TO DISCUSS
RELATIVITY, published   in   TWT-I.

UNIVERSITÀ DI PERUGIA
FACOLTÀ DI SCIENZE MATEMATICHE FISICHE E NATURALI
CONSIGLIO DI CORSO DI LAUREA IN MATEMATICA

Il Presidente

Dear Dr Maddox,

I have met Prof. Marinov during a meeting at this University, and I was
together with other people deeply interested in his research work. Since
he told us that his most recent paper is to appear in Nature, I would
like to recommend that this paper will be published in a short time, or
otherwise be definitively rejected, so that Prof. Marinov might submit
it for publication somewhere else.

   With best greetings

              (Prof. Umberto Bartocci)

Perugia, 28.5.88

ЕFAN MARINOV
  Morellenfeldgasse 16
3010 GRAZ — AUSTRIA

Mrs. C. Bouldin
EUROPHYSICS LETTERS
P.O.Box 69
CH-1213 Petit-Lancy 2

3 June 1988

Dear Mrs. Bouldin,

Thank you very much for your letter of the 26 May 1988 and for the extremely speedy examination of my paper G 1870 entitled THE ABSOLUTE VELOCITIES... I am highly obliged to these journals which examine my papers speedily, as the normal praxis of the physical journals is either to not answer my letters or to examine my papers during YEARS and then to reject them. Thus I present to you and to Prof. Kurti my CORDIAL THANKS.

The paper G 1870 was rejected by Prof. Kurti without presenting referee's comments. I have a full understanding for this attitude. My papers are written in such a lucid, exact,clear and physically right language that there is NO possibility to raise objections to my papers. On the other hand, my claims that whole contemporary physics is WRONG are such that it is extremely difficult for journals of the "establishment" to print my papers. But physics is a LOGICAL MATHEMATICAL science and an EXPERIMENTAL science. Experiments can not long be ignored and mathematical logic cannot be considered as wrong, except if one will show this by the help of MATHEMATICS.

I submit now to EUROPHYSICS LETTERS my paper (in two copies)

   LATE DISCOVERY OF THE MOTIONAL-TRANSFORMER INDUCTION.

The Physics Abstracts number is 03.30.

Herewith I transfer the copyright for this paper to EUROPHYSICS LETTERS.

All eventual charges will be paid by myself.

I wrote this paper yesterday especially for Prof. Kurti. I tried to explain to him (and to the whole scientific community) what is the motional-transformer induction. If Prof. Kurti will reject also this paper and if he will present no motivations for the rejection, then, I think, I have to put a black strip also on the address of EURO-PHYSICS LETTERS, as on almost all other physical journals of the world.

I hope that the examination of this paper will be as speedy as of the preceding one. A referee of this paper can be any professor in physics in the world. The paper can be read in five minutes and the decision can be taken in other five minutes.

If this paper will be published,MANY DOORS will be opened for me. Thus its publication will make nearer the day when I shall run my perpetual motion machine MAMIN COLIU.
       By the way, I enclose a photograph of the perpetual motion machine METHERNITA, constructed by Mr. Baumam in the village of Linden near Bern. Send this photograph to Prof. Kurti and a copy of this letter. This machine is running without any external energy supply since 8 years and produces 10 kW power which goes in the electric net of the village. It is a SHAME for humanity (and a big tragedy!) to cover this machine with SILENCE AND DISDAIN. If Prof. Kurti wishes to see the machine, I can arrange a visit for him with Mr. Baumann. Enclosed is the program of the FUTURE-TECHNO-LOGY congress which met in Berlin in May and where my machine MAMIN COLIU and Baumann's machine METHERNITA were presented.

                                        Sincerely yours,

                                        Stefan Marinov

THE PHYSICAL REVIEW

—————————— AND ——————————

PHYSICAL REVIEW LETTERS

14 June 1988

Dr. Stefan Marinov
Inst. for Fundamental Physics
Morellenfeldgasse 16
A-8010 Graz, AUSTRIA

      Re: Very easy demonstration of the violation
          of the angular momentum conservation...
      By: Stefan Marinov   LN3620

Dear Dr. Marinov:

      The above manuscript has been reviewed once again by our referee(s). Comments from the report(s) are enclosed.

      In view of the strongly adverse reports of our referee(s), we must again reject the manuscript. We feel that no useful purpose could be served by further resubmittal, rebuttal, or revision. We are returning the manuscript herewith.

                               Yours sincerely,

                                 Stanley G. Brown
                                 Editor
                                 Physical Review Letters

enc.

Second Report of Referee A on "Very Easy Demonstration of the
violation of the angular momentum conservation law and the
failure of conventional electromagnetism"   by S. Marinov

I have read the author's response very carefully.   Unfortunately
I don not see that our correpondense has really progressed.

In my first report I raised two technical and one philosophical
objection.   In response the author has not changed the
manuscript at all.   He has also not responded to my two technical
quaxxix questions.   X Rather he has discussed bhx only the
philosophical point.   This is the question of whether experiments
such as the author's or Graham & Lahoz or Kennard demonstate
violation of angular momentum.

The author has supplied a quaxximaxira questionnaire to
elucidate the contrast between his views and those of various
referees.   I am pleased to repond to this questionnaire.
The responses, which are enclosed, however, merely restate
the conventional view of E & M which I gave in my first report.

As to the author's final question, "must my paper be
published", I hope he will not be offended if I give a little
advice.   Papers which are published - not only in Phys. Rev. Letts.,
but elsewhere - are generally more analytical and less polemical
than this manuscript.   Expressions such as "The violation of the
laws of conservation opens a new era not only in physics but in
human history" should be left to the historians; they should not
be in the abstract of a physics paper.

Editorial note. See on the next page the answers of Referee A to Marinov's questionnaire.

SEE THE PRECEDING PAGES!

S̶T̶E̶F̶A̶N̶ ̶M̶A̶R̶I̶N̶O̶V̶
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

30 December 1987

Prof. B. Cagnac
EUROPHYSICS LETTERS
Tour 12, 1-er etage
4, Place Jussieu
F-75252 Paris Cedex 05

Dear Prof. Cagnac,

Thank you very much for your letter of the 21 December concerning the rejection of my paper

ELECTROMAGNETIC GENERATOR HAVING ONLY A ROTOR.

I CANNOT accept the motivations of the referee as he is WRONG. I wrote my objections which then I decided to present in the form of a paper. This paper with the title A VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM is enclosed. If even under this LUCID comments your referee will further insist for the rejection of my HISTORICAL paper, L shall beg you that the referee (or you) give answers to the following questions only by "yes","no", "I do not know". Only by the help of such questionnaires I have crushed the resistance of my openents.

QUESTION	ANSWER
1. Has the system of Graham+Lahoz rotated?	*yes*
2. Will the Bul-Cub machine without stator also rotate if the driving torque will overwhelm the friction?	*Yes, to the extent it is. The will same as G+L.*
3. If the above two answers are positive, then be there ponderable mass moving with an opposite angular velocity?	*no*
4. If the answer 3) is negative, then will matter in the form of electromagnetic waves carry away the respective angular momentum?	*no*
5. If the answer 4) is positive, will be the referee able to detect in some way the existence of this radiated energy?	_____
6. If the answer 4) is negative, are the experiment of Graham+Lahoz and my Bul-Cub machine without stator violating the law of conservation of angular momentum?	*no, The angular momentum is stored in The E.M. field. It can*
7. If the answer 6) is positive, must be my paper published?	*be withdrawn by discharging The capacitor.*

I hope that your referee (or you) will give answers to these questions in the case that you will decide to reject the paper. If answers will be not given, I am asking you, dear Prof. Cagnac, how science can under such conditions prosper?

I think I wrote you that my wife is Belgian-francophone and I lived for years in Brussels and in France. Thus you can maintain with me the correspondence in French. I write you in English, as I have no French type-writer.

I enclose a SLIGHTLY revised version of the paper, where the description of the apparatus is done more elegant.

Hoping to receive your answer soon,

Sincerely yours,

Stefan Marinov

PS. The paper of Graham + Lahoz is also enclosed. This paper came to my attention after the submission of my paper.

Referee "A" responses in red

Review of

A Very Easy Demonstration . . .

by Stefan Marinov

The author has made no changes in the manuscript in response to my criticisms. Furthermore, his reply to my critique is simply to reaffirm his earlier position, i.e. that only "radiation" fields can carry momentum and energy, which is in opposition to the generally accepted interpretation. Marinov's experiment, as well as the earlier one by Graham and Lahoz, leaves us with two choices: 1) Accept them as a confirmation of the consistency of the angular momentum principle and the conventional interpretation of the E x B term in electromagnetism or 2) deny both. Marinov takes the latter position pretending that the former is untenable. I still see no compelling reason to accept his point of view. His arguments in this regard are vacuous and amount to clumsy attempts to intimidate the reader. Therefore, although the experiment itself is rather nice, the paper should be rejected.

Actually, the results of the experiment would be publishable somewhere (but not in Physical Review Letters inasmuch as similar experiments preceeded his). The paper raises one interesting hypothetical question: if the experiment were the first of its type to be reported, should one withhold publication of the important experimental result on the grounds that the author might mislead the casual reader by insisting that only his convoluted interpretation is possible? Fortunately, the present paper does not present us with such a dilemma.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

23 June 1988

Dr. Alan Mackay
SST
Birkbeck College
Malet Street
London WC1E 7HX

Dear Dr. Mackay,

My trip to London was successful as I could, with the active support of Dr. Maddox, compose my paper in his printing office. The paper is ready for print and Dr. Maddox gave me the written promise that the paper will appear on the 18 August (on 6 pages of NATURE) under the title EXPERIMENTAL VIOLATIONS OF THE PRINCIPLES OF RELATIVITY, EQUIVA-LENCE, AND ENERGY AND ANGULAR MOMENTUM CONSERVATION.

Now I received a rejection from PHYS. REV. LETT. on my paper

VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM.

As I told you during my visit in your office on the 7th June, if PHYS. REV. LETT. will reject my paper, I shall submit it to SST.

To shorten the time of examination, I send you the whole correspondence with PHYS. REV. LETT., so that you can   read this correspondence and then decide whether you will publish the paper or you will reject it. I do not send you my correspondence on that paper with PHYSICS LETTERS A and EUROPHYSICS LETTERS, as there you will see exactly the same "song" and I am afraid that by having too many pages in your hands you will need too much time to read all (this correspondence WAS in your hands, as I have publi-shed it in toto in my book THE THORNY WAY OF TRUTH, Part III; of course, at request, I can send you again this correspondence).
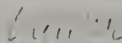
Now I have a proposal: Would you agree to publish my paper TOGETHER with the refe-rees' coments of the referees of PHYS. REV. LETT. and my answers? If you will consent, I shall write immediately to the Editor of PHYS. REV. LETT. to ask for a permission to publish the anonymous reports of his referees. If you will decide to   take this path, then two-three months after the publication of my paper and the reports of the referees of PHYS. REV. LETT. the world will accept the fact that the angular momen-tum conservation law can be EXPERIMENTALLY violated. Then there will be only a pace towards the acceptance of the violation of the energy conservation law.

Of course, I am afraid   you will have not the courage to publish in your journal the referees reports of the referees of PHYS. REV. LETT. Meanwhile only this is the way to bring the scientific truth QUICKLY to the attention of the scientific community. Of course, with this publication you will raise enormously the reputation of your jour-nal.

I hope that in the mean time Dr. Aspden has given his report on my paper "Relativisti Effects in Radiation from Macroscopic Light Sources". I do not doubt that the opinion of Dr. Aspden was positive.

Hoping to receive your acknowledgement for the reception of the above paper and then in due time your decision on its acceptance/rejection, as well as your decision on the paper "Relativistic Effects...",

Sincerely yours,

Stefan Marinov

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

23 June 1988

Dr. Stanley G. Brown
PHYSICAL REVIEW LETTERS
Box 1000
Rydge
NY 11961

<u>Ref. No. LN 3620</u>

Dear Dr. Brown,

Thank you very much for your letter of the 14 June 1988 with which you declined the publication of my paper
    VERY EASY DEMONSTRATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND...

You write in the letter:

> In view of the strongly adverse reports of our referees, we must again reject the manuscript. We feel that no useful purpose could be served by further resubmittal, rebuttal, or revision.

Considering my experiment as one of the most important in HISTORY OF PHYSICS since the time of Galileo and the referees reports as completely misleading (although I must emphasize that BOTH referees have understood the essence of the experiment PERFECTLY WELL and that they only give a WRONG explanation for the lack of an OPPOSITE angular momentum), I present detailed answers to both referees reports. I beg you to send these answers (together with my first answers) to BOTH referees (i.e., four my answers to referee A and four my answers to referee B, sending also the reports of referee A to referee B and vice versa). If the referees will withdraw their criticisms, then I think you have to print my paper. And if the referees are HONEST persons, they HAVE TO withdraw their criticism (only always when I am searching honesty in the heart of my fellow man, I remember my father's voice: "Dear child, all honest persons have been killed in WWI.")

Now I submit my paper (in two copies)

    THE LATE DISCOVERY OF THE MOTIONAL-TRANSFORMER INDUCTION.

The Physics abstracts class. numbers are 03.50 and 41.10.
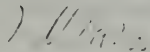
All charges will be paid by myself.

Herewith I transfer the copyright for this paper to PHYS. REV. LETT.

I beg you to send this paper for examination to the SAME REFEREES. If they will decline the paper, I should like that both calculate the induced electric intensity at a point at rest in the using frame when a permanent magnet originating at that point the magnetic potential **A** moves with the velocity **v**. If the referees will be UNABLE to make this calculation, I think that the paper cannot be rejected.

In your letter of the 23 March 1988 you wrote me that "it is inappropriate to submit a questionnaire to the referees". You saw that only after reading the answers of the referee A to my questionnaire, you saw his complete theoretical fiasco. Now, maybe, you will reply that it is inappropriate to pose to the referees questions of the kind which the professors pose to the students on examinations. No, only in this way the referee HIMSELF and the editor can see the IMPORTANCE of my discoveries which in a couple of months will throw all wrong Maxwell-Einstein concepts over board.*

I beg you to acknowledge the reception of the above paper and to write me whether you will send all four my answers to BOTH referees.

Sincerely yours,

Stefan Marinov

Stefan Marinov

---

*Of course, if the editors of the physical journals
 will finally begin to publish my papers!

MARINOV'S ANSWER TO THE SECOND REPORT OF <u>REFEREE A</u> ON THE PAPER
"VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR..." by S. MARINOV

I reject the referee's criticism as WRONG. Now I shall show WHY is the referee wrong.
It is true that I have not answered both "technical" objections in the first report
of the referee. The reason was that the first "technical" objection is very POOR, and
thus not deserving attention, while the second one is simply a REPETITION of the refe-
ree's "philosophical" objection which I criticized in my first report. Moreover, by
answering my questionnaire, the referee signed with his own hand the UNTENABILITY of
his "philosophical" objection.

The first "technical" objection of the referee is the following:

Equation (1) for the torque on conduction currents seems to neglect the fact that
radial currents both flow <u>in</u> at the top and <u>out</u> at the bottom of the yoke.

The assertion of the referee is simply NOT TRUE. Radial currents cross the iron yoke
only ONCE. If he sees that radial currents cross TWICE the iron yoke, he must show
with red pencil on the figure WHERE. As the referee will be UNABLE to find a second
crossing of the yoke by radial currents, he has to withdraw his first "technical" ques-
tion. Moreover, if radial currents cross twice the yoke, then no resultant torque
should be observed in my machine.

The second "technical" question of the referee is:

Equation (2) for the torque M_{dc} on a displacement current <u>in vacuo</u> should be non-
existent in either conventional or Marinov's theory. In conventional theory M_{dc}
(which Marinov interprets as being transmitted to the Faraday disk) is zero be-
cause the torque acts to increase the angular momentum of the field not the disk.
In Marinov's theory the torque should be zero because an induction field cannot
store momentum.

This is simply a RESTATEMENT of the "philosophical" assertion of the referee that
according to Graham and Lahoz (and according to BOTH referees of PHYS. REV. LETT.) the
torque on the displacement current M_{dc} is STORED in the electromagnetic field, while
according to me this torque MUST BE zero, as neither the displacement current (being
an IMMATERIAL THING) can "absorb" ponderomotive momentum, nor an induction electromag-
netic field with $\mathbf{E} \times \mathbf{B} \neq 0$ demonstrates TRANSFER of electromagnetic ENERGY from one space
domain to another along the direction $\mathbf{n} = \mathbf{E} \times \mathbf{B}/EB\sin\theta$, where E and B are the magnitudes
of $\mathbf{E}$ and $\mathbf{B}$ and θ is the angle between them.

By the way I should like to note that it is misleading to speak about "conventional
theory treatment" of the Graham and Lahoz experiment, as, as far as I know, this ex-
periment was discussed only by the authors, by me and by the referees of PHYSICS LET-
TERS A, EUROPHYSICS LETTERS and PHYSICAL REVIEW LETTERS. <u>By nobody else</u>. Thus one must
say that the mentioned above persons (the majority of whom are <u>anonymous</u>) assert that in
the experiments of Graham and Lahoz and in my Bul-Cub machine without stator angular

momentum is STORED in the electromagnetic field. It is true that in the "conventinal" text-books on electromagnetism one tries to present the vector $\mathbf{E}\times\mathbf{B}$ as transferring momentum IN GENERAL, but there is NO single book where the author will assert that if there is a permanent magnet originating the magnetic intensity $\mathbf{B}$ and a charged capacitor originating the electric intensity $\mathbf{E}$, such that $\mathbf{E}\times\mathbf{B} \neq 0$, then by putting a wall at right angles to the vector $\mathbf{E}\times\mathbf{B}$ one should be able to measure a pressure $(1/4\pi)\mathbf{E}\times\mathbf{B}$ (in the CGS measuring system). If the referee will find a SINGLE book where this stupidity will be asserted, I beg him to cite this book. Unfortunately, he will be UNABLE to find such a book. Thus one cannot speak about "conventional" theory, as there is NO such theory. Only in my absolute space-time theory there is a strict division between POTENTIAL fields and RADIATION fields (the first being inversely proportional to the SECOND power of the distance from the originating system, the second to the FIRST power of this distance). For potential fields the vector $\mathbf{E}\times\mathbf{B}$ has NO physical meaning. This vector has physical meaning only for RADIATION fields and it TRANSFERS momentum, as by putting a wall at right angles to the vector $\mathbf{E}\times\mathbf{B}$ one will always measure the above mentioned pressure (if the wall will be totally reflecting, the pressure will be the double). (NB. I prefer to speak about "potential" fields and not about "induction" fields.) Thus we must conclude that there is no "conventional theory" on the above topic and those are only Graham and Lahoz and the referees of the mentioned journals who sustain the opinion that in the experiment of Graham Lahoz and in my Bul-Cub machine without stator angular momentum is stored in the POTENTIAL electromagnetic fields of the condenser and/or coil.

I am very glad that the referee has answered my questionnaire. His answers 1 - 5 are ABSOLUTELY EXACT. Answer 6 shows the referee's FIASCO. Every child can see the referee's fiasco, only the Editor of PHYS. REV. LETT. was UNABLE to see it. A very strange phenomenon! Thus the referee asserts that the opposite "ANGULAR MOMENTUM IS STORED IN THE ELECTROMAGNETIC FIELD. IT CAN BE WITHDRAWN BY DISCHARGING THE CAPACITOR." I have not expected that a referee of PHYS. REV. LETT. can write such a TREMENDOUS STUPIDITY: "ANGULAR MOMENTUM STORED IN A CAPACITOR!!!!!" Moreover, one can WITHDRAW this angular momentum by discharging the capacitor. The unique thing which the referee can WITHDRAW is this STUPID answer to my sixth question. I beg the Editor of PHYS. REV. LETT. to take into account that I bring my machine in CONTINUOUS rotation. Thus I can rotate it 10^{10000} years and the OPPOSITE angular momentum stored in the CAPACITOR will become so big that by withdrawing it the referee will be able to stop the Earth's rotation. A new Archimedous!

At the end of his comments the referee writes:

> Expressions such as "The violation of the laws of conservation opens a new era not only in physics but in human history" should be left to the historians; they should not be in the abstract of a physical paper.

I do not permit to print my paper WITHOUT this assertion. I have violated a law of CONSERVATION. Referee, fall on your knee and exclaim: "THIS IS A WONDER!"

MARINOV'S ANSWER TO THE SECOND REPORT OF <u>REFEREE B</u> ON THE PAPER
"VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR..." by S. MARINOV

The referee is offended that I have not introduced changes in my manuscript accor-
ding to his suggestions.

First the referee is not my father and I am not his son. I follow the advices of
the referees only if seeing that they are right (in the almost 600 referees' comments
received until now on my papers I have not found even a SINGLE TIME a valuable refe-
ree's suggestion! The series of documents THE THORNY WAY OF TRUTH shows this patently).
If I see that the referee is not right, I NEVER follow his suggestions.

Secondly the referee suggests that I do this what exactly I have done. Indeed, the
referee has written in his first report:

> Now if Marinov can show that the GL interpretation of the E×B term is not inter-
> nally consistent with the rest of the theory or that it has been ruled out by
> other experiments, then he is under an obligation to supply evidence. He can't
> simply dismiss the GL interpretation as one that "every child" knows is wrong.
> I don't know that it is wrong, so I take the experiment to be positive evidence
> for the GL interpretation.

The referee HIMSELF, without my help, can give answer to his questions simply by
answering (by "yes", "no", "I don't know") the following questionnaire:

Question: Answer:

1. Is, ACCORDING TO "CONVENTIONAL THEORY", the vector $E×B$,
   IN GENERAL, transferring linear momentum?

2. Is the quantity $(1/4\pi)E×B$ the pressure exerted by this
   propagating momentum?

3. If there is a permanent magnet producing B and a charged
   capacitor producing E, so that $E×B \neq 0$, will $(1/4\pi)E×B$ be
   a pressure exerted on a wall placed at right angles to the
   vector $E×B$ which can be measured by the kind of experiments
   carried out first by Lebedev (1905)?

4. If the referee will answer questions 1 and 2 by "yes" and
   question 3 by "no", is then the conventional theory
   inconsistent?

5. Does every child know that question 3 is to be answered by NO?

6. Are there some professors who will answer not only question
   1 and 2 by "yes" but also question 3 by "yes"?

Now certain precisions. The referee writes in his above citation that I affirm
that every child knows that the GL interpretation is wrong. Concerning "every child"
I have written only the following:

> In every textbook on electromagnetism one tries to hammer in the heads of the

students that if there are a charged condenser producing the electric intensity
E and a magnet producing the magnetic intensity **B**, there is a <u>flow</u> of electro-
magnetic energy with the density $(c/4\pi)\mathbf{E}\times\mathbf{B}$, meanwhile every child knows that
this is <u>not</u> true.

   If the referee has a child older than 16, he has to pose to him the question whether
such a condenser and a magnet will produce a CONTINUOUS pressure on the wall and he
will see that the answer of his child will be: "NO!" And if the referee will say:
"But you are wrong, darling, there will be a pressure", his child will say immediately:
"Daddy, you are silly! How can a continuous pressure be produced if NOTHING with the
magnet and the condenser changes?"

   So far with the "children".

   As concerning the GL experiment and my Bul-Cub machine without stator, the answer
that no angular momentum is "stored" in the electromagnetic field is given DIRECTLY
BY MY EXPERIMENT: since the rotation is continuous and the referee is UNABLE to pre-
cise by the help of which experiment can one establish WHERE is the "electromagnetic
angular momentum" stored, the conclusion is only one: There is NO an OPPOSITE (to the
mechanical) electromagnetic angular momentum.

   The first paragraph of the second referee's report restates the point of view of
the "conventional theory" (although I repeat that there is NO   "conventional theory"
on this topic), namely, that the opposite angular momentum is "stored" in the electro-
magnetic field (as Graham and Lahoz write: "vacuum is the seat of SOMETHING in motion",
"The opposite of the last vector ($\mathbf{E}\times\mathbf{B}$ - S. M.) is usually interpreted as the net unlo-
calized reaction on charges and currents due to radiation fields but, classically at
least, it also represents a real reaction force even with induction fields"). It is
not clear WHERE the referee B PUTS the opposite electromagnetic angular momentum:
1) in the electric field of the condenser (as the referee A thinks), 2) in the magnetic
field of the coil, or 3) as "radiated momentum" in whole space. I should like very
much that the referee B precises the WHEREABOUT of the "electromagnetic angular momen-
tum", but I know that he, after the stupidity written by referee A that this angular
momentum is stored in the condenser, will prefer to keep silent.

   The end of the referee's report is very interesting:

   The paper raises one interesting hypothetical question: if the experiment were
   the first of its type to be reported, should one withhold publication of the
   important experimental result on the grounds that the author might mislead the
   casual reader by insisting that only his convoluted interpretation is possible?

   Thus the referee declines the publication of my paper on the grounds that I can mis-
lead the reader by asserting that my experiment demonstrates a violation of the angu-
lar momentum conservation law. However, this is exactly the referee who misleads the
Editor of PHYS. REV. LETT. by asserting that in my experiment there is no violation
of this law. Thus with his WRONG comments the referee stops the publication of one
of the most important papers in the history of physics.

IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
345 EAST 47TH STREET, NEW YORK, N.Y. 10017-2394, U.S.A. TELEX 236411

DIRECT NUMBER (212) 705-   7906

June 27, 1988

Dr. Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
AUSTRIA

Dear Dr. Marinov:

Thank you for your paper **Very Easy Demonstration of the Violation of
the Angular Momentum Conservation Law and of the Failure of Conventional
Electromagnetism** that you have sumbitted for publication consideration
to the PROCEEDINGS OF THE IEEE.

The PROCEEDINGS is a journal for the publication of mainly tutorial-
review papers that are of broad significance and long-range interest.
It is a journal for the nonspecialist as well as the expert. For this
reason, research papers and papers on controversial subjects are
rarely published in this journal. Previous review of other papers you
have submitted to the PROCEEDINGS has shown that the topics you treat,
although probably important, are not within the scope of the PROCEEDINGS,
and as the present paper falls into the same category, I regretfully
have to return it to you without further review.

I hope that you will be able to place the paper in another publication.

Sincerely,

Hans P. Leander
Technical Editor
PROCEEDINGS OF THE IEEE

enc.

IL NUOVO CIMENTO

VICE DIREZIONE « B »

N. ....

da citare nella corrispondenza
9626 NCBR
Prot. n. 0625 NCBR

Prof. S. Marinov,
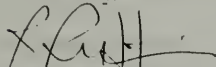Stefan Marinov,
Morellenfeldgasse 16,
A-8010 Graz,
Austria

Dear Prof Marinov,

I have read your paper's " Experimental Violation Of Ampere's Formule etc." and "The Absolute Velocities and Potentials etc; with great interest and attention I regret to say, however, that ideas you present on issues of physical theories generally regarded as well-settled appear to be more appropriate for journals specifically conceived for that purpose, like *Foundations of Physics, Speculations in Science and Technology,* or *International Journal of Theoretical Physics*

It is the opinion of this new editorial board that *Il Nuovo Cimento "B"* will mainly address topical physical issues

Thank you for giving us the opportunity to consider your paper's.

Cordially,

Pedro Pufilli
Vice-Director

ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE

EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

CERN   Dr. Stefan Marinov
CH 1211 GENEVE 23   Inst. for Fundamental Physics
SUISSE/SWITZERLAND   Morellenfeldgasse 16
                                        A - 8010 GRAZ
TELEX: 419000 CER CH   Autriche
Tel.:   022 - 83 3742/3449

28 June 1988

Dear Dr. Marinov,

I have carefully read your paper

Violation of the Laws of Conservation of Angular Momentum and Energy

which you have submitted for publication in the International Journal of Modern
Physics.

This paper cannot be accepted for publication because of the following
reasons:

1. Your claim that the laws of energy and angular momentum conservation are
   violated is not supported by sufficient experimental evidence. In
   particular, nobody has built so far any machine capable of producing
   perpetual motion. So you must first prove that the MAMIN-COLIU machine
   works as expected, and only then resubmit the paper to a journal. In the
   meantime, I suggest that you submit your paper to a funding agency or,
   better, to an industry, to get the $10,000 which you need to run the
   machine. I am sure that industries will be highly interested in such a
   machine for its applications and will be delighted to provide financial
   support.

2. In your paper, you make the statements that Ampère's formula on the
   interaction between two current elements is wrong, and that Maxwell's
   displacement current is a fiction. Because of existing overwhelming
   experimental evidence in favour of Ampère's formula and of Maxwell's
   displacement current, one is tempted to conclude that it is your theory to

be wrong. It is important, therefore, that you convince the reader that your theory is not in contradiction with any of the known facts.

3. When you state that your machine works only because it uses the principles of the physics of continua, as opposed to the principles of the physics of particles, you seem to imply that magnetizable matter is not made of particles. If not, what is it then made of? This particular point requires a much more complete discussion than the one contained in your paper.

In conclusion, your method of investigation seems to ignore a large amount of uncontroversial experimental results obtained in the study of electromagnetic phenomena over more than one century. You may well be right, but your paper is unable to convince the reader that this is indeed the case. For this reason, I cannot accept your paper for publication, and I am herewith sending it back to you.

Sincerely yours,

Luigi DiLella

Luigi DiLella

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

11 July 1988

Dr. Luigi diLella
INT. J. MODERN PHYSICS
CERN
CH-1211 Geneve 23

Dear Dr. diLella,

Thank you very much for your letter of the 28 June with which you rejected my paper "Violation of the laws of conservation of angular momentum and energy".

Here are my brief comments to your three objections:

1. At the present time there is only one machine IN THE WORLD working without external energy supply (perpetuum mobile). This machine works since 6 years in the village Linden near Bern. I should suggest that you go to see it (I was in Linden a week ago). I enclose a letter from Mr. Bosshard who is responsible for the external relations of the community METHERNITHA whom you have to address, if you should like to visit the machine. If your endeavours will remain without success, then address me, so that I arrange a visit for you. When arranging a meeting alone, please, do not mention my name.

My paper is not dedicated only to my machine MAMIN COLIU (the text dedicated to MAMIN COLIU takes 1/20th part of the paper). If I shall have the machine running, I shall not submit papers, as I shall make immediately a press-conference and then the whole world will speak about this machine. Your suggestion to address funding agencies or industries is senseless, as at the present time there is no institution in the world which will invest money in the construction of a perpetual motion machine. With the publication of my paper I wish to SUSCITATE such an interest, as besides MAMIN COLIU I give the information on the BUL-CUB MACHINE WITHOIT STATOR which VIOLATES the law of angular momentum conservation. Funding agencies or industries CANNOT understand the importance of this violation. But PHYSICISTS can understand this importance. Once having published the report on the BUL-CUB MACHINE WITHOUT STATOR, I shall become well known in the scientific community and then it is possible to receive funds for constructing MAMIN COLIU with a closed energetical circle (at the present time I have 6 models of MAMIN COLIU which show that they are generators without motor effect and thus that they violate the Lenz' rule, but no machine works with a closed energetic circle (as perpetuum mobile)). For this reason I submit now to your journal a paper dedicated ONLY to my BUL-CUB MACHINE WITHOUT STATOR.

2. Ampere's formula for the interaction between two current elements is the following

$$f = (II'/c^2r^5)\{3(r.dr)(r.dr') - 2(dr.dr')r^2\}r.$$

This formula was accepted as true in the XIX-th century. Today one accepts as true the Biot-Savart-Grassmann formula

$$f = (II'/c^2r^3)\{(r.dr)dr' - (dr.dr')r\}.$$

Those are two MATHEMATICALLY completely different and thus CONTRADICTING formulas. If the one of them is valid, the other must the wrong. For the interaction between closed loops they lead to identical results, but for the interaction between NON-CLOSED loops they lead to CONTRADICTING results. Ponderomotive experiments with non-closed loops have been done only by Graham and Lahoz and me. These experiments show that the formula of Biot-Savart-Grassmann is the valid one and thus Ampere's formula must be rejected as WRONG. There is only one experiment where one claims of having measured the magnetic field of displacement current (Bartlett and Corle, Phys. Rev. Lett. 55, 59, 1985). The claims of B+C are WRONG, as one is unable to measure the magnetic field OF a CURRENT ELEMENT (such is the displacement current between the plates of a condenser). But one can measure the magnetic action ON a current element. Such measurements I do in the BUL-CUB machine and the experiment shows that the displacement current cannot absorb ponderomotive forces, i.e., one cannot set displacement current in motion by acting on it with a magnetic field according to the formula of Biot-Savart-Grassmann. Thus the displacement current is a FICTION. (Please, do not discuss Maxwell's speculations leading him from the displacement current to the electromagnetic waves!). My theory has NO contradictions with the experiments, but Ampere's formula contradicts experiments and Maxwell's concept that the displacement current is a physical reality having magnetic field and absorbing ponderomotive forces is a LIE.

3. I think it is not NOW the time to explain WHY my machine MAMIN COLIU violates the law of energy conservation. First we have to become aware that in my machine there is a generator effect but there is no motor effect. If iron should not be used, i.e., if I have only the cylindrical coil, then, as my experiments have shown, one CANNOT induce electrical energy in such a coil by rotating   two segmental disks one with respect to the other. Only if the coil is with iron, an electrical energy can be induced.

When I speak about particles, I mean free particles with a certain mass and charge, And with no other characteristics. As I show in my CLASSICAL PHYSICS, for ensembles of such particles the energy conservation law can be NOT violated. If there are particles building atoms and there are media, then the axiomatic basis of this domain of physics becomes so compicated that on the basis of simple axiomatical assumptions one is unable to build the whole theory and thus one can be not sure that the energy conservation law can be violated. I have already observed MANY times VIOLATIONS of the law of energy conservation. My experiments are described in my books. I am one of the men in the world who has the widest information on the "free energy" machines and I know personally a lot of their constructors. I can assert that at the present time there is only ONE machine working with a closed energetic cycle - the machine in Linden.

I consider the problem of the violation of the laws of conservation as extremely important and I urge you to give space in your journal for reporting experiments on such violations and for trying to propose theories. I am in contact since many years with ALL physical journals of the world. I had extreme   difficulties in publishing papers which contradicted the principles of relativity and equivalence (I am the first physicist who measured the Earth's absolute velocity in a closed laboratory). I have the same (and even greater difficulties) when trying to publish reports on experiments violating the laws of conservation. But who will profit if the information on such FANTASTICAL experiments will remain hidden from the scientific community?

Now I submit to your journal my paper (in two copies)

VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM.
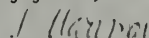
As said above, this paper is dedicated only to ONE of my experiments.

I shall suggest to you, before taking a decision about the acceptance/rejection of this paper to visit your colleague in CERN Dr. Vinico Sergio who has acquired ALL my physical books (10 books) and to read my paid advertisements in NATURE and NEW SCIENTISTS, as well as my correspondence on the now submitted paper with PHYS. REV. LETT., PHYS. LETT. A, and EUROPHYS. LETT. (all these journals have rejected the paper). Prof. Kurti, the editor of EUROPH. LETT. wrote me that he will send his confident man to the community METHERNITHA to inspect the machine TESTATICA (from TESla- STATIC electricity).

I beg you to take into account that I am financing my whole reserch work with my own money, that I have no secretaries and that the submission of papers which then are rejected only because of an insufficient inspection is very costly for me. I gladly answer all referees' objections but I see that my answers are not taken in a due account.

Hoping to receive an acknowledgement for reception of this letter and then in a due time your final decision,

Sincerely yours,

/ Hárupa

Stefan Marinov

Enclosures: Two copies of my paper and the letter from the Methernitha-community.
PS. On the 18th August a 6-pages paper of me will appear in NATURE. The proofs are with me and at interest I can send them to you.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

11 July 1988

Prof. Remo Ruffini
IL NUOVO CIMENTO B
Dipartimento di Fisica
P.le Aldo Moro 2
I-00185 Roma RM

Ref. No. 9625, 9626.

Dear Prof. Ruffini,

Thank you very much for your letter of the 28 June and for the speedy examination of my papers 9625 and 9626 which were rejected because, as you write: "... ideas you present on issues of physical theories generally regarded as well-settled appear to be more appropriate for journals specifically conceived for that purpose, like FOUND. PHYS., SPEC. SC. TECHN., INT. J. THEOR. PHYS."

First I wish to tell you which are my relations with the mentioned three journals. Prof. Yourgrau, the late editor of FOUND. PHYS. visited me in Sofia in 1975 and saw some of my experiments. After that he published   10 papers of me (some of the papers were published after his death). In the year 1984 Prof. van der Merwe wrote me (CONFIDENTIALLY) that being under a pressure from certain circles he cannot publish more papers of me, although he used me as a referee (I referred papers of Cavalleri, Spinelli, and others - see my book TWT-I, where my referee comments are published).

Prof. Yates published three papers of me when being editor of INT. J. THEOR. PHYS. After the arrival of Prof. Finkelstein the door was closed. I exchanged many letters with Prof. Finkelstein and spoke long time during our meetings in Trieste (1979) and Padova (1983). There is NO hope for me to appear on the pages of INT. J. THEOR. PHYS. until Prof. Finkelstein is its editor.

Prof. Honig published three papers of me when being editor of Spec. Sc. Techno and some "correspondence". Then he decided that I am "too radical oponent of Einstein" and refused other submissions. Now I submit papers to this journal which is under Dr. Mackay. Although Dr. Mackay rejected some papers, it seems that he has a good relation to me. I visited him in June this year and had a long conversation with him. I have the opinion that Prof. Mackay will publish my two papers which are now submitted to his journal.

Now about the "well-settled" theories. You know pretty well that there are NO such theories. Every theory can be well-settled until it can explain all available experiments. If an experiment appear which it cannot explain, the theory must be abandoned and substituted by another. I report EXPERIMENTS. EVERY EXPERIMENT IS WELL-SETTLED, if only one cannot show that the experiment is wrongly done. Experiments must ALWAYS have preference before THEORIES.

My case, however, is very "comical". The theory (the Biot-Savart-Grassmann formula) says that Newton's third law is not valid in electromagnetism. Humanity has done experiments only with closed loops where Newton's third law is preserved. And now when I do an experiment (Graham and Lahoz, Nature, 285, 154 (1980), have already done such an experiment) with non-closed loops and when I confirm the B-S-G formula, you write that my physics is against "well-settled" theories. Which theory is "well-settled": 1) the Lorentz equation (i.e., the B-S-G formula or 2) Newton's third law? But they are CONTRADICTING one another. If the B-S-G formula is right, Newton's third law is wrong (and vice versa). If you will read my CLASSICAL PHYSICS, you will see that in electromagnetism only the FULL Newton's third law is valid, i.e., $m_1\mathbf{u}_1 + d\mathbf{A}_1/dt = -m_2\mathbf{u}_2 - d\mathbf{A}_2/dt$, but it can be $m_1\mathbf{u}_1 \neq -m_2\mathbf{u}_2$, for TWO interacting particles. In Newton's time there was NO magnetism, but magnetism introduces a CORRECTION in Newton's third law. Thus I beg you to send the paper which I submit now

    VERY EASY DEMONSTRATION OF THE VIOLATION OF THE ANGULAR MOMENTUM CONSERVATION
    LAW AND OF THE FAILURE OF CONVENTIONAL ELECTROMAGNETISM

to a referee and to send me his report if it will be negative, as I wish to now WHY such a paper will be rejected.

You may remember that we met at the Second M. Grossmann meeting and you published my report on my "coupled shutters" experiment in the Proceedings. I wished to speak with you in May in Bologna (where I was on the Monti's "evening conference") but could not.

                                  Sincerely yours,

« II »   июля   19 88 г.

профессору Маринову С.

Глубокоуважаемый профессор Маринов !

К сожалению содержание Вашего письма от 15 апреля 1988 г.
не смогло повлиять на наше первоначальное решение. Мы по-прежнему
не готовы к публикации Вашей статьи.

Главный редактор журнала   И.Е.Дзялошинский

TRANSLATION

Dear Prof. Marinov!

I am afraid that the contents of your letter of the 15 April 1988 could not
have an influence on our earlier decision. We are further not ready publish your
paper.

Editor-in-chief: I. E. Dzialoshinskij

Editorial note. The rejected paper is published on p. 95 of this book.

nature

JM/MS
29 July 1988

Dr Stefan Marinov
Morellenfeldgasse 16
A-8010 Graz
Austria

Dear Dr Marinov:
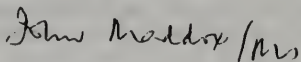
I hope you will not think this too disappointing a letter.
As you know, we have been planning to publish your article
on 18 August, but now I am afraid we must postpone it until
13 October.   Here are the reasons.

As you may have heard, we have just published a controversial
article on homoeopathic medicine, followed by a sceptical
report on it.   There has been a great amount of interest
in the general press and among Nature's readership about the
matter.   I'm afraid that I do not have the stomach for a
second such battle in such a short time between now and 18
August.

Second, your article as it stands is too devoid of experimental
data to be criticised tangibly.   Several people are willing
to write a commentary on it, but say that there is nothing
in the article substantial enough for them to get their teeth
into.   Can you tell me which version of your coupled shutters
experiment, or which other account of any of your experimental
work, you consider to be representative of what you have done?

I have discussed this letter with Mrs Hughes, who is most
anxious that you should not be further distressed.   I shall
be on holiday for the next two weeks, but if you wish to discuss
this further disappointment, could you please telephone my
secretary one day, who will tell you how and when I can be
reached by telephone: then, if you telephoned, I would call
you back immediately, thus saving much expense.

Yours sincerely,

John Maddox
Editor

cc: Liz Hughes
     Charles Wenz

dictated by John Maddox
and signed in his absence

ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE

EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

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Dr. Stefan Marinov
Inst. for Fundamental Physics
Morellenfeldgasse 16
A - 8010 GRAZ
Autriche

8 August 1988

Dear Dr. Marinov,

I have carefully read the latest version of your paper and I have also asked two independent referees for advice. We have all concluded that angular momentum is conserved both in your experiments and in the experiment of Graham and Lahoz. You seem to forget that an electromagnetic field carries angular momentum even in the static case, and that this angular momentum is expressed by a term of the form $\vec{r} \times \vec{B} \times \vec{E}$. For example, in the ideal case of a Graham-Lahoz experiment with static fields, the capacitor begins to rotate as soon as you switch off the magnetic field, just because the angular momentum described by the term given above is conserved and gets transformed into mechanical angular momentum associated with the rotation of the condenser.

Your paper has contributed to clarify the ideas of some of us on a particular chapter of electromagnetism, and we are grateful to you for that. Nevertheless, we are now convinced even more strongly than we were before that there is so far nothing wrong with "conventional" electromagnetism.

In conclusion, I cannot accept your paper for publication in the International Journal of Modern Physics, and I consider this case as closed.

Sincerely yours,

Luigi Di Lella

PHYSICS LETTERS A

PROFESSOR J. P. VIGIER

Université Pierre et Marie Curie
Centre National de la Recherche Scientifique
Laboratoire de Physique Théorique
Institut Henri Poincaré
11 Rue Pierre et Marie Curie
75231 Paris Cedex 05
France

Telephone (14) 336 2525 ext. 3776/82
Telex: UPMC Six 200 145 F

15/8/88

V681a

Dear Dr Marinov,

The referee feels that your approach which contradicts the theory of relativity and conservation of energy is not sufficiently well-founded. In addition he states that your polemical tone is unsuited to a serious journal such as PLA. I regret I am unable to accept your paper and return your ms herewith.

Yours sincerely

JPV

TRANSCRIPTION

Dear Dr. Marinov,

The referee finds that your approach which contradicts the theory of relativity and conservation of energy is not sufficiently well-founded. In addition he states that your polemical tone is unsuited to a serious journal such as PLA. I regret I am unable to accept your paper and return your ms herewith.

Yours sincerely, IPV

The title of the paper V681a is: LATE DISCOVERY OF THE MOTIONAL-TRANSFORMER INDUCTION. It is published in TWT-I, third edition.

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

18 August 1988

Dr. Luigi di Lella
Int. J. Mod. Physics
CERN
CH 1211 Geneve 23

Dear Dr. di Lella,

Thank you very much for your letter of the 8 August 1988 with which you declined my paper "Very easy demonstration of the violation...", noting, however, that, of course, the rejection was not pleasant for me. Here are my comments to your letter.

You write: "You seem to forget that an electromagnetic field carries angular momentum even in the static case." It is not true that I "forget" this aspect, as I MENTION it and in the most definite way I show that I am AGAINST this concept. With my rejected article and with the reported there experiment I show that this assertion of conventional physics (or of certain representatives of conventional physics) is a MYTH which has NO experimental verification.

You give as an example an <u>ideal case</u> of the Graham+Lahoz experiment: a coil in which current flows and a charged cylindrical capacitor coaxial with the coil. According to you, if switching off the current, i.e., the magnetic field, the capacitor will begin to rotate, if it has a rotational degree of freedom. THIS IS NOT TRUE! In this experiment the capacitor will NOT rotate, but along its cylindrical plates an induction current will begin to circulate. Your experiment represents the most COMMON transformer where the internal secondary coil has one (in the case of the capacitor, two) winding. The fact that this one (two) winding is charged changes NOTHING.

In the experiment of Graham+Lahoz the capacitor comes to rotation because current FLOWS along the radial wires which connect the inner (with radius r) and outer (with radius R) cylinders with the soure of electric tension and because $R - r \neq 0$. The net moment of fource bringing the capacitor in rotation is

$$M = (I/c)(R - r) B (R + r)/2 = (I/c) B (R^2 - r^2)/2.$$

The concept that momentum is stored in potential (according to your terminology, static) electric and magnetic fields for which $E \times B \neq 0$ is a MYTH which has NO experimental confirmation.

Now I submit to the INT. J. MOD. PHYS. my paper (in two copies)

THE MYTHS IN PHYSICS

where all those problems are discussed in detail in the most clear way so that any student can understand where is the dog buried.

I was glad that my paper has helped one of your referees to clear his electromagnetic concepts. But I do not construct experiments with the aim the help the referees of my articles to clear their theoretical concepts. If your referee has cleared his concepts in the RIGHT way, I should remain at least with a certain satisfaction (remember Pushkin who, after opening the cage of a bird, exclaimed: Я счастлив, что хоть одному творенью я мог свободы даровать (Sono felice che almeno ad una creatura ho potuto regalar la libertá)). But your referee has cleared his concepts in a WRONG way and I am deprived even of this satisfaction.

The experiments violating the law of angular momentum conservation which I constructed represent some of the most important TECHNICAL discoveries in human history. I beg you to grant more attention to my papers. I hope that you and your referees will this time agree with my concepts and this paper will be accepted. But even if you and your referees will continue to defend the conventional concepts, I think my paper is to be published, so that the scientific community becomes informed about the technical aspects of my experiments and about the results observed. As the farmer puts the car behind the horses, so the physicist puts the theory behind the experiment.

At the end I wish to express my admiration for the speedy examination of my paper.

Hoping to receive your acknowledgement for reception and then in due time your final decision,

Sincerely yours,

Stefan Marinov

STEFAN MARINOV
Morellenfeldgasse 16
A-8010 GRAZ — AUSTRIA

22 August 1988

Prof. J.-P. Vigier
PHYSICS LETTERS A
11 rue P. et M. Curie
F-75231 Paris Cedex 05

Dear Prof. Vigier,

Thank you very much for your letter of the 15 August with which you declined my paper V681a ("Late discovery of the motional-transformer induction").

It is COMICAL to reject the paper by the assertion that it contradicts the theory of relativity. I show that this "theory" cannot make the most simple calculation: There is a wire at rest in the used frame of reference. And there is a permanent magnet moving with a velocity **v** and generating the magnetic potential **A** at the space point where the wire is placed. Which will be the induced electric intensity? - Write the formula. You cannot!? How a "theory" cannot make this CHILDISH calculation! If you can make the calculation, then do it. BUT YOU CAN'T.

And you reject the paper. Mon cher Jean-Pierre, c'est déjà trop!

The violation of the energy conservation law is mentioned only in the last paragraph. If you insist I can cancel this paragraph. But if Stefan Marinov has shown that the "theory of relativity" cannot make the above CHILDISH calculation, he has the RIGHT to give in the last paragraph ANY information which he wishes. One must have a respect to the man who AT THE END OF THE XXth CENTURY has D-I-S-C-O-V-E-R-E-D the motional-transformer induction

$$E = (v.grad)A$$

and has constructed the machine MAMIN COLIU which shows VIOLATION OF THE ENERGY CON-SERVATION LAW (only because of the lack of money I cannot run it with a closed energetic cycle, and only the publication of my papers will bring money to me, but to break the resistance of the editors I must have a running machine - damned vicious circ

But I have constructed another machine which PATENTLY violates the angular momentum conservation law. The name of this machine is the ROTATING AMPERE'S BRIDGE and it is presented in the second of the papers submitted now. I am VERY CURIOUS, if these two papers will be rejected, which motivations will find "your referee".

A propos, the polemical tone in the paper "LATE DISCOVERY OF THE MOTIONAL-TRANSFOR-MER INDUCTION" must remain. Even reading this POLEMICAL tone, you rejected the paper. I use this tone exactly to make IMPOSSIBLE a rejection, as logic has certain limits which, if overpassed, one becomes ridiculous. And to show the limits of logic which one is not allowed to overpass one needs a POLEMICAL tone. 10,000 professors in the world can not write the induction in the above case. And I am not allowed to say it vociferously!

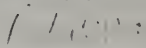The papers which I submit now (in single copies, as I see that you use only one referee) are

1. MAXWELL'S DISPLACEMENT CURRENT DOES NOT GENERATE MAGNETIC FIELD.

2. EXTREMELY EASY EXPERIMENT DEMONSTING VIOLATION OF THE ANGULAR MOMENTUM CONSER-VATION LAW.

Herewith I transfer the copyright for these paper to PHYSICS LETTERS A.

All eventual charges will be paid ny myself.

Hoping to receive your acknowledgement for the reception of the papers and then in due time your final decision,

Sincerely yours,

Stefan Marinov

C O N T E N T S :

- Silvertooth expt. ref. p15.
- Edwards ref. 61a
- claimed violation of conservation of angular momentum "Bul cub motor without stator" p207
- claimed violation of cons. ang. mom. in Kennard's expt. p37-8, Kennard ref. p41
- Another proposal to measure absolute velocity; p38 & fig 2 (p42). Using simple DC circuit.
- Marinov "does not bother to do experiments where he is certain of the outcome" (bottom of p. 18). oops!
- Analysis of Graham-Lahoz expt. p38
- Bul cub machine w/o stator. Violation of angular momentum p38-58, p69-73 (best descript.),

- "Mamin Coliu" Generator with "no braking at all" p40, (fig. 10 & 11 p47). "Add $10,000 to obtain perpetuum mobile"

- Marinov expts. disproving the "equivalence" principle. p60, ref. 3-5 p76

- Plank book ref 9, p76
- Self-propulsing wire p62 (point (8)). See also
- pappas expts. ref(22) p73-76. "Basis of future aeronautics"

- Poynting vector, Feynman disk, EM momentum. p64-8.
- Clear definitions of his terms p64 (7)
- perpetuum mobile based on Feynman diode (Teoretika?) p68
- Violation of angular momentum expt. "Rotating Ampere bridge p.74, (fig 10,11 p53)

- Good Faraday quote p135, Good Marinov quote 138
- Refuting Newman p134-145
- German source for permanent magnets and Dielectrics. p138-9
- Biography 146-148

This third part of the collection of documents THE THORNY WAY OF TRUTH (TWT) offers further experimental evidence on the violation of the laws of conservation of energy and angular momentum as well as »on the centurial blindness of mankind and on its frantic perseverance in it«. The most prospective of Marinov's perpetua mobilia is the machine MAMIN COLIU which is an alternating current generator without electromagnetic braking moment, i.e., the machine works only as a generator but cannot work as a motor, violating thus the rule of Lenz. After the third (1986) edition of TWT II, where MAMIN COLIU was first presented, Marinov constructed five other different models, improving the parameters, but the energetic circle is still not closed. In the photograph above one sees Marinov's recent most striking discovery, the BUL-CUB MACHINE WITHOUT STATOR, which violates the angular momentum conservation law, as a solid body rotates under the action of »internal forces«. The body is suspended only on two fine axles taken from an alarm-clock. Sending alternating electric current through those axles, Marinov sets the body in rotation (Marinov's head in the photograph is a substitute for the source of electric tension). Every child who sees this machine falls on knees exclaiming »This is a wonder!«. But not the Lords of science who cover their eyes and ears with the reports of »anonymous referees«.

Price: $ 25