

NEW PRINCIPLES IN QUANTUM MECHANICS, A REVIEW.

A. B. Smith

Dr. H. C. Dudley, Chief of the Radio-Isotope Laboratory at the U.S. Naval Hospital in St. Albans, N.Y., has had the courage to challenge the orthodoxy of modern science in his new book, NEW PRINCIPLES IN QUANTUM MECHANICS. The following extracts will do more than any reviewer to set forth this challenge.

"The key to how scientists have misled themselves, and therefore the rest of mankind, is in the wedding of Mathematics and Philosophy, and their adoption of the infant Science, circa 1800. In the following four chapters is given an analysis of the mental processes which have led us to conclusions that are so firmly embedded in our consciousness as to be considered "scientific truths". Yet these "truths" have never been observed by any man. Strange creatures, we Homo sapiens!

"But the fantastic, the frightening aspect of this very human fault is that those who are so wholeheartedly accept the philosophical-mathematical explanation of the universe and its working parts do not see the lack of factual data which originally permitted the development of this school of thought. Most have never read the original papers or popularized articles, long available in English translations, of Lobachevsky, Riemann, Lorentz, Fitzgerald, Minkowski, Weyl, Einstein. Modern students have not unemotionally examined the unprovable, unmeasurable propositions that are the bases of modern physical theory.

"The experimentalist does not comprehend how the philosopher has supplanted data-taking by mathematical symbols and manipulations. Much easier to compute than to experiment and secure accurate data!

"There were some men who lived during the development of the basic postulates of modern theories who doubted the logic on which they rest. Moreover, these men resented the use of the promotional methods of the market place, which were blatantly used to fasten on the minds of men, at all levels of culture, what many considered to be a false scientific doctrine. Certain of these men, having the courage of their convictions, published books reporting on various aspects of the situation as they saw it at first hand.

"To dismiss all such publications as the work of crackpots, as the railings of ~~XXXXXXXX~~ "cranks rebelling against the father-image of established authority", is to belittle the work of technically trained men of high renown, respected in their fields of specialization. In order that students of the physical sciences may know that there were (and are now!) other views in fundamental physical theories than are presented in recent physics texts, there follow reviews of the more pertinent of these works.

Because scientists, mathematicians, and philosophers have for centuries wrestled with the idea of an absolute, mathematicians have mesmerized themselves into believing that by setting up two frames of reference they have in some way eliminated the need for an absolute plane or point of reference. But by the system of two frames of reference they establish the most unstable of points of reference, man himself. Such egotism!

"If there is, or ever was, such ~~XXXXXXXX~~ as a device of the devil, it is the mathematical concept of two frames of reference. For in following this Pied Piper mathematicians and theoreticians actually describe two entirely new planes of existence, worlds built of imaginary geometries and mental aberrations. They have thus indeed deluded themselves into believing

that "man is the measure of all things, and there is no other measure."

"Thus again we see how the minds of men, be they scientists, mathematicians, or philosophers, can be swayed by emphasis and selected data. The techniques of modern advertising and propaganda are centuries old, and under any other name are especially effective if their devotees are convinced they are right.

"In reading the popularized histories of relativity, one notes that when the Theory of Relativity was first propounded, only a dozen or so persons had the mental stature to understand the theory. Tacitly, and subtly, it brought out that these intellectual giants were so far removed from the garden variety of scientists who objected to the theory that the criticism was but like the babbling of children. It is here that we see the beginnings of the most successful and sustained application of the "big lie" propaganda technique that man has ever foisted upon himself. Repeat! Repeat! Repeat! Ignore or belittle criticism. Those who do not agree will pass. And a scientific "fact", a "truth", becomes fastened in the minds of men at all levels of culture.

"Consider also that the eminent German mathematician Hilbert once defined mathematics as a game played, according to certain rules, with meaningless marks on paper. The following is addressed to the professional mathematicians: You have developed many complex games, played with many unintelligible marks on paper. You have invented many new games utilizing many "markers", "checkers", or "men". You have changed the rules of the game at will, and often in the middle of the game. You, the professionally trained mathematicians, are the only men who really understand what you are doing, and for that reason most men stand in awe. Your vanity is tickled, and you have found the answer

for that very human urge, a feeling of superiority. You have acquired "status".

"There are some of you who doubt where you are heading, but the great, great majority are convinced that your course is correctly plotted. Are you prepared to accept the responsibility, should your navigation prove faulty? The experimenter, too busy being a high-level technician and gadgeteer, has entrusted his leadership to your hands. He is dealing not with marks on pieces of paper, but with forces that are beyond your comprehension, unless you have actually observed a nuclear explosion. Are you and your craft prepared to stand before the bar of history and defend your present position?"

Part two of Dr. Dudley's book deals with the consequences of the postulation of a particulate universe and the fact that such a universe would be quite consistent with that within which we live, and incidently, not nearly such a mathematical monstrosity.

It is unfortunate that Dr. Dudley, did not understand, or was not prepared to accept the fact of the field nature of Time, because this concept combined with the excellent work set forth in this book would have rounded out the picture and offered a very much simpler, more readily understandable, and probably more realistic representation of the universe in which we live.

For anyone who has sufficient scientific background to appreciate these things, this book is highly recommended. It is most disturbing, but maybe we ought to be disturbed!

O F F I C I A L R E T I C E N C E

W.B.Smith

I am often asked if I can give a reason for the official reticence in the matter of flying saucers. I am afraid that there is no single reason, only a combination of circumstances, each contributing in its own way to a situation which would be ludicrous if it were really not so pathetic.

The current interest in flying saucers dates from the Kenneth Arnold sighting in 1947. At that time the gentlemen of the press seized upon the item and it was featured far and wide throughout the world, with far more emphasis on its news value than its significance. This was followed by reports of many more sightings and a style was set. Soon everyone was stylish and on the band wagon; jokes and cartoons were created and published and the whole matter lost what little perspective it had and arrived at the public consciousness completely out of context and misrepresented. Consequently it became practically impossible for a casual enquirer to sort out the facts from the fictions, legends and speculations which mushroomed up and became the "literature" of the subject. After foundering a while in the morass most people just gave up and relied for their opinions

on some authority.

To most people the government is the final authority but they seldom realize that government is made up of a large number of people who are experts in their own fields but very much laymen in other fields. If, within government, there is no bureau within which a new situation will fit neatly, it is entirely homeless unless and until a suitable bureau can be created. But the creation of a government bureau requires a definite act by the government, and the voting and expenditure of public funds, which in turn has to be justified publically. Consequently, when a situation develops such as the advent of flying saucers, it is unfair to expect an early answer from government. The best that a government can do under such circumstances is to make use of a "back door" arrangement with which we are all familiar, namely, the "classified project". But even this is a gamble in that it is predicated on the project yielding positive results with the answers all tied up in a neat little bundle, otherwise the project flops and slips into oblivion.

The United States tried this latter approach but it backfired, through a unique series of circumstances which I shall try to outline. Although I was in no way involved with the United States flying saucer investigations, I do know how these projects work and how they fit into the overall structure, so I feel that my analysis is valid.

Any project starts out with its initial directive or terms of reference from which it evolves its strategy and then works out suitable tactics. Since flying saucers were obviously in the domain of the airforce, and the vast publicity accorded them resulted in a deluge of enquiries and demands for an explanation of what was going on in the skys, the obvious course of action was for the air force to set up a project with a directive to look at this new situation and try and get them off the hook. With this sort of a directive the strategy was of course to gather actual sighting data and then rationalize it so far as possible. Since it was obviously convenient to classify the project, the tactics at once developed into a one-way pipe line, with all sorts of information going in and nothing coming out. This of course made many people unhappy and suspicious, which fact was seized upon, publicised, magnified, and built up into a sinister plot to keep the public in ignorance.

Within the airforce, as in any other large established organization, Parkinson's Law has been at work for some time and we find lots of chiefs but not too many indians. Every job, large or small, is invariably delegated through many levels of responsibility until it finally arrives at the low man on the totem pole who does the work. Consequently, the only people who are entirely familiar with the job is the low man and his immediate supervisor.

From time to time progress reports are prepared and started along their long and tedious way up the ladder, and since each successive level is progressively more remote from the actual work done, each level strikes out of the report those references which to him seem inappropriate, and at long last a thoroughly emasculated version arrives on the desk of the individual who started the whole thing off in the first place. If any information on the project is to be released it is almost invariably based on this mutilated version and not on the work as actually done at the working level.

This situation is further aggravated by the fact that personnel at the various levels have a habit of changing and successive reports receive different treatment, so that the corresponding "edited" versions arriving at top level are often inconsistent and contradictory. In the case of the flying saucer projects we have seen all these factors at work with a vengeance.

The question may well, and probably will be asked, Are the top brass unaware of this situation, and if they know about it why they don't fix it? The answer is very simple; they do know, but to fix it would mean the by-passing of the hierarchy and the destruction of a highly satisfactory system. The system breaks down only when it tries to cope with an entirely alien situation, which happens rarely, otherwise it works effectively and efficiently. The trouble is that the flying saucer situation is definitely alien.

It may be well to remember that initially there may have been some legitimate fear of the saucers, but this fear did not last long. It was soon apparent that these objects did not constitute any particular menace to humanity and there was practically nothing which we could do about it if they did. They came and went as they pleased with little or no apparent concern whether we saw them or not. They were in complete control and we were merely casual observers. Consequently, to the air force, since they constituted no apparent threat to the national security, they were reduced to a mere nuisance value, and that nuisance was to be rid of the whole thing. But there was no one else to carry the ball and the air force are still stuck with it.

Unfortunately, since the classified projects were largely aimed at "explaining away" these things, a certain position had been taken by the airforce, and having painted themselves into a corner, now must wait until the paint dries. What solid information did come out of these projects was most disturbing indeed, striking at the very roots of our conventional science, But there wasn't enough of this information on which to base any substantial reform in scientific thinking; just enough to produce an uneasy feeling that all was not well. So naturally, the least said about this the better, until more was known. One just can't come out and say that the velocity of light is not a universal constant, or that Newton's laws don't always work, or that gravity isn't a primary force after all.

Officialdom is figiting in their chairs hoping for some sort of scientific, mathematical or experimental breakthrough which will tie together the loose ends and explain away the whole flying saucer business without having to go beyond the bounds of conventional science. In other words the status quo is more important than new knowledge. Meanwhile, since they do not have enough answers for the questions which are now being raised, they most certainly arn't going to invite a deluge of further questions admitting anything.

There is one more facet that I would like to deal with. Many people have wondered why the politicians have not picked up the ball, but the answer lies in the concept of politics itself. Politicians have two interests in life; first, to win an election, and second, to do as good a job as possible of representing their constituency. Neither of these could be considered as embracing flying saucer investigations. True, a member of the House may ask questions about flying saucers, suggest that something might be done about their study, or even introduce a bill to take definite action, but without strong public support the result is only so much more wordage in the official record. Furthermore, because of the type of publicity from which the whole matter of flying saucers has suffered, politicians who are naturally very sensitive to public reaction, are reluctant to stick their necks out.

~~From the forgoing, it looks like flying saucers will~~

In the light of the foregoing reasoning I feel that we need not expect any significant statement with respect to flying saucers by any government agency. The nearest we can come to getting an official statement is from the few sincere researchers in the government service who, themselves, are satisfied of their findings and willing to risk the censure of their colleagues and the prestige of their positions. More often than not these people must wait until they retire from the government service before they feel free to make any statements at all.

In conclusion I would like to draw an analogy with the story of the negro who was accused in court of stealing chickens. The farmer, his son and the hired man all testified that they had seen the darkey steal the chickens, but when the judge asked him what he had to say for himself he just grinned and said, "Boss, Ah can produce twice as many people what didn't see me steal those chickens!" I am afraid that this is typical of the thinking of many people.

BINDING FORCES

W.B. Smith

Matter as we know it is held together by "forces" the nature of which we do not clearly understand. We have developed some very elegant theories to explain most of the observed phenomena, and we add sufficient "correction factors" to make the theory fit the rest. But every now and then we come face to face with something which our theory just will not explain, and rather than admit that our theory is inadequate, discard it and start over again, we just can't bring ourselves to throw out such an elegant mathematical masterpiece, so we usually just turn our backs on the new fact and refuse to recognize it. This is well demonstrated in the matter of Binding Forces.

Several years ago, following several rather bad airplane crashes for which there was no satisfactory explanation, the people from "elsewhere" were asked through "contacts" if these crashes were possibly due to our craft flying too close to their craft. We were informed that while a very few of our craft had suffered in this manner much greater care was now being exercised by the saucer pilots so that this cause was virtually eliminated. We were informed, however, that our pilots flew around in complete disregard of the regions of reduced binding with which this planet is afflicted, and very often their craft was not designed with a sufficient factor of safety and came apart.

When we countered by saying that we knew nothing of such regions, we were informed that means for detecting them were easily

within our technology and that we should build suitable instruments and then pay attention to what they registered. They also passed a few uncomplimentary remarks about our propensity for shooting off atom bombs which actually created a pair of such "vortices" with each explosion.

The principle of the "Binding Meter" was then explained to us, and we were left to work out its detailed design. The principle is quite simple; - all matter is held together by the relative configurations of the three basic fields of nature, tempic, electric and magnetic. These configurations are characteristic of what we call the molecular structure, and the interactions of these fields is NOT linear. Therefore, since the fields interacting are the sums of the local fields and the background fields, such interaction can be used to indicate certain characteristics of the background, through this very nonlinearity.

Structurally the binding meter consists of a nylon fiber which is stressed close to its elastic limit (after having been overstressed to establish stability) pulling against a steel spring which is stressed well below its elastic limit. The nylon fiber is wound around a spindle which carries a pointer, so that any longitudinal movement of the fiber will cause the spindle to turn and the pointer to move across an arbitrary scale. In setting up the instrument nylon fishing leader was used and prestressed to the breaking point and this point noted. The instrument was then threaded and one end fastened to the spring and the other placed under tension to 75% of the previously noted breaking stress, and the

and clamped under a friction washer which was somewhat softer than the nylon, to grip it solidly without deforming the nylon. The whole instrument was then set aside for a few days to make sure that it was stable, after which the pointer was slipped to mid scale and the instrument was considered ready for service.

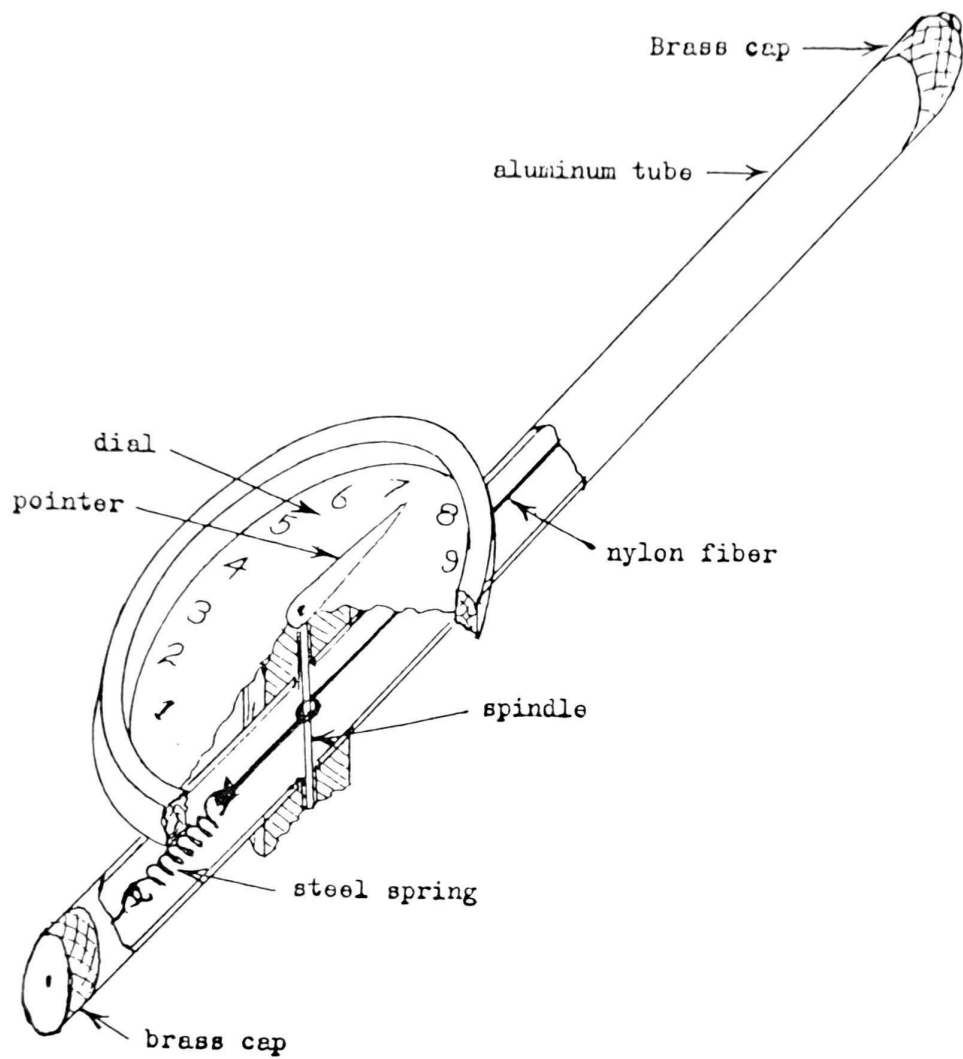
By making the body of the instrument of aluminum tubing about 1/2 inch diameter and 10 inches long, the combination gives very good temperature compensation, and a range of temperature of 100°F makes less than 1/2 division on an arbitrary scale of 12. There is no perceptible change over the complete range of humidity and no parametric sensitivity was observed. Dimensions apparently are not critical, and successful instruments have been made with quite a variety of parameters. Unfortunately, we have no way of calibrating these instruments at the present time, and the best we can do is use them for qualitative indication.

My colleagues and myself have investigated the general areas through which aircraft have flown just prior to unexplained crashes and we have found several regions of reduced binding, the meters showing several scale divisions change. These regions seem to be roughly circular and about 1000 feet in diameter, and probably extend upward quite a distance. A few have been detected by air when planes have flown through them, but fortunately in these cases the craft were strong enough to remain intact!

Whether this is generally true or not we cannot say, but it does appear that things are somewhat stronger in the northern

latitudes than they are farther south, and certain areas seem to be permanently afflicted with reduced binding. We do not know if the regions of reduced binding move about or just fade away, but we do know that when we looked for several of them after three or four months we could find no trace of them.

It would therefore appear that this business of reduced binding would stand quite a bit of further serious investigation. Unfortunately, because of the unorthodox source of this information efforts so far to obtain official recognition has resulted only in more letters being added to the "crank file".



BINDING METER

James L. Dean
1400 Wisconsin Ave., N.W.
Washington 16 D.C.

July 17, 1961

Mr. Dean,

Subsequent to your phone call and letter of July 6, I got in touch with a local firm, Mechron Engineering Products, whom I have had many satisfactory dealings through my position in the Department of Transport, and explained as best I could the factors of the Dean Drive and asked if they might be interested in producing the prototype which you mentioned in your letter.

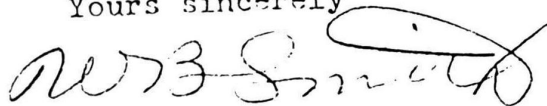
Mr. Ballantyne, one of the partners in the firm, is quite interested but the others are inclined to be sceptical about the drive as they are quite sure that it must violate some basic laws of physics. However, they agreed on one point that they certainly could fabricate the hardware.

I do not know what arrangement you have in mind but I can say that Mechron could certainly contract to produce the hardware, and quickly. I am familiar with their work and can vouch for their quality, and they have sufficient connections to get any supporting work or materials on short notice.

If you are at all interested I would suggest that you come here and discuss the proposition directly. I will be most happy to have you as our guest, as we have lots of room. Also, if there is any way in which I can help in getting things on the rails, please let me know and I shall do my best.

Incidentally, the weather in Ottawa is usually much cooler and less humid than Washington! My wife says that you may bring your wife also, and make a holiday out of it.

Yours sincerely



W.B. Smith



Our file ref.

DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN AIR FORCE

Valcartier PQ

12 May 61

W/C D.E. Biden
Central Experimental & Proving Establishment
RCAF Station Uplands
Ottawa Ont

Dear W/C Biden:

On 27 Sep 60 the local French language newspaper carried a story concerning a curious metal object in the St. Lawrence River near Quebec city. This object was believed to be part of a U.S. missile. The same day a party from CARDE went to see the object at low tide. It proved to be a mass of high strength metal which had fallen, or been dropped while in a plastic state, and had splattered like a ball of mud. It was 6 ft. in diameter and 2 ft. thick at the centre. At the centre of the body there was an outline of a tube about 10 in. in diameter which protruded above the mass about 6 in. A small electronic potting can was imbedded near one of the outer edges. By scratching away the potting plastic, it was possible to identify an electronic component which appeared to be a transistor. There was also the imprint of another electronic can which appeared to have been removed by curious seekers. According to the local fishermen who discovered the object, it had been at this location since at least May 60. It is not considered that the object fell in the location where it was found, because there was no crater or splattered material in the vicinity. The tidal flats at this point are solid rock.

The object was brought to CARDE 28 Sep where further analysis revealed that the metal is an alloy with high manganese content. CARDE personnel who are familiar with foundry operations, consider it to be a normal product of a foundry consisting of slag with semi-molten scrap imbedded.

The CARDE investigation did not reveal any electronic components. The object is now in the CARDE dump.

Sincerely yours,

Submitted by Mr. E.K. Swimmings
Technical Services Division

SPECTROGRAPHIC LABORATORY
MINES BRANCH, OTTAWA, CANADA

SEMI-QUANTITATIVE SPECTROGRAPHIC ANALYSIS

Plate No. 4678

Date December 29 19 60

Sgd. E.M. Kranck

[illegible]

"The semi-quantitative spectrographic method, because it is designed to handle a very wide variety of materials, can in consequence only furnish approximate results indicating order of magnitude. These results are not, in general, suitable as a basis of major policy decisions or actions, and where results are required for important policy purposes, fully quantitative estimations, either chemical or spectrographic, should be requested."

Les Ecureuils
(The Squirrels)

One might refer to this as a squirrely type operation, nonetheless, in the interests of curiosity we proceeded to the village ^{of Le Lac Beauport} some 20 miles upriver from Quebec City. The date 12 Nov. 60, the we, Louis Geoffrion, who surmounted the language difficulties, Ken Killick, Gordon Heughan and Bill Riddell.

We contacted the Mayor, a creamery operator, a casual bystander or two, then Charles Douville, whose parents operate a Motel. It seems the local lads with spare time beachcomb for pocket money, and it was during such searches that the two strange objects were found in the latter part of June.

The beach extends several miles, and is $\frac{1}{2}$ to $\frac{3}{4}$ of a mile exposed at low tide. It is remarkable in its formation, a flat bedded shale slightly cropping or feathered towards shore, so that you can drive all over it. Also it has very little debris on it so that any sizeable object stands out for attention. Retained water pockets are at most a few inches deep.

Two objects were found on the shale flats about a week apart. Object No. 1 was found first about a $\frac{1}{4}$ mile out on the flat and downriver about a mile from No. 2. This piece is estimated to weigh over 1000 lbs. judging the effort the lad made to move it, and the small pieces we picked up which were probably knocked off in the process. He thought the two pieces were related, but could not account for their appearance in any way. He stated they were not there one week, then he found them the next time he went out.

Object No. 2 was found about 500 feet in front of a cottage roughly on the shoreline. It weighed 600 lbs, (over a scale), was dragged up to the jetty, loaded on a trailer, other scrap metal added, and sold in Quebec for scrap. We traced the piece into a large scrap yard ASSH and Co., Quebec City, and lost the trail. We do not have a piece of this object, but assume it was related to the other piece. It was found in the latter part of June, and sold on the 4th ~~day~~ July '60. The reason No. 1 was not treated in the same way was that it was too heavy. This chap pushed it 50 feet or so with a small tractor, then gave up. We do not know how CARDE found out about it, but about 3 weeks later they came down and picked it up.

Where the lad had pushed object No. 1 we picked up 6 or 8 pieces, none over a pound. The object itself is in Valcartier, we understand.

All the local people spoken to knew about the rusty old iron, but none supported the idea it fell from the sky. It seemed odd that the object was known to have been found, but no detail was forthcoming when we tried to pursue the circumstances of its occurrence. It wasn't there, then it was. They spoke of an object yet there were two, perhaps the one CARDE picked up was the most noteworthy, so it became the conversation piece.

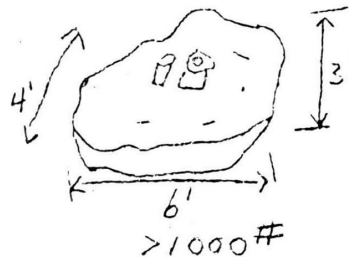
A follow up check with the cottage owner may turn up something about the circumstances. A point in this regard is the absence of any crater or other mark on the shale bed at or near where the objects were found. With about six feet of tide the possibilities of its being deposited by river bourne means are limited.

To reconstruct, a conversation, the shapes are somewhat as follows:

No. 1



No. 2



Perhaps they were placed to attract attention.

COMMENTS ON THE FISHER-HOOVER EFFECT

The Fisher-Hooper effect consists of the apparent generation of a gravitational field by the rotation of a non-varying magnetic field within a shield. It is suggested that the effect is due to the vector cross product of the magnetic field B and the velocity v with the electric component shielded out.

I would like to extend this explanation by the addition of a further concept. There is some evidence that time is essentially a field condition. The background of this premise is unimportant at the moment, beyond the fact that it seems to fill a gap in our scientific thought in a satisfying manner.

If we define tempic field intensity as the amount of time in a given region in a given interval, we can place it on the same footing as the other two basic fields, electric and magnetic. If we take as our interval the terrestrial second, we then have an established scale.

The force of gravity, parametrically, is $F_g = \frac{ML}{t^2}$ which is inversely proportional to the second power of time. If the tempic field intensity were increased in a region then, since that region will contain more than "normal" time the force of gravity would appear to be decreased, and vice versa.

In the Fisher-Hooper experiment when g was apparently increased by 4.7 miligalls, the equivalent decrease in t would be about 2.19×10^{-3} sec.

Looking again at the definition for tempic field intensity we may enquire regarding the distribution in space of this effect. As the inverse square law is fairly well established for the distribution of electric, magnetic and gravity fields, we could justifiably assume that the same law holds for tempic field distribution. Therefore, knowing the physical dimensions involved, we should be able to calculate the tempic field intensity generated in the working region of the experimental equipment.

We might also consider this point. If, as appears probable, the effect actually originates within the substance of the shield itself, then this could amount to either an increase or a decrease in the tempic field within the shield material and we will have to investigate by other means whether the new time structure emanates from the shield material, or is "pushed out" from it, leaving a conjugate condition inside.

In the Fisher-Hooper experiment which gave 4.7 miligalls of artificial gravity, the corresponding time change would be 2.19×10^{-3} seconds. Therefore, within this region the second would be $(1 - 2.19 \times 10^{-3})$ terrestrial seconds. If a time sensing probe were used, operating at say 1 megacycle, the insertion of such a probe into this region would produce a frequency lowering of $(1 - 2.19 \times 10^{-3})$ (10^6) or 2.19 kilocycles which would be easily observable.

In electromagnetic units the parameters are as follows:

$$\text{Quantity } Q \text{ is } \frac{L^{\frac{1}{2}} M^{\frac{1}{2}}}{u^{\frac{1}{2}}}$$

$$\text{Electromotive force emf is } \frac{L^{\frac{3}{2}} M^{\frac{1}{2}} u^{\frac{1}{2}}}{T^2}$$

$$\text{Magneto motive force mmf is } \frac{L^{\frac{1}{2}} M^{\frac{1}{2}} u^{\frac{1}{2}}}{T}$$

$$\text{Field strength } B = \frac{\text{mmf}}{L} = \frac{M^{\frac{1}{2}} u^{\frac{1}{2}}}{L^{\frac{1}{2}} T}$$

The relationship between the quantities u and K is

$$\frac{1}{K^{\frac{1}{2}} u^{\frac{1}{2}}} = \frac{L}{T}$$

When the field B sweeps through a material having K and u the cross product of B and v

$$B \times v = \frac{M^2 u^{\frac{1}{2}}}{L^2 T} \times \frac{L}{T} = \frac{L^{\frac{1}{2}} M^2 u^{\frac{1}{2}}}{T^2}$$

If the material is a conductor, electrons will flow and provide a displacement so that the outside potential is equal to the total emf. However, since the material is a conductor, no internal electric field can exist. However, since the emf is still present, this can only be offset by polarization of the remaining material. Parametrically this becomes

Polarization is QL

$$QL = \frac{L^{\frac{3}{2}} M^2}{u^{\frac{1}{2}}}$$

Since the difference between Polarization and Bxv must be zero

$$\frac{L^{\frac{1}{2}} M^2 u^{\frac{1}{2}}}{T^2} - \frac{L^{\frac{3}{2}} M^2}{u^{\frac{1}{2}}} = 0$$

$$\frac{u^{\frac{1}{2}}}{T^2} - \frac{L}{u^{\frac{1}{2}}} = 0 \quad \text{from which}$$

$$\frac{T^2}{L} = \frac{u}{L}$$

$$\text{But } \frac{L}{T} = \frac{1}{K^{\frac{1}{2}} u^{\frac{1}{2}}}$$

$$\text{from which } T^3 = K^{\frac{1}{2}} u^{\frac{3}{2}}$$

$$T = K^{\frac{1}{6}} u^{\frac{1}{2}}$$

The foregoing implies that within a substance the time is related to the dielectric constant and permeability; but whether one is the cause and the other the effect or whether all or one are merely indicators of something else is not apparent. However, we do know that the velocity of propagation of an electromagnetic wave is proportional to $\frac{1}{K^{\frac{1}{2}} u^{\frac{1}{2}}}$, so it is probable K, u, and T

are really three aspects of the same thing, since we have no reason to believe that length inside a substance is any different than length outside of it.

Because of the observed symmetry of the parameters involving K and u, it is reasonable to assume that the actual parametric relationship between T, K and u is $T = K^{\frac{1}{6}} u^{\frac{1}{2}}$ and it does not really matter which side of the equation we consider to be cause or effect.

Referring again to the relationship resulting from the Fisher-Hooper experiment

$$T = K^{\frac{1}{6}} u^{\frac{1}{2}}$$

it appears that the external effect was brought about through the displacement of the electrons modifying the normal square root relationship. Normally, when all chunks of matter are in equilibrium with the time surrounding them, the square root relationship holds, but when polarization takes place, asymmetry is introduced and the relationship becomes sixth root. Hence, we would expect an asymmetry to develop in the fields external to the chunk of matter being operated upon as above.

There is another and somewhat different aspect to the Fisher-Hooper experiment that may be worth considering. Although we have not as yet made any official announcement of the fact, and have met considerable resistance in scientific circles where the matter has been discussed privately, there is some evidence to support the view that regions exist where the binding forces of matter are altered.

This first came to our attention when quite a few aircraft failed in flight for no apparent reason. Where the cause of failure could be determined it seemed to involve the ultimate strength of materials which should have been strong enough.

A program was set out to investigate this phenomenon and towards this end several "Binding Force" instruments were constructed and supplied to colleagues in various parts of the world with the request that they investigate the regions near where aircraft or other structures have failed.

In several instances the reports came back that there did exist regions where the binding was below normal and which could have been involved in the structural failure. In addition, a few such regions were located where structures had as yet not failed, but which we believe could be dangerous.

As yet we have insufficient evidence to establish, with certainty, whether or not these regions have anything to do with the observed structural failures, but the present indications point in this direction. Nor do we know if these regions are fixed in position or if they move about; or if they manifest to a certain level and then decrease, ultimately to vanish. Nor do we know their dimensions.

The instruments used in these investigations are quite simple and consist of matching the pull in a metal spring stressed well under its elastic limit against the pull in a fiber made up of large molecules stressed just below its elastic limit. Reduction in binding will, of course, show up first in the fiber and cause it to lengthen and the pointer-carrying spindle, about which it is wound a couple of turns, to turn. Deviations are read from a scale over which the pointer moves. In operation, regions of slightly reduced binding produce a deflection from which the instrument recovers when removed from the region, but when regions of greatly reduced binding are encountered the instrument takes a permanent set and must be readjusted before it can be depended upon again.

It is suggested that we should not discount the possibility that the Fisher-Hooper experiment may actually be producing a region of reduced binding which affects the springs of the gravimeter, causing them to relax somewhat and give an indication as of increased gravity.

We are proposing to investigate both the above aspects of the Fisher-Hooper experiment, as well as several others, in the near future and we would like very much to hear from others who may also have looked at these aspects.

W. B. Smith, P. Eng.,
10 Lotta Avenue,
Ottawa 5, Ontario.

April 24, 1956

Dear Mr. Fulton,

I acknowledge your letter of April 15 and wish to thank you for your interest in my activities. Although Project Magnet has been officially closed down I am still carrying on the investigation work on my own. In order to clarify my position I have prepared the enclosed statement. I have no objection to the publication of this statement provided that it is published in its entirety as submitted.

As hinted in the last paragraph of this statement, a great deal has been learned towards the founding of a new and advanced technology, but as yet we are in the kindergarted, and have a lot of crawling and toddling to do before we can walk, much less run!

With regard to the document which you sent with your letter, I am not in a position to make much comment on it. I am always doubtful of any kind of statement by someone without the courage of his convictions sufficient to sign his name. Furthermore, I am unable to corelate the material in this document with anything of a similar nature received through other sources.

It is quite true that our knowledge of the physical world in which we live is most inadequate and some of our ideas are quite wrong. But most people with any sort of a background in science have little difficulty in pointing up the deficiencies. Add to this the knowledge obtained through studies of the flying saucers and it all starts to clear up. It is really surprising how much of the new technology actually is known now, but unrecognized because it looks like something else; something that we have taught ourselves to accept blindly, sometimes contrary to our own better judgement. I think that if we were left to our own devices for about fifty years we could get off this planet by field manipulation. I think if as much effort were to be put on this project as was put on the atom bomb, we could do it in ten years. However, I sincerely hope that we don't do it until we outgrow the childish belligerence with which the majority seem to be afflicted.

With best regards



W.B.Smith

Received from CSI
Island, New Zealand
April 15, 1956

Received from an anonymous donor.
Dated Wellington 26th June, 1954.

COULD THIS BE TRUE ??

MAGNETIC SCIENTIST GIVES DETAILS OF FLYING SAUCER.

By: Peruvian News Correspondent, Manuel Montanoz.

The following report is the result of an interview between a magnetic scientist and a news reporter, regarding a Flying Saucer that went out of control and crashed into dense forest in Peruvian territory on the morning of April 11th.

"You must understand very clearly that the full story regarding the discovery of an interplanetary disc-shaped craft cannot be released for publication immediately. Furthermore, all that I may say to you will be checked and censored, if necessary, by one of my colleagues."

Such was the brief address of welcome I received from the scientist on being assigned to get the facts regarding a Flying Saucer which had been seen by many observers over Peruvian skies to come hurtling down to earth, apparently out of control.

"To give the public some idea of the composition and method of propulsion of this magnificent space craft, and possibly the origin of its source, it will be most necessary for me to do some very simple explaining, and hope that it will appeal to the average scientific mind."

Most people know that an atom of matter is a composite structure of a variety of particles bearing positive, negative and non-electric charges. Its nucleus consists of electrons, neutrons and protons, the last two gaining or losing a positive charge. That is, a proton can become a neutron, and vice versa.

In between the nucleus and the orbiting electrons and positrons (positively charged electrons) are particles known as mesons, which are found to be either positively or negatively charged. The mass of a positive meson is 285 times that of an electron, whilst that of a negative meson stands at 212 times.

It should be interesting to note that an orbiting electron and positron originate from the same particle, the gravitational attraction of the nucleus keeping them in orbit. Therefore, an atom may be described as a minute solenoid whose coils correspond to the electronic orbits, the gyroscopic action of which tend to maintain the spatial orientation of their rotational axes with no one direction being more likely than another.

However, when subjected to a magnetic field these axes of electronic rotation align themselves with the magnetic lines of force, but not without resistance from their gyroscopic stability. The resultant effect is one of repulsion due to the precession of the electronic orbits. This is known as Diamagnetism, or more simply, negative magnetism. Diamagnetic substances which have a magnetic permeability lower than unity, diffuse instead of increasing the number of magnetic lines of force passing through them from the open poles of a magnet.

These substances tend to range themselves at right angles, or East to West, instead of aligning with the magnetic lines of force. Uranium, platinum, silver, gold, copper, zinc, bismuth, cadmium, arsenic, etc., differ in their angles according to their diamagnetic properties. Most gases, too, are diamagnetic. Where oxygen is attracted, liquid oxygen is repelled. Hydrogen is repelled, and so on.

In paramagnetic substances the axes of electronic rotation show little or no resistance and readily accept the alignment with the magnetic lines of force. Being strong enough to overpower the diamagnetic effect they produce a positive reaction and are obviously subject to magnetic attraction.

Iron, cobalt and nickel, the ferromagnetic elements, are the most strongly paramagnetic substances we know of. The capacity of soft iron to absorb magnetism is placed at about 300, so that in a magnetic field it's power increases that many times. Unfortunately, soft iron demagnetizes almost immediately when removed from the field, but certain alloys have been produced which remain magnetized and whose susceptibility are close to one million times that of soft iron. These alloys are of paramagnetic and diamagnetic substances, and who knows what the future will bring with regard to higher powered substances.

Magnetism, like gravitation and electromagnetism, is subject to the law of inverse square in that it decreases with the square of distance. The difference between magnetic and gravitational fields is that the former is polarized force while the latter is undirectional. Every magnet is always a dipole, one is North seeking and the other is South seeking. Here it will be informative to add that the force of one dyne will accelerate a mass of one gramme one centimetre per second.

Although a weak force when compared to the earth's attraction at sea level which is 981 times stronger, let us remember that the mass of the earth's crust is tremendous in size, but weakly magnetized. The earth's centre could not be magnetized because of the extremely high temperatures. Steel, nickel and cobalt demagnetize at temperatures of 870, 320, and 1,120 degrees Centigrade respectively.

All bodies on earth which exhibit magnetism have polarity of two distinct kinds, North and South seeking, and we learn that like poles repel and unlike attract. The earth is a giant but weak magnet (do not confuse with the gravitational power of the earth) whose magnetic lines of force are vertical at the poles but otherwise slanting. Normally, a compass needle, being attracted to the North and South poles, turns round to face them by aligning itself with the magnetic lines of force; but if the needle were free to move in the three dimensions it would stand on its south point if the compass were at the earth's North magnetic pole. Similarly, if the compass were placed on the earth's South magnetic pole, the needle would stand on it's north point.

Being attracted by both poles with equal strength, so the needle would be repelled if it's north seeking point were made to face south. Now, depending on the mass and capacity of a substance to absorb magnetism, so the force of repulsion by inversion could be calculated. The fact that certain alloys have a magnetic susceptibility many hundreds of thousands of times that of soft iron opens up the present day possibility of our being able to overbalance the inward pull of gravity by magnetic repulsion.

I think I have completed my introduction of simple explanation which should be appreciated by those interested, as I now proceed to say something about the vehicle from space!

"Don't let me stop you, Professor," I said, "I'm learning things fast!"

"Very well," he replied, "to continue. I mentioned that the space vehicle was disc-shaped. It is also elliptical with a diameter of 99 feet and 18 feet thick in the centre with a razor-sharp edged circumference. It consists of an inner stationary shell and an outer rotating shell both of $\frac{1}{4}$ -inch thickness and made of transparent crystallized carbon, or diamond to us on earth!

It takes tremendous heat and pressure to make a diamond, and anyone knows what tremendous heat and pressure a diamond can stand. My colleagues and I fully agree that the disc-shaped space craft is a far more advanced type of vehicle than we predicted from the various reports of earlier sightings. But if that was a shock there was more in store.

We now know that 50% of the space craft is made from positive matter and 50% from negative matter, making the ship immune to gravitational reaction. The craft is absolutely weightless! I cannot express our feelings of awe and wonder as we examined this master creation of another world. We went into immediate consultation and agreed that the existence of nucleons, those particles comparable to an atomic nucleus, but bearing a negative charge and found in the cosmic rays, pointed a terrifying finger at the probability of planets made up of negative matter.

Such planets might be the source of cosmic rays. After all, who knows whether some extra-terrestrial scientist investigating the properties of similar rays, did not discover certain particles bearing a positive charge comparable to the negative nucleus of the atoms of matter on his planet? Who knows whether he was not able to produce positive matter in his super atomic furnaces realising what an immense stride it would be towards developing an anti-gravity space ship? One day we shall most certainly do just that. We know that space is anything but empty. That it is full of energy of electro-magnetic, gravitational and magnetic oscillations which are at right angles to each other where these three meet in space, three dimensional matter is the result which, of course, explains why everything is three-dimensional.

At the bottom of the disc in the centre is situated the variable attraction/repulsion magnets consisting of four rectangular blades. Two blades, opposite each other, are constructed of hundreds of very thin metal sheets containing a high percentage of cobalt. The other two blades, also opposite each other, and constructed in a like manner, contain uranium and one other metal. We have calculated the susceptibility of these paramagnetic and diamagnetic substances and found them to be over the three million mark.

Now do not rush to conclusions that this space craft just consists of a powerful magnet set high in a rotational velocity circular aerofoil whose efficacy depended on its angular momentum to counterbalance the magnetic couple by inversion. That is the case as far as vertical ascent and descent are concerned. A magnetic motor placed directly above the blades holds them in an inverted position when the disc is required to rise vertically. A halfway inversion causes the disc to remain suspended in space or atmosphere provided there is no rotational velocity.

The horizontal propulsion of the craft is not done magnetically. A second and large magnetic motor drives the outer shell many hundreds of revolutions per second if necessary and the centrifugal force created by the rotational velocity is used to propel the disc in any horizontal direction.

A little explanation will serve its purpose here. You know that centrifugal force is like gravity turned inside out and that it exerts an outward force covering 360 degrees. Well, inside the disc we observed a semi-circular rotatable screen made of negative matter, as we came to know later, and which was directly responsible for the steering and horizontal propulsion of the craft by deflecting and concentrating 359 degrees of centrifugal force in one straight line in which the craft would follow.

We learned that when the screen is swung rapidly at right angles, or even opposite to its previous setting, then, regardless of the speed and direction of the ship, it will instantaneously follow the new line of thrust. This is possible because of the craft's immunity to gravity. The speed of the space ship is dependent on its rotational velocity.

This principle is exactly the opposite to that of rocket propulsion which is based on reaction. A rocket treads on the gases of its exhaust and is propelled in the opposite direction of its thrust. This use of sheer brute force is wasteful, costly, and rapid acceleration possibly very dangerous. An interplanetary rocket designed for reaching escape velocity by means of chemical fuels like liquid oxygen and alcohol would assume gigantic proportions.

If atomic power is used for propulsion, heavy shielding would be required and the danger of radio-activity spreading over the take-off platform would threaten the safety of human life. Rocket propulsion is crude in comparison to magnetic flight, which will definitely be the ultimate for atmosphere and space craft.

At this stage you may have wondered how entry is made into the disc shaped craft when I have said that the outer shell rotates while the inner remains stationary. Well, the two shells, approximately one inch apart, are separated by a vacuum only when the outer shell is required to rotate. When exit or entry is required, the outer shell is brought to a standstill and air pumped into the empty space to facilitate the opening of two ramp-like doors,

one each on the inner and outer shells which open when they are exactly in line with each other. The actual opening and closing is controlled magnetically.

I would like to state that no means of interior illumination was discovered, nor any means of outward communication like radio or television. We particularly noticed the absence of sleeping accommodation, which gave rise to the thought that the people of this strange planet perhaps do not sleep or have conquered it.

The space ship contains one deadly weapon of utter destruction, but which we understand is designed solely for the complete disintegration of high velocity meteoric matter which could prove fatal in the event of collision with the craft. The weapon can provide a protective screen up to a radius of about two thousand miles, and yet it can reduce that radius to a few inches more than that of the craft itself.

The disintegration of matter is effected by disentangling the triple oscillations of energy which form three dimensional matter. Here, one can see why the horizontal propulsion is not done magnetically. The diameter of the protective screen is increased or decreased as the craft recedes or approaches a planet. While we have not witnessed the power of this weapon, we understand the principle of it.

Obviously, when flying in atmosphere the space craft would encounter air resistance and would seriously affect its propulsion at air compression speeds at various altitudes. Fortunately, the designers of such a craft were not ignorant of sound and heat barriers. The extremely high rotational velocity of the outer crystallized carbon shell heats the immediate surrounding air to incandescence, burning it up so to speak, and creating a free path for the craft.

Under such conditions there would be no propagation of sound waves, and hence no noise would be heard. The glow of the incandescent air would vary in colour from red, orange, amber, blue and green, depending on the rotational velocity. One can't fail to appreciate the idea of heat resisting aerofoil of crystallized carbon. "

"Pardon me, Professor, for interrupting," I said, "but would you care to say a few words on the occupants of the craft. I mean the little men or other unearthly creatures we hear about. The public can hardly wait for a description of the space visitors, and to know where they came from."

"Oh, yes," the Professor replied, "I did wonder when you were going to ask me that important question, and I can give you a full answer. There were no occupants! No little men or other fantastic creatures with super intelligence, but there was S-O-M-E-T-H-I-N-G ! We shuddered as it approached us for it seemed alive. Yes, a robot had piloted the space vehicle and even charted a return course to a planet of another solar system! We still can't believe it, because all along we had suspected one of our own planets. Can you wonder why the information on this space craft is so restricted!

The robot is not only capable of making it's own decisions, but has made it known to us that the huge space craft was sent with the intention of returning with some intelligent humans aboard! We were given to understand that it would not be the first time human beings were taken with their consent to another planet.

Two men were reckoned to have gone from North Africa somewhere about July, 1924. A wealth of information has been supplied with numerous scenes of life on the distant planet from whence the disc craft came.

In the interests of science most of my colleagues and myself have volunteered to go with the robot and hope to return with some valuable information, as we have been promised a safe return to earth. There is plenty of room in the craft which seems to have been so planned, and we cannot see anything forbidding about it. After all, are we not preparing to visit other planets after the conquest of the moon? So what is more safe and reliable than to go with one who knows the way?

However, before the departure takes place, we have reached an agreement whereby the space craft would be sent on tour to some of the most important cities in the world as proof of the fact that we have been visited from outer space and are living in an interplanetary travel age."

"Thank you very much, Professor, for such an authentic and sensational story. And now, before closing this interview, I wonder if I may ask how such a super craft came to make such a bad landing. Every eye witness said they thought it was out of control."

"I cannot say for certain at the moment," the Professor answered, "but knowing how paramagnetic cobalt is -- well, a disruption of the earth's magnetic lines of force could result if a cobalt bomb was exploded, say in the Pacific, and suppose a fast moving magnetic craft were to encounter a gigantic magnetic fault while descending, who is qualified to say how and where it would land?"

* * * * *

Los Ecurouils
(The Squirrels)

One might refer to this as a squirrely type operation, nonetheless, in the interests of curiosity we proceeded to the village some 20 miles upriver from Quebec city. The date 12 Nov 60, the we, Louis Geoffrion, who surmounted the language difficulties, Ken Ellick, Gordon Hughan and Bill Riddell.

We contacted the Mayor, a cr army operator, a casual bystander or two then Charles Douville whose parents operate a Hotel. It seems the local lads with spare time beachcomb for pocket money and it was during such searches that the two strange objects were found in the latter part of June.

The beach extends several miles and is $\frac{1}{2}$ to $\frac{3}{4}$ of a mile exposed at low tide. It is remarkable in its formation, a flat bedded shale slightly cropping or feathered towards shore, so that you can drive all over it, also it has very little debris on it so that any sizeable object stands out for attention. Retained water pockets are at most a few inches deep.

Two objects were found on the shale flats about a week apart. Object No 1 was found first about a $\frac{1}{2}$ mile out on the flat and downriver about a mile from No 2. This piece is estimated to weigh over 1000 lbs judging the effort the lad made to move it and the small pieces we picked up which were probably knocked off in the process. He thought the two pieces were related but could not account for their appearance in any way. He stated they were not there one week then he found them the next time he went out.

Object No 2 was found about 500 feet in front of a cottage roughly on the shoreline. It weighed 500 lbs, (over a scale) was dragged up to the jetty, loaded on a trailer, other scrap metal added and sold in Quebec for scrap. We traced the piece into a large scrap yard ASCH and Co Quebec City and lost the trail. We do not have a piece of this object

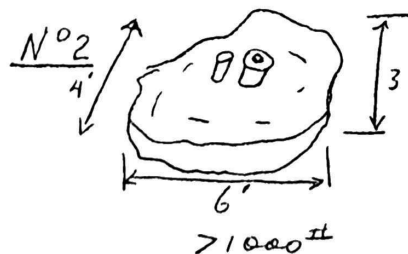
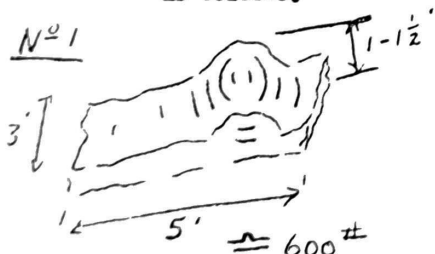
but assume it was related to the other piece. It was found in the latter part of June and sold on the 4 July 60. The reason No 1 was not treated in the same way was that it was too heavy. This chap pushed it 50 feet or so with a small tractor then gave up. We do not know how GARDÉ found out about it, but about 3 weeks later they came down and picked it up.

Where the lad had pushed object No 1 we picked up 6 or 8 pieces, none over a pound. The object itself is in Valcartier we understand.

All the local people spoken to know about the rusty old iron but none supported the idea it fell from the sky. It seemed odd that the object was known to have been found but no detail was forthcoming when we tried to pursue the circumstances of its occurrence. It wasn't there, then it was. They spoke of an object yet there were two, perhaps the one GARDÉ picked up was the most noteworthy so it became the conversation piece.

A follow up check with the cottage owner may turn up something about the circumstances. A point in this regard is the absence of any crater or other mark on the shale bed at or near where the objects were found. With about six feet of tide the possibilities of its being deposited by river borne means are limited.

To reconstruct a conversation the shapes are somewhat as follows.



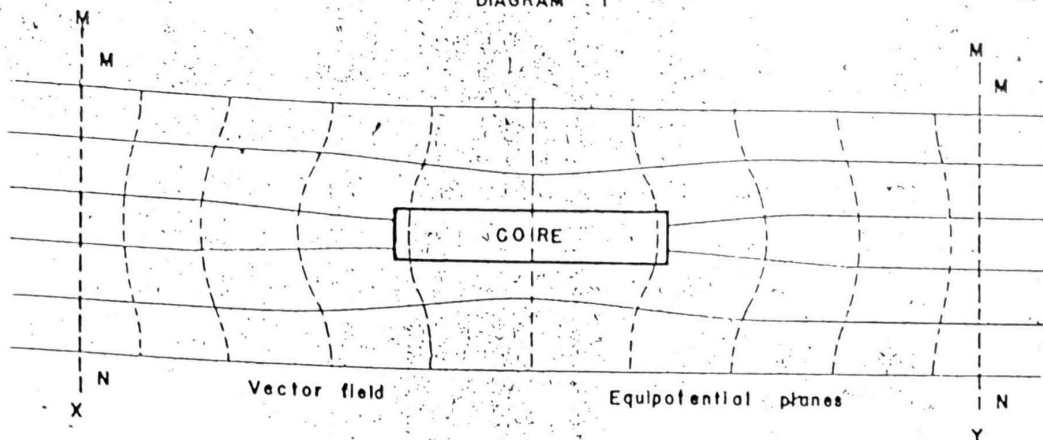
Perhaps they were placed to attract attention.

Learning Log

12.5
12.5
37.1

- ① Sketch of iron core in magnetic field. ✓
- ② Apparatus for experiment #1 (a) ✓
- ③ " " " #1 (b) ✓
- ④ Sketch of exp. #1 (a) Excite winding ✓
- ⑤ Sketch of exp. #1 (b) Air Density ✓
- ⑥ Apparatus for Test in Exp. 1 (c) ✓
- ⑦ Sketch of exp. #2 (b) ✓
- ⑧ Circuit for determining B-H curves. ✓
- ⑨ Sketch of permeability & air core - saturation curves ✓
- ⑩ Circuit showing of low resistance tests. ✓
- ⑪ Sketch of B-H characteristics for magnet. ✓
- ⑫ Diag. of wattmeter. #1 design. ✓
- ⑬ Calculating curves. ✓
- ⑭ Diag. of wattmeter #2 design. ✓
- ⑮ Sketch of Resistance Curves for Toroid.
- ⑯ Drawing circuit for standard resonance tests.

THEORETICAL SKETCH OF EARTH'S FIELD NEAR PERMEABLE CORE
DIAGRAM 1



BLOCK DIAG. OF APPARATUS IN EXP. 1 PART (a)
DIAGRAM 2

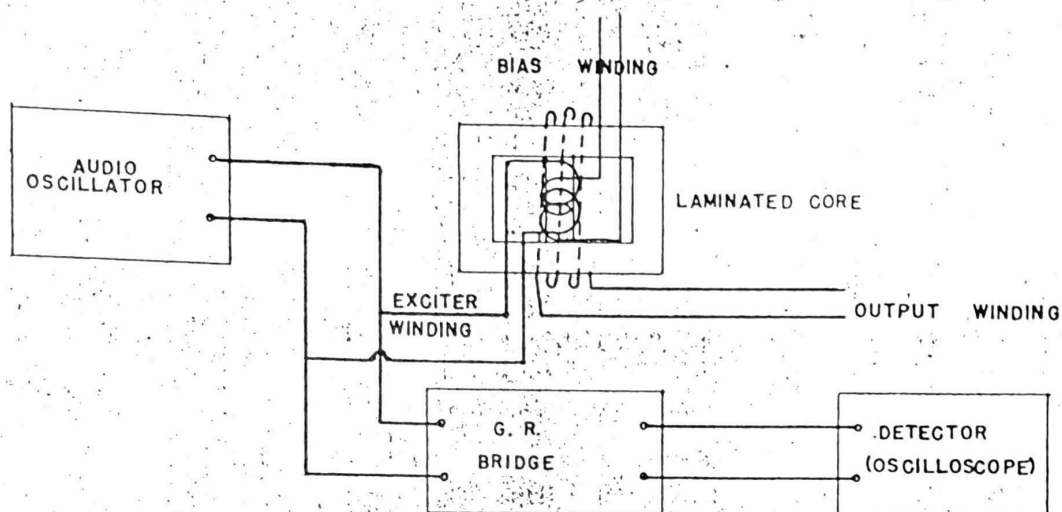
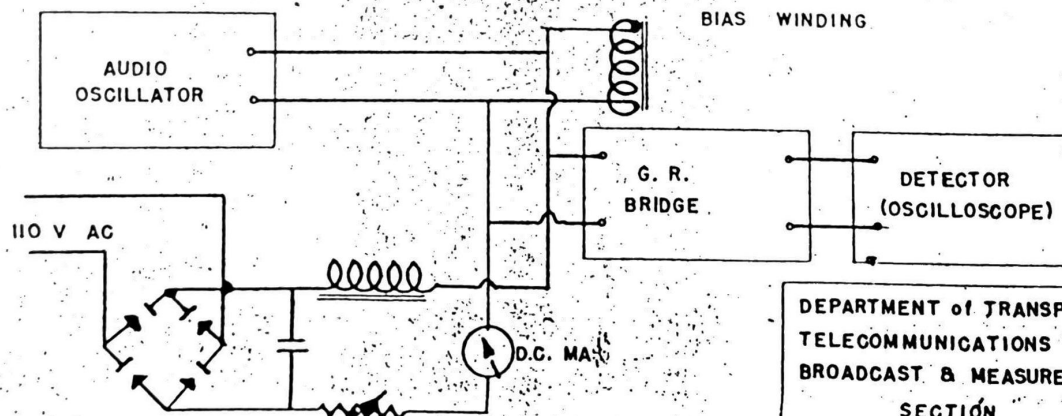


DIAGRAM 3



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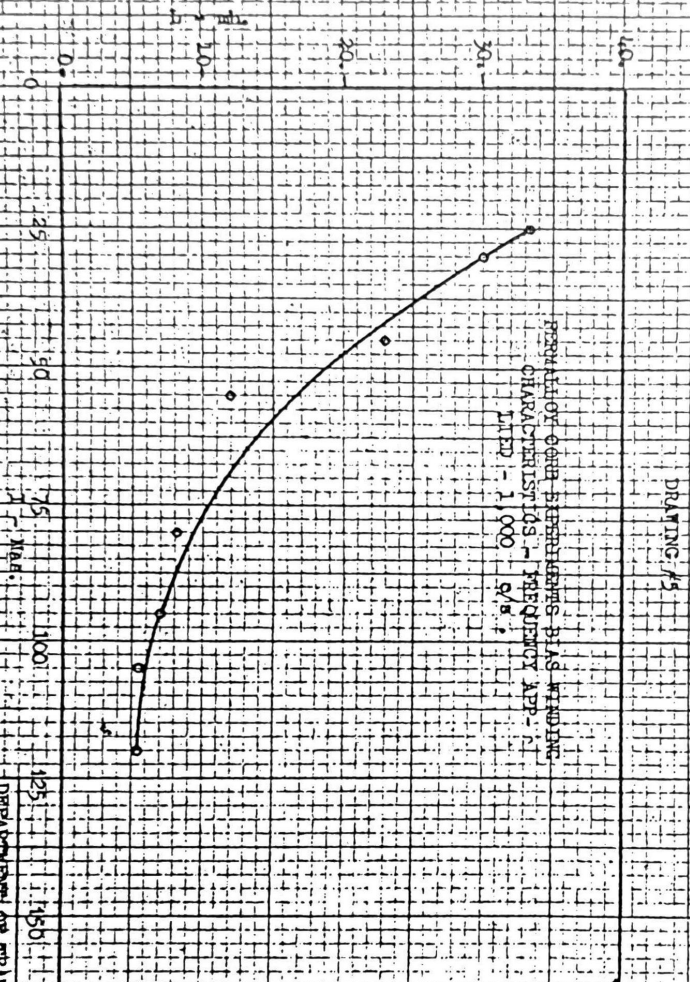
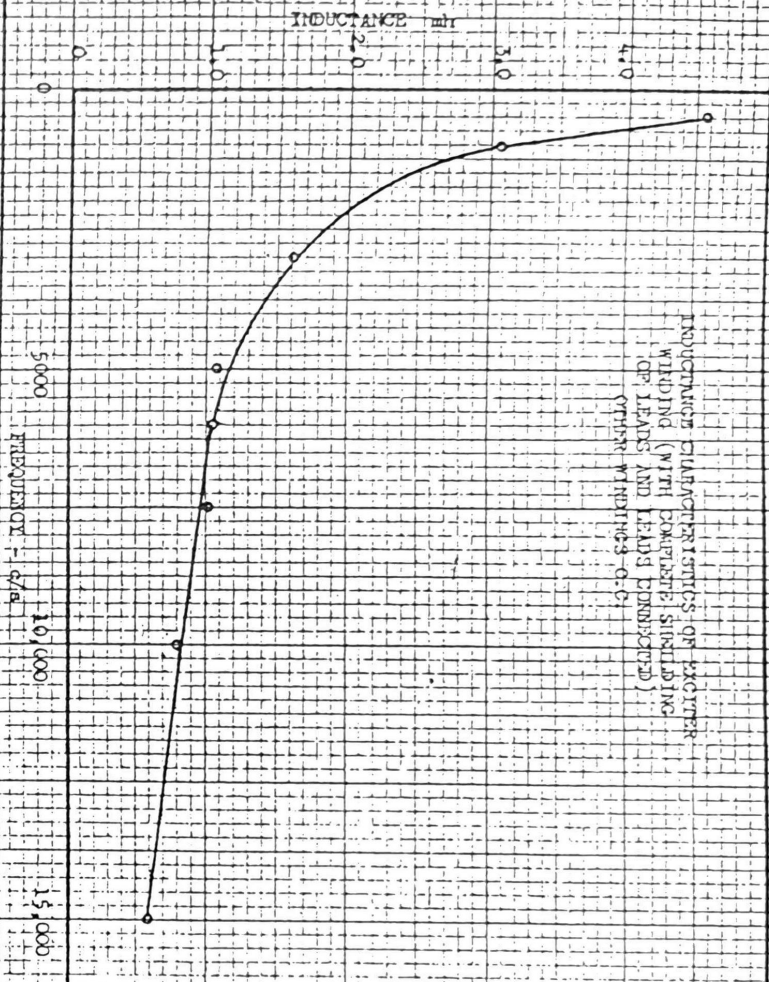
SECTION

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APP. *W. H. Blum* APR. 51

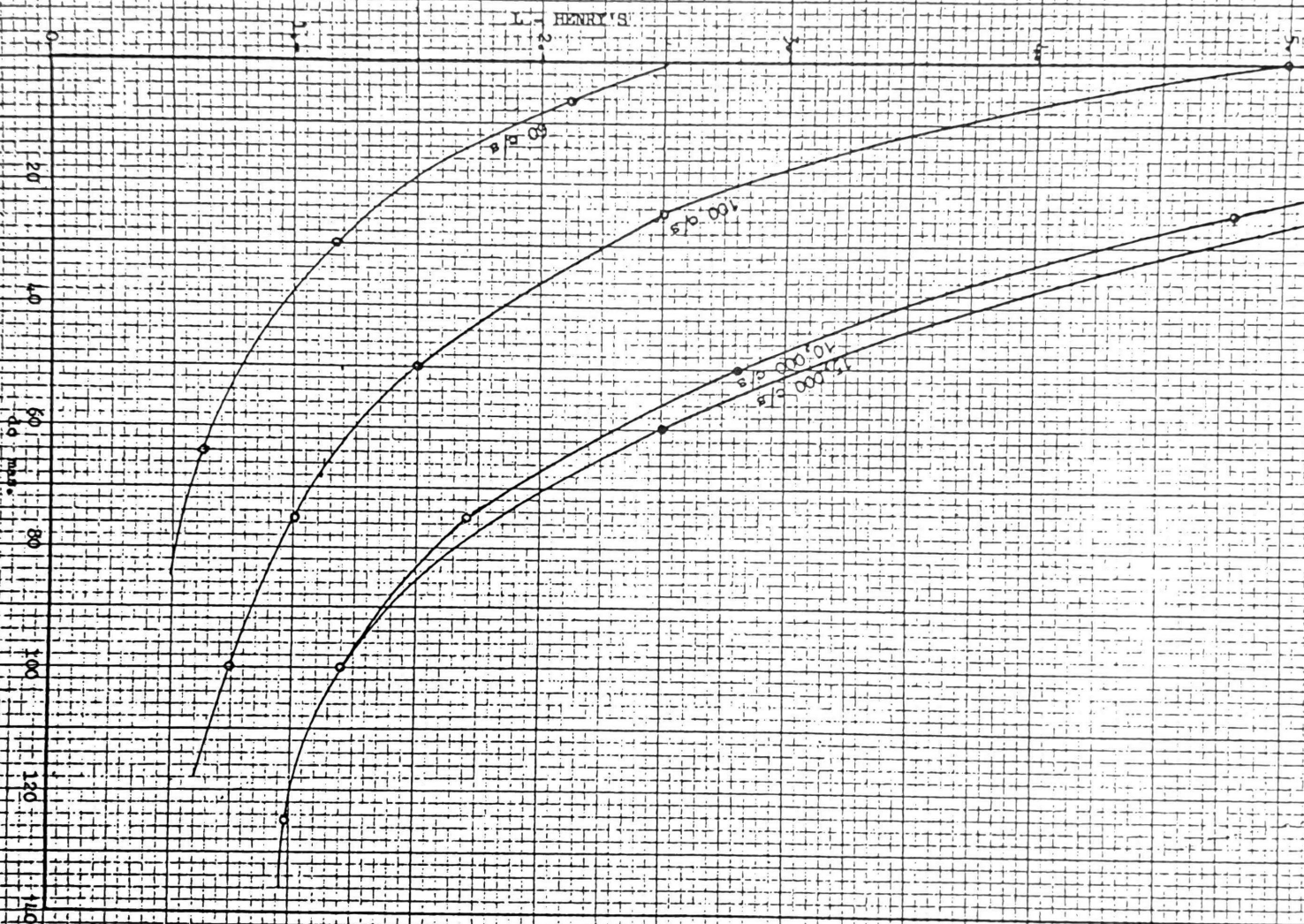
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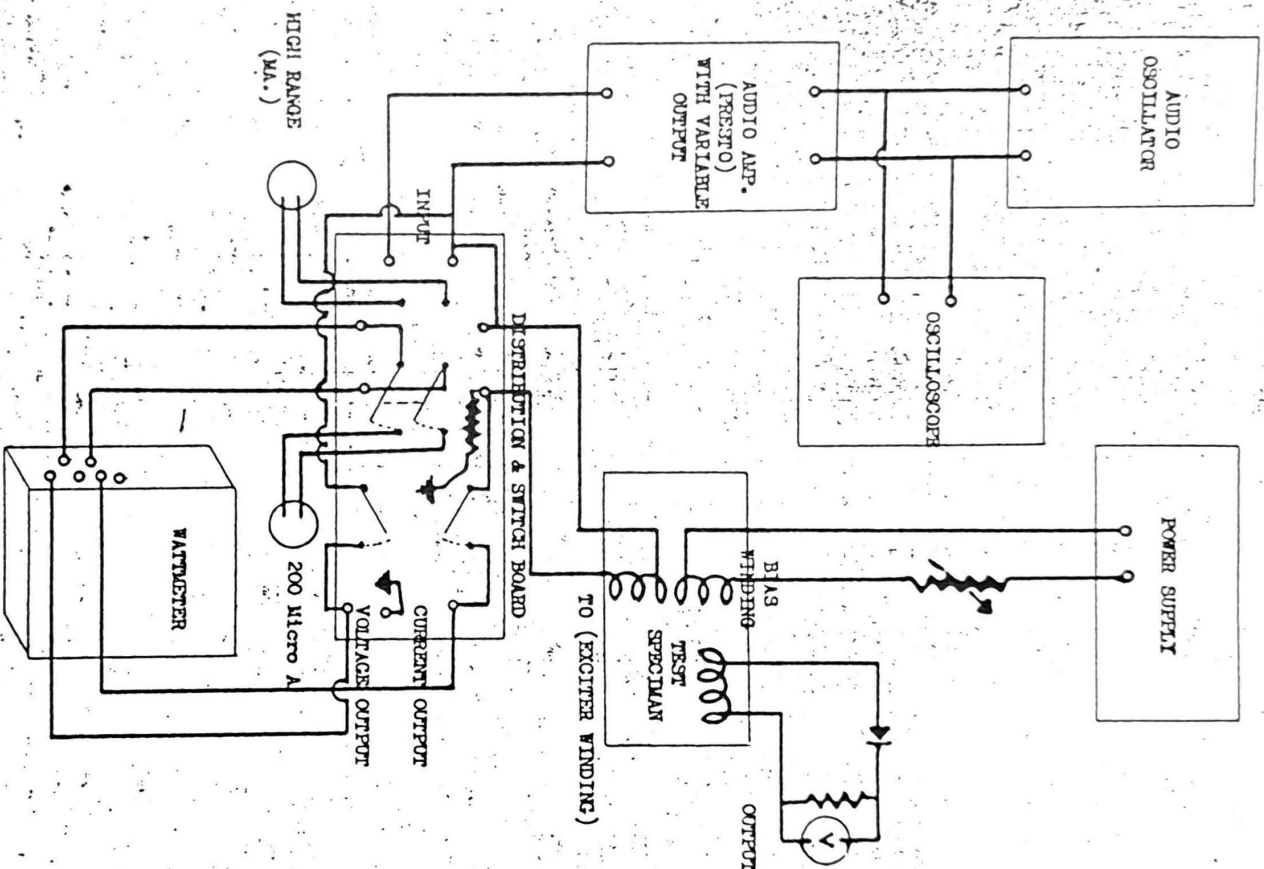
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APP. BY *W. H. H. H.*
APR 51

DRAWING # 7
SOFT IRON CORE TESTS - INDUCTANCE OF EXCITER WINDING
VS D.C. MA. CHANGES



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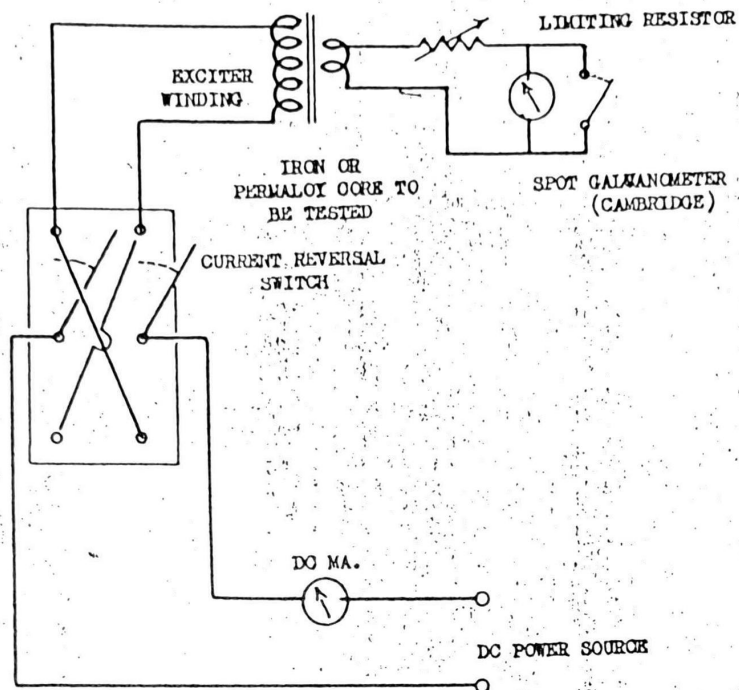
DRAWING # 6
MAGNETIC SINK APPARATUS



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DRAWN BY *Hoffman* APRIL 51

DRAWING # 8

APPARATUS FOR DETERMINING B-H CURVES - Dec 1950

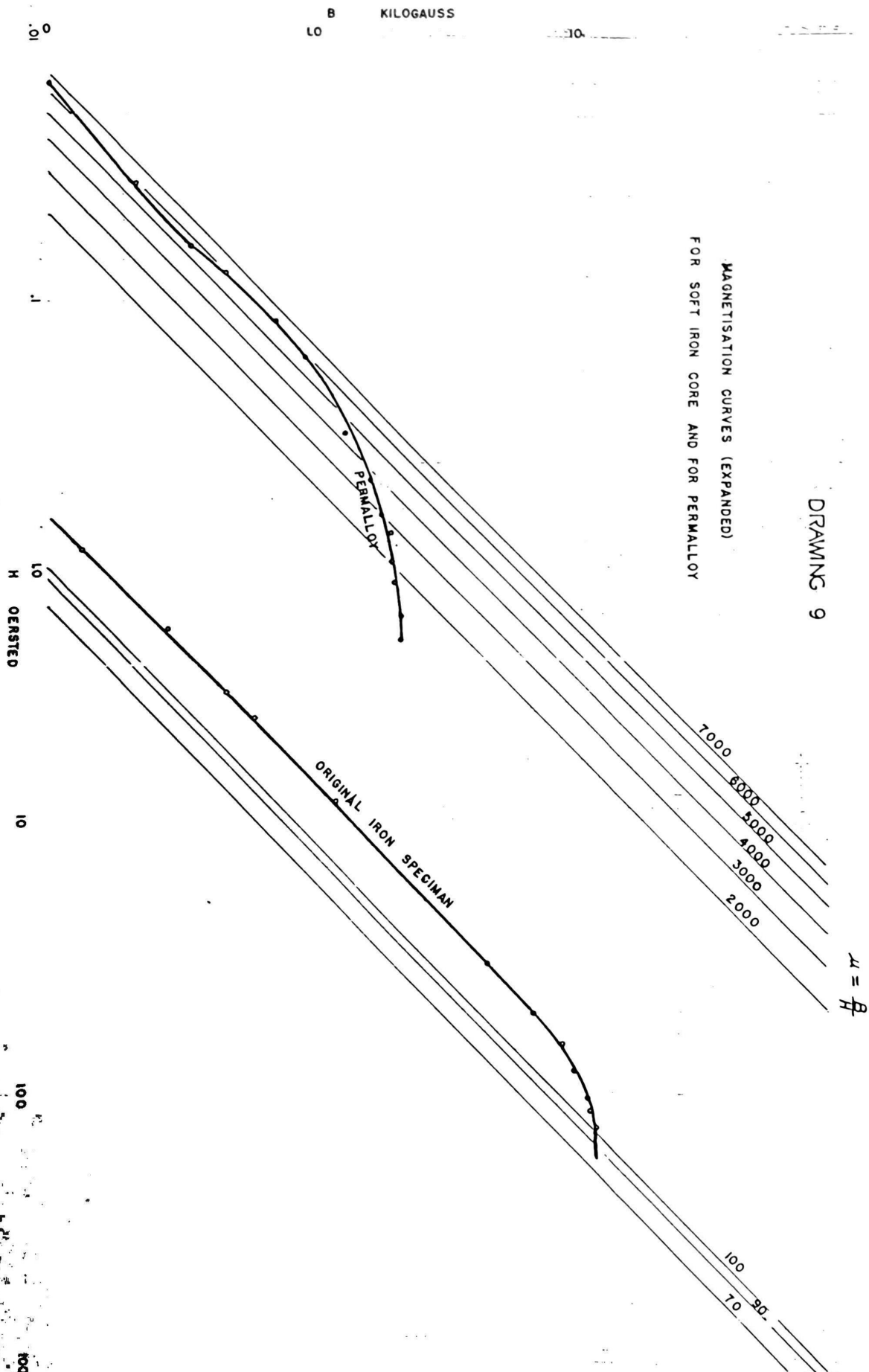


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DRAWN BY *W. H. Holman*
APP. BY *W. H. Holman* APRIL '51

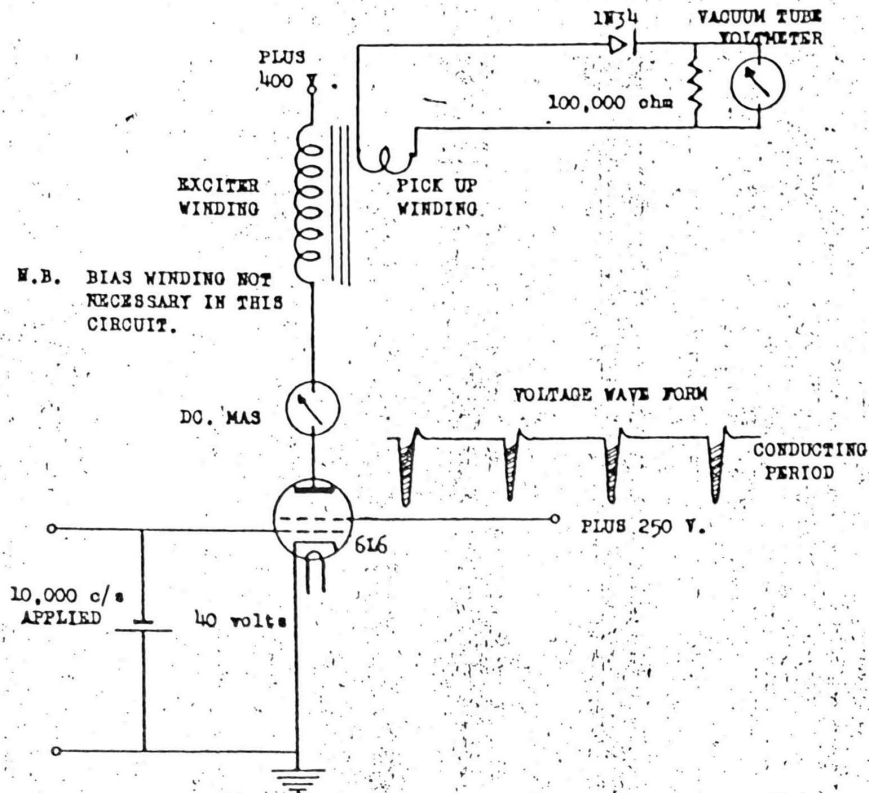
DRAWING 9

MAGNETISATION CURVES (EXPANDED)
FOR SOFT IRON CORE AND FOR PERMALLOY



DRAWING # 10

CIRCUIT USED IN PERFORMING TESTS ON THE PERMALLOY CORE AT
LOW EXCITATION CURRENTS

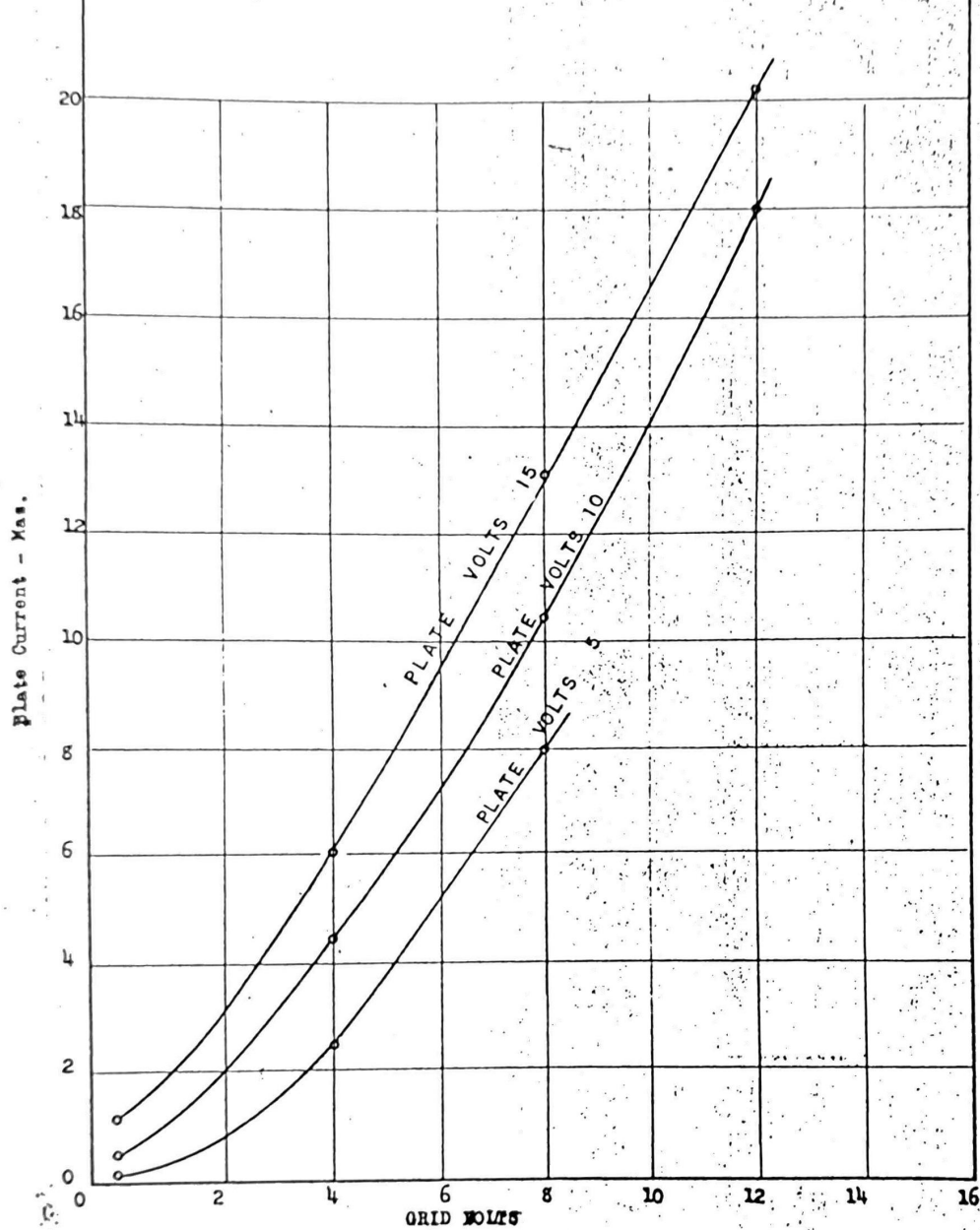


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APPR BY *W. H. Robson* APR 1951

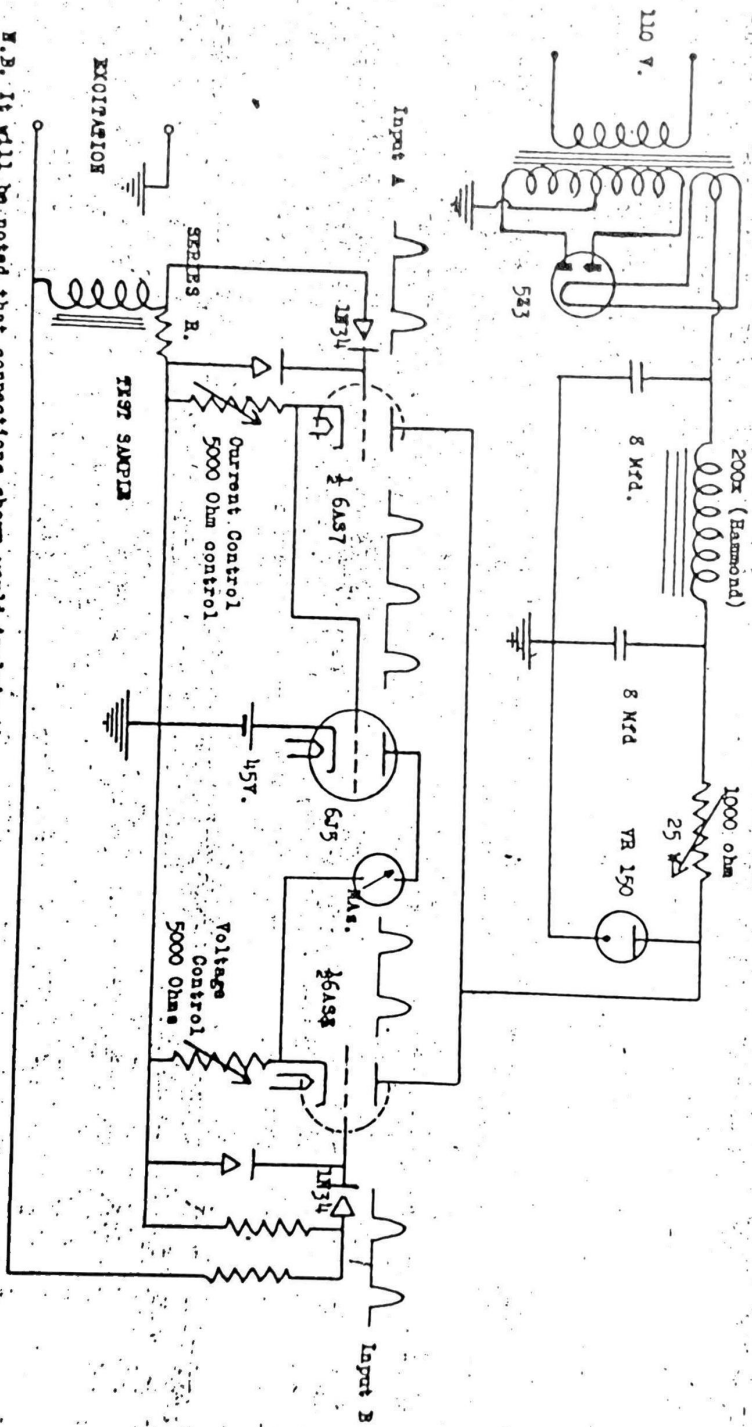
DRAWING # 11

6J5 Characteristic Utilized in the Milliwattmeter Design (Static)



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DRAWING # 12



W.B. It will be noted that connections shown would include the series resistor in the power computations. This was actually done in the initial tests until further modifications could be made to obtain direct power readings

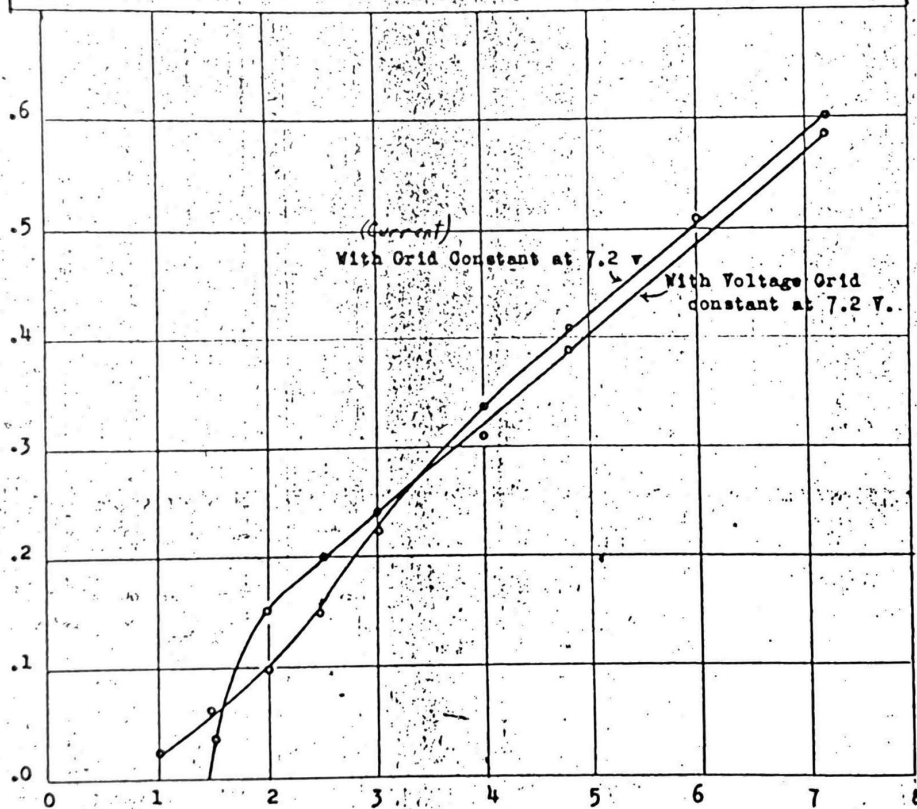
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DEPT. OF TRANSPORT
APR 27 1952

DRAWING # 13

ELECTRONIC MILLIWATTMETER

CALIBRATION CURVES

I_p vs Watts vs (E_g) at Grid inputs of 6AS7

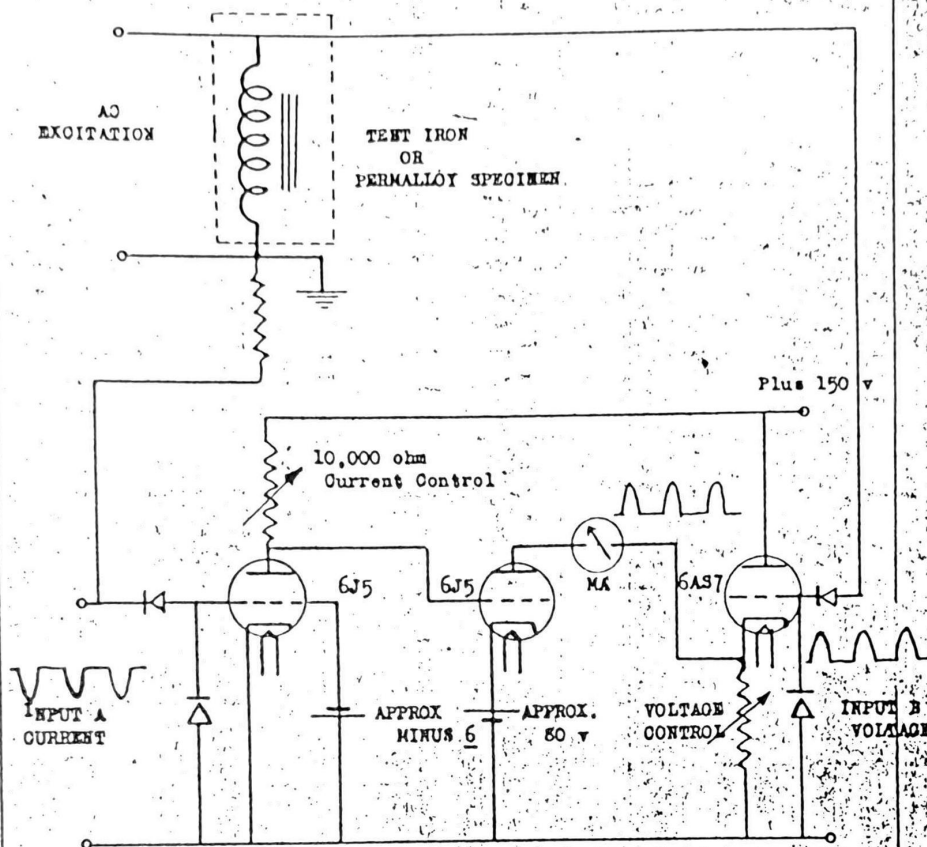


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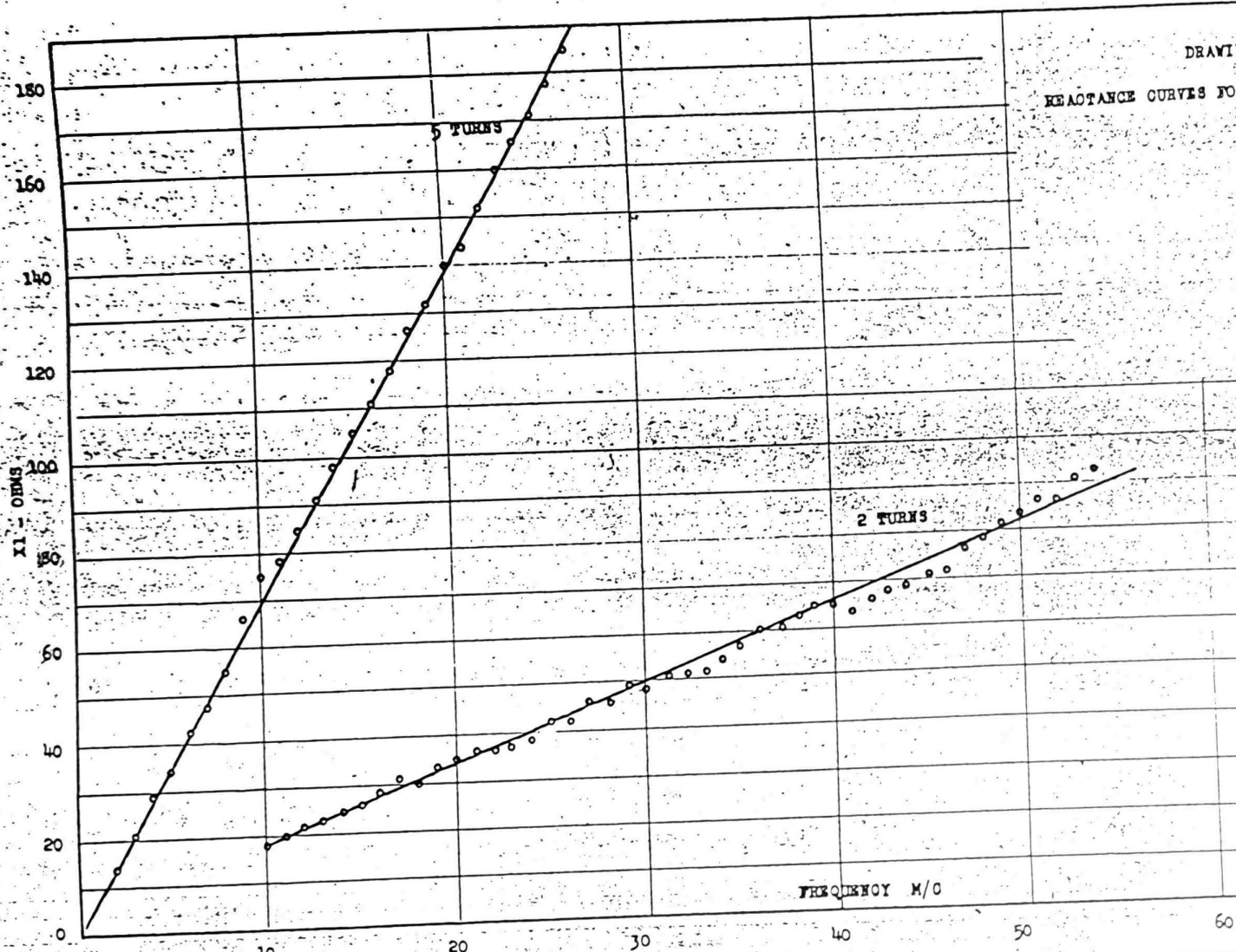
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DRAWING # 10

ELECTRONIC WATTMETER EXPERIMENTAL TYPE # 2



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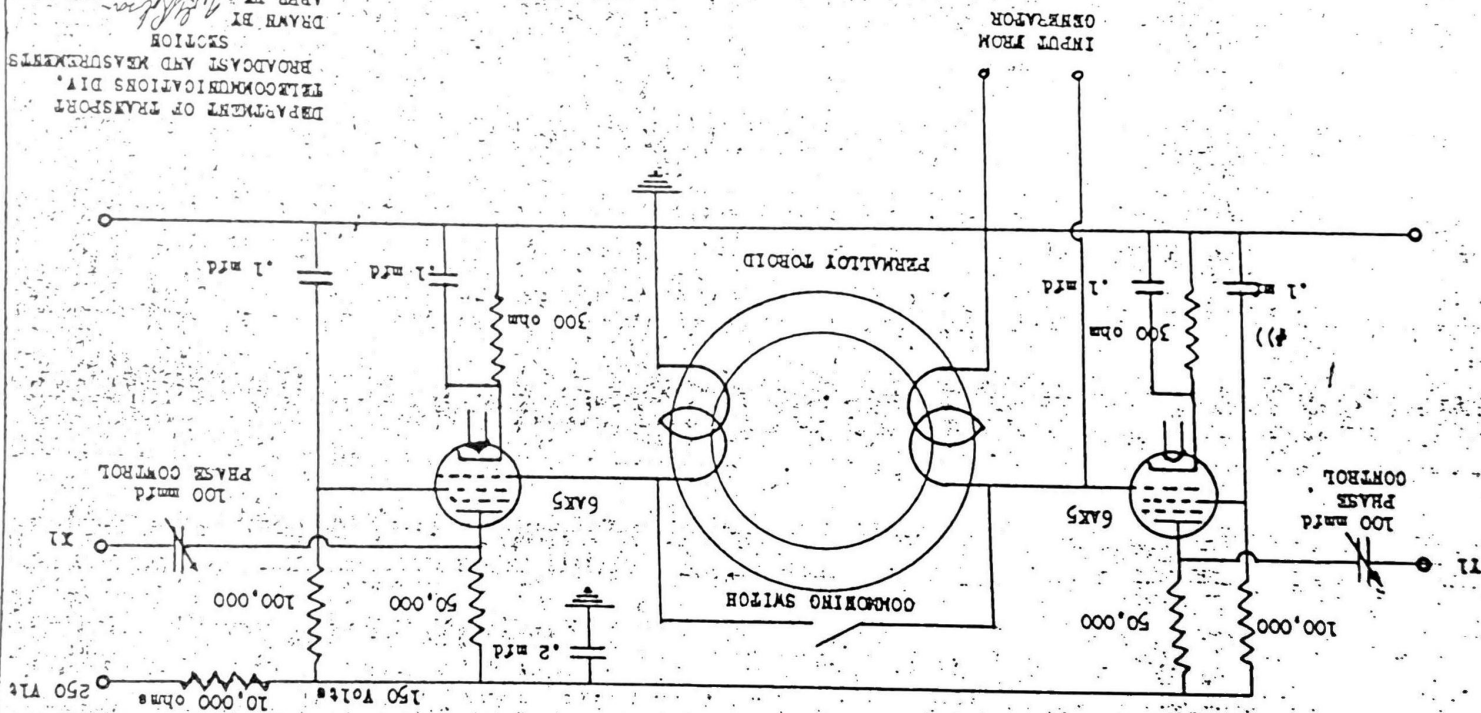


DRAWING # 15
REACTANCE CURVES FOR PERMALLOY TOROID SAMPLE

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APPR. BY *[Signature]* APR. 1951

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SECTION
DRAWN BY *W. J. Smith*
APR 1951



DRAWING # 16
CIRCUIT FOR DOMAIN RESONANCE TESTS

It is strongly suggested however that the "saucer men" are much farther ahead in such developments than is generally conceded, and that products of atomic explosions, producing matter not otherwise available in our galaxy, are the source of their space mastery.

Since it would appear that if an explosion strong enough to invert Al is needed, that if this is accomplished in appreciable amounts a chain reaction would be very likely, it would seem obvious to look for explosion grounds in which such a result would have no untoward consequences. In view of this situation it is suggested that people who could travel in space and maintain life under such conditions would have no real difficulty in finding suitable sites for such experiments in the smaller uninhabited members of the solar system, e.g. our own moon, some of the larger asteroids, moons of Saturn and Jupiter, and possibly Mercury itself.

In view of the fact that large numbers of "saucers" of immense size have been reported, and that these appear to be merely observational and assessment trips it would appear that their operators have a remarkably generous supply of all it takes to make and operate them, so that small controlled non-chain reaction production would hardly seem adequate to provide their total supply.

It is suggested therefore that some of the available solar explosion sites have already been utilised for these purposes, and examination of the solar system at once provides three items that could easily be the product of such ingenious engineering: --

1. Saturn's inner ring.
2. Saturn's outer ring.
3. The asteroids.
4. One of Jupiters moons recently performed very odd evolutions.

Saturn's rings are of such uniformity and symmetry that it would not appear possible for them to be accidentally formed from cosmic accretions, and in fact if they were accidental, or if they were made at the same time as Saturn it appears unavoidable to assume that all planets would be endowed with similar appendages to some degree, since there can be little doubt that all the planets were produced simultaneously and it does not appear feasible to imagine that their genesis could differ much except in detail and degree.

Recent work on the asteroids strongly suggests that they were actually the product of an explosion, and fairly recently, since their orbits are obviously juvenile. Such an explosion could for instance have been "the Star of Bethlehem", although such suggestions begin to be rather devious deduction.

It would appear however that space travellers could have used these lesser solar members for such production, and in looking over the solar system the next smallest member is clearly our own moon, if such items as Saturn's and Jupiter's present moons are too small to be useful. The use of our moon for this purpose might have rather serious consequences, but it is difficult to see what can be done about it, and about all that suggests itself is to rely on the engineering ability of the operators, or if contact could be established, try to get some of the product.

Evidence in favor of these suggestions is not too clear, but several points might be noted. We are for instance clearly under rather close observation, it is reported that very few of U.S. air force bases have escaped obvious examination, also atomic energy plants.

APPENDIX

Radar (Ionosphere) records of space vehicles

The St. Johns ionosphere recorder obtained on July 27 a set of remarkable records, on 3 successive exposures, at 15 min. intervals, each showing 4 or 5 tracks quite foreign to a normal record.

These tracks are so delicate, smooth and precise that any question of deliberate tampering or instrumental difficulties appears completely out of the question, and examination of the original films shows not the slightest evidence to doubt the authentic nature of the result as representing some "object" or aerial phenomenon of an unusual nature.

Each exposure is completely different, in showing tracks of different shape, height, curvature and timing and give a record of exactly the same type as would an ordinary airplane if the indicated performance were scaled down. However to state that the indicated performances are staggering is perhaps the prize understatement of the year, since velocities of 720 Km/sec. are attained in about 1 sec., and reversed in 2 sec., with perfectly smooth trajectories.

The ionosphere unfortunately is not well suited to analysis of such data since only distances are recorded, and the basic scale is 0 to 900 Km. The records would appear to show tracks at still greater delays, relating to 2 or even 3 pulses and these would give distances to the baseline of 5000, or 10,000 Km, at each of which distances a further 900 Km could perhaps be recorded if the return signal were adequate. The record therefore covers 0-900; 5000 to 5900; 10,000 to 10,900 Km and so on, with blind volumes between.

Each exposure shows quite definitely two simultaneous tracks, and since an aerial examiner of the signal would hardly be able to tell that the receiver was blind for 4100/5000 of the volume, it would appear that 8 or 9 of the vehicles must have been concerned.

Although the details of each exposure are quite different the pattern is uniform, i.e. the indications are that the observers had previously examined the signal and were located close inside the edge of the cone (a vertical cone of about 90° angle is radiated), awaiting the signal. As soon as it started the vehicles quickly turned out of the cone -- presumably to locate the edge -- and then passed back into it, "buzzed the field", most probably be passing right across the signal and waited to see if it provoked any detectable response.

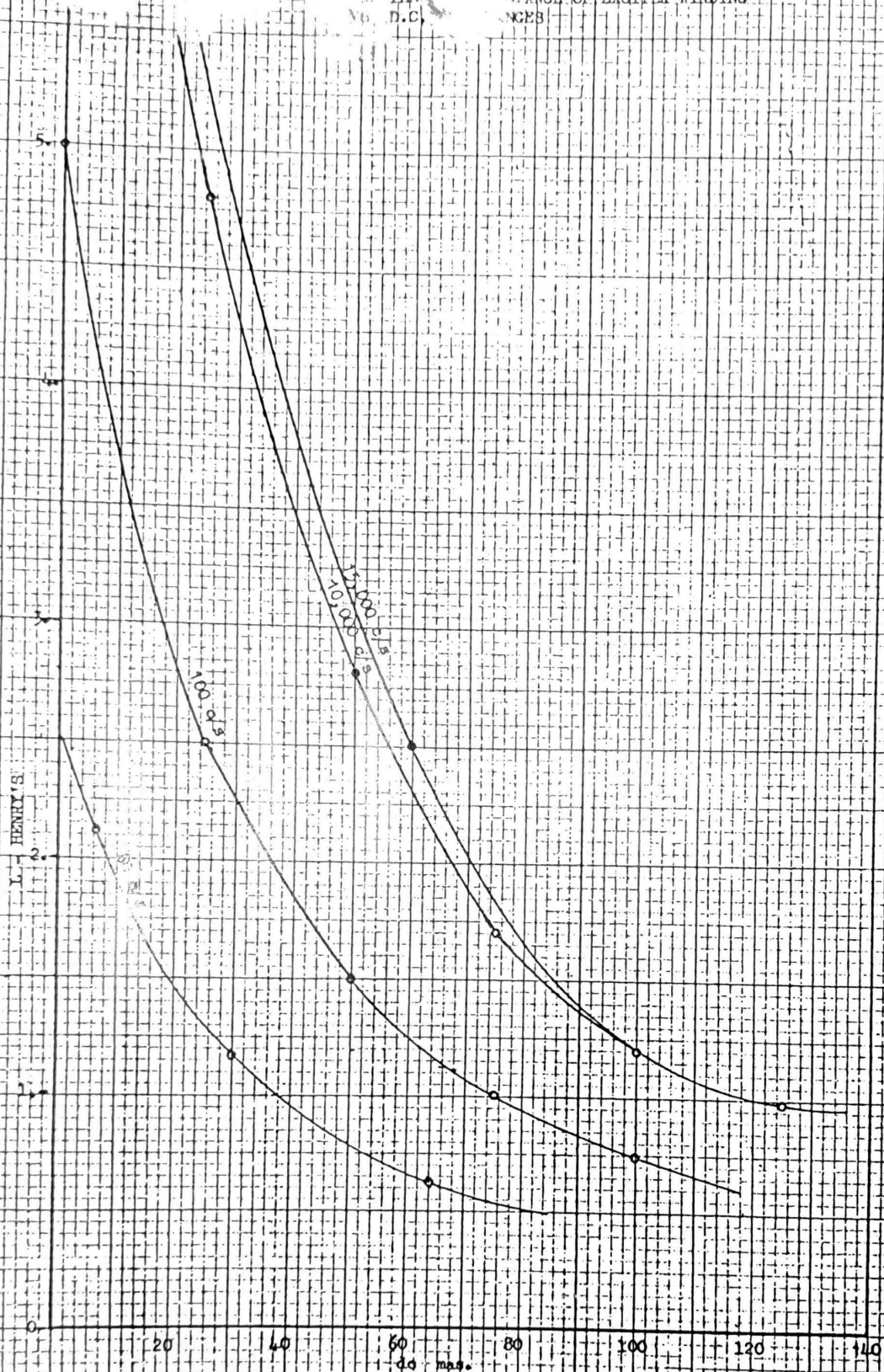
One of the best tracks for instance passes below "ground level" and back again in a perfectly smooth trajectory, and there can be little doubt that this track is removed from the ground by at least 1 pulse, i.e. is at the 5000 Km level, while others of a similar nature are much fainter and less curved, and would therefore presumably be at the 10,000 Km level.

The extraordinary nature of the performances indicated can be appreciated from the fact that the vehicles passed out of the cone, and returned, probably right across it in about 6 secs. Accelerations of about 700 Km per sec per sec., and flight at 2000 Km per sec. are indicated, and it would appear probable that these performances are merely of a routine examination nature, rather than any extreme effort.

It is customary to consider such results as "obviously absurd", but in the present case this is not suitable. Tracks of an essentially similar nature could be produced by a delay return mechanism, operated to simulate such flight results, but the amount of detail, the number of simultaneous tracks, their smoothness, their uniformity and at the same time their

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