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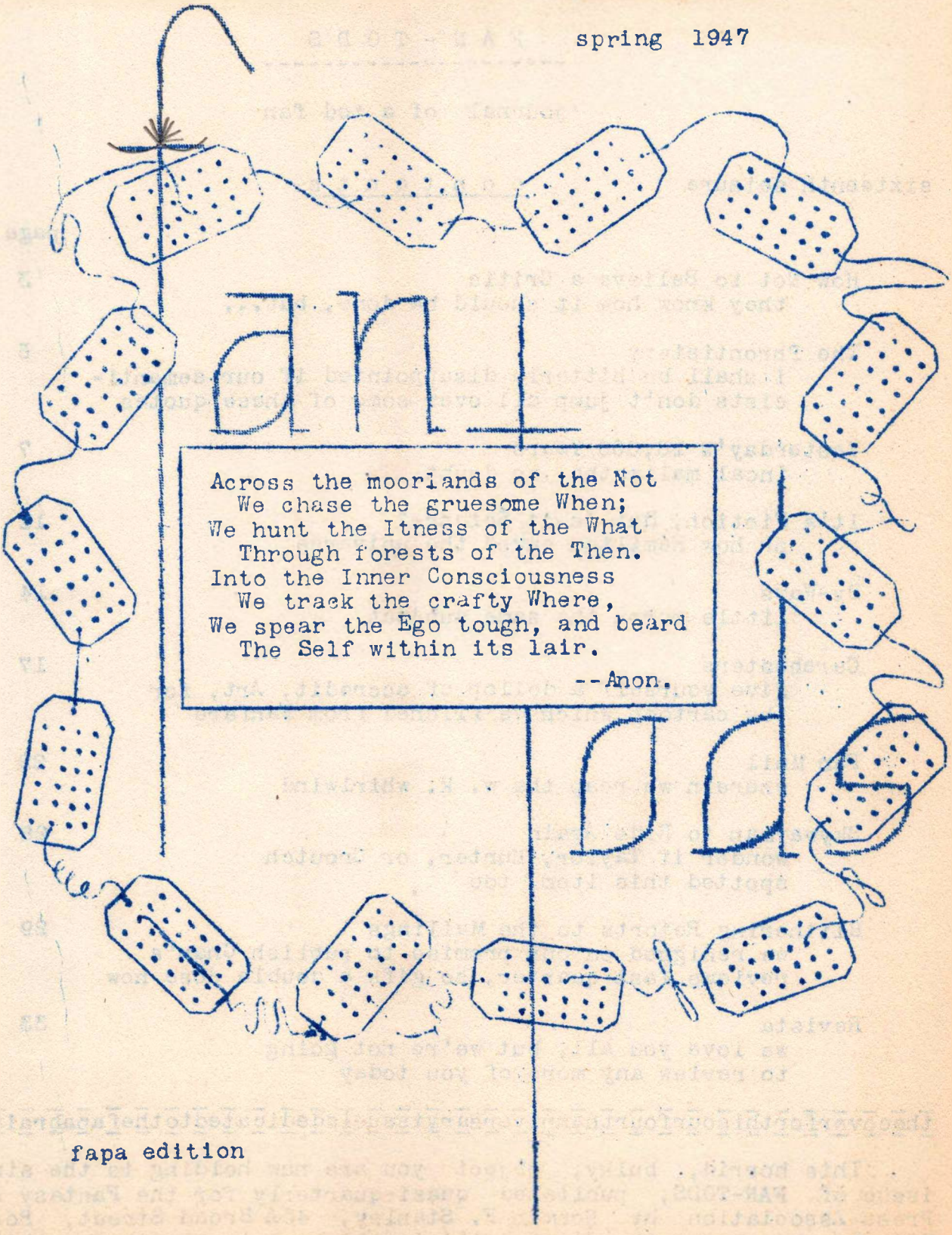
number sixteen

spring 1947



Across the moorlands of the Not
We chase the gruesome When;
We hunt the Itness of the What
Through forests of the Then.
Into the Inner Consciousness
We track the crafty Where,
We spear the Ego tough, and beard
The Self within its lair.

--Anon.

fapa edition

F A N - T O D S

journal of a tod fan

sixteenth seizure

c o n t e n t s

FAPA

thecoverforthisourfourthanniversaryissueisdedicatedtothefapabrainstrust

This horrid, bulky, object you are now holding is the sixteenth issue of FAN-TODS, published quasi-quarterly for the Fantasy Amateur Press Association by Norman F. Stanley, 43A Broad Street, Rockland, Maine, who hopes the April mailing will be late enough for this to be included in. Latest report from the front indicates that it will be.

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HOW NOT TO BELIEVE A CRITIC

Bob Tucker

I hesitated somewhat (a lengthy matter of two or three seconds) before bursting into print with the following essay on why critics as a whole are about as reliable as a groundhog in February, because not so long ago Don Wollheim reprinted a professional review of one of his books and was promptly damned as an ego-boo seeker of the first water. I came to the conclusion, though, that the results of this couldn't be much worse than a crushing crack or two similar to that one made by Harry Warner, commenting on the Wollheim reviews. Believing these old shoulders able to withstand such a jolt after the padding I am shamelessly going to give them herewith, I forge ahead.

Critics ain't worth a damn. No two of them agree on anything. As Exhibit "A" we will by chance -- oh, purely by chance mind you -- show you the professional reviews given a book picked at random---purely by random, mind you. The book is "The Chinese Doll". The name of the author escapes me at the moment.

Review #1: "Suspicious drowning of Chinese chaufferette for Ill. gambling den gets imaginative private eye Horne into all sorts of trouble. Horne tells capitally mystifying yarn in letters to gal he loves in spite of all temptations. Payoff is real sockeroo. Well worth reading." --Saturday Review of Literature.

Sounds good enough to make you want to rush out and buy two or three copies, doesn't it? Ackerman bought four. But tarry a moment, loose money, and listen to another critic.

Review #2: "...Doll...is a new entry in the moderate tough vein but a regrettably clumsy one contrived to swing finally into a gigantic surprise which is, unfortunately, neither surprising or sensible. It telegraphs itself as a possibility almost from the first and when it comes is flatly unconvincing and labored. Meantime, the action has jumped about erratically and busily, but uninterestingly. The style is familiar, nudging towards literacy in that nervously lordly way which transmits staccato conversation in stilted polysyllables." --Philadelphia Record.

Upon reading that, Ackerman will ship back all four copies. The review gives rise to the smallest suspicion that the reviewer is a frustrated English professor who owns a trunk packed with rejected novels. But away with such thoughts; the above is an honest opinion of an honest reviewer. Look how wrong the Saturday Review was, look how their reviewer was taken in by my foul cunning. Let's try again below.

Review #3: "Sound the gongs for the most ingenious mystery this reviewer has seen all year. It has novelty in form, simplicity and deception in plot and toughness and speed in action plus good writing. It starts with a bang and ends with a surprise twist as good as anything since "The Murder of Roger Ackroyd," altho we should say since we brought it up, the solution isn't the same as in that much-discussed classic.

"The story's told in letters to the girl he loves written by Charles Horne, a private 'tec who gets one of those mysterious commissions followed quickly by the rubbing-out of his client. There's a gambling den, a tuxedoed manager, sleek black cars with exotic Chinese girl drivers--that's where the doll comes in--a woman doctor, a group of amateur journalists, smalltown cops and politicians, sluggings, shooting and sleuthing. Not a thing new in the lot, you see, except the cleverness of the author who takes these well-worn items and combines them into a tale that sparkles with originality and winds up with a wallop not one experienced connoisseur in armchair mayhem in fifty will see coming." --Columbus, Ohio, Dispatch.

Ackerman will promptly re-order his four copies. Comparing this one to the one written in the City of Brotherly Love, the harried author will begin circulating petitions calling for the transfer of that misapplied slogan to the beautiful Ohio city, where they really love all mankind. Even clumsy mystery writers who nudge towards literacy at two-fifty a copy. But seriously, review number three seems as far-fetched in one direction as review number two seemed in the other.

Review #4: "Fairly tough, generally consistent tale of killings in small Illinois city mixed up with local politics and gambling. The solution involves an odd twist which you may not like." --Providence, R. I., Journal.

Ackerman ships back two of four copies, deciding that perhaps he overestimated worthiness of the book. And then:

Review #5: "...Tucker chose one of the most awkward of literary techniques (he tells his story in letters from a man to his wife) for "The Chinese Doll". However, his chapters are so little like letters from a man to his wife that the reader will hardly be conscious of the device until, at the last, he finds out why it was adopted..... The setting is a small town but the pace of events is in big time tempo. Tucker chooses to disregard one of the long-accepted limitations on detective fiction. The reader may form his own opinion as to the fairness of the solution." --Richmond, Va., Times-Dispatch.

There! Ackerman went and shipped back a third copy, keeping only one for his library. He has come to the conclusion I played a dirty trick on the customers and keeps that one copy only because he is a completionist. In regards this continually-appearing hint in many reviews that I didn't play fair with this or that rule, or that I broke a long-standing convention concerning mysteries, let me add the following:

Several weeks after my novel was published I purchased a comprehensive and critical volume on the technique of the mystery story, t o find out what I was missing. What I discovered in that volume amazed me. The book included many sets of rules and regulations for the plot-

ting and writing of mysteries, rules laid down by all sorts of well-known names in the field, including Chesterton, Gardner, Van Dine, and Boucher. It didn't take me long to discover that I had ignorantly broken about 50% of those rules. Ignorantly, because I simply hadn't known such fantastic rules existed.

My breaking them caused no ill-effects other than a reviewer here and there complaining that I was unconventional, which, I suppose is a crime in itself. Rather than adopt a smug "I got away with it" attitude, I submit that these rules by these so-called "masters"are so much poppycock, dashed off by that particular "master" who likes to think that the mystery story should be surrounded by rules. Following are the "rules" I unknowingly broke; judge for yourself.

(1) No mystery may employ a Chinaman. (2) No mystery may embody a love interest. (3) No mystery may be told in the form of letters. (4) No mystery may allow an even-remotely sympathetic character to be the culprit. (5) All killings must be the work of one individual. (6) The mystery may not be less than 60,000 words in length. And other idiotic regulations which escape me at the moment. To me, those rules simply lack reason. Even the time-honored plot of the killer being exposed in the last chapter has gone overboard; a new mystery now on sale names the killer on the second page but you don't find out who was killed until the last page.

Review #6: "The Chinese Doll' ...is a bit on the hardboiled side but with a cleverly twisted plot that packs a terrific final wallop, and several others along the way. I especially liked this one and it's a first novel. Its author is a Director of the Fantasy Foundation---so being a fantasy fan myself, as well as a writer of Weird Tales, I found the notes about Mr. Tucker most intriguing, and shall be watching out for his next with interest." --syndicated column by Dorothy Quick in eastern papers.

Ackerman hesitates, looks at his stack of Weird Tales, and is lost. Dorothy Quick can't be wrong, can she? So he keeps two copies. Besides, look at the nice plug for the Foundation. Yes, two copies.

Review #7: "Like mysteries that demand sharp wits? This is your meat if it is. Mr. Tucker has worked out a unique problem with the clues there for you to see--if you can penetrate their various guises. It is written in the form of letters but don't let that stop you." --Omaha World-Herald.

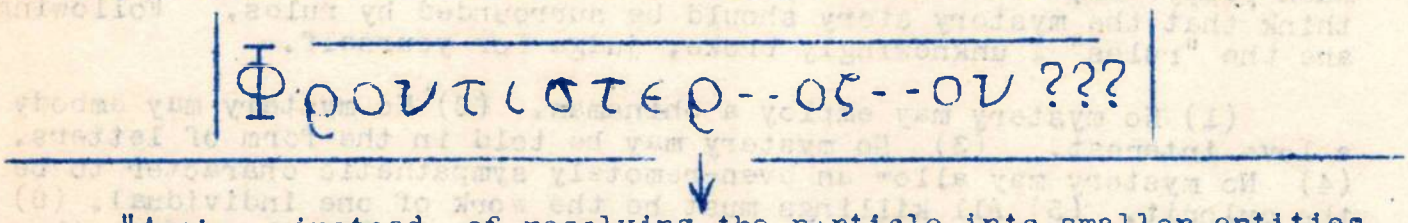
Now consider poor Ackie's plight. By this time he is as befuddled as the author. And then he picks up, purely by chance again, the December 28th issue of the Saturday Review and reads that the "Doll" was the second-cleverest mystery of the year. He's lost, I'm lost, and let's all buy a half dozen copies just to be on the safe side and make me a hatful of dirty currency.

The gist of the matter can be summed up thusly: Critics aren't worth the money paid them nor the publicity heaped upon them because their views and values differ so radically that a reader who subscribes to more than one publication in which such reviews appear can wind up only being confused, not knowing which to believe. The metropolitan reviewer is an over-slick sophisticate who sits in his tower and pretends to know the reading tastes of the entire nation, possibly not

realizing his own taste is jaded beyond redemption because of an over-consumption of the commodity he reviews. The small town reviewer on the other hand maybe reads one or two books per week and a no-better-than-average novel employing a radical new trick will sweep him off his feet.

Okay, Warner, I'm at the end of my not-too-subtle blast of publicity and ego-boo. Let's have the nasty crack.

"Thank God for the Atom-Bomb"



"Again, instead of resolving the particle into smaller entities, its interior might be imagined as being a continuous medium, which is what has been done in Lorentz's Theory, where the electron is taken to be a minute sphere of negative electricity. But this amounts to the assumption that ultimate Reality is continuous, not discontinuous; and, still further, an explanation will have to be given of why the continuous substance forming the corpuscle obstinately refuses to be subdivided; why the corpuscle, despite the changes of fortune to which it is subjected, succeeds in remaining equal to itself, and in preserving its individuality. In the electron Theory this latter difficulty is particularly serious, since it has never been explained how a sphere of negative electricity can persist, since all its constituent parts ought to repæl each other."

-- Louis de Broglie

-o-

"There is good reason to believe that the particles we know are really elementary and ultimate, in the sense that their properties cannot be understood in terms of components."

-- J. R. Oppenheimer

-o-

"And now, to conclude, we can reply to a question such as the following: 'Do colours exist in white Light before it passes through the prism which is destined to decompose it?' We shall reply that they do exist, but only in the way in which a possibility exists before the event which will tell us whether it has in fact been realized. It is a reply of some subtlety, and would certainly have surprised the physicists of yesterday: but it is also characteristic of the degree of keenness and abstraction which has been reached by physical theory today."

-- Louis de Broglie

-o-

"'As far back as the early twentieth century,' he resumed, 'Einstein proved that energy is particular. Matter is also particular, and now van Manderpootz adds that space and time are discrete!' H e glared at me.

"'Energy and matter are particular,' I murmured, 'and space and time are discreet! How very moral of them!'"

-- S. G. Weinbaum

"We too are composed of atoms"

Department of Misinformation; or Catching Up with Palmer

Bill Evans, Guest Conductor..

In going over some old copies of Amazing Stories and Fantastic Adventures I found the following items of supposed fact in their columns. All are pre-Shaver.

-o-

The "Science Quiz" in Amazing Stories, 12, v, 129 (Oct. 1938) contained the statement, "The formation of alcohol requires a living organism." This, we were reliably misinformed, is "True." In the following issue (12, vi, 126 (Nov. 1938)) the statement was challenged by one "Contracus", who wrote:

"...And in the matter of alcohol, I hope your use is more modern than your chemistry...

C + H + Fe (catalyst) → acetylene
acetylene + H_2O + heat → acetaldehyde
acetaldehyde + nascent H → ethyl alcohol..."

To which Rap rebutted:

"...You are referring to synthetic methyl alcohol, or 'Methanol,' when you present your formula. In this you are correct in saying there is no living organism connected. However, alcohol is formed by fermentation induced by certain enzymes, catalysts produced by living organisms...Therefore, our answer is correct."

Some of the big oil companies, such as Standard, would be quite interested in this. Although they don't use exactly this series of reactions, they have been making ethanol, ethyl alcohol, for several years. But since their process doesn't use enzymes, they can't get any alcohol; Palmer says so.

-o-

From Amazing, 12, vi, again, page 141:

"Density is the mass of a body per cc."

Any comments from the engineers in the audience?

-o-

From the Editor's Page, Fantastic Adventures, 3, i, 8 (Jan. 1941):

"...Long before a depth of only a few hundred feet is reached [in the ocean] the pressure is measured in hundreds of thousands of pounds per square inch! Which figures out to something like twenty-one million pounds per square inch [at 4800 feet]..."

Anyone willing to donate a slide rule to RAP? Used one should be all right, but it should have the instruction book included. Using mine, it figures out 228 pounds per sq. inch at 500 feet, and 2165 pounds per sq. inch at 4800 feet.

Y E S T E R D A Y ' S 1 0 0 • 0 Y E A R S

((Maybe we should throw in a course in mnemonics, too, Bill. I f you'll refer back to that Nov. 1938 Amazing, once more, you'll find Ray, on page 7, tells us that

"Undoubtedly the strangest haunt of life on this planet is in the ocean deeps. Six miles below the surface the pressure is two and one-half tons to the square inch. But there is no deep too deep for animal life. And these animal forms are sometimes incredible..."

Equally incredible, one might add, is Rap's ocean, itself, since apparently it consists of a liquid with a density which is only 0.364 that of water. However, if we move along a few months to Sept. 1940 and Amazing, 14, ix, 83, we find the density's nearly back to normal; since Rap brings the matter up again to inform the readers that "Sea pressure increases at the rate of one ton per square inch with each mile of depth." 1.17 tons, I figgers it. Now we all know that the sea is getting salter all the time,but I, for one, never even suspected it was doing so at such an exponential rate as Palmer's figures for 1938, 1940, and 1941 indicate. It must be terrifically supersaturated by now. I'd like to drop in a salt tablet to see what'd happen, but must confess I haven't the nerve! -- nfs))

-o-

In the same issue of Fantastic Adventures, page 134: A Science Quiz question: "What's the difference between the atomic weight and the atomic number of carbon?" Answer: "12". It looks as if my Handbook of Chemistry is way behind the times, since it is a 1940 edition. Anyway, it gives the atomic weight of carbon as 12, and the atomic number as six. Unless the rules of mathematics have been changed -- this could be in some special number system Palmer invented for his own personal use; especially good for figuring up votes for stories-- the difference between these numbers is six. Could this be an example of pre-Shaver deros?

-o-

And on the same page as the preceding: Question: "What's the difference between the boiling point and freezing point on the Fahrenheit scale?" The answer: "190 degrees." Since the substance is not stated, Palmer has an out -- maybe he means some other compound or, since he carefully neglects to specify the pressure, he means under increased pressure. However, if it is water under normal pressure, it is supposed to boil at 212°F. and freeze at 32°F., with a range of 180 degrees. Now I know why my freshmen can't work temperature problems: They've been reading FANTASTIC Adventures! Or could it be deros again?

-o-

On the Quiz page, Fantastic Adventures, 3, ii, 137 (Feb. 1941), true or false question No. 9 is "Every planet has at least one satellite." According to Palmer, this is true. He must have been using some of those instruments in the caverns to discover satellites for Mercury, Venus, and Pluto. But why doesn't he come out and report them, instead of just hinting at his wonderful discoveries? He never used to be bashful.

-o-

Question 14, same issue and page, states, "Water cannot be compressed." Palmer agrees with the popular opinion that this is true, but actually water can be compressed. At a pressure of 7350 pounds per sq. inch at 20°C. water is compressed about 5.5%. Referring to his statement in the preceding issue of the 21,000,000 pounds per square inch at 4800 feet down in the ocean, the water there must be about the density of iron.

-o-

In another question on the same page, it is stated that red, blue, and yellow are known as complimentary colors. Maybe I'm wrong, but I always thought they were the primary colors. Just a slip of the typewriter -- or was it?

* * * * * *

End of Evans' contribution. Thankye, Bill, and while we're on the subject, here are a few more from the same source:

Palmer's troubles with temperatures date back to 1939. In Amazing Stories, 13, ii, 131 (Feb. 1939) the Science Quiz informs us that "Salt is used with ice to freeze ice cream because: salt lowers the temperature of the ice by its mixture to 21 degrees Fahrenheit." Rap must've neglected to crush the ice cubes before using. With 33 parts salt and 100 parts finely crushed ice the thermometer ought to drop to minus 21 degrees centigrade or -6° Fahrenheit.

-o-

As amazing as Palmer's cryogenics is the product thereof. In the Science Quiz, Amazing Stories, 13, ix, 141 (Sept. 1939), we find the following multiplechoice question:

"The expansive force exerted at the moment of freezing of water is: 50 ft. per sq. in., 100 ft. per sq. in., 1000 ft. per sq. in., 20,000 ft. per sq. in., 30,000 ft. per sq. ft., 500 ft. per sq. in."

If that alone is not enough to discourage the hapless contestant he must surely throw in the sponge when he looks on p. 146 for the answer and finds given there "30,000 ft. per sq. in." You can't win!

-o-

A prime favorite of mine in this field of refined nonsense was set off in the same issue of Amazing by this passage from a filler entitled "Cost of Atomic Power":

"Splitting uranium atoms produces a 'free gain' of 200,000,000 volts /sic/ -- which is a lot of power. In fact, four grams of uranium are equal in energy to a ton of coal!

"Then why isn't it practical as a fuel?

"Coal is ten dollars a ton. Uranium, to compete, would have to sell for $2.50 a gram. And the cost of producing a single gram is no less than $25,000!"

This latter statement was quickly challenged by a Colorado reader, Ronald L. Ives, who in the next issue (13, x, 142 (Oct. 1939)) wrote:

"The price you state for Uranium is about the current quotation for Radium. If, however, you are serious, let me know just how many grams of Uranium you will take at $25,000 a throw, and I'll go up to my claim and become enormously wealthy by filling your order. You see, at $25,000 a gram, I can dig the stuff out by hand, refine it with chemicals bought retail at the corner drug store, and send it to you by air mail, and still clear something like $24,950 on each gram I handle -- and the mine isn't a good one, either. Last time I got a quotation, concentrates containing 60% U_2O_3 /sic/ were worth only $1.00 a pound."

Whereat Rap admitted:

"This is an error. The fact is, Uranium is cheap, and it should have been radium in the article."

-o-

The Science Quiz for that same issue informed one and all that the 'Father of Medicine' was "Hyprocrites". I've heard of the "Hippocratic Oath" before, and also, on occasion, of a "Hypocritical Oath". Now I wonder if there may not also be a "Hyprocritical Oath"? If so, it's probably more closely related to the latter than to the former.

-o-

In Amazing, 13, v, 141 (May 1939), the Science Quiz seems to have been devoted to giving the poor reader a better misunderstanding of physics and math. Here we were told that "A dyne is: a force which is sufficient to move one gram of matter at a speed of one centimeter a second for one second." This, I am sure, is at least a second cousin to Swisher's "half-dim (partial) blackout".

As for the math. section it looks very much as though Roger Phillips Graham had a finger in the pi. It states the following "mathematical rules":

"A. Zero divided by anything equals zero.

"B. Any number divided by itself gives one.

"C. Anything divided by zero equals an infinite quantity."

This division by zero always confuses me. When I was in school I was taught that it simply was not done. How was I to know that all textbooks are written by mathematical stick-in-the-muds, none of whom have even heard of the frame -- pardon me! -- Frame Concept? I can readily see that under this new dispensation the answer to the problem,

"0 ÷ 0 = ____________",

must be, as Palmer (or Graham) states on p. 144, "0, 1, an infinite quantity." Obviously, by the above rules, these are the only possible answers. What worries me is the embarrassing way in which expressions that reduce to the form 0/0 so often turn out, upon evaluation, to have values which are neither 0, 1, nor an infinite quantity.

-o-

Here's a lulu from Questions and Answers, Amazing Stories, 14, iii, 133 (Mar. 1940):

"Q. Is glass a good conductor of electricity at sub-zero temperatures? (About -136 to -140 degrees below zero, or lower).

"A. Glass may be magnetized by rubbing it with silk, but it is not a good conductor of electricity. It contains lead, and lead is not a conductor. As to the effect of temperature, there is some, but not enough to make it a good conductor."

So maybe the lead shielding around X-ray apparatus is to protect the workers from the high voltages used? And perhaps the only reason Pyrex power transmission lines are not in use is their fragility?

-o-

From the Science Quiz, Amazing Stories, 14, viii, 146 (Aug. 1940):

"Thomas F. B. Morse invented the electric telegraph."

Shux, I thought it was Samuel Graham Ameche!

-o-

And in Amazing Stories, 14, iv, 134 (Apr. 1940), the Quiz offers the true-or-false statement: "Human beings can hear sound at a frequency of about 3000 vibrations per second." This, Rap tells us on p. 143, is "false". I'm glad I just discovered that; I was about to buy a new, high-fidelity radio-phonograph. Now I guess I'll save my money, since, according to Palmer, I won't be able to hear the high notes it'll reproduce.

It's Fiction, But Is It Science?

"The Star of Life" by Edmond Hamilton, as seen by Thomas S. Gardner

Startling Stories, after an appallingly long stretch of undistinguished writing, has shown, during the past year, a commendably steady trend to improvement. A notable example of this is to be found in Edmond Hamilton's "The Star of Life", in the January 1947 issue. Altho this story is marred by serious faults in logic, which preclude its being rated as a really top-notch job, it has a substantial plot which can hold the interest of even the veteran scientifictionist.

Standard's editors have adopted,it is said, a policy which requires the novels for Startling always to start off in the present and then to shift to the future for the action and the story. The repetition of this sort of interest-hook ever and again must prove very boring unless the story into which it leads has a vitality of its own. In "The Star of Life" Hamilton has succeeded in writing just such a story. The introduction sticks pretty closely to the prescribed formula. The main character, Kirk Hammond, embarks on the first attempt at a rocket flight to Mars. When a gravitational field screws up his calculations, he uses up his fuel and then, rather than perish of slow suffocation when his air supply runs out, he chooses a quick death by opening a port. But (as seems invariably to be the case in science fiction)his body freezes and is preserved for ten thousand years and then revived on recontact with the earth's atmosphere. This, of course, is a stock situation, which may be accepted at face value for story purposes. As a matter of actual, scientific, possibility, however, it is an extremely shaky structure. Now it is true that small forms of life, one-celled animals, and even a few metazoa, are revivable if frozen suddenly so that the ice crystals formed are so small that they do not rupture the cell walls. The trick of revival is of equal importance, as well. With complex organisms it is certainly imperative that the thawing-out take place very uniformly. That is, some parts of the organism should not be fully revived while other dependent or supporting structures are still inactive. Short-wave radio heating from the inside is best. I doubt severely if Hammond would revive as easily as described, even if we assume that he was frozen instantaneously (which he quite certainly wouldn't be, as the cooling would be only by radiation into space) and that he could survive the effects of the sudden pressure drop, which include such pleasant things as rupture of intestines and ear drums, detachment of the retina of the eye, and so on. Nevertheless the cold-storage method of travel into the future is a definite possibility for some forms of life, and perhaps even for man under very rigidly controlled conditions unknown to us at the present time. Most certainly sperm can be so preserved, for that has been done successfully already.

The world into which Kirk Hammond is thrust on his resurrection is one in which the normal human species exists under the domination of a

mutated human type. These "Second Men" are immortals who arose when interstellar explorers penetrated a distant star cluster where they were exposed to hard radiation which produced an evolutionary change rendering them immune to natural death. The Second Men consist entirely of the original exploration parties plus later recruits to their ranks. All were originally normal men, but on exposure to the rays from the Star of Life they had undergone the metamorphosis to the immortal species. Here Hamilton makes the mistake of having the adult individuals themselves mutate to the Second Men, rather than have the change occur in their descendants. This is probably impossible, as it would require the same gene change in every cell of the body and then somatic development of the whole system toward a one-line evolution. The immortal second men have children who are further mutations in a one-line direction, and constitute the Third Men, who beget the Fourth Men, who are entirely mental in their reactions to environment and thus completely unhuman in their mental processes. Now it is a genetic impossibility for a whole group of people to mutate all in one direction! Most mutations are lethal, and the beneficial ones would yield many variant strains, instead of one. Hamilton may have considered that man can only mutate in one direction, but on the basis of already accomplished work in genetics I believe this, too, must be dismissed as impossible. Thus dozens of traits would appear, some good, most bad, but it is possible that a few individuals would have children who were a new species, but not possible for all the group to mutate first themselves and then produce children of the same genetic make-up to produce a third species, and in turn a fourth species. There you have the first major flaw in Hamilton's story; gross scientific impossibility.

A second fallacy, which is equally bad, is in the matter of human relations and common sense. For thousands of years the Second Men had denied themselves love, and by direct implication sexual intercourse and marriage, because their children would be the inimical Third Men. That is about the most obvious tommy-rot I have encountered in a long time in science-fiction. Let us assume all the bases of one-line mutation in the story and accept the situation as presented. Obviously the logical thing would be for the Third Men to practice rigid birth control, or even outright sterilization, and live a normal emotional life. Instead, Hamilton pictures them as horribly repressed, and the whole social set-up that he envisions is a farce from beginning to end. It is stated that the normal human population of the galaxy would refuse to accept immortality because their children would be the Third Men. But under the conditions obtaining in the story such a reason is entirely invalid! Since to attain immortality the people had to journey to the Star of Life to be exposed to its radiations, there is no reason at all to deter the billions of normal men on other planets from first marrying and having their children of normal, first men, genetic make-up, and then, after the period of reproduction, making the pilgrimage to the Star of Life. Instead of this turn of the plot, the one Hamilton offers is simply that of having the entire galaxy renounce the Star of Life. This is very much a let-down, since it is so needless. It does, in a way, though, parallel the story of Kirk Hammond, who loves and loses a girl of the Second Men. The one story is symbolic of the other.

Before we go farther, though, I'd like to enter another, more general, dissent to the immortality theme, as typified by this story. Nearly all the authors for Astounding, Startling, etc., who write of longevity assume physical methods of attaining it, such as short radiation, radioactive salts, and the like. Now we are beginning to see our

way out of the woods,or at least can perceive some glimmerings of light, in this biological field, and the mass of information now at hand on longevity indicates that ageing is primarily a chemical process, the rate of which can be affected and controlled by chemical means. T h e only piece of work on radiation in this field is that young cells emit ultraviolet light in greater degree than do old cells, and this is probably an effect rather than a cause. Stf writers are getting behind the times; they ought at least to bring the bases of their speculations up to date.

But to return to Hamilton, the two fallacies of major importance that we have just brought out would seem to put his story behind the eight ball. Does it, though? Now that I have cussed the story out so thoroughly, am I being paradoxical when I say that I enjoyed it very much? I think not. The action of the story is well plotted, the characters are well drawn, and the plot is basically good, even though wacky from the logical and scientific viewpoints. Except for the introduction, which is really not an essential element in the main plot, the story is no rehashing of any cut and dried formula. There is an excellent surprise twist to the plot; the story tells of an uprising engineered by a group of the normal men against the tyranny of the Second Men who have refused to permit the gift of immortality to be conferred on the normal population while reserving it for themselves. Yet we discover at the end that the Second Men are really not such a villainous tribe, and that their seemingly harsh dictum is actually for the good of the normal species. For if immortality were to be universally permitted this would lead to the eventual doom of mankind at the hands of its children, who would be the genuinely evil Third Men. The Third Men are pictured as brilliant,but unstable, paranoids, whose ascendancy would bring strife and misery to the galaxy. Hamilton disposes of them very cleverly by introducing a weapon which strikes at their unstable minds and converts them to impotent schizophrenics. The Fourth M e n turn out to be no menace, once the conflict among the preceding species is resolved. They are completely beyond human motivations and prefer to withdraw entirely from the galactic scene to go on to ends which only they can envision.

So there is still enough meat to the story to permit one to enjoy it despite its failings. I believe it will rate easily among the first dozen best novels published in Startling since its inception. Hamilton is perhaps better remembered for the vast amount of hackwork he has perpetrated; that, however, has not prevented him from occupying a place among the best science fiction writers of yeaterday and today, for he has shown that he can turn out good stuff whenever he tries. This time he almost produced a classic, but missed the chance because of the glaring faults we have just discussed. Better luck next time, Ed!

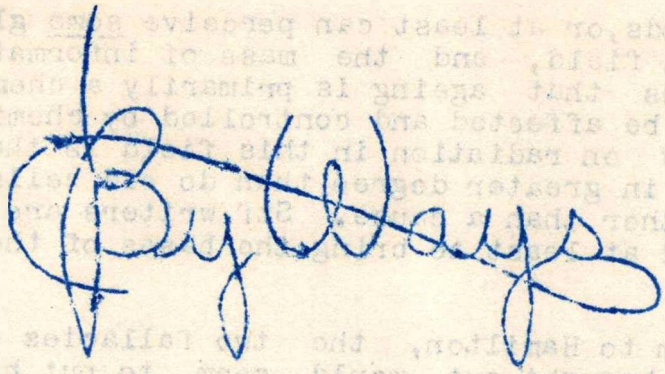
"There is one thing I am proud of, though--I didn't write Captain Future"

NEWS ITEM: Leghorn, Italy, Jan. 8. (UP)--Bruno Ridi threw a snowball at Dr. Alessandro Bellini, chief of Portofferraio Hospital, a s he pedalled past on a bicycle. Dr. Bellini pulled out a revolver and shot Ridi dead. Police arrested Dr. Bellini.

Youcansaywhatyouwanttoaboutmebehindmybackbutyoucan'tcallmeafantomyface!

"It was the wrong time of the month and Napoleon was enjoying one of his womanish tantrums." -- E. T. Bell

-oCo-



Tom Gardner's review of Edmond Hamilton's "The Star of Life" brings to mind a number of interesting facts regarding the usage which has previously been made in science-fiction of this scientifically dubious theme of evolutionary changes taking place directly in the mature organism. It's not so surprising to find Hamilton using the idea once more. It stands along with saving the world as one of Edmond's favorite subjects. He's used it on at least four previous occasions that I can recall. His variations on the theme, though, differ among themselves greatly, be it to his credit.

In "World Atavism" (Amazing Stories, 5, v (Aug. 1930))Hamilton had his character, Dr. Grant, advance the theory that evolution is caused by a certain range of vibrations emitted by the sun, in the absence of which mankind not only would cease its slow evolution to more advanced states but would rapidly degenerate into the lower forms from which it sprang. Angered by the derision with which his theory is greeted by the scientific world, Grant proves the theory by secretly constructing a generator which produces a damping vibration that completely neutralizes the evolution force coming from the sun. As a result, civilization takes a nosedive as all men slip rapidly back to a primitive mentality and become ape-like in physical appearance. The nature of the strange upsurge of atavism is, however, suspected by two of the mad scientist's former coworkers, who succeed in equipping themselves with portable generators of the evolution force and so avoid being affected themselves by the lack of the rays. They track down Grant to his hiding place and destroy him and his machine,thereby restoring the natural vibrations from the sun and starting mankind once again on the slow path back to its former heights.

Not long after this story, Hamilton was back again to attack the theme from the opposite angle and explore the possibilities of highly accelerated upward evolution. His "The Man Who Evolved" copped the cover in Wonder Stories, 2, xi (April 1931). This time we were solemnly informed that evolution is due to the cosmic rays, and here the scientist is more altruistic and doesn't dash off at once to give the whole world a dose of his invention, as in the preceding story. He produces a device that collects cosmic radiation and concentrates it in a cabinet wherein every 15 minutes' exposure evolves the occupant fifty million years. By taking successive treatments in this way he proposes to inflict the gamut of possible evolutionary change on himself and so discover the stage which would be most desirable for manking as a whole to be transformed to by his discovery. And so, with two friends to act as observers and to operate the machine for him, he steps into the cabinet and is bathed in the cosmic ray beam. The first 15 minutes transform him into the man of fifty million years hence, a physically perfect and mentally brilliant superman who is chock full of altruistic intentions to confer the gifts he has upon other men. His friends beg him to stop the experiment at that

point, but he is determined to go on to see what man will be in one hundred million years. The second exposure, however, reveals to the two normal observers the shocking fact that the path of man's evolution will run to the development of brain at the expense of body. The god-like superman of the preceding stage has shrunken to a puny gnome-like body supporting a bulging, hairless head. At this stage emotions have begun to disappear and the evolved man betrays a snappish superciliousness toward his unevolved companions. Back he goes, though, for another fifty million years of evolution, to emerge even more shrunken in body and bulging in skull, and evincing an ugly inclination to consider the world as his personal property and men as experimental animals for his science. I remember that when I read the story, years ago, I was greatly irked at the way Hamilton had the guy's newly evolved brains come complete with built-in knowledge. After exposure to the evolutionary ray, he knew at once how to make gold from base metals, and, even worse, did it by a purely chemical process, mixing reagents off the laboratory shelves together in a mortar! (I'll bet one of the reagents was $AuCl_3$!) But after this by-play he returned again to the cabinet and on emerging at the two-hundred-million-year mark is at a stage wherein the body has been absorbed into the head altogether, with only tentacles for locomotion protruding. Gone now are the proprietary ambitions, for the world now occupies a place in his scheme of things roughly comparable to that of an ant-hill in ours. Only a desire for knowledge and greater mental development remains. In the next evolutionary stage all external features have withered away and only a four-foot, exposed, brain is left, which communicates by telepathy and observes its environment by higher senses than any we know. Still not satisfied,it again goes ahead, but this time to the final evolution wherein the process appears to have come full circle, as only a mass of undifferentiated protoplasm remains. At this point the narrator poses, but leaves unanswered, the question of whether the ultimate goal of evolution is a reversion to the lowest form again, or whether the protoplasmic entity represents all that is outwardly perceptible of a superbeing who is advanced entirely beyond comprehension.

In "A Million Years Ahead" (Thrilling Wonder Stories, 9, ii (April 1937)) Hamilton again introduced a ray-cabinet for forcing evolution, but this time with a reverse gear capable of returning the artificially evolved man to his original state. In this story the young inventor makes the mistake of hiring a criminal to undergo the experiment and its reverse. His subject emerges from the cabinet endowed with superhuman mental and hypnotic powers. Unfortunately the criminal type of mind has also been retained and enhanced under the rays, so that the superman is also supernormally evil. Naturally he refuses to submit to being returned to his former state, since with his new powers he can assert his rule over the entire race. The scientist, however, foils the supercrook by himself undergoing the ray-treatment to place himself on an equal footing with his adversary, whom he then overcomes in a mental battle of wills and forces to take the reverse treatment. The change in viewpoint of the evolved scientist was well presented, but it raised the embarrassing question of why he, himself, should also return to normal existence, so disgustingly primitive with respect to his exalted state. Even his wife, who pleads with him to return, seems repulsively ape-like, but eventually his primitive attachment for her overcomes his reluctance and he, too, enters the cabinet and is returned to normalcy. Which is a possible solution, but not a very convincing one.

Somewhat similar in conception to "World Atavism" was "The Ephemerae" in Astounding Science-Fiction. 22, iv (Dec. 1938), Here Hamilton had the radiations from a nova effect a mutation which reduced the human lifespan

from 70 years to 70 days--again affecting the exposed individual directly. This brings about a quick collapse of civilization, since men do not live long enough to accumulate experience or accomplish much. Two biologists who early recognized and warned against the menace of the radiations have avoided their own mutation by wearing suits of tungsten mail (which must've been a great burden, since tungsten is nearly twice as heavy as lead!) as shields against the rays. By ephemeral standards they are immortal, and hence are considered as gods. That is until one of the pair marries a woman of the Ephemerae and, unable to bear the spectacle of her rapidly ageing while he remains unchanged, he doffs his tungsten suit, and in the course of a few weeks lives out the ephemeral lifespan with his wife and dies, leaving his long-lived companion as perhaps the last normal man on earth. This gloomy situation is relieved, however, when a long-lived girl, also clad in tungsten, puts in an appearance. A student of biology in a west-coast university, she had been the only one to heed the eastern biologist's published warning and shield herself with tungsten. After seeing her family and friends all age and perish she had spent the ensuing two years since the change in hiking across the continent to see if the others had taken their own advice and survived. Thus hope is renewed for the survival of the long-lived race who can rebuild civilization and guide the short-lived after the nova subsides.

"The Ephemerae", in my opinion, is one of Hamilton's very best stories. Though its basic plot structure is somewhat banal, and it is, of course, utterly absurd scientifically, yet it is smoothly and dramatically written, and this suffices to render the faults forgivable.

To be sure, the idea of evolution acting other than through the genetic mechanism was hardly original with Hamilton. Unless someone has an earlier example to exhibit, let us say that Burroughs used it first in "The Land That Time Forgot", published in 1924. Was that before or after the Scopes trial? I have wondered if ERB might not have written this story,with its monkey-to-man theme, in order to capitalize on the public interest in evolution that was aroused by our modern witch-burning. But as I recall, the trial was a bit later than 1924, about 1926, I guess. The story I have long considered one of Burroughs' best, exceeded in my estimation only by his "Gods of Mars", but his Caspakian evolution is about the most grotesque nonsense imaginable.

Clare Winger Harris used Wallin's bacterial theory of evolution in her "The Evolutionary Monstrosity" (Amazing Stories Quarterly, 2, i (Winter 1929)) and had the experimenter treat himself with his evolutionary bacteria,which changed him into a malevolent, octopus-like, all-brain, critter, reminiscent of Wells' Martians. A highly-evolved house cat was also a minor character in this story. Despite the shaky science, it was a well-written and suspense-filled story, and I liked it a lot.

Also worthy of mention is the similarly-titled "Monstrosity of Evolution", by Thorp McClusky (Amazing Stories, 12, vi (Nov. 1938)), This had much of the Hamilton flavor to it, with individuals being subjected to rays which produced evolutionary changes directly. The character in this case acquired great mental powers, but turned out to have no survival value. This story is notable for bringing out one very excellent point, namely that the forced evolution without the effect of natural environment and selection over many generations would result in a type not fitted to survive under normal conditions. Slight doses of the evolution ray produced practical improvement. but prolonged treatment caused the end result to get too far off the survival path.

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Cerebusters

Chan Davis discovers most amazing implications in his solution of the problems set up by Al Lopez last issue.....

"Lopez's proof that I have as much money as Ford contains the same fallacy as most of these algebraic non sequiturs. You start with the equation in a form containing the correct root, then introduce a new root and divide out the correct one.

"Into an N-simplex which holds exactly M unit sferes along an edge, you can pack $\frac{(M+N-1)!}{N!(M-1)!}$ unit sferes. Proof (necessarily omitting details): We use double induction. First of all, the formula holds for N = 1, no matter what M is. Next, suppose the formula to be true for any given N, and we can prove it's true for N + 1, as follows: The number of sferes in the (N + 1)-simplex M on a side is equal to the number in an N-simplex M on a side, plus the number in an N-simplex M-1 on a side, plus ... plus the number in an N-simplex 1 on a side; that is, it equals

$$\sum_{k=1}^{M} \frac{(k+N-1)!}{N!(k-1)!}$$

We want to show that this is equal to $\frac{(M+N)!}{(N+1)!(M-1)!}$ that is, that

$$\sum_{k=1}^{M} \frac{(M-1)!}{(k-1)!} \frac{(k+N-1)!}{(M+N)!} = \frac{1}{N+1}$$

Well, this formula is true for M = 1; and if it is true for any M then it is true for M + 1, for

$$\sum_{k=1}^{M+1} \frac{M!}{(k-1)!} \frac{(k+N-1)!}{(M+1+N)!} = \frac{M}{M+1+N} \sum_{k=1}^{M} \frac{(M-1)!}{(k-1)!} \frac{(k+N-1)!}{(M+N)!} + \frac{M!}{M!} \frac{(M+N)!}{(M+1+N)!}$$

$$= \frac{M}{M+1+N}\left(\frac{1}{N+1}\right) + \frac{1}{M+1+N} = \frac{1}{N+1}$$

This completes the proof. A nice problem, Norm, & not as easy as it looked.

"Wow! I just noticed something!

"Consider all monomials of degree M-1 in N + 1 variables; that is, all quantities

$$x_1^{r_1} x_2^{r_2} \cdots x_{N+1}^{r_{N+1}}$$

with $r_1 + r_2 + \cdots + r_{N+1} = M-1$. How many different monomials of this sort are there? The answer is

$$\frac{(N+M-1)!}{N!\,(M-1)!}$$

Proof? Well, the formula holds for $N = 1$, for then it gives simply M, corresponding to the monomials

$$x_2^{M-1},\ x_1 x_2^{M-2},\ x_1^2 x_2^{M-3},\ \ldots,\ x_1^{M-3} x_2^2,\ x_1^{M-2} x_2,\ x_1^{M-1}$$

Furthermore, if the formula holds for $N-1$, it holds for N; because taking $r_{N+1} = 0$ we see that there are as many $(M-1)$-monomials in $N+1$ variables containing x_{N+1}^0, as there are $(M-1)$-monomials in N variables; taking $r_{N+1} = 1$ we see that there are as many $(M-1)$-monomials in $N+1$ variables containing x_{N+1}^1, as there are $(M-2)$-monomials in N variables; taking $r_{N+1} = 2$, there are as many $(M-1)$-monomials in $N+1$ variables containing x_{N+1}^2, as there are $(M-3)$-monomials in N variables; etc. Once we've recognized this, we can use the inductive proof given above for the sfere-in-simplex problem.

"What's more, we can see that the two problems are equivalent!

"Norm, you cad, did you realize this equivalence when you published the problem, & say naught about it? /Gawp?--ns/

"In case you're interested, there's a generalization of the above which gives you cubes, as well as simplexes, as part of the same problem,& can also throw some lite on the splitting-up of N-cubes of sferes into N-simplexes, etc., of sferes; it can also (taking the monomial interpretation instead of the geometrical) throw some lite on tensor calculus. Unfortunately, I don't know any reference for this; I haven't got much of it worked out myself. You can find some simple cases (well disguised!)at the beginning of Chap. III, Sect. 5, of Weyl's The Theory of Groups and Quantum Mechanics.

"Solution to shiproblem /FT-13, p. 11/: If probabilities of sinking are P going west, p going east, & if the first trip is eastward,then the probability of getting across the first time is $(1-p)$& probability of making the first round trip is $(1-p)(1-P)$. Now if X is the total probability of being sunk on an eastward trip,the probability of going down on an eastward trip other than the first is obviously $X-p$. But this is also equal to $(1-p)(1-P)X$. So --

$$X = \frac{p}{1-(1-p)(1-P)} = \frac{p}{p+P-pP}$$

"Remember the coin-weighing problem which I solved in general? /FT-12, p. 5/ The whole thing appeared in the Jan. issue of the Math. Monthly, with exactly the generalization I treated. I think there was also an ingenious alternate method, which mite interest you. If you do get hold of the Math. Monthly, I recommend even more strongly a thoroly fascinating article by a guy named Fine on the following problem: A jeep can carry n gallons of gasoline and can get c miles to the gallon. Suppose it wants to cross a desert x miles wide, with x greater than nc. It will have to carry its own fuel ahead of it, setting up its own fuel caches as it goes; it'll end up by traveling many more than x miles.

Problem is to find, for arbitrary values of the constants, a best way of setting up these fuel depots and the minimized fuel consumption resulting from this optimum way. It's difficult, but, surprisingly, not ion-powered; only when he computes the asymptotic solution for an indefinitely wide desert does Fine have to drag in anything beyond ordinary algebra.

"Here's a problem I dreamed up: Given any network of infinite straight lines in the plane, arbitrary except that thru each of the points (-1,0) and (1,0) there must pass at least one line with positive and one with negative slope. Prove that as you traverse the shortest path from (-1,0) to (1,0) you always move in the direction of increasing x; that is, that the shortest path never retrogresses. This is difficult, too. I've sent a paper on it to the Math. Monthly, but since I did so Tate pointed out a generalization, which my proof covers with, as it happens, some simplifications. Tate & I are working on further generalizations. It's really quite a lot of fun.

"Suppose you have an artillery piece, muzzle elevation 45°, on an asteroid of given mass and radius. With what muzzle velocity must a projectile be fired to land at the antipodal point? (Careful!)

"A companion to the send-more-money problem:

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  F O R T Y
    T E N
    T E N
-----------
S I X T Y
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& I think I'll end this the way one of my correspondents ended her last:

1947
I grow old I grow old
I shall wear the bottoms of
My trousers rolled"

-o-

Professor Rothman assigns a couple of toughies.....

"Here's an interesting item you might let the boys slave over: It is well known that

$$e^{\pi i} = -1$$

but do you know what i^i equals?

"Another: It is ordinarily assumed that sin z and cos z vary between -1 and 1. Under what conditions can sin z and cos z approach infinity?" /Shux, Milt, that z is a dead giveaway! -- nfs/

-o-

To get back to reality, Don Thompson provides problems for geometers...

"Here are a couple of problems in construction, using only pencil and straight edge -- no compass:

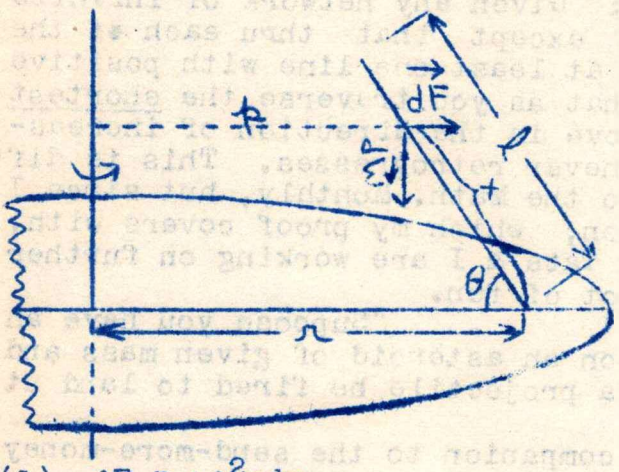
"I. Given a regular polygon of five or more sides, construct a similar polygon with a given point, P, as one vertex.

"II. Given two line segments, AB and AC, intersecting at A, and the midpoints, M & N, of segments AB and AC respectively, pass a

plane thru point P (outside of the plane ABC) parallel to the plane of the given lines."

-o-

By dint of much thud and blunder, yed has produced the solution to the Davis spinning-disc problem [FT-13 p. 12].....



As will be recalled, the disc spins about the vertical axis with angular velocity ω. A rod of length ℓ and mass distribution $\rho(x)$ is hinged tc the disc at distance r from the axis. To find the angle, θ, at which the centrifugal force can hold the rod u p off the disc against gravity.

Let p be the normal from the axis to the rod at a distance, x, from the hinge. Then, for a differential element of centrifugal force,

(1) $dF = \omega^2 p\,dm$, in which

(2) $dm = \rho(x)dx$ and (3) $p = r - x\cos\theta$. That is,

(4) $dF = \omega^2(r - x\cos\theta)\,\rho(x)dx$.

Then, for the torque at the hinge, due to centrifugal force,

(5) $dT_c = x\sin\theta\,dF$

(6) $T_c = \omega^2\sin\theta \int_0^\ell (r - x\cos\theta)\,\rho(x)x\,dx$

For a differential element of the gravitational force acting on the rod,

(7) $dW = -g\,dm$

$= -g\,\rho(x)dx$ Whence, for the torque due to gravity,

(8) $dT_g = x\cos\theta\,dW$

(9) $T_g = -g\cos\theta \int_0^\ell \rho(x)x\,dx$

If the mass distribution in the rod is uniform, then

(10) $\rho(x) = m/\ell$, a constant. Whence

(11) $T_c = \frac{\omega^2 m\sin\theta}{\ell}\int_0^\ell (r - x\cos\theta)x\,dx$

$= \omega^2 m\ell\sin\theta\left(\frac{1}{2}r - \frac{1}{3}\ell\cos\theta\right)$

(12) $T_g = -\frac{1}{2}gm\ell\cos\theta$

For equilibrium of the rod,

(13) $T_c + T_g = 0$.

Whence, on substituting (11) and (12) in (13) and rearranging into a power equation in cos θ, we have

(14) $\cos^4\theta - 2B\cos^3\theta + (A^2 + B^2 - 1)\cos^2\theta + 2B\cos\theta - B^2 = 0$

in which $A = 3g/2l\omega^2$, and $B = 3r/2l$.

For an arithmetical example, let's take the case of Ens. Tate at Glen Echo Amusement Park. Not knowing the equation of a tateoid, we assume him to be also a slim, uniform(ed), rod. Let his height, l, be 6 ft., his distance, r, from the center of the disc be 20 ft., and $\omega = 1$ radian per second (which is considerable). g, of course, is 32 ft./sec^2. Substituting these values in (14) and solving, we find

$$\cos\theta = 0.490$$

$$\theta = 60.7°$$

To get the radial thrust, we integrate (4):

(15) $$F = \omega^2 \int_0^l (r - x\cos\theta)\rho(x)\,dx$$

$$= \frac{\omega^2 W}{g}\left(r - \frac{1}{2}l\cos\theta\right)$$

Whereby, if Ens. Tate's wate, W, is 180 lbs., we get

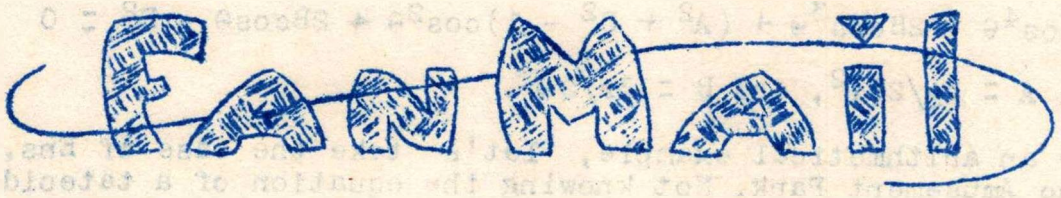
$$F = 104.3 \text{ lbs.}$$

which probably accounts for θ being 0° or 180° most of the time.

To this Chan addendums: "Notice one thing: the equation also gives the solution corresponding to the case where Ens. Tate is hanging by his feet & being whirled around, that is, the case $\pi < \theta < \frac{3\pi}{2}$. Poor Tate!"

- - - - - - - - - - - - we pause now for a filler... - - - - - - - - - - -

"And because some had thus abetted that which they knew to be against the Law, which was framed to the well-being and safety of all, there were certain floggings, which might the better help their memories in the future as to the properness of their actions and wisdom. "Moreover, they who returned, if any, would be flogged, as seemed proper, after due examination. And though the news of their beatings might help all others to hesitation, ere they did foolishly, in like fashion, yet was the principle of the flogging not on this base, which would be both improper and unjust; but only that the one in question be corrected to the best advantage for his own well-being; for it is not meet that any principle of correction should shape to the making of human signposts of pain for the benefit of others; for in verity, this were to make one pay the cost of many's learning; and each should owe to pay only so much as shall suffice for the teaching of his own body and spirit. And if others profit thereby, this is but accident, however helpful. And this is wisdom, and denoteth now that a sound Principle shall prevent Practice from becoming monstrous." -- W. H. Hodgson, The Night Land



D. B. Thompson writes with one of those wonderful, post-war, pens to dissert on phonetics. . . . . .

"Yeah, I know you don't quite rhyme dactyl and dark till, but I'll bet you come close. Neither your dac nor your dark would sound like my dock, but both would sound very much like my dac. For a while the Post Engineer at Camp Livingston was a Lt. Wing from Maine U. I could distinguish his had from hard, but the difference was too slight for me to reproduce orally. So, just for fun, remembering that someone else had said you made had and hard sound alike, I put in the dactyl-dark till line. Of course, I realize that to you or Lt. Wing the difference in sound seems much greater than to me. And my speech, of course, would sound quite harsh to you -- I can say "perro" in Spanish without difficulty, altho I'll admit that the harsh trill I get isn't much like the Spanish trill."

EC: I'd never thought of that before, but I guess it is true that what is a great phonetic difference to one ear may seem much less to another, differently accustomed. I remember I couldn't distinguish a whit of difference between the two L sounds of English /vide Fancyclopedia, Vol. I, p. 51/ as orally demonstrated for me by Jack Speer. My pronunciations of had and hard certainly seem a vast deal different to me, other auditors to the contrary. Blessed if I see, though, how I can lighten my had without saying head, or make hard any harder without fetching up against hod. Odd, too, that, if my down-east lingo is as deviant as you muggs say it is, General American,which I suppose is the stuff that oozes out of the radio, sounds normal to me. Only radio accents which ever obtrude upon my consciousness are the w. k. southern drawl and that of some Gothamites who persistently call it "dubbl-ya".

-o-

a verdant bouquet from that eminent American man of letters, Arthur Wilson Tucker . . . . . .

"I'm enclosing, sir, an article on a 100% fantasy subject which I just know you will print in the next issue of Fan Tods. Also enclosed find ten dollar bill.

"If you can't use this, keep the ten dollar bill, anyway."

EC: Thanks, Boob. Little tokens of appreciation like that are always received hospitably. The ten dollar bill I, of course, used to purchase four copies of "The Chinese Doll".

-o-

here is atomic scientist Rothman, still hiking over terrain whose contours bear a certain broad resemblance to those set out in "Pilgrim's Progress"; the comparison ends there, though. . . . . .

"Gee you shouldnta published that letter of mine. Don't you know I'm supposed to have gotten out of the stage when I talk about myself in public print?

"Did I say gas kinetics was my weakest branch of physics? How a few weeks change things. We rushed through a fast and violent encounter with statistical mechanics the other week and no longer am I a stranger to the Maxwellian distribution of velocity among molecules of a gas.

"School is pretty rough. You know, there is more than meets the eye in your remark about how scientist-becoming gives tribulations. The w-k "man on the street" has no idea what we go through. They think that every physicist is a cross between Einstein and the quiz kids. They would certainly be disillusioned if they came into class on a Monday morning and listened to us ask each other: 'Did you get all the problems this week? How do you do the third problem? I can't figure out whether to use a plus or minus sign.' etc.

"Our math. class is more intellectual than our mechanics class. In mechanics we are worrying about trivial things like cubes spinning on various axes and the positions of equilibrium of spheroids balanced on one another, while in math we fill the air with stuff like: Given f(z) regular in a domain D, and given epsilon greater than zero, there exists a delta such that f(z) minus f(z') is less than epsilon if z-z' is less than delta. (This isn't supposed to be an accurate quotation of anything, incidentally.) This is what is known as functions of a complex variable. It's the first real math course I have ever had. I'm learning what logical rigor means."

-o-

"next in line is our young friend, Jack" carry on, Speer. . . . . .

"This brings me to the postposted Fan-Tods, which arrived so recently that i doubt you have another issue in the forthcoming mailing. /ht! ht!/ Your cover rather reminds me of the story from which i learned the word syzygy and an erroneous idea of its meaning. Sequel to The Laughing Death, i believe.

"The voyage of 'only' thru the Gostak's distimming of the doshes is an interesting exercise in English word order. '' I suspect the lecturer lost all but two of his audience because he mispronounced planetesimal. Curiously, my father misdictated 'infintismal' analogously once. /"Intregal" is another example which seems to be popular./ '' Isn't that chlorine reaction very like photosynthesis? /Nope. The chlorine reaction is a photodecomposition. The initial reaction is $Cl_2 + H_2O \rightarrow HCl + HOCl$ and requires no illumination. In sunlight, the product, hypochlorous acid, HOCl, then decomposes to liberate the oxygen: $2HOCl \rightarrow 2HCl + O_2$. Photosynthesis, as a general term, implies the opposite, namely the building up of more complicated compounds from simpler ones by the action of light. Specifically, it refers to the synthesis of carbohydrates in plants (vegetables, of course -- not the kind people work in) from carbon dioxide and water. The actual mechanism is not completely understood, though it's supposed to involve a sequence of alternate "dark" and "light" reactions. A

simple, over-all, formulation may be given as $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$. Chlorophyll enters the reaction, but as a catalyst, being regenerated. It doesn't contain any chlorine; the "chloro-" refers to its green color. Does anybody remember the issue of Planet Stories which had the message to a now off-trail future, "Attention, Brian O'Shea! The formula for Chlorophyll is $C_{55}H_{72}O_6N_4Mg$", emblazoned on the cover? Small good the empirical formula would've been to him. Again, oxygen isn't always liberated in photosynthesis. Some types of bacteria photosynthesize carbohydrates, utilizing various inorganic sulfur compounds to replace all or part of the water in the reaction and liberate, i n place of oxygen, free sulfur, or even (no kidding!) sulfuric acid. For a brief, elementary, discussion of modern knowledge of photosynthesis see Fieser and Fieser, Organic Chemistry, p. 471./ '' That ain't true about the disappearance of Luna causing us to nestle closer to Sol, i s it? /Nein./ '' Special Lemurian Section was aptly named. Incidentally, it's interesting that Amazing Stories (there, i've said the obscene thing!) has recently inaugurated a department of new concepts, when the very word 'concept' is, i understand, proscribed in K's introduction to the second edition of SAS. Though it seems rather silly, since he just uses the word 'notion' in its stead. /Decimals on K. He strains at gnats, methinks. As for Amazing's new conceptionists, they exhibit a truly comprehensive ignorance of semantics. Prize example, I think, was Roger Phillips Graham and his "Frame Concept", an ingenious but pitifully naive tissue of sophistries./

"I don't get the point of Dripping Petals. /Maybe you didn't read the corresponding Farsaci publication carefully enough./

"So to Revista. The Arisian training didn't provide Kim with talents, did it? I thot rather it developed powers of his 'mind' that were there all the time. /I dunno how closely my use of the term "wild talents" coincides with Fort's, never having read the oldoubter's works. But I so call stuff like sense of perception, telepathy, reading and control of other minds, usw., whose existence a s latent powers of the mind is highly dubious. On the other hand, did the Arisian training make Kinnison think any better?/

"Oh, but i pluralized Credo's deliberately. Latinly, you know, it's not a noun; and i had in mind the repetitious 'I believe's which characterize Timebinder. Ofcourse a regular plural without apostrophe is authorized by the dictionary; i was molding the marks to try to convey my meaning a little more fully.

"I had thot about saying, 'Let me borrow a vigorous old expression from EESmith' but that was tying too much wordage onto a single interjection, so i shortened it to '(copyright EESmith)'. I know, of course, that he recently dredged the word up out of the literature of his youth. Doubtless the dictionary of American slang has a learned article on it. --So we wind up with a good many more words tied into a single interjection!

"So what if i would feel differently about what i want after i merged with the race? Decisions looking toward the group-mind are to be made by me before the merging, as an individual, and will be worked out in accord with my desires as an individual. /Yebbut how about the group minds in "Last and First Men", wherein individuals popped en and out of rapport whenever they pleased? Point is that there was an extension, not a submergence, of the individual. Another tack: You want to marry some time, and raise a family, no doubt, although you know that this entails some subordination of your individual welfare to that of your children. Perhaps comparable

[Also remember the story that ended "Three slaves."?]

considerations would mould the individual in his attitude toward merger with the group mind./

"Not necessarily. State capitalism supplant private capitalism, that is. Taking 'private capitalism' to mean the present order. Co-ops are something considerably different /Pristinely, yes. But when expanded to big-business proportions, as some of them have, they show a lamentable tendency to hoard profits and turn monopolistic, even as uncontrolled private capitalism would do. I question if an economic system developed from cooperatives would be much different from the present set-up./; and a $25,000 annual income limitation, excess being redistributed /to whom?/, would also produce something considerably different -- perchance corporations actually run (indirectly) by the mass of the stockholders, there being no big boys among them. /God, Jack,we haven't even been able to show that democracy's practical in modern government as yet. Granted your proposal's meritorious, but how to work it?/ Nor, as somebody is mentioning in the current QQuotes, is an either-or decision between socialism and capitalism necessary. It may be enuf to decide most current issues that we believe more of the economy should be governmentally owned and operated than is now the case. You speak of the present system dividing our economic masters from our political masters,resulting in more freedom for the individual. One difficulty with that is that, in normal times, our economic masters pretty well control our political delegates. /When are normal times?/ I doubt you'd deny that this tendency is stronger than the tendency for the politicians to dominate the captains of industry. So at least you should favor moving more weight over to the government side,as was true during the New Deal.

/'Fraid I can't admit the New Deal as a salutary example of planned economy. It was stuck in its own tracks. I verily believe that if the war hadn't come along and whipped us back to work the n. d. would've continued on and on until the economic structure was taxed dry and collapsed into a bankrupt socialism sustainable only by totalitarian measures. Thus the economic illness characteristic of the depression was not overproduction, as some New Deal philosophers had it, but lack of purchasing power. We weren't producing more goods than we could use; we were producing more than we could pay for. The pig-killing and plowing under were abortive, and while the attempts to bolster the consumer market by public works and relief spending were more to the point they were insufficient to turn the trick. Take unemployment relief: While such a program was humane and necessary, it should never have been regarded as anything more than putting the best available face on a sticky situation. Hoover recognized this (remember relief was not a New Deal invention) and advocated the dole in preference to work relief for that very reason. Under the New Deal, however, relief became a self-perpetuating system instead of the stopgap it should have been. This I know; I was there and saw it working. I have heard WPA supervisors say quite openly that the agency would eventually be made permanent, and believe that this position was quite generally held. As for the reliefers, I've seen very few of them make even a half-hearted effort to move out of their status; indeed, not a few would fight tooth-and-nail proposals to place them in private employment. There's no need to point out the dangers of the political capital that could be, and was, made of this attitude. The pay for work relief was necessarily held in line with that current in private industry for comparable work, and since most of the relief work was in the lower brackets of skill, it seldom went much above the subsistence level. Naturally its contribution to the pump-priming was nil./

"Consider, too, the corrupting influence of economism. While Roper's survey indicates that most people would rather have security and satisfactory working conditions than make a hafful of money, our official economic faith is still (or again) that teaching men to work for ever larger profits /m.o/ is the best way to improve man's estate on earth. The result is that the many are denied what they want so that the economy may be operated in a way to give enormous profits /m.o/ and power to the successful plunger, conspicuous consumption /?/ is held up as an easily seen ideal to work for, many of our artists are prostituted to write advertising for vulgar products,. Finally, the system labelled capitalism offers us no hope for avoiding repetitions of the depression cycle, with its enormous waste of productive energies, its toll of human dignity, its blighted youths /Ah us!/, domestic tragedies, and warbreeding misery. You cannot ignore either that the direction which modern capitalism is going will soon bring us to a condition of enormous centralization of power extending into all departments of life, beyond anything ever seen in a free state. /Somehow this conclusion does not seem to smite me with its obviousness. In fact I can't see how you could possibly extract it from that hat. Please elucidate./ It's not enuf to note the excellences of private enterprise twenty years and more ago. /Yet have there not been noteworthy gains in the establishment of a more equitable relation of p. e. to society since the good old days? Recognition of collective bargaining, less flagrant exploitation of labor, usw. I don't see how you justify this remark, unless you hold that the economic pattern as-a-whole has changed so as to render capitalism less tenable as a system now than it was twenty years ago. Are you perhaps implying a conviction that our economy is incapable of further expansion, and must henceforth be held static in a carefully adjusted equilibrium?/

"I hae done. That wasn't predrafted, obv'ously.

"The more we go into this question of killing infants, the more i feel that our approach is wrong in that we are looking for an Aristotelian character 'right to live' which is supposed to come into existence at some time in the early life of an individual. Instead, our approach should be to ask what policies respecting the right to live are likely to be most advantageous for society, construing society's advantage to involve,as it must, the welfare of the individual. Trouble with that is, though, it dumps us right into utilitarianism, and in 'the greatest good of the greatest number' we are brot up against the question of whether and why children or anybody else is included in that number. One way to breaak the viciouscircle is to drop back from hac-iklackic to enlightened selfishness. That severely restricts the area within which communal discussion of right and wrong may be carried on,since at any time an individual may say 'for me personally the axiom you've just used isn't true'. Moreover, enlightened selfishness isn't as firm a ground as it might be, the picture of human motivation being so unclear (consider martyrs, for instance). /Cannot martyrdom be motivated by enlightened selfishness? Martyrs don't mind dying, perhaps, but I'll bet they weigh the personal sacrifice against the satisfaction of furthering thereby a cherished cause. Probably unnecessary or pointless martyrdom can be accounted to misevaluation or to out&out psychoses./ Yet it seems far closer to the law of nature than utilitarianism, and if an ethic could be built up on it which was logically consistent, logic might accord pretty well with conduct. And incidentally justify mercy killings, abortion, and contraception. (Exit, crossing.)

"For some reason that i can't discover in a short time,copies of the Algiers SusPros aren't in my file where i'd expect them. But it has come to me

that by 'long letter quip' you're probably referring to the remark 'I didn't have time to write a short one'. I don't think it's from Chesterfield, since i've never read that gentleman's letters. I seem to recall that it was by an American, and the remark is rather characteristically American in its implications. And that is enuf profitless talk about this little matter. /Dorothy Parker, maybe?/

"I don't remember that we ever had a six months wait before rejoining. Normally, i thot, we'd always had some waiting list. In particular times, such as after the Interregnum, this was not so. But unless i'm mistaken no member who passed out of our midst had attempted to re-enter until the Unholy Three came riding back around war's end. /Ex. A: "Dues-Activity--you may not apply for renewal until six months have passed." ---Secretary-Treasurer's Report, FA, June 1942. Ex. B: "'If I put this comment in FAPer it would be near seven months before you saw it,since I have just been given that much of an enforced vacation from the FAPA for failing to find a mimeograph for said paper in time.'"--Jim Blish, as quoted in "On Dit", Horizons, 4, i. And there were only 48 members just before I joined in summer of 1942./

"I am plagued by the same horrid suspicions of omissions when postposting. And also when official editoring. It is this, no doubt, that drives our oo's into early graves.

"I'll bet you've stirred up a hornet's nest with your remarks on pulps and books. The remarks about book-readers on page 20,however, seem to apply mostly to readers of best sellers and lending library customers. That may be the most commercially important part of fiction book publishing, but it's not the field in which fantasy books make their mark /if any/. Such remarks here as apply to fantasy books apply also in large measure to pulps. /I made no attempt to evaluate the worth of fantasy in comparison with any mundane literature. I doubt if it can be done so as to claim any general validity; there are too many incommensurables involved. What I did try to show was that hc fantasy's claim to vast superiority over pulp fantasy was overly inflated./ And if the discussion is to be deductive rather than inductive (which involves widely varying opinions), it should be noted that a book apparently can pay for itself with much fewer customers than magazines, and so has a better chance to meet the demands of a small select group. /But maybe not as small and select as the group of fantasy aficionados has been in the past? Remember Derleth & Co.'s early pessimism over the prepublication sales of "The Outsider", at $3.50? The present popularity of fantasy books is definitely not the normal state of affairs. It's wonderful, but it may prove transient./

"The moon-radar cartoon is lovely. /JFS forthwith becomes our favorite fan. With the poor repro I worried for fear no one would dig it./ I saw some radar installations down on the Florida coast, incidentally. Should have mentioned that in the SPEER tours FANDOM writeup in The Stefnews. Big things.

"Speaking of spinach, i think i was going to seize upon your mention of it and Popeye to present my theory that the stuff children hate so isn't spinach at all. A Sunday supplement or some such whileback ran a news story that a survey had showed spinach to be children's favorite vegetable. I think the stuff in question is turnip greens (or broccoli, just as bad), which i can't stand even the smell of.

"No, sir, i believe you did digress in discussing the V orientation. However, the result is an especially good condensation of a considerable part of null-A. '' Apropos of the earth

spinning on its axis, what's the answer to the old question of centrifugal force at the equator if the earth were the only body in space? /See Astounding, 23, ii, 151-2 (April 1939). Also Einstein, "The Meaning of Relativity", pp. 55, 99, 100, 103, 107./ I believe the statement of this in an old prozine specified that the rest of the universe should suddenly wink out of existence while the earth was spinning, but that introduces too many extraneous problems. Question is, can an object spin only with reference to itself? I think i see the answer already: atoms cannot be considered to move relative to each other unless the distance between them is thereby changed. /How about this teaser? Assume that a hydrogen atom consists of a single electron revolving in a circular orbit about a single proton. What would happen if all the universe were abolished except for one hydrogen atom?/

"Quotation not permitted" --The Kiplinger Washington Letter.

Skywayman To Ride Again

Montreal Gazette

A broad hint on the probable social conditions that are expected to exist in the brave new world of the future may be gained from the recent U. S. legislation that puts robbery of the passengers of a rocketship in the category of Federal offences. This is taking a long view at its longest.

For at the most optimistic it will be some years, possibly some decades, before the rocketship is commercially practicable; before there are rocketship passengers to rob. Aerodynamics has solved the major technical problems of supersonic speed; but aircraft design still has no clue as to the structure that will support the pressures at such rates of speed.

Robbing rocketship passengers within the rocket itself will probably prove impracticable. The inhibitory legislation evidently is intended to prevent the creation of a modernistic revival of an ancient occupation that will undoubtedly be called the skywayman.

The skywayman will be a superior thief. An expert mechanic and pilot, he will possess a small, speedy--say 1,000 m.p.h.--rocketship that will lurk in the clouds on the worlds chartered airways. Mechanical devices will inform the sky-pirate when his intended rocket-victim has left an airport, of the character of the passengers, the nature of the cargo. As the airliner is cruising along at a modest 600 miles, preliminary to its passage into--and through--the supersonic belt, there will appear a menacing flurry in the air--and the air holdup will be on. The (comparatively) lumbering rocket passenger liner will be unable to escape the superior speed of the skywayman, and will be left no alternative but surrender.

But since rocketship robbery is to be a Federal offence, it may be supposed that the FBI will form a corps of rocket air-cops to cope with the air-robbers. It is a theme that might well attract some future writer who could combine the talents of H. G. Wells and Zane Grey.

thefirstruleofbeinganairpiratewillieisalwaystofollowthefirstruleofbeing

BY THEIR TAILS ARE LETTERS RECOGNIZED, NOT BY THEIR BUTTONS

Blithering Retorts to the Autumn mailing
. . . . . -- by Davis, of course

"'For after all, these people may be right; and certainly I cannot go so far as to say they are wrong. But still, at the same time--!'" --JURGEN

Horizons 8#1: Best of your proposals for adapting technology to musical purposes, was the one about amplifying orchestral instruments. I often get the impression in listening to symfonic works that something is being obscured that was meant to sound. Incidentally, have you heard of Sid Bechet's recording of THE SHIEK /Iek! --ns/ OF ARABY? Bechet plays all the parts! First he played the piano part, which was recorded, then that record was played back while Bechet filled in the drum part, then the record of both those parts was played back while Bechet supplied the cornet, & so forth, until you had an interpretation of the number by a full jazz band composed entirely of Sid Bechet. The remarkable thing is that the result is well worth listening to.

Devil's Advocate #1: Groveman will become a valuable member of Fapa, I hope.

Plenum #3: Your null-A exposition mite be better organized, but as it is it's a lot more orderly than S&S. You skip over the "Consciousness of abstraction" point much too hastily, I'm afraid; perhaps that will be remedied in the next installment.

Grulzak #1: The terrific quote from Bierce's DEVIL'S DICTIONARY almost justified the issue.

SusPro Fall/46: Don't know whether I'd be considered a "diligent person," but I certainly will not draw a 4-dimensional checkerboard.....I agree that S&S is not directed at specialists in the sciences. At least, it better not be, because many such specialists would simply give it up in disgust when they came to K's asinine remarx on colloids in Chapter X. He says, for instance, "As these changes occur as a series of interrelated events, the best way is to consider colloidal behaviour as a physico-electro-chemical occurrence. But once the word 'physical' enters, structural implications are involved. This explains also why all known forms of radiant energy, being structures, can affect or alter colloidal structures, and so have marked effects on colloids." An analysis of this passage would turn up most of the semantic errors against which K battles with such general soundness. He identifies the word "physical" with the "thing," to give only one example. The result of his extremely sloppy thinking is that he ends up thinking that once the syllables "structure" have been uttered all has been explained. I could give other quotations in support of this last charge.

& then in Chapter XII he uses an a priori argument to "prove" something which can be verified only by experiment: "'Infinite velocity' is a structural impossibility, as structure involves relations and orders, and order could not exist in a world where 'infinite velocities' were possible." Let's hope that "intelligent laymen" reading S&S will skip the technical-scientific passages; or if they read them that they will do as K tells them, not as K does...Liked your comments on the no-value orientation.....The retorts to Sykora don't quite hang together, but I won't leap to Will's defense,because his original theses were even less coherent....Don't tell me Milty actually defended GeoSmith's use of the square of the speed of lite! Tut, Milty, hast forgotten thy dimensional analysis?

Micron: Your null-A comments have the same fault as the opening chapters of S&S: no one unfamiliar with general semantics could make head or tail out of them. In your case, I'm afraid, the same applies in some measure to one who knows general semantics.....Now I thot SLAVES OF THE LAMP the very worst serial ASF has published in the last 5 years. Natlano's absurd race of beings "impervious to environment," which you mention, is only one, if the worst, of the story's semantic crimes. The only redeeming feature was the underlying theme --"Everyone trying to save humanity in his own way"-- and that was not Zagat's but Campbell's.

Reader and Collector 4#2: I didn't have the slitest temptation to read the Butman bibliografy, but most of the rest was enjoyed.

Walt's Wramblings: Walt's an enemy of mine, having failed to send me Chanticleer in over a year; so I won't review this mag. I mite have to say something complimentary.

Venal #2: At least one of these poems, REMEDY, is extremely solid..... Whence the newfound modesty of the Renascence ad?

FanDango 4#1: The hi spot of the mailing. My judgment isn't objective; I liked this issue principally because so many of Laney's reactions to the Pacificon were exactly those I suspect I'd have had. His fanfilosofizing, too, consists largely of things I wish I'd said.

Guteto: For the first time in years I made a serious effort to read this mag thru. I failed.

FanTods #15: "External events, however, have an obstinate habit of remaining comparatively unaltered by our awareness of them." This is something which seems not to be true in quantum mechanics. There are some fairly spectacular experimental demonstrations of the astounding extent to which the act of observing atomic-sized events can determine their course. (For the benefit of any fysicists in the crowd, I'll cite the quantization of the z-component of angular momentum in the hydrogen atom.) My quantum mech prof went out of his way early in the course to point out that it's the experiments which affect the particles' actions, not the fact that there are intelligences to interpret the experiments. It's a more subtle point than at first appears.....I can't explain the twin paradox yet; come back in six months. I have run across it before, tho; specifically, I met it when I was six years old (according to a Terran observer), in JJ Thomson's OUTLINE OF SCIENCE... ..."A completed being has more and better reasons for desiring to go on

living than an uncompleted one," eh? But the desire to go on living is on a lower level of abstraction (the objective level, in fact) than the "reasons" for this desire; so I don't think you can discuss the problem in your terms. /Why not? The reasons can intensify (or diminish) the desire, not so? Or do you, for example, hold that all suicides must be insane? I'll admit, though, that the whole question is more subtle than I had thought. My desire to live is, I tell myself, amply supported by excellent reasons. Yet suppose I am, without warning, annihilated. It seems to me, looking at the picture as objectively as may be, that the injustice done to me, personally, is at least as academically abstract as the injustice done in the infanticideal. I would feel abused, tho, if I had to live in the knowledge that my untimely end was foredoomed./ .....For comments on your Blitherings review, see my LETTER TO ELLEN, forthcoming in ASF....People forget that $E = mc^2$ does not require relativity. Einstein's biggest contributions to atomic theory, hence indirectly to the Bomb, were his papers on black-body radiation & the foto-electric effect, which had nothing to do with relativity...."The liquid resulting from passing chlorine into water is called chlorine water. It is probable, however, that chlorine reacts with water to form a mixture of hydrochloric acid (HCl) and hypochlorous acid (HClO). Hypochlorous acid is unstable, however, and decomposes, slowly in the dark but rapidly in the sunlight, into hydrochloric acid and oxygen." (MacPherson & Henderson, A COURSE IN GENERAL CHEMISTRY.) Tsk, Dr Stanley! /I wondered if anyone would raise the question about the intermediate formation of HOCl in the reaction of chlorine with water. M&H are quite correct, of course. But, Chan, remember the question! Oxygen is set free when chlorine reacts with water in direct sunlight, regardless of the mechanism. Lots of very common chemical reactions, even $2H_2 + O_2 \longrightarrow 2H_2O$, work that way, you know, though in many cases the intermediate products are very transient and can't be isolated./...."As impossible as a pressure of 186,000 kilograms" is lovely.....Solutions to Cerebusters elsewhere.

Ichor #1: Liked best Reynolds's contribution.

(w h i t e s p a c e)

Blithering Wasts at the Winter mailing

. . . . . .

SusPro Winter/46: "Probably this is not the only bedrock that one might work down to,but it's the one that Korzybski seems to prefer." K himself emfasizes the fact, well known to mathers, that a system of postulates may often be replaced by an equivalent system, giving the same set of theorems (or an isomorfic set). Specifically, if the postulates of the first system enable us to prove as theorems the statements which are postulates in the second system, and vice versa, then the two systems are equivalent. (As a special case, if I have five postulates in my system but discover that the fifth is a logical consequence of the first four,I can eliminate the fifth without changing the "truth" of any of my theorems.) What you're suggesting is that there mite be some other formulation than Korzybski's which, tho apparently starting from different postulates & undefined terms, could be shown equivalent. This is something which neither the K nor his hypothetical competitor would be likely to admit: filosofers are traditionally jealous in these matters. Such things are hard to show conclusively, anyway, even in the simplest cases. Only in the last fifty years has the complete equivalence between the synthetic & analytic approaches to euclid-

ean metric geometry been recognized....I agree that the newspapers play down agreements in the UN. A friend of mine, quite well-informed, asserted just the other day that the USSR had made no concessions in the question of veto power in atomic control!.....I could list a number of competent profets beside Spengler, but one example will suffice. Riemann in 1854 & Klein in 1872 charted the future course of geometry with truly amazing foresite. So accurate were their predictions that one's tempted to suspect they'd actually worked out tensor calculus & group theory before they went out on their respective limbs!.....Prof Dirk J Struik of MIT uses the word "tesseract". Adequate authority? /How about "pentact"? "Hexact", too, would seem a very precise term./..... If "Husbandry" can't switch us onto another time-track, I don't know what will turn the trick. /How about logarithms and calculus?/ & these days, when atomic warfare can be seen between the lines of every other news story, almost any other time-track would be a good place to be.... I feel myself slited by your refusal to comment on my stories.

Expose: One of the few examples of fan reporting that is intermediate between the fascinating & the boring.

Moonshine 2#3: In spite of Woolston, Korzybski, & others, the policy of trying to get others to think clearly doesn't seem quite adequate to deal with the present urgent situation in the present complex society. Sanity doesn't propagate that fast. /Yeah, we fen forget that Korzybski preceded Van Vogt by twelve years./

Eight Pages #1: Nice title...."When men finally come to take matters of government and economics for granted and solve such problems in an engineering spirit,the major conflicts will be over questions of philosophy and values." 2 (not unrelated) objections to this: first, you ignore the consideration that governmental & economic questions can hardly be solved "in an engineering spirit" until t h e structure of society is such that there is no necessary conflict of interests between large segments of the world's population, because only then can we hope that decisions will be agreed to with near unanimity; second, you fail to recognize that most people are unexcited about filosofical (& religious) differences unless they are tied up with socio-economic conflicts, or have been so tied up in the recent past. You may cite exceptions to both these statements of mine,but I think you'll admit they have sufficient generality to cast grave doubt on your dictum.

ForLe Kon #4, #5: Uhh.

Horizons 8#2: A moment's reflection will show that it's by no means inconceivable that "sterility may be inherited."(Does sound funny, tho.) For example, a gene mite cause sterility only when it appeared in a female; then it could be transmitted indefinitely,even if it were dominant, but only via males.

Plenum #4: Thanks for the decimation of the USRS. I get a pleasure, perhaps sadistic, in seeing fonies exposed...."All generalizations are false" can be restated "We must not assume that any of our conceptual structures will correspond exactly to observed structure." I don't think Speer would claim that this would "run into difficulties in application."....Of course THE WORLD OF T was intended to end ambiguously, but as it stands it implies life after death.

Atote 4#3: I join Evans in deploring the absurd excess of prudery which imagines filth in the Timebinder cover. Ghu knows I'd think it inappropriate were Jack to represent superman as homosexual, but the cover as he drew it does not justify such an interpretation at all. I hereby demand that Laney, Speer, Perdue apologize to EEE in full & in print....I know at least one way to peg 30 points in the play, Everett. But if you pegged your 24 without Ed's getting a point, I'm thoroly baffled, not to say skeptical.....So we learn that the saintly patience is not a pose--at any rate not a successful one.

MOO #21: The Animist Party would have been more effectively hoist by its own petard than it was by your footnotes'....."Economic selfsufficiency is of chief value when other countries are unnaturally interfering with trade." I think your approach is a little too academic, Jack. This interference which you call unnatural is the rule rather than the exception. Practically every time one country (or other economic group) succeeds in reducing another to dependence it proceeds to exploit it for all it's worth. This fact, one of the less fortunate results of our profit system, provides justification for the perhaps "uneconomic" view that all areas should be encouraged to develop their resources to the point where they wield real bargaining power on the world market. I say "should", not on the basis of any abstract principles of rite & wrong, but because I think an end to national exploitation and a greater uniformity in standards of living would be salutary to world economy.

whyshouldyoustudybotany?youstudyittotrainyourbrainprovidedyouhavegotany

R E V I S T A

by me.....who else would be so rash as to start something like this on page 33 of a fapazine? . . . . . .

FANTASY AMATEUR, Winter 1946-7: Haw! I would have given fifty centimeters off my long, prehensile, tail, to have had that Second Indorsement, first paragraph, as part of my vice-presidential ruling.

PLENUM, #3: I can't understand how anyone in the Rothman family could possibly have avoided learning all about atoms of every kind.

πλεῦμ, #4: I'll bet the cover represents De Broglie waves, or at least the spirit of the things. But I thought it was the nodes rathern the peaks which occurred where the wavetrains meet. As for the 20,000-word essay, that'll be along presently, Milt. I skipped the last mailing expressly to work on it, and ran it up to 50 pages, but still have about another fifty to go. . . . . .I don't see anything actionable in the Rocket Society article. Still, I can feel for you, as I remember how I gnawed my gnails /(c) rdswisher/ worrying whether Ziff-Davis might not be legally offended at a fbd squib in Efty-one. . . . . Hope your reaction to too much semantics was but tomporary.

Jack's remarks on colors., reminds me of the passage from Moore's Principia Ethica which Joad quotes in his Guide to Philosophy: "Let us imagine one world exceedingly beautiful. ... And then imagine the ugliest world you can possibly conceive. ... The only thing we are not entitled to imagine is that any human being ever has or ever by any possibility can see and enjoy the beauty of the one or hate the foulness of the other. ... Is it irrational to hold that the beautiful world should exist than the one which is ugly?" Joad hems and haws a bit over this, but in the end is not willing to concede what should be obvious, namely that the question is sense-free. If this sort of thing is characteristic of the philosophy of aesthetics,then that philosophy is in bad shape, indeed. Perusal of the rest of Joad's chapter on aesthetics confirms the impression yet more. About the null-A training, is there anything to it other than telling the structural differential over and over and over until consciousness of abstracting becomes reflexive? And, o f course, using A thinking. It sounds okay, but I fear for the consequences if anyone should catch me training at the differential. "Poor chap! I hear they found him playing with tinker toys and bits of string and saying over and over to himself, 'This is not this.'". . . . . I can only marvel at the willpower it must've taken to wind up "World of T" that way without remarking that the protagonist was a gone Goslin!

ATOTE, 4, iii: Jonne sure looks like her Dad. . . . . I dunno just what this squabble is all about, but from here it looks like a well-organized plot to give somebody the rib. I'm glad I don't live in LA!

EIGHT PAGES, #1: When you take on like that, Sam, you make us despair of ever seeing another issue of Science-Fiction Goo. The best answer to your partially valid criticism of FAPA is to be found in your "I must admit there were more of them than I thought..." Presumably Russell finds VAPA to be precisely 50% better than FAPA, since his year's production for that organization was 12 pages as compared with eight for us. . . . . Like Chan Davis, I, too, am somewhat doubtful if philosophical questions will ever raise much excitement, barring, of course, a major change in human temperament. Stapledon, tho, mentioned a strong predilection for philosophy as a dominant characteristic of the Second Man, who were so constituted as to live more in the underhat world than do we. My notion is that if we succeed in surviving the atomic age the next big revolution in scientific thought will come in the field of biology and genetics, with especial regard to the modification of the human species. The possibilities for conflict there are evident. . . . . .Will you write up your reply to my discussion of book vs. pulp science fiction for publication in Efty-next, Sam? Forgive me for making this sound like an open challenge;I'd planned to ask you via personaletter, but this,like many another good intention of mine, ended up as paving material. . . . . .Your book review points out some of the faults I find with hard-cover stef.

THE FANTASY CRITIC, 1, i: Wasn't there a previous, non-fapa, issue, of this title? I seem to recall some mention that it had finally appeared, with material by Campbell and other names. Like you said, Sam, it's hard to disagree with reviews of books one has never read. I was amused, though, to note the extent to which you dwelt on the idea element, particularly in Koestler's play. It just goes to show that you may separate thematic from "literary" aspects in discussing fantasy literature, but you can't do it when you discuss works of fantasy literature.

MOONSHINE, 2, i, ii, iii: Nice airbrush cover on iii. The war doesn't seem to have changed Len much.

HORIZONS, 8, i, ii: I would add to Tom's review of Planet Stories the remark that some of its contents ought to be laid under the earth. Though the magazine was, I believe, better at the time this article was written, it seems now to be rapidly going downhill under the guidance of the latest of its many editors. . . . . Harry makes another strong bid for the humor laureate with his discussion of the wonderful postwar musical world. The remarks on the electrically amplified orchestra remind me of one of the humorous talks DeemsTaylor gave on the "Coronet" radio program a number of years ago. He went into the question of how the orchestra sounded to the players situated in the various sections, and illustrated by (supposedly) taking the microphone around, finally ending up with the triangle virtuoso, who could be heard counting off the interminable numbers of beats between his contributions to the harmonious whole.

"And only four of us--Speer, Stanley, Ashley, and I--make a real effort to review every magazine in every mailing promptly." Well, I've tried, Ghod wot, but the FAPApubs still unreviewed stack three inches high here beside me, and some of them have been around as long as any fan who cooled his heels on the waiting list. So some, I fear, are going to be quietly ignored. And what has happened to Ashley? Yeah, who is the fan who runs things in the UP? Maybe this correlates with the allegation by right-of-center newsman Fulton Lewis that a certain press agency, unnamed but easily identified as the UP, consistently slants its stuff left of center. The cartoons in the Ziff-Davis gagazines are swell. I think the one which gave me the most chuckles ever was that by damon knight which showed a robot with upraised mallet and a spacesuited guy experimentally pushing buttons on its chest panel. . . . . Please, Harry, let's have more "pure ramblings".

GRULZAK, #1: Anyone who is moved by this to say mean things about the immaturity of fandom is just an ossified old curmudgeon. The cover was the besthing in the issue and that Casey thing the worst. The story didn't seem to mean much to me, either. Everything else was fun. You're welcome, Joe, to whatever resemblance your title, "Looking Backward", may bear to "Revista". I don't see very much.

bounce-a,

SUSPRO, Winter/46: "Ze check she go bounce-a, bounce-a!" "But agrarians today are decenter than Angelenoes." I think we're on the trail of something interesting, here. Would you enlarge a bit on this topic, Jack? I haven't much experience to draw upon in this connection, but do remember some fragments from "The Egg and I" which somewhat depressed my estimation of the aggies. Still, I think perhaps that I might favor ruralife even over small-town ditto, which I'm used to, especially now that modern transportation, communication,. are eliminating most of the stultifying disadvantages of the former. . . . . As I see it, corporation profits go mostly into capital investment, plant construction, machinery,stockpiles, research, advertising,. whereby people are employed and goods produced for them to buy. When, f o r reasons I've never seen plausibly explained, there is a state of panic and people and corporations stop buying,this cycle of production ceases and large amounts of wealth are caught in the machinery, so to speak. Moral: Let's not get panicky. . . . . The StriPolka parody was the one I referred to. . . . . Your division of Korzybskism into epistemological and metaphysical aspects seems el to me. K takes metaphysics

to mean the set of undefined terms and postulates that we employ in abstracting from the un-speakable observationalevel. No abstracting, no metaphysics, see? Part of K's metaphysics is that there exists a process going on outside our skins as well as inside,and that this process never ("What, neverr? Well, hardly everrr!") repeats itself. Hence there is novelty (m.o) on the process level, and on the objective level, and the correlative level (awareness of novelty, or of similarity,which emerges here),. . . . . .I was sorely tempted to swipe one of those recruiting posters sometime when the postoffice corridor was deserted, but my high moral standards (tr.: cold feet) deterred me. I note lately that the issue has been supplemented by another bearing an even snazzier rocketship. . . . . Naturally I was tickled by John of Bristol's pleasure "to correspond with anyone interested about the variation from average which may be expected in small samples." . . . . . Russell mentioned an interest in visible speech in a letter some time before the Astounding article appeared. What came of it, I've heard not. . . . . "ä v-2" was clever!

GLOM, #3, #4, #5, #6: 'Snice to see EEEE hitting the mailings so regly. And it seems to me that this lil magazine deserves more appreciation than it's been getting. Forry certainly picks up a lot of fantasy oddenda, film stuff, and the like, that we'd miss otherwise, and which certainly ought to be recorded in our lore. What came of the Wellman scientifilmaticorrespondence?

FAN-DANGO, 4, i: Fran's method of breaking off ties with fandom by parting company with the literary side of it and continuing all-out fanzine collecting plus some club activities is amazing, simply amazing. Yeah, I remember that my previous somewhat tepid interest in fanning all but disappeared when I first went to work at my present job. It perked up again, though, after a year or two, waxed, and is now waning summat. I'm content to let it fluctuate thus without bestirring myself to do anything drastic about it either way. On the other hand,my interest in science fiction seems to have remained fairly constant, independently of my interest in fandom. The Laney program for reorientation of the personality toward an extroverted outlook does not appeal to me, personally, at all. As I tell myself, with smug self-assurance, I'm reasonably happy in a decidedly cerebrotonic (I'm not familiar with this term, but suppose it's roughly synonymous with introverted)existence, whereas other people I know, who lead ostensibly much more "normal" lives, seem much more fretful. In general, I'd say the advice to repress cerebrotonia as undesirable would be dangerous if pressed to an extreme. The cultivation of a mild amount of extroversion is desirable, particularly in minor social relations, but it would seem highly inadvisable for the introvert to seek his major modes of expression in fields in which he is temperamentally a comparative stranger when there exist so many fruitful activities wherein the introvert is peculiarly fitted to excel. Furthermore, it has long been my impression (though I don't know how much evidence has been adduced in support of it) that the introverted ambivert is the most stable temperamental type. The slight imbalance in favor of introversion, in which cortical reactions dominate, results in a more reasonable and dispassionate attitude.

JABBERWOCKY, 1, i: Hope you continue "The Re-Reader Speaks" as a regular feature, but, lest you forget, you once promised (well, half-promised) to guest-edit an instalment of Yesterday's Years after you got back from the wars. Remember??

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