

G²

VOL. 2 No. 9

JUNE '63



2 The engine nobody thought of— 4

No "noise" this time; we're crowded. Vital statistics are as follows, tho:
() You sub'd for — more g2s. () Your sub has expired, now.
() This is a sample copy.

LOX

- + I'm going to buy a bucket of black multilith ink someday and some pens
- + and brushes and really do some artwork for this fanzine. Maybe some
- + lettering pens, too. But it's no jazz without the bucket of ink, man!
- + Those pens are just so much scratch without you got that.
- +
- + To the best of my knowledge, I'll have to drive all the way to East
- + Oakland on a workday to get it. Oh well -- nuts to it. Lessee wot
- + we've got here:

ROBERT P. BROWN, Haneda Airport, Tokyo:

Here's the first one. This scene recalled the year 1947 when I was Flight R/O for the Flying Tigers Line (who had a contract with MATS). This was the end of the line for the crews of the C-54s. Twenty-four hour layover before starting back for Fairfield.

About midyear, crews during preflight briefing were told to "watch out for UFOs & report if any sightings were made."

Thanks again for the back numbers of g2.

- + You were lucky. We've been getting more requests for back issues in
- + the past few months -- some of which, I haven't even acknowledged, I'm
- + afraid -- and it's gotten to be a bothersome thing. I'm afraid I'll
- + have to start charging something like 20¢ the issue for back copies
- + to make it worth digging 'em out. And some are all gone.

ALVA ROGERS 5243 Rahlves Drive, Castro Valley, Calif.:

Well, here it is, Decoration Day. Whoops, Memorial Day, I should say. And I have the day off and am sitting here listening to the Memorial Day Racing Classic from the Indianapolis Speedway with guys whizzing around the two mile brick oval at 150 mph and I thought, this would be a good time to write to ol' Joe and let him know what I thought of his consite report in the latest G2.

Sir, as a member of this hardworking committee I must thank you for a good and fair report on the consites, and for the nice plugs you gave for Westercon XVI and PACIFICON II, the 22nd World Science Fiction Convention.

In your comments on the Westercon program you made some tantalizing statements without going into specific detail. Beautiful. The specifics of the program are pretty well set and with most of the key personnel committed; but, of course, we expect (but don't hope for!) last minute changes. ((+I know you've had a few, too, when Big Bill's tried getting me onto the program! But you've been pretty lucky. So far, I've refused.+) One of the last remaining question marks on the program outline I showed you the other day has been erased. I got a letter from Fritz yesterday saying he would be delighted to give a talk on the Sunday program ((+that's Fritz Leiber, of course+)) so that little hole has been plugged. Although we have the expected sercon panels and talks featuring science fiction and pros, we're trying to balance the program with strictly fannish material. For instance: There are four panels, one on each day. Of these four, two are related to fandom and are moderated by and composed of fans; one is a

(Continued on page /O)



THE ENGINE

NOBODY THOUGHT OF

FOR GOOD REASON

The most mind-croggling scientific problem confronting stf today is -- oh fool! let's not get stuffy about this. I've just been having a ball with the thing for a couple years now and it's time I told you. Besides, I've come up with something New&Refolushunary here, too! In fact, you can add a couple more !! to that. There, now.

That there scientific problem is, of course, the interstellar drive. We don't got one that works. We been having galactic stories in spite of it. A truly terrible state of affairs, y'see. We're still using science-fantasy nonsense like "hyperspace" and suchlike instead of something real and honest like rockets which really do work, yessir they do, even if one time practically nobody but us science-fiction fans believed it.

So now, I've worked up something that is absolutely for "real and honest" to do the job between stars like we used to have it between worlds. I'm not spoofing. It's taken me a couple years to get all the bugs out (and explore a few tricks that wouldn't work) in our g2 laboratories in Adios, California -- which was Top Secret until just the other night at Poul Anderson's, and I'm going to have to tell you about Adios, California, sometime soon, I guess -- but this gizmo turns out to be so simple, you'll wonder it wasn't thought of years ago.

The technical problems of interstellar flight have been kicked around for years. The fantastic distances suggest either a thousand-year voyage or a ship travelling at fantastic speeds. We've had the thousand-year ship in Heinlein's UNIVERSE with, ironically, the powerplant it'd need described rather loosely in Hubbard's RETURN TO TOMORROW where it supposedly gave the ship near-lightspeed velocity. And there was a story in Amazing years ago about a thousand-year trip with generations of ship's crew watching over the colonists-passengers in deepfreeze -- and they reached their planet only to be greeted by people who'd got there in near-lightspeed ships which had been developed while this barge was making its Long Voyage.

But the real problem of travelling at almost the speed of light isn't just that time-shrinking business where the crew lives 25 years on a 3-billion-lightyear trip to the end of the Universe, or somesuch. (Hubbard made a big thing of this time-shrinking, and Asimov says it makes plotting a story difficult; I'll explore this problem another time, tho.) Nope, the real problem is that mass-approaches-Infinity business on the other side of the equation $e=mc^2$ -- which means, as your ship approaches the speed of light, its mass goes skyrocketing right where that time shrinks -- and the power you need to move that ship any faster, and shrink that time any more, goes right up with its mass.

When your power requirements start approaching Infinity, man, you do got a problem there. The only kind of rocket that can develop this much power is one which accomplishes total conversion of mass -- that is, it must blast every single atom of matter into raging energy -- and no kind of rocket could do that without burning itself up. You'd just blow off the ship's tail. Such a blast wouldn't kick you much closer to lightspeed, either, even if your ship's crew could survive it. My calculations show that a 10-lightyear trip by this method would still take maybe 9 years, shiptime.

That's why Hubbard's ship (and the one Van Vogt had in FAR CENTAURUS) won't do for travel-approaching-light-speed. Both had "converters" turning matter into energy for their propulsion-drive, and this is strictly limited by the amount of conversion those "converters" can stand. It isn't enough. It won't get you close enough to light-speed to make time shrink enough to do an interstellar hop comfortably.

Of course, this means "hyperspace" or faster-than-light travel are out of the question, too, even if they were possible; you couldn't generate the power required to get even close to 'em.

Another suggestion has been kicked around, so far as a fuel problem exists here -- fantastic power requirements cause fantastic fuel requirements, y'see. Space isn't an empty vacuum; it's full of hydrogen and helium atoms and cosmic dust and suchlike debris, all thinly spread. So it's been suggested the ship could scoop in that flotsam and burn it as fuel. However, it would need an awfully big scoop if this were done mechanically; a better method would be for the ship to generate a powerful magnetic field ahead of its path to pull in those space-floating particles. Once captured, they could be accelerated through a propulsion-drive mechanism for quite a good thrust.

But this method won't work, either. It's merely a further development of the ion-jet, which is a very low-powered gizmo at best. When you give ions a positive charge, accelerate 'em through a pipe festooned with rows of positively-charged electromagnets and let 'em shoot out the end -- why, they build up an equally powerful negative charge on that pipe's end. This negative charge slows the ions down as they emerge just as fast as you can speed 'em up, inside.

The ion-jets we've got work simply because a stream of uncharged stuff is injected into the ion-stream to soak up that negative charge. But this doesn't work too well -- only part of the negative charge gets soaked up, and all kinds of turbulence can bust loose unexpectedly -- so all we can get with this "plasma jet" is a very low-powered thrust. Furthermore, it can never work in an atmosphere where the air will soak up all those electromagnetic charges as fast as you can generate 'em.

Okay, now you know as much as I did, to begin with -- except for one other thing which I regard as a solid fact: men have never built any engine they didn't keep tinkering around with, trying to improve, especially if it doesn't work too well in the first place.

I've never liked that way of getting rid of the negative charge on the tail-end of an ion-jet. Why get rid of it? Why not trap it, pull it in, direct it someplace else where it'll do some good??

Like, if you're grabbing space-floating particles ahead of the ship with an electromagnetic field, that field's negatively-charged too, so how 'bout channeling this "tailpipe charge" up to the ship's nose where it'll help pull those particles in?

All fine and good, y'say, but how does one do this? Look, chum, when somebody figures out how it's done, we aren't gonna waste it on science-fiction. The thing we're exploring here is what has to be done if we want an interstellar drive that works.

And what I've discovered in the g2 laboratories is that this gizmo has technical limits. At first glance, it looks like a perpetual-motion thing -- you shoot ions out the tail, developing negative charge which you channel up to the nose, where it pulls in more space-floating stuff for ions to be shot out the tail (it's ionized in the process) and the faster you goose it, the more powerful it gets. But it's technically impossible to "channel" hot

electromagnetic fields around this way with more than about 25% efficiency, and your ship's generators will have to supply the other 75% of the power to make this system work at all. At which point, I took another hard look at this gizmo and let out a roaring belly laugh.

So you need total conversion of mass to approach lightspeed, do you? Well, what about an interstellar drive where your ship only has to supply three-fourths of the power?

Yep, that does bring the power requirements down to where we can handle 'em. But there's another problem: you get that ship approaching lightspeed and the space-floating stuff it hauls in will become very rough stuff to handle! In fact, its impact on the ship could cause some conversion of mass. It's like being on the receiving end of a very big and awful bevatron.

I found you'd have to turn the ship's hull into an engine. That's when I designed the fat, li'l teardrop starships you've been seeing in g2. When it pulls in the space-floating stuff, y'see, it does not suck that stuff into the ship. Instead, those particles are pulled down behind the ship's fat, li'l tail. The electromagnetic field that hauls 'em in is generated from the ship's pointy nose; but the electromagnets that kick 'em off behind the ship are in the fat, round bottom. So where those hot particles converge, clash disruptively and get hurled away from the ship all happens behind it, not inside where it could blister the nice paintwork. (Of course, it's still a propulsion drive -- those particles become part of the ship's total mass the instant they're caught in its fields.)

Even at second glance, tho, it would seem that this gizmo won't work in an atmosphere any better than an ion-jet would. You'd still need giant liquid-fuel rockets to get you off a planet, or down on one. But wait, now -- if you put this little teardrop booster-unit inside a ramjet pipe, and squirt stuff into the air coming in the nose-hole, heck! you can change the atmosphere in there so it will react to the booster-unit. In short, we haven't just a mere interstellar drive here, tut-tut, what we've actually designed is a universal engine for all our needs!

Why, this thing'll work equally as well in interstellar space or on F.M. Busby's Electric Bicycle!!!

So there it is. It's not too complicated. Why hasn't anyone ever thought of it before? You'd think with all the stf pros who have technical training, somebody would've come up with this ten years ago! Why didn't they? Gads, when I first began talking about interstellar travel around here, various individuals were pointing out this "awful problem" allatime. Gibson, they'd say, you just haven't got any real basis for interstellar stf like there was with the old interplanetary stories -- we had The Rocket then, and we knew it worked; we knew interplanetary travel was coming! You haven't got that anymore, they'd say, and you can't have it until you've come up with an interstellar drive that'll really work!

So I repeat, there it is. So why'd nobody ever think of it???

The answer is shockingly simple. I know I've got the real answer, too; I've tested it. Nobody writing modern stf has really bothered to "invent" a workable interstellar drive for one very good reason: we don't need it!

That's not as crazy as it sounds, either. It's the strongest proof I've stumbled onto yet that modern stf isn't at all the same thing it was 25 years ago, that it should've changed to fit modern demands. The requirements for good stf today aren't at all the same as they were in 1938, yet most modern stf is being written for that market which ceased to exist almost twenty years ago. And, of course, it stinks.

Twenty-five years ago, we needed rockets. But not for interplanetary travel, specifically -- we weren't that sophisticated about it yet. We needed rockets for space travel, for Getting Off This Earth. That was the "crazy stuff" stf fans believed in, the thing other people scoffed at, the dream which even reknowned scientists flatly said was "impossible." They all said mankind was not going to Get Off This Earth, and that was that. They called us a bunch of nuts.

Well, we were -- and it made reading stf and being a faaan rather a lot of fun, too.

Anyway, the world of other people and reknowned scientists found out how wrong they were, the worst way. And well, so much for that crowd.

Today, this means we don't need a workable interstellar drive because we no longer need to prove to anybody (ourselves included) that Getting Off This Earth is really possible.

We don't even need it to prove that mankind is Going To The Stars. Today, when you mention anything about Man Going To The Stars, the public response isn't "How?" or "Pooh, that's impossible!" the way they reacted in 1938. Today, their response is "Why?"

That question isn't hard to answer -- but you'd never believe it to read most of today's stf. I can't think of anything today's stf tries harder to ignore, as if hoping it might go away. It seems these old, moss-back dirty pros are as bad about writing stf as these old, mossback dirty faaans are in talking about fandom. They always end up telling how good it was twenty years ago.

A conveniently recent example of this was provided by Isaac Asimov, shockingly enough, in his "Science" column in F&SF. I make no apologies for my treatment of Dr. Asimov here -- I've clunked tankards with Chevalier Asimov at too few conventions, but enough so Ike could spot me in a crowd anytime he wants to shoot back. But now, is it my fault if the guy writes his colyum like he hadn't had an original idea in twenty years?

It was in the April '63 issue of F&SF (Mike Deckinger has already called it "Avram Davidson's fanzine" so I won't) (in Ike's column entitled "Science: The Rigid Vacuum") page 52, that he began with:

"Probably the greatest dilemma facing the man who wants to write science fiction on the grand scale--and who is conscientious, too-- is that of squaring the existance of an interstellar society with the fact that travel at velocities greater than that of light in a vacuum (186.272 miles per second) is considered impossible."

Asimov proceeds to mention three ways out of that dilemma. The second one he described is E.E. Smith's use of "inertialess drive" with which, presumably, starships can travel at speeds many times faster than light; and Ike mentions a few of the fallacies in that idea. To me, it typifies the numerous unworkable interstellar drives stf has come up with -- Blish's "spindizzies" were another one.

The first "way out" method Ike mentioned, tho, was this:

"The most honest is to accept the limitation, as L. Sprague de Camp does, for instance, and to assume, instead, that travelers experience time-dilatation. That is, a trip that takes two weeks from their own standpoint may take twenty years from the standpoint of those at home."

---Which is what I've done, here. However, Ike doesn't mention that (a) Sprague never developed a workable interstellar drive for his starships, and (b) he isn't writing much stf now, either. Asimov's comment

on it was:

"This, of course, creates difficulties of plotting, and is therefore unpopular among writers lazier than Sprague (as, for instance, myself)."

(Of course, hell! But then he says):

"The most pedestrian solution is the one I use myself, which is to speak of 'hyperspace'."

From there, Ike switched off from interstellar travel to interstellar communications -- and just when he began to get interesting, he quit. He said he'd continue it in "a month or two" and he did. Two months later, in the June issue, he started all over again and worked up another angle to just where it was getting interesting and -- oh, well! If he ever gets as far as Dirac's equations I'll take it up; if not, I'll save it for some future rowrbazzle here on Cosmic (Cosmological?) Science Fiction.

Not only has Asimov never worked out an interstellar drive, tho -- he won't even observe the rules of the game, but resorts to the catch-phrase gimmick of the science-fantasy writer and simply says, "hyperspace" and just like that there he is at the next star! The truth is, he's never wanted to work out any interstellar drive. He's never felt any real need for it. But neither has the learned Doctor ever sat back and asked himself, "Well, hell's bells, why don't I need it?"

It's past time he did. It's time they all did.

What he did in the intervening month's column called "Science: Just Mooning Around" (May issue, page 100) he got out of Newton by way of a little table of the Solar System in an astronomy book. He found out that all the planets' satellites are mathematically where they ought to be except the Moon, and that Earth shouldn't have the Moon at all; and in fact the Moon isn't really a satellite circling around the Earth as any satellite should, really, but what happens is the Earth and Moon are both going around each other. In short, they are really two planets -- not a world and its moon, but two worlds. And Asimov wonders in print if anyone's ever noticed this before.

Well, maybe they haven't discovered it in quite this way, but I've seen references to "the Earth-Moon System" and even the term "biplanetary system" in prozines a good many years ago, somewhere or other. I don't recall that anyone did anything with it.

Asimov tried. He says about it: "Is it possible then, that there is an intermediate point between the situation of the massive planet, far distant from the Sun, which develops about a single core, with numerous satellites formed; and that of the small planet near the Sun which develops about a single core with no satellites. Can there be a boundary condition, so to speak, in which there is condensation about two major cores so that a double planet is formed?"

Whereupon he presents the unlikely prospect that most suns might have double-planets pretty much alike, both with seas, continents, air and life -- this, mind you, when the one hand O1' Mother Nature almost never deals is two-of-a-kind. But what Ike's done here is grab onto a safe assumption, not sticking his neck out. Suppose he'd gone on to ask, "What if this isn't possible, tho? What if the Moon shouldn't ought to be where it is, at all?"

Oh ho, Papa Bear -- and who's been playing around with our Solar System?

That's an old science-fiction theme, and one which most readily suggests itself. If the Moon has been moved to where it is, now -- by whom, and why? Well, I can play Asimov's numbers game, too; and if he'll take the Moon from where it is, and put it into an orbit out beyond Pluto, he'll come up with some very interesting results. Not only will the Moon's mass be greater by addition of some frozen methane and whatnot (which got boiled off when it was moved Sunward) but, since all bodies in the Solar System affect each other, this has some interesting results with the Bode-Titus Rule as well.

First, the orbits of every planet will be altered slightly. Second, the three planets whose orbits will be affected most are Pluto, a former planet where the Asteroid Belt now is (d'you suppose it couldn't stand the strain?) and -- the planet Earth. Without the Moon's accompanying mass, Earth would be in an orbit somewhat closer to the Sun and she'd have a slower period of rotation. (You'll have to brush up on your Gamow for this; and what joggles the Bode-Titus Rule is that the A.U. gets shrunk.) Furthermore, the Earth would be a little too hot for water to form. At least, I think she would. Either that, or the whole planet would be a steaming, stinking swamp fit for little more than fern-plants, fishes and reptiles with maybe a bug or so thrown in.

Again, now -- who has been playing around in our Solar System?

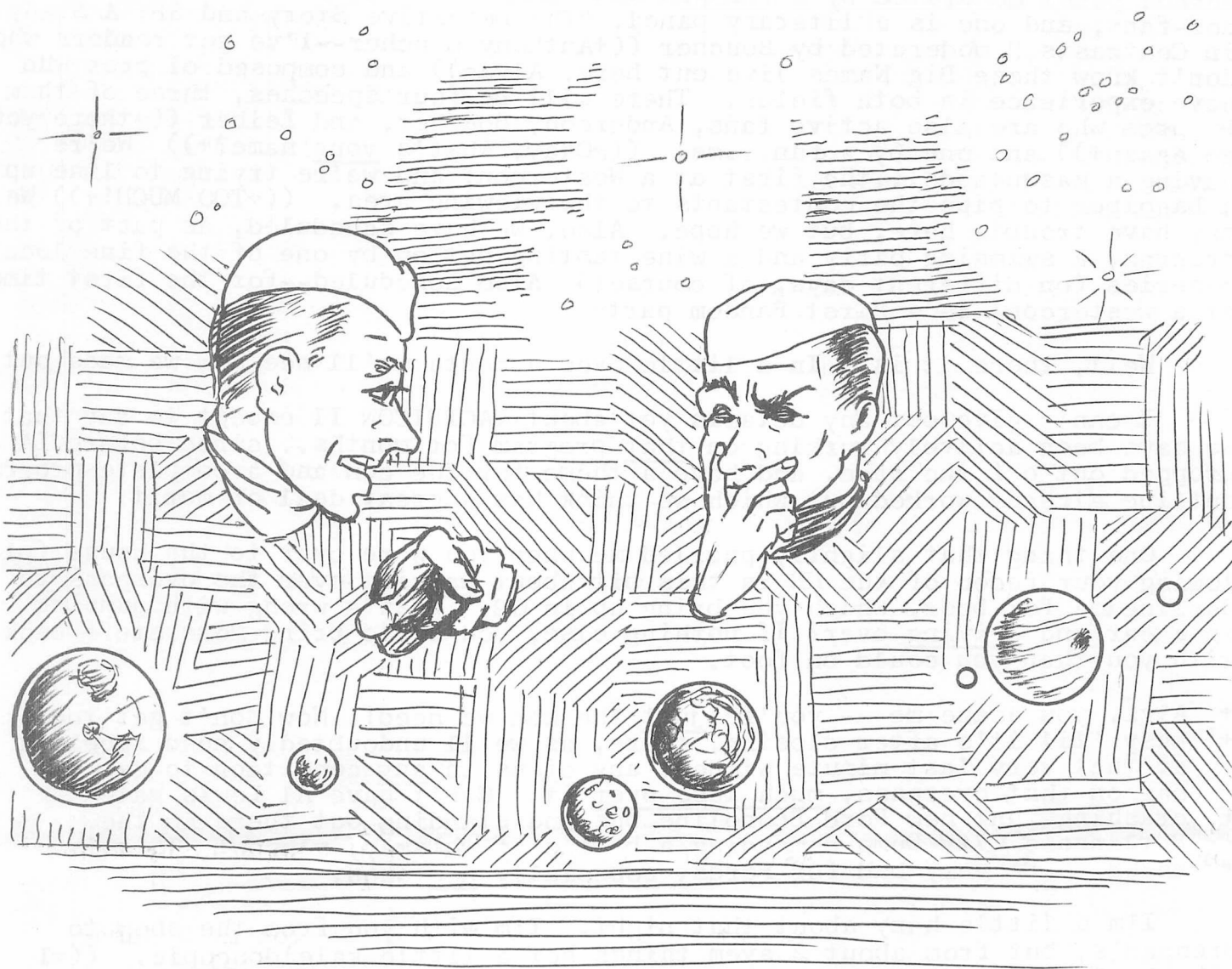
(There's a fallacy here, I admit. It's a big one. I've arbitrarily juggled the physical&mathematical components to make 'em equate the way I want 'em to. Well, but suppose they did?)

There's another way to look at it, too. You can subtract the Moon completely out of the Solar System -- be rather amusing, y'know, if we got out to the Moon, found an elevator shaft, and it turns out inside she's somebody's abandoned interstellar ship -- but this arrangement does nothing for Pluto or creating the Asteroid Belt or adjusting the Bode-Titus Rule. No, it's much more feasible to assume those Galactic Engineers didn't like the Earth's climate where she was, and took steps to move her where she is -- by moving the Moon -- without doing the Earth's crust too much damage in the process, tho it looks like the Moon got a pretty rough deal.

But this theme has been made rather unpopular due to the absurd lengths to which it's been taken by the Flying Saucer crowd. (Galactic Engineers, indeed! When the Solar System's such an insignificant backwater place, even in our local stellar neighborhood!) But let's see this theme for what it really is: f'rinstance, it's only something like twenty-five thousand years old! Prehistoric man was seeing all-powerful demigods in every bush, tree and rock Ol' Mother Nature put in his path. With precious little understanding of the facts before us here, that's exactly what we're doing now. We're creating demigods.

When we get out to the stars, ourselves, it's certain we'll find other systems of planets -- but it is not at all certain that we'll find tidy, little Earthtype planets just waiting everywhere for us to move in. We'll have to make 'em Earthtype. (Now, there's a real job for Blish's Oakie Cities -- which is correctly spelled "Okie" and anyhow they aren't, only James keeps thinking up such piddling, little backdoor jobs for them!) It won't be easy; but it wasn't easy to learn how to use fire, either. Man might never have learned to use fire if he hadn't seen fire, or invented the wheel if he hadn't seen a boulder roll down a hill -- and one of the first things he had to learn was that no demigod made the fire or moved the boulder!

Furthermore, Ol' Mother Nature can take a few thousand years to get a boulder rolling if she wants to -- or a half-billion years to make an Earth-type planet. But in doing so, she's worked all the bugs out of the trick.



If you see how it's done, then there's no need to take so long. But we can go farther than that. Modern technology's reached the stage where we can just about duplicate every process known to nature -- there's just one problem: we've begun accumulating so much knowledge, now, nobody can keep track of it all!

Well, this won't be at all acceptable to the white-smocked bhoys in the laboratories -- but why strain our limited, little minds that way? If there's anyone who has explored all those processes and knows which ones work best, it's Ol' Mother Nature. All we really gotta do is go find where all her laboratories are, and plagiarize! (Analogous to modern research methods, you'd need a tremendous mass of knowledge to begin finding out, all by yourself, about boulders rolling downhill -- like, first you'd make the boulder!)

So why go to the stars? There's one good reason, right up Asimov's alley!

That's an answer for Isaac Asimov, but it only hints at the answer for all of us. It doesn't explain why Ike got off the track, or why modern stf takes on this interstellar frontier with 25-year-old space opera themes and gets nowhere, nor the "difficulties of plotting" really honest interstellar stf. So let's go back to that interstellar drive, the engine nobody thought of.

(Concluded on page 16)

LOX CONT'D?

sercon panel moderated by a fan-pro and composed of a mixture of fans and non-fans; and one is a literary panel, "The Detective Story and SF: A Study in Contrasts," moderated by Boucher ((+Anthony Boucher--I've got readers who don't know these Big Names live out here, Alva+)) and composed of pros who have experience in both fields. There will be four speeches, three of them by pros who are also active fans, Anderson, Boucher, and Leiber ((+there you go again+)) and one by a fan...me. ((+Okay, what's your name?+)) We're having a masquerade...the first at a Westercon; and we're trying to line up a bagpiper to pipe the contestants to the viewing area. ((+TOO MUCH!+)) We may have trouble here, but we hope. Also, we have scheduled, as part of the program, a swimming party and a wine tasting put on by one of the fine local wineries (on different days, of course!) Also scheduled--for the first time at a westercon--is a First Fandom party.

Well, there it is. In a little over a month we'll see how we made out.

I can't give out any details yet about PACIFICON II except to say that we have been actively working on that program for months...since before LA dropped out of the race, and have a theme for the con and a complete program outline already worked out which we think has a great deal of merit.

One thing that slightly puzzled me when you were over to the house following your recon of the HH is this bit about walking over the overpass to Burlingame for booz, which you bring up in G2. What's wrong with jumping in a car and driving over? If nothing else, you could bring more stuff back with you than you could on foot.

+ Alva, you amaze me -- you're just the man we need! Now don't get too busy 'til it's after closing, there, as we'll undoubtedly need supplies at that very last minute without any of us in any condition to get a car on that overpass, much less over it. Can't have Al Lewis gate-crashing that new Ford Econoline bus and standing out there in the Burlingame City Dump demanding a bottle of whiskey, y'know! This is known to be very bad for Fords, especially new ones.

I'm a little hazy about that night. I'm with you from the show to Brennan's, but from about 2 ayem things get a little kaleidoscopic. ((+I take back what I just said.+)) I remember that when Brennan's closed its doors on us Boucher invited everyone to continue partying at his place, and I remember standing around talking deep and serious talk with sundry owly-eyed friends and lapping up Tony's inexhaustible supply of liquor, but I can't for the life of me remember if you and Robbie went home earlier or ended up there with the rest of us. At any rate, it was one hell of a fine day...all twenty-four hours of it. It was a real pleasure to have you and Robbie over for the afternoon...we do it too seldom. ((+It's a real pleasure to have you changing the subject here and not badgering me about how soon we went home, too.+))

I like the legalength G2, and you probably can guess why, too. What with your long letter section with your interjected comments it reminds me very forcibly of VOM of revered memory. Although many fanzines today have fair sized letter sections, there are none that approach VOM in its letter printing policy...G2 comes the closest to it, though. I would like to see you expand the letter section and print the better letters in their entirety. You have enough savvy to make this type of letter policy interesting.

+ I've been fighting a losing battle with myself about this ever since I started g2. Okay, let's give it a try.

When are you going to write something really controversial ("Thieves, Whores...") again so I can tee off on you?

+ Oh, I've decided to let the LASFS mob report on the Westercon! But all right, maybe nextish here....

ROBERT BLOCH, [REDACTED].., Studio City:

Very glad to get the new guidebook issue of G-2 with details on the consites. I'm looking forward to the Leamington, even without snooker-parlors. ((+Well, our tastes do change as we grow older...+)) Was looking forward to Hyatt House, but that seems impossible now. Was doing a shocker for William Castle at Columbia but somehow Columbia execs in NY got hold of my screenplay and slipped it to Joan Crawford, who hollered for us to come to NY because she wanted to do the film. So we did and now I'm revising, extending the length, because this has become an "A" picture. Anyway, she'll arrive for rehearsals on STRAIT-JACKET (as I poetically call it) on July 3rd and I'll be off and running on the production. However, intend to get up your way before the year is out anyhow -- come fall, I intend to lay off and rest.

+ Tsk. Me and Tucker can remember when this guy wrote bheer commercials in Milwaukee, and all he ever got for it was a ride on the wagon every now 'n' then. We're just waiting until he gets rich enough for both of us before we remind him about that, tho, and all the stuff he had published in faaanzines. Ghod, was that stuff hot! (Can you imagine the Willises glee if John Berry won the Derby 'stakes?)

FRANK WILLIMCZYK, 447 10th Ave., New York 1 NY:

Enclosed is a quarter for some more g2's. As always, I disagree with about 90% of what you have to say, but I want to keep on getting g2 -- about the only dull moments I've encountered in your fanzine were those spent on reading stuff devoted to TAFF -- and that's not really prejudicial. I just happen not to be very much interested in Fan Politics, and I'm happy to see that you're back to your old gadfly self. And thanks for not dropping me from your mailing list when I was delinquent in payment. I like g2, and as I've said before, it's one of the bargains in the fanzine world.

+ Maybe I should raise those sub-rates.

HARRY WARNER, JR., 423 Summit Ave., Hagerstown, Md.:

Just a few hours ago I cleared up my conscience slightly by sending off to you and other non-FAPAns the February and May Horizons. The February issue came out while I was hors de fanac ((+which end?+)) and I didn't get around to sending it until it seemed simpler to wait for another and give the issues some companionship on the way. I wasted a quarter-hour at the post office over the one envelope that goes to Canada. The clerk was sure it could go for a lower rate than the United States envelopes, I didn't want to fool around over a trifling amount, but he wouldn't provide me with a stamp for that envelope until he'd researched and discovered that it would cost me two cents less.

I still prefer to think of Buck Rogers flying belts as the means for transportation in the future. Probably we'd have to save those plastic bags that dry cleaning gets returned in and cut holes for breathing in order to go whizzing through space as Buck and Wilma used to do without getting all dirty for lack of a windshield. ((+Know how to spot a happy smiling motorcycle cop? By the bugs in his teeth.+)) Getting into a metal contraption to go somewhere is so customary that we think of it automatically when thinking about travel in the future. But whatever propulsion and power sources you figure out, you run into approximately the same problems with future vehicles as you now possess with automobiles. Is it unlikely that there'll be another breakthrough for a power source in the next few decades to apply to transportation as the successor to steam and the internal combustion engine? And every new source of power that becomes practical seems to make it possible to go around with less monumental contraptions, so I'm assuming without any real scientific reason for the belief that the next source will be compact enough to give something like flying belts.

+ You're liable to have a real comedown if you run outta gas! But the

+ only real flaw in your belief, Harry, is that you've got the wrong planet. Remember the "basic training" stf movies which have men in spacesuits leapfrogging around on the Moon's surface, explaining in 20-foot jumps how a 150-pound man weighs only 25 pounds out there? Something else which seems to've occurred to nobody is that a 150-lb. human torso flying around in the air like Buck Rogers has what aeronautics calls a "lifting area" of about 3 square feet. Well, some few decades from now when we've got cities underground or under domes on the Moon, maybe big as Pittsburgh or Baltimore with lovely towers and lots of pleasant airspace inside, nobody's gonna leapfrog around inside those cities! A man's moon-weight and his "lifting area" gives him a "wing loading" of just over 8 lbs./sq.ft., which compares quite well to small aircraft on Earth -- but his legs don't quite equal the power of a 65-90 horsepower airplane engine; so anybody who tries any leapfrogging will "stall out" in the middle of their jump and come down on the back of their neck. ## If the guy strapped a little 4-foot wing on his back, tho (make the wing hollow to hold fuel, and mount small jets on the wingtips) he'll have powered flight and it'll increase his "lifting area" to give him a "wing loading" of around some 3 lbs./sq.ft., which is comparable to unpowered gliders on Earth, with a stalling speed of 15 mph. And that's 15 mph airspeed, mind you; presumably those Moon cities will need constant air circulation, so there'll be some nice 10-mph "winds" to head into for landings -- groundspeed = 5 mph. He can also glide down safely if his jets quit!

In order to do nothing that might cause harm to G2 I won't comment much on TAFF this time. ((+If you can't lick 'em, join 'em.+) Besides, I can't remember what I said in that last letter, leaving me quite apt to contradict myself. But I can't resist the remark that hardly anyone is paying attention to the thing that seems to me to be the key to the whole situation: the report by the successful candidate. I think that the responsibility of publishing it is a psychological barrier to many potential candidates, and I feel that a TAFF report published in a generally available fanzine or fanzines is the most potent way of stirring up interest in the organization. (Reports published as separate volumes instead of as fanzine serials don't get as much circulation.) Maybe the TAFF administrators could become the stencilers and publishers for the report; this would relieve the successful candidate of half of the work for a year or longer after his return. ((+Who cares for a report by some guy they never knew? I'm wondering how many fans are satisfied with those 500-word "Nominations" on the backside of this year's TAFF Ballot and nothing more.+))

The letter section was exceptionally good this time. Lynn Hickman, incidentally, could have become a Hagerstonian if this had worked out a little different. He's been studying to become a Sears Roebuck store manager, I understand, and just about the time he was ready for assignment, the manager of the Hagerstown store got fired for taking too much interest in the only thing that Sears Roebuck doesn't sell. I imagine that they didn't want to start a new employe who had never done anything wrong off in the worst possible way, so they didn't send Lynn to Hagerstown. // Lewis Grant's remarks on the space station sound as reasonable as anything I've ever read on this topic. Maybe I need an indoctrination in equations, but I've never been able to understand the logic behind the space station system of getting men into space. I know all those encouraging comparisons between how easy it would be to launch off from a space station in orbit and a takeoff from earth and so on. But it still takes more power and money to ferry something from earth to a space station and then start it going again into outer space from there, even if months or years elapse between the first and second steps to make it appear that you're getting something for nothing.

+ If you abort a shot for a direct Earth-to-Moon trip, you gotta close down the whole shebang and start all over next month. Abort a shot at an orbiting space station and you get another chance in a few hours; somewhat the same goes for station-to-Moon shots. Saves money on the ground, and those ground installations are what really cost. It's worth it.

I hadn't heard about the watering of gasoline at the smaller stations. I usually patronize the bigger ones in this area for the simple reason that the operators of the little rural ones will usually let you sit there ten minutes or so until they attend to you, if they don't recognize your car. My only strategy with regard to the purchase of gasoline is to try to buy it in the early morning hours. I read somewhere that you get slightly more for your money that way because the gasoline has contracted slightly in the cool underground tanks after the hours of darkness; this applies to summer months, of course. It doesn't sound particularly logical to me because I can't see that there is any more energy in a given assemblage of molecules, whether they're tightly packed or slightly scattered in a loose array. But some people profess religion just to be on the safe side in case there is a hereafter and I buy gasoline shortly after dawn for much the same reason.

- + Gas contracted in a storage tank will expand inside your car's tank;
- + so the gas pump indicates you got 6 gallons and the guy charges you
- + for 6 gallons, but you drive off with maybe $6\frac{1}{4}$ gallons in your tank.
- + Don't do it in any wet season, tho -- storage tanks also have water
- + condensation in wet weather especially, and it would be very nice of
- + you to show up early in the morning and drain off that water for 'em.
- + They'll charge you gas prices for it, of course!

Now that I have those copies of Horizons off my mind, I hope to turn full attention to another mighty obligation, that of buying a new type-writer ribbon. You can tell those emergency cones in your eyeballs to retract and rest up now.

ROBERT P. BROWN, Les Halles Centrales, Saigon:

You folks get one of the four cards sent from here and two of them go home!

Just as hot & sticky as it was three years ago. In the future will be doing what I did in the past, stay aboard! Hottest ((+something here looks like CALORE+)) part of the run so far. Next stop should be somewhat cooler -- Okinawa being several degrees further north.

- + You got took for a bit of fine, Far East type "squeeze" here, too.
- + Your postcard carefully labeled "Via Air Mail" arrived with just one
- + stamp affixed, the one that got nicked by the cancellation stamp, and
- + a nice wet outline where the other stamp got steamed off over some
- + postal clerk's teapot.

EDWARD WOOD, 160 2nd St., Idaho Falls, Idaho:

Nineteen years since D-day! Who would have thought this is what we have. ((+Don't knock it, man; I fought for this!+))

I'm intending to go to the Westercon during the July 4th holidays. I was going to bring a bottle of Vat 69 for you both but I'm fighting with the state of Idaho (the bastards clipped me for over \$550 state income tax and this year it is more) and I think liquor is cheaper in California. So...o if you'll buy a bottle I'll remit at the Hyatt House. OK? ((+OK.+)) So it isn't sentimental but when was I ever.

Read the letter by Ted Engel with great interest. Too few people remember that he compiled the list of science fiction in the early Gernsback magazines which was distributed at the Chicago World Convention of 1952 as "Evolution of Modern Science Fiction by Hugo Gernsback". In a sense it is evidence of the failure of fandom that so many dispersive elements are present in the field. I'm content to read, study and enjoy science fiction. But the new fan, poor soul, where can he go to learn about science fiction? ((+Might try Lin Carter's SPECTRUM if it were published more often, perhaps?+)) The reference material is scarce and expensive. In fan

magazines, where by rights he might expect to find guidances, he finds chatter, interesting at times but all too often so utterly aimless that one wonders why this diarrhea of the typewriter continues. Some people have accused me of making a chore out of fandom. That is one way of looking at it. I look at it that one enjoys a hobby more when one puts a modicum of effort into it. I suppose "we glorious few" should be beaten to death with old copies of QUANDRY to even mention that there might be something intrinsically interesting in science fiction, that it might even be worthy of serious concentrated study. Too bad all these so-called fans don't unite under their banner of "National Federation of Every God-damned Thing But Fantasy Fans" so that intelligent people can avoid them.

+ Tut! Next month, Ed, I'm gonna show you how to be a real critic of
+ fandom. It's something I've been intending to write for a long time...

It is my opinion that TAFF winners should be guests and not beggars. Let's get enough money for them that they can travel in style and enjoy themselves as they wish rather than be tied to certain groups of fans. There is something screwy with an enterprise that puts a winner into debt. Money won't solve all of TAFF's problems but it ought to ease some of them.

+ Oghod, is this Ed Wood agreeing with Buck Coulson? So there is a money
+ problem, hah? Chum, when TAFF is ever turned into something that's like
+ real fun to more than a small clique of fandom (albeit they're BNFs) why
+ then it will cease to have a money problem. It'll get all the money it
+ needs, then -- and quite possibly, not until then. Money problem, pfui.
+
+ Dammit, your statements advocating an increase in the TAFF fund mean
+ you're six months behind me on this thing! When you gonna catch up and
+ start discussing how we can raise it? Once you get there, maybe you'll
+ figure out for yourself how TAFF needs a troubleshooter and we can't do
+ much until the '64 Pacificon and the '65 London Con -- and not then,
+ either, if we aren't ready! But TAFF is fandom's baby, not mine....

BILL PLOTT, P.O. Box 654, Opelika, Alabama:

Enjoyed your report on the Westercon and Worldcon sites. You stirred up my con fever again -- the slightest mention of cons has done that the past few months, probably because I stand a good chance of making the Discon this year. I really envy you people to a certain extent. I mean, you are rather lucky to be in an area where you can drive a few miles and there is the con. Me, I have to wait and make one every now and then and settle for fan visits in between. I wonder who relishes a con most: You people who attend them regularly or those of us who can only make one every two or three years?

+ Welcome to the club -- we haven't been to a regional con since '61 or
+ a World Con since '58. If I sounded like a "regular" it's only becuz
+ I've been around so damned long.

Re Lin Carter's letter: I've never been in a position to be in club fandom for geographical reasons, of course. Therefore, when I got into fandom I went gung ho for fanzines. Now I pub a regular apa zine (SPORADIC in SPPA) every three months and a genzine irregularly. Yet, I'm really less active than I was when I entered fandom. That really isn't saying much is it? ((+Not for apas, no.+.)) Fandom is a hobby, but it's a helluva lot of fun -- and some of the people I've met in fandom are now very close friends of mine outside of fandom as well as within. I really think it's good that there are as many individual interest groups in fandom -- it prevents stagnation.

Do you realize that this is the closest thing to an honest-to-Ghu loc I've ever written on G²? Enclosed is money for a sub extension.

ROBERT P. BROWN, Tea House August Moon, Okinawa:

Here's another card. Last time here was about February 1952. Things have changed a bit even around the docking area. Another quick turnaround here, so won't get a chance to look things over. One of the Mates who was here a few months ago says there have been quite a few changes since '52.

+ Y'know, this guy may become "the fan who travelled farthest" at the '64
+ World Con in Oakland! Dunno when he'll be Stateside again, tho. We're
+ running out of space, here, but I'd like to have at least a chunk out of
+ one more LoC; it's from---

MISHA MCQUOWN, #2954, FSU - Tallahassee, Fla.:

As usual, I find it very hard to comment on G₂. I'm in no position to comment on TAFP, and I'm not in a position to get very interested. . . . At the moment, I'm in 'Dark of the Moon,' a fan-type play if ever there was one; having to do with witch-boys, spells, conjur-folk, and blighted love. Something that I think Sturgeon might have written better than it was done, if he'd happened to come across the version of 'Barbara Allen' that the authors did. . . . In form, it is almost a verse-play, with many choral lines, and a strong flavour of metre. The strong dramatic scenes all build toward a violent climax, alternating with a contrast in the scenes between. I wish everybody could see it, I think it would be generally enjoyed to the hilt.

Aside from that, the work involved is deadly - we rehearse an average of three hours a night, six days a week. . . . The first play I was ever in, 'Roman Candle,' was a rather fannish thing, too, involving ESP and such-like.

I liked your articles on the air-car fallacy, Joe. I wonder why people assume that these new ideas automatically solve all the old problems? . . . My roommate, a non-fan, got a big kick, as did I, out of Terry Jeeves' article/letter, on the airplane propellers, or air screws, as he might more likely call them.

Another beautiful fantasy piece I saw this weekend, Virginia Sweet's production of 'The Wizard of Oz,' featuring old-time fan Shelby Vick in the title role. It was a beautiful piece of production, people, and any resemblance to it and the Baum story is pure hearsay. For instance, the hip-talking Scarecrow, and the erudite Tin Woodsman. It was, of course, a vehicle for the dance numbers by Virginia's students. (She runs a dance studio, in case you were wondering.) . . . We had an audience of 2,300, at that, all profits to the American Cancer Society.

+ Apologies to Mike for the vast liberties I've taken with his letter --
+ his run of the plot of 'Dark of the Moon' I liked tremendously, but we
+ have too few theater tramps reading g₂. // We also heard from DICK
= SCHULTZ, yessir we did, twice in fact. Twice he complimented us on
+ our family coat of arms, and twice he related his own family's history
+ -- the 2nd version was rather more complete; and twice he sent us a
+ sub renewal. Your sub's now extended to Volume 3 Number 3 unless you
+ want some stamps back, Richard! // And this ends it for this month,
+ with quite a nice bit of response from you people who usually never
+ or seldom ever send us a LoC. (ROY TACKETT, I'm still saving your
+ last LoC; see next month's "Noise"...) ??STEVE & VIRGINIA SCHULTHEIS
+ please note: we're sending this subscription year of g₂ (Vol. 2, Nos.
+ 1 - 12) to UCLA Special Collections as per usual -- congrats, bon
+ voyage and suchlike; we thot it terrific that it's happening to you
+ two kids! (Anybody here who doesn't read STARSPINKLE?)?? My somewhat
+ dubious calculations show that, at last report, Sir Ronel was within
+ ten bucks of having the \$500 TAFP Fund and IASFS (Pelz's mob?) did it.
+ Anything else I've forgotten? Oh well, it's too late now---

It isn't needed anymore.

It's just another kind of rocket, and rockets we already got.

It doesn't answer the real question: why go to the stars? You can't answer that question just with some kind of gizmo. You've got to rephrase it, thusly: what is Man?

That's an intelligent question, which some might think would make it a tough one -- it needs an intelligent answer.

I know one kind of answer: for something like two and three-quarter million years, Man didn't till the soil or build cities or pay taxes or give in to racial/religious prejudices against other men. Man was a hunter. I don't think the past twenty-five thousand years have really changed him much.

I think that's a damned good answer.

* * * * *
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