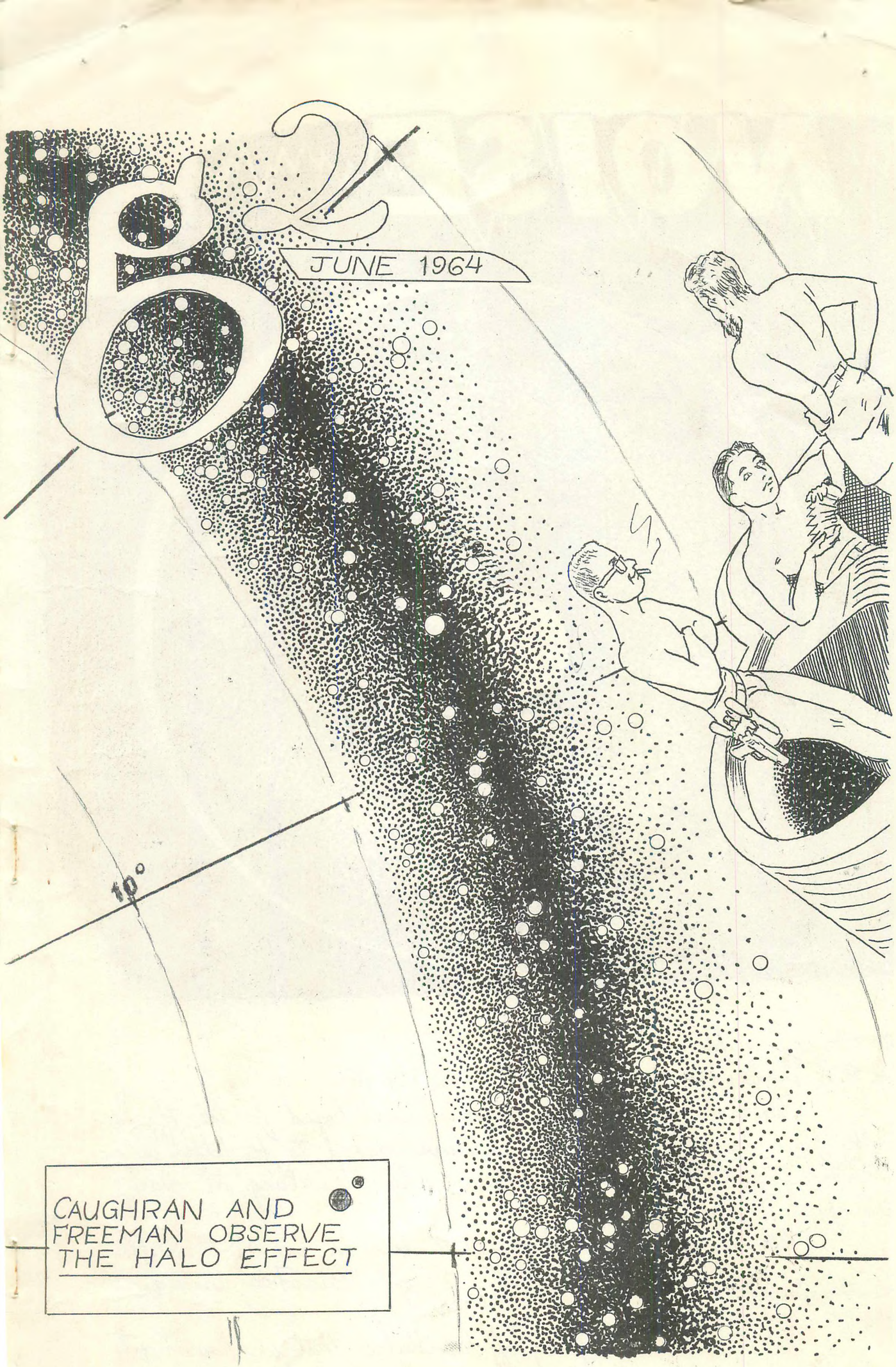
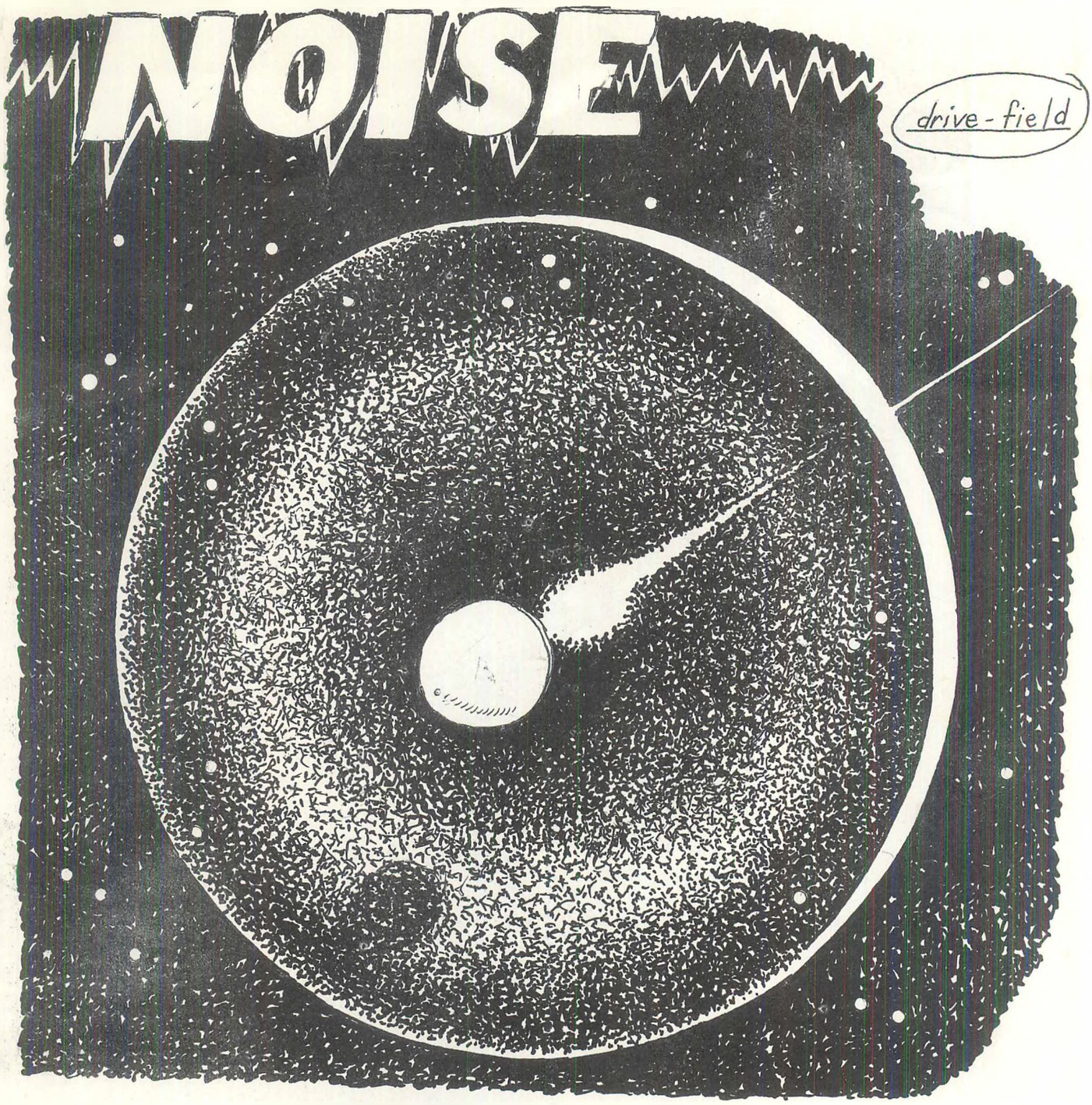
62

JUNE 1964



CAUGHRAN AND FREEMAN OBSERVE THE HALO EFFECT



257th day - shiftime
H. M. S. Indecentaminable - enroute Home Cluster

Several months back, when we were bound for the Hyades, both Jim Caughran and Colin Freeman asked to be filled in on the "Halo Effect" we've always seen when travelling at nearly the speed of light.

This is something that should've been in an AS-F article 15 years ago !!! Well, it wasn't. We got "Dianetics" instead, when we got anything....

So it's a basic piece of knowledge that we haven't got. And here I've got to tell about it in a fanzine!

But enough of this bitching&moaning; let's get on with the business. Colin and Jim had different ways of asking the same thing, first off. Colin's query went this way:

> "I've news for you kids (maybe not). You say you are keeping things as simple as possible in order to match the negligible education of your readers. Well, here's one reader whose education is less than negligible. I've never heard of this celestial halo at near lightspeed, much less understand why it should be. Any chance of a simple explanation?"

One thing I've been learning as I've dug into this stuff is that a lot of highly educated eggheads are incredibly poor writers, even for their own select, little crowd. Much of the misunderstanding, confusion and seeming complexity attributed to Relativity is directly attributable to the damfool way it's been written up! Perhaps I can show what I mean. But let's have Jim's query on record here, too:

> "That effect of not seeing the stars in front of you wouldn't happen -- stars radiate at all frequencies (see Planck curve or black-body radiation or the like somewhere), and peak at certain frequencies. Those which radiate most at red frequencies are red, those in the radio spectrum are radio, etc. And if you're moving, you see radio frequencies doppplered down to light - maybe different stars, maybe the visible ones have disappeared, but you still see things."

I could answer Jim the same way I did lastish on the "clock paradox" - where I told him what reference to look up, where to find it, and bid him go see for himself. If he did, he knows that was a minor point not worth going into here, caused more by misconceptions of Relativity than by conclusions Einstein actually reached. Maybe we could deal with it later, but not now.

In asking about the "halo effect" however, both Jim and Colin have unsuspectingly pinpointed the very core of the subject. If I can't answer them, then I don't understand Einsteinian physics. I can't tell what it is or why it came about.

The one and only time I've ever seen the "halo effect" mentioned was in a monthly colyum being written by Werhner von Braun for, of all mags, POPULAR SCIENCE. It was in the July '63 issue. And what von Braun said about the "halo effect" was this: if you hop off from the Solar System on an interstellar jaunt, using continuous 1-g acceleration to get up to almost the speed of light, the frequency of the sun's peak radiation behind you will move from the visible spectrum into the infrared at about 30% lightspeed. One month later, says von Braun, the destination star ahead of you will become invisible -- its peak radiance shifting into the ultraviolet.

So far, so good -- and Jim, you almost told why. Such light frequencies are radiated outward in waves, the distance between "peaks" or "lows" in each wave measured as wavelengths, travelling at much less than the speed of light. They're like the rings going out from where a stone's tossed in a pool. To a jetty sticking out from the shore, these wave-rings arrive at a rather uniform frequency: fast, little rings have short wavelengths like UV light; big, slow rings have long wavelengths like infrared light.

But they'll strike at entirely different rates against a boat moving across that pool. If the stone landed ahead of the boat, it moves into into those wave-rings so they strike it more rapidly -- shifting the whole spectrum more toward shortwave reception. If the stone landed behind the boat, it's moving away with the wave-rings and so they pass it more slowly -- which is how light shifts toward infrared, coming from stars that are moving away from us.

And naturally, on such an interstellar jaunt, the sun behind you and the destination star ahead are the first to be affected by this "shift" in the frequencies of such waves travelling through light. And that's all the color spectrum is, really -- waves travelling thru light. So those two stars become invisible to human sight. Then, as your speed keeps climbing, von Braun claims that two circular blind spots will begin to grow where the sun and destination star used to be beheld. And between these blind spots, gradually growing larger, the rest of the

starry firmament will assume a multicolored array in concentric circles beginning with a band of blue stars around the blind spot ahead, going through bands of green, yellow, white, yellow-orange, orange and red to the blind spot aft.

Now, Jim Caughran wasn't arguing with that -- it substantiates his statements about the Doppler effect, the shift in wavelengths from or to a moving body. But those "Blind Spots" seem wrong. There are stars in the invisible ends of the spectrum which ought then to become visible where those blind spots are!

On a basis of Newtonian physics, I would agree. But while digging into this stuff, I've come across casual remarks that Newtonian physics can go only so far ... that you must use Einsteinian physics to get any farther ... and I've begun to see what that means.

There's something else operating in those blind spots.

Due to "relativistic" effects, says von Braun, the blind spot you're heading for grows to an opening angle of only 43 degrees ... and after you exceed 74% of lightspeed, it <u>begins to contract</u>.

But the blind spot behind you keeps on growing and growing and growing. So as you get very close to lightspeed, the visible portion of the stars will become an ever-narrowing rainbow around the point your ship's headed for.

Jim: go look up the Michelson-Morley experiment.

Colin: this now-famous experiment was simply two chaps trying to get a more accurate measurement of the Earth's orbital speed round the sun. They thought the Earth's speed would be added to the velocity of light from some distant star as she moved toward it on one side of the Sun, then subtracted as she moved away from it on the other side of the Sun.

The result they got was: zero! Both measurements gave them exactly the speed of light, neither more nor less. It was just as if the Earth were <u>standing still</u>.

D'you see what this means? If you're on a starship moving away to some other star from the Solar System, then the light from the Sun and the light from your destination star will both reach you at lightspeed <u>no matter how fast you go</u>.

If you want to argue, all I can say is go look it up.

Y'see, <u>this</u> is what Einstein was trying to rationalize! It's what got him all stirred up, to begin with. What he concluded, basically, was that things like light and gravity are really instantaneous (as Newtonian physics require) and that it's <u>Time</u> that travels across space at 186,000⁴ miles per second. And Time moves at that same speed in all directions, for all things whether they're moving or at rest.

So if you're travelling at nearly the <u>speed of Time</u>, none of the physical processes in your ship can do much of anything <u>but</u> travel -- so all those processes are "stretched out" for you, so 10 years may seem like only a fortnight. Even the movement of your conscious thought is affected, much less your ship's clock!

So imagine how your instruments would detect those shifting wavelengths in starlight. At such speed, really short wavelengths would become so short that a whole, new band might be added to the known spectrum. Shades of Skylark III! But the only wavelength your gizmos could detect, the closer you got to lightspeed, would be the longer ones that <u>last long enough</u> to register on your detectors -- so no wonder the blind spot behind you seems to keep growing larger!

D'you see why I compared Relativity to the old s-f theme of When Time Stood Still?

I want to know if you and other readers can comprehend this simple a thing -- if I'm saying it so you grasp the idea easily. Because I think we may have something powerful here, a real tiger by the tail. Gentlemen, this Relativity stuff is simple. If we can <u>make</u> it simple, bring it into science-f[illegible] that way, use it as a very useful tool —

gentlemen, we can be head, shoulders and armpits above everyone else on Earth. (Just as we used to be, mind you, when the top scientists were saying space travel and atomic energy were all a lot of bilge -- and anyone who thinks they didn't should go look that up!)

I think it could be done. When I discussed Relativity here, in the April issue, I did not merely make a flat statement that nothing can travel faster than light; I showed what we would observe, graphically, if anything did travel faster than light. I did not "prove" Relativity to absurd lengths of confusion by considering it "from the viewpoints of two independent observers" in different locations; my "observers" were on planets at (1) the home star, and (2) the destination star, and their observations were easily related to the starship's movements -- from which you could easily deduce that any observers at other locations would see differently in direct proportion to their offset from those home and destination stars. It just makes something easy into a complex hodgepodge, for no other reason than perhaps to sound impressive. At times, I think scientists love egoboo more than fans ever did!

Furthermore, the whole business of this rainbow-colored Universe at near-lightspeed is the clearest proof I've found that, while the Dirty Pros keep bragging about how much inspiration for "authentic" stories they get from reports on scientific research, they aren't doing a damned bit more of it than they can help.

Digging into this stuff, I've found little side-remarks as to how the Michelson-Morley experiment shocked the living hell out of the world of Newtonian physics. How the experiment was tried hundreds of times, by as many experimenters. How it's finally been done in recent years with a detecting instrument moving in relation to a fixed light source inside a laboratory.

And then, I've seen little side-remarks about how Einstein had such a hellish time getting any of his ideas accepted -- until others began to discover that his ideas worked, that they'd found a tool which would carry their research farther ahead ... until the ones who refused to consider Einstein's theories found themselves left far behind.

In short, we could have exceeded the bounds of Newtonian physics long ago -- and we wouldn't have needed any slipshod "4th Law of Motion" to do it, either.

By now, we could be exceeding the limitations of even Einsteinian physics -- without any particular need for "Null-A" plot contortions.

Of course, if we had this, if we played the "fiction of the Future" theme for keeps instead of as just a harmless, little game of "hyper-space" and "faster-than-light travel," we might now be without some things, too. Some editors, quite possibly, and some magazines. Some "spokesmen" who propose that we've "progressed" and "come of age" when we simply take the old RALPH-124C41 theme and rewrite it (much more smoothly, of course) as RALPH ND¢.

Jim Caughran, you'd be right -- and Newtonian physics would be all we need to know -- except for that damned Einsteinian "time-dilation" curve. Because of it, the closer we get to lightspeed, the more we can detect only the longer wavelengths of light, on into the invisible infra-red.

And Colin Freeman, I sometimes suspect that a little bit of education from outdated texts and/or instructors can be as much a drawback as none at all. But in either case, a lack of curiosity is deadly.

Finally, gentlemen, if time-dilation is going to "phase out" our radiation detectors all that much, how would we build instruments that could detect shorter wavelengths -- and what in the nature of all Hell would it be that they're detecting?

They'd be handy to see just where we're going, anyway -- and I hope you've appreciated the way I've depicted the Home Cluster right-end-to, this time! (But I just don't think "the Ridge" was really a good name for it, after all....)

That's it, gentlemen. Comments?

ERRATA

Jim Caughran wrote: "Serious constructive young types like myself don't raise an eyebrow at gallumping modern sf because they rarely, if ever, read it."

With this June issue, I want to present a serious point.

It has been argued that fandom now includes many fans who never bothered to read science-fiction and who don't intend to start now. The concensus of such arguments would seem to have been that a New Fandom (or they may prefer that it be called "neofandom") had arrived. But in looking behind these arguments for anything to substantiate them, I've found that they reflect the beliefs and desires of only a relatively small number of fans.

It may be rather disappointing to them to find that any s-f fans are left in fandom at all, but I've noticed they don't bother to see anything that might distort their highly cultural views.

But I, too, am blind. All I can see is that if there were no s-f fans left in fandom, I could never have unloaded this fanzine on a ¢a$h-sub basis for nearly 4 years.

To me, what this means is that we still have science-fiction fans even though hardly anything's being published that deserves to be called science-fiction, anymore. I have had a dirty pro or two argue to the contrary, and even -- surprisingly enough -- a few fans. Some would claim it's not at all that bad, altho it's bad enough.

Why couldn't Earl Kemp see that nuclear reactors and space satellites killed science-fiction because it was already too weak to survive the loss of its fictional monopoly? Until then, space-travel and atomic power existed only in science-fiction -- and s-f fans shared a knowledge of Things To Come far ahead of anyone else. The game was serious and it was played for high stakes.

Today, scientific research carries the seeds of human colonization of the entire Solar System -- and perhaps, of atomic wars that may render a couple of worlds uninhabitable. From the moment a chain reaction was triggered inside a bomb-casing, there has been an undeniable, instinctive drive to get the human race spread out onto more worlds than one. Beyond that, science fumbles blindly toward the stars.

Where science starts fumbling is where we belong. Here, we can find the knowledge of Things To Come that better minds contemplate too cautiously, that lesser minds scoff at to hide their fear. Out here, toward the stars. ...

Today, the scientific world tentatively accepts the concepts of Einsteinian physics -- I've even seen relativity spoken of as fact, now, not theory. Those concepts begin out here, among the stars, and amid the swarms of nuclear particles within atoms. We would need to <u>begin</u> with that, and explore the future.

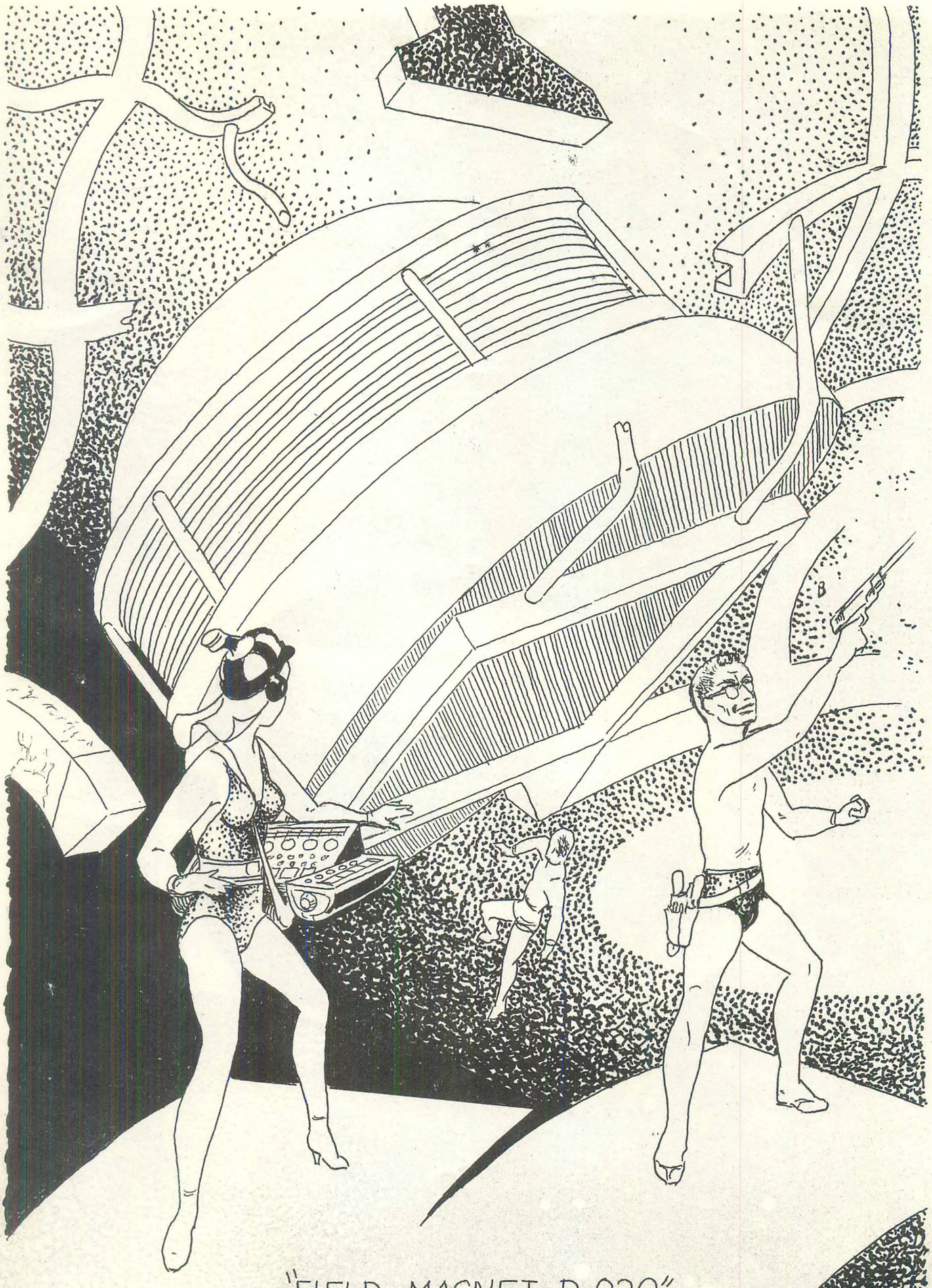
It wouldn't be so hard to do, either. Not the way we do it. We began considering space-travel by shooting ships out of giant cannon, for cripe's sake! From that, gradually, we developed the whole series of themes based on space-travel, interplanetary civilization, etc. All we need is that "relativistic" inch; we'll cross lightyears.

And it'll be a serious game, played for keeps. What future is there for the human race? We'll know -- or at least have developed a fairly educated guess. We're bound to dig far deeper than any of the current theories on racial integration, minority-vs.-individual freedom, social economics, overpopulation, automation -- all of them, problems long-solved or yet-to-be-solved when men reach the stars.

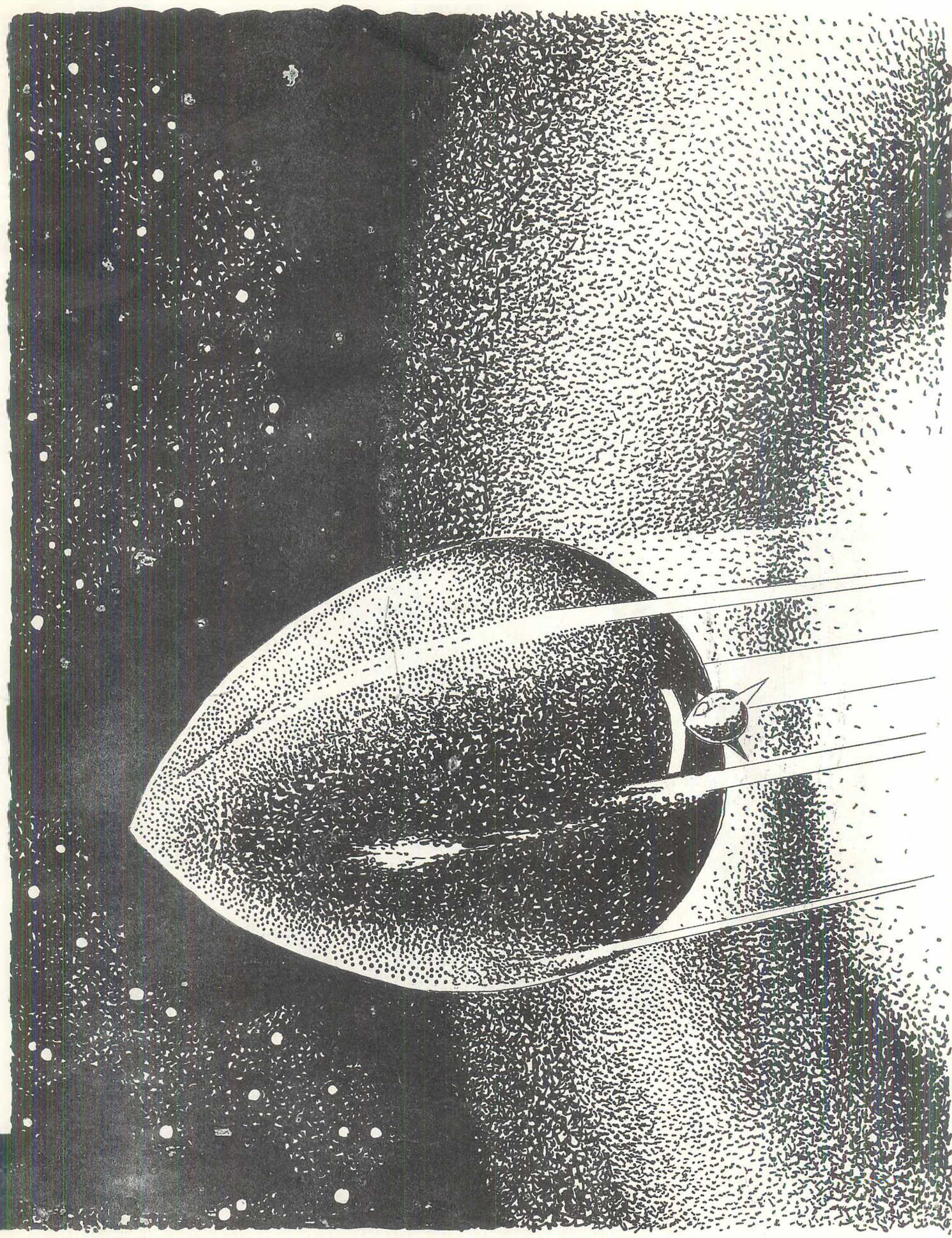
We'll develop all that, and love every minute of it. But it will be rather hard on the type of editors and writers who would prefer to give us something about the fellow on the spaceship who discovered he wasn't a queer, or about the Devil's Disciple who freely gave his soul to Saint Peter, or the Samoan boy (who is actually the son of the Lord Admiral of the British Navy) who fell out of the native canoe and was raised by dolphins. ....

We'll want writers who can write science-fiction.

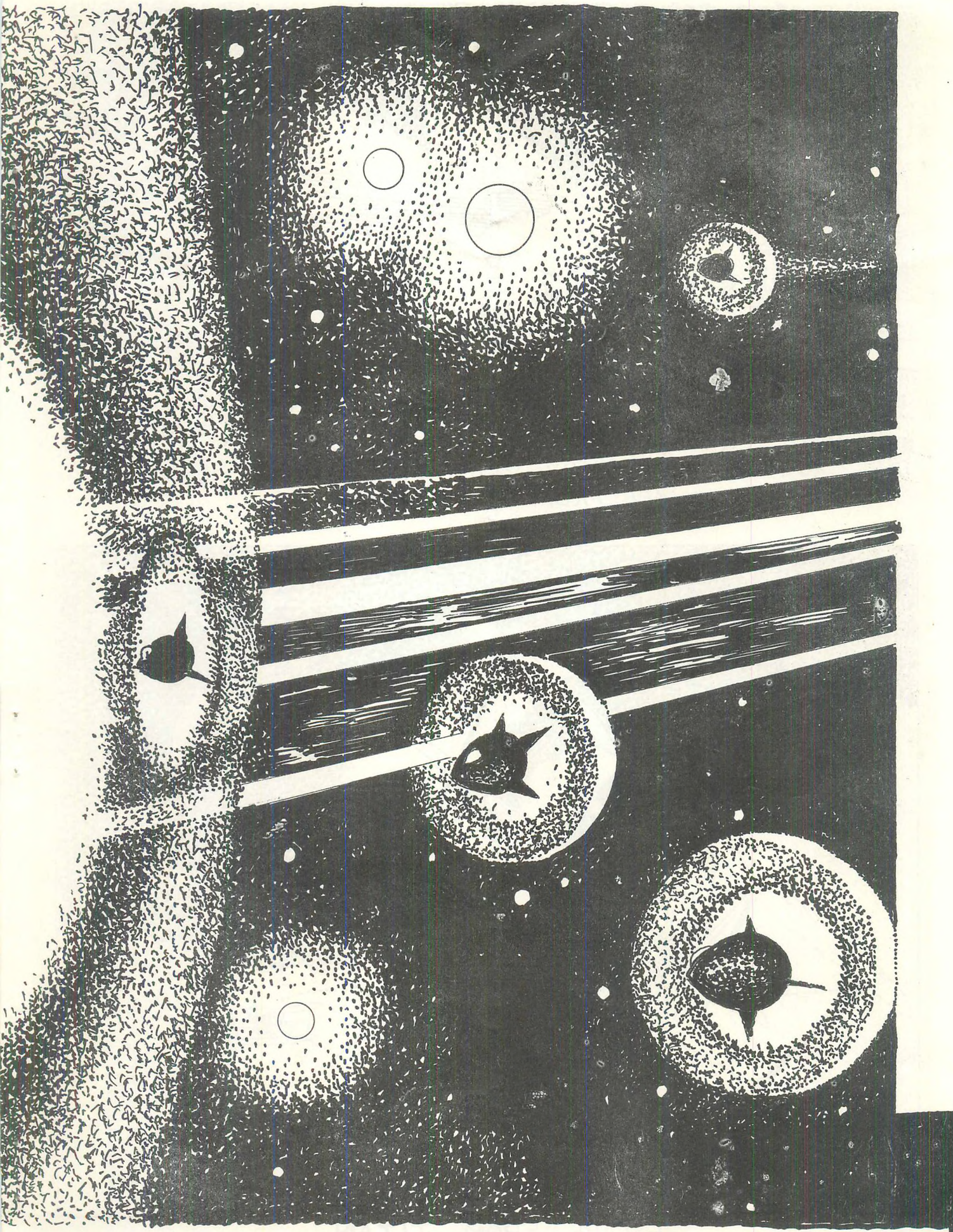
* * *



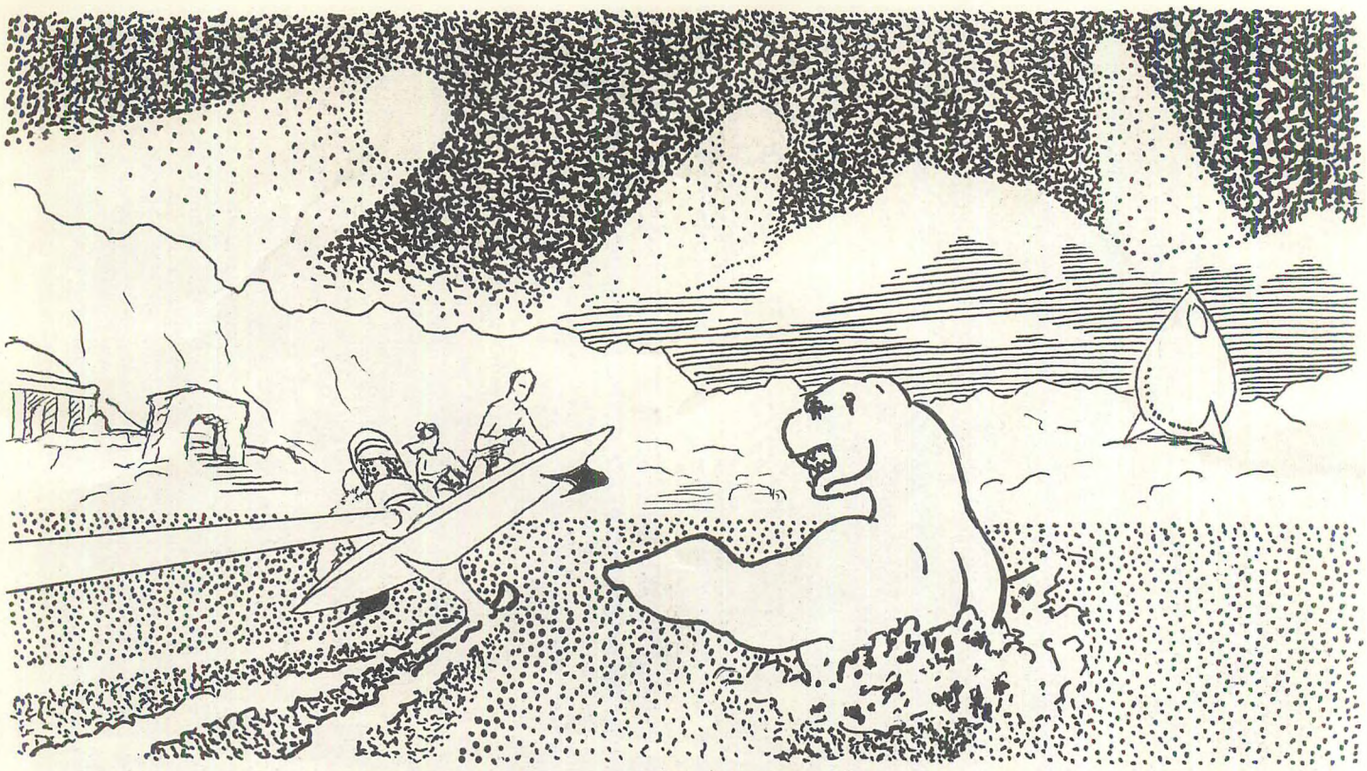
"FIELD MAGNET D-920"



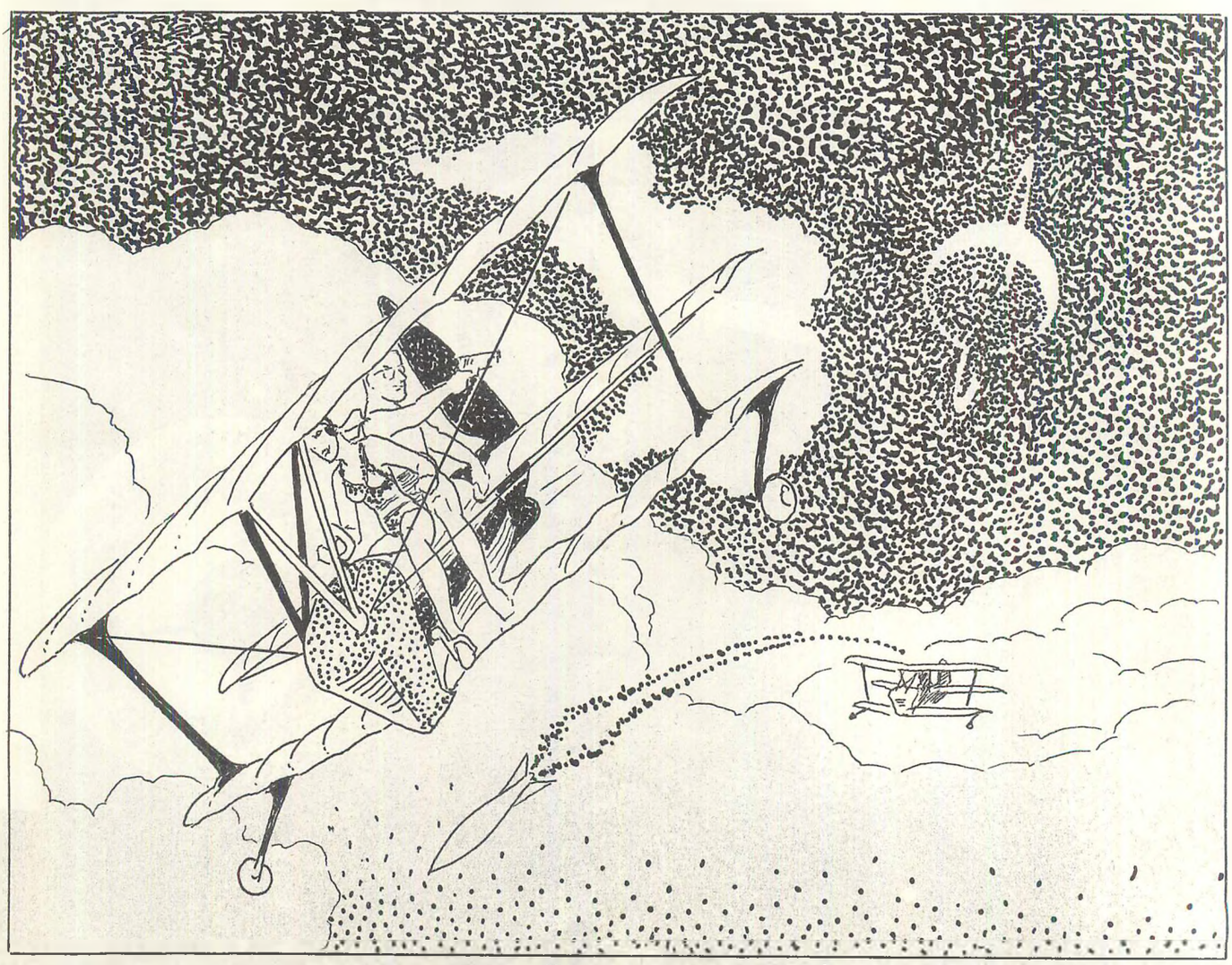
BAIL-OUT IN DECELERATION — COMING IN



PAST ALPHA CENTAURI —



ESCAPE FROM **PLUTONOV**



ESCAPE FROM **TITAN**

END OF THE

INDECONTAMINABLE

Okay, gang, here we go -- no trick Heironymous machines, no Dean drives up the cuff, no Scientology pitch from somebody it should help more than you need it ...

No flying tea sets, no "things in the cellar" --

The straight goods! Why pay more?

We began this pioneering jaunt into interstellar space last September, if I remember correctly ... only most of you did a bit of doubtful muttering about the whole idea of the thing, mostly on account of the obvious fact that I would ramrod this affair and I am not exactly famous for respecting the sensibilities of others. No. But now, those of you who've stayed with it (the majority of those who receive this issue, my sub-files tell me) know that this really has been a pioneering jaunt. We've seen places and things the hand of fan has never set foot in before.

I've pulled some awful bloopers in the process, too -- I was bound to! 'Look how worried it's got me. Hands shaking, eyes bloodshot, jump at the slightest sound. 'Suuuuure I am.

We could've had more fun on this trip if there hadn't been so much to do that hadn't ever been done, so many things to see that hadn't ever been seen -- and thru it all, my constant carping, "Why the hell wasn't this done in the prozines long ago? Why do I have to do it in a fanzine now, when I could be having fun? I could be showing Harry Warner on his Flying Belt chasing nekkid femme fans around the ship's corridors! I could--" But no matter.

We named our starship the "H.M.S. Indecontaminable" so the dirty pros we have aboard could write up a fictitious Ship's Log about Earth being a despotic interstellar empire from which we escaped and stole one of "His Monstrosity's Ships" to flee into the wilds. I argued that if we ever met any Aliens with this yarn, they'd never be able to figure out where we came from -- exactly enough, anyway, to ever find it.

And with Ol' Indebuggable, we licked most of the technical problems of interstellar flight. Our ship has electromagnetic fields that work like a ramjet, and the hydrogen atoms distributed through space are our fuel supply. Rather than needing 6-7 years at 1-g acceleration to get almost to the velocity of light, we go into "deepfreeze" where flesh is tough as tensile steel (and steel gets brittle as rotton wood!) and we go blasting out on automatics at 100 g's acceleration.

We slow down, at the end of each Long Jump, the same way. Only our electromagnetic fields are changed to act like a big drag-chute, same as jet fighters' tail-blast is diverted to act like braking jets.

We cruised through our Home Cluster and napped it -- which had never been done in s-f before.

We went out to the Hyades Cluster and explored a highly unlikely world. We went on out to the Pleiades -- while I explained how nothing travels faster than light or we'd see it two places at once -- and saw a rather odd Earthtype world. Meantime, the stresses we were putting on Ol' Indebuggable were constantly gnawing away her framework with metal fatigue. Our repair crews worked feverishly to keep her going.

From the Pleiades, now, we've done the "deepfreeze" bit, blasted off and headed home -- to an Earth 500 lightyears away and more than 1,000 years after we left her! But then it happened. The stress factor was finally just too much to keep up with, and one of our big magnets tore loose and tried to go through the ship's bottom.

I figured it might.

And I had determined that the one, sure way to set off every hair-trigger alarm system in the entire ship was simply to blast a .45 slug through a ship's wall -- pardon, bulkhead. Which I did. While Robbie was busily "trimming ship" on her remote control panel.

Y'see, at near-lightspeed, our ship has what almost amounts to infinite mass -- and the interstellar hydrogen we're plowing through has damned near the same mass, far as we're concerned. And the loss of the big magnet weakened one spot in our fields, caused the ship to yaw .... if she tumbled, we'd be torn to pieces, the pieces shredded to atoms, in mere seconds.

The whole pack of you had been told. You dropped everything and leaped for the Hanger Deck. You scrambled into your respective liftboats. Robbie and I arrived as the various liftboat commanders assembled. The "briefing" was damned brief.

We were approaching the Solar System -- at near-lightspeed. You would have to break clear under power, your boat's fields out, or Ol' Indebuggable's field would fry you to a hot gas. You would have to do emergency "deepfreeze" and decelerate in your own liftboats to make planetfall anywhere in the Solar System.

I thought of collecting from those of you whose subscriptions run out, this issue, but there just wasn't time for it. My liftboat would be the last to leave -- and consequently, the first to enter the Solar System. I'd be travelling too fast to stop, have to go on through and then come back. The first boats out would be decelerated, then -- and see me going in on their boats' screens. If we were going to get any hostile reception, they'd see me get it. They could warn the rest. I'd probably never know what hit me. Big hero. I got you into this.

That was all. The interstellar hydrogen had already pierced into Ol' Indebuggable's weakened field, brushed white-hot fingernails along her outer hull. Soon it'll penetrate, eat into her guts. You enter and seal your boats, kick on the juice, and follow each other out the open lock. All the scouting jaunts you've made from orbit down to far-flung worlds pay off now.

The last I saw of Ol' Indebuggable, she was a gigantic comet of searing flame -- she'd tumbled as my boat left her. I went through the Solar System stone-blind, in "deepfreeze" and decelerating full-blast. I have no idea if anybody shot at me or how close they missed. Why worry about it?

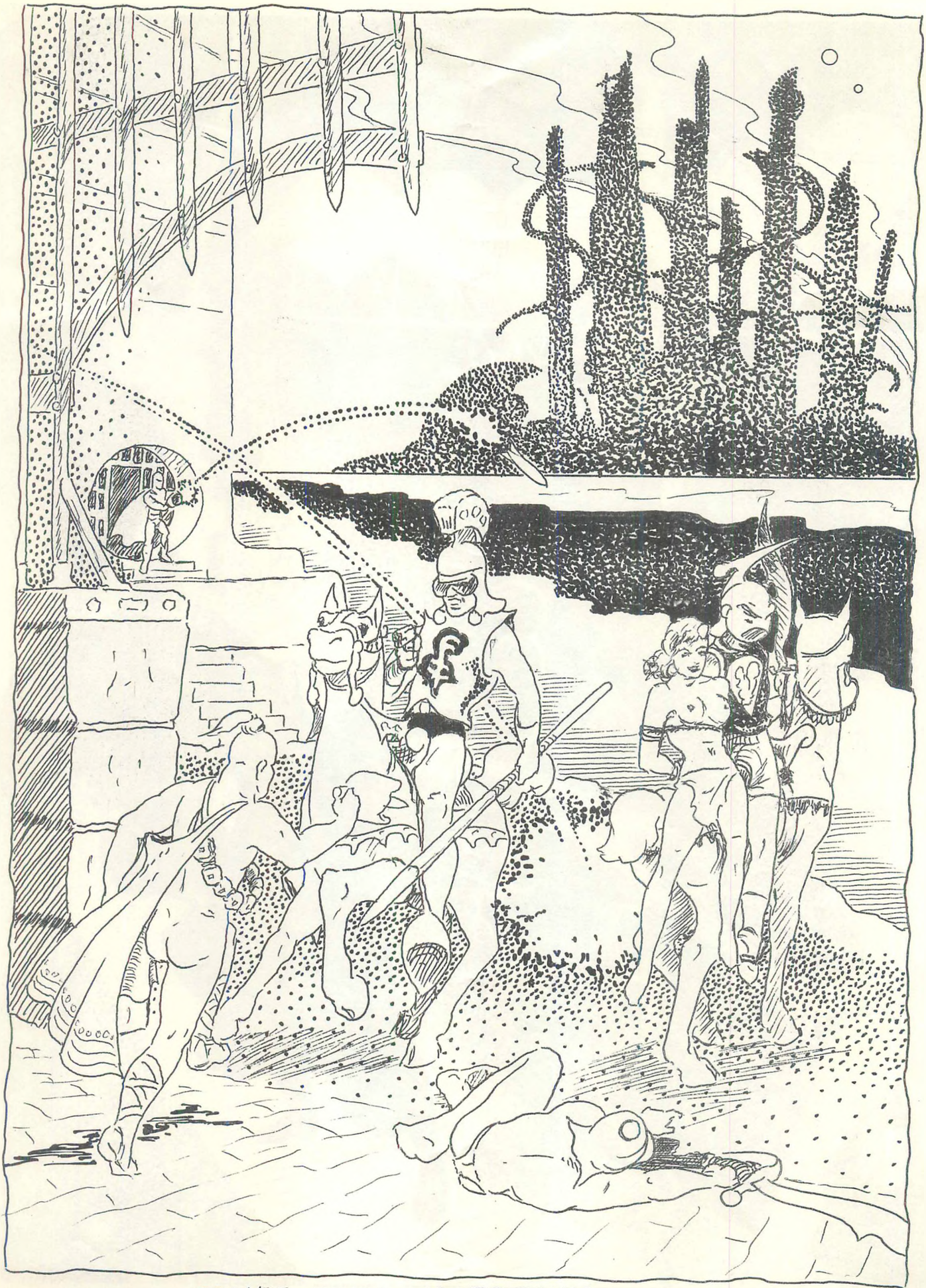
Now, isn't this a neat bit of fan-fiction, where I do all the heroic stuff?

So I worked back and landed on a terraformed Pluto. I found a breathable atmosphere, a world covered with seas and warmed by giant reflector-satellites -- some of which were so far off-focus that they no longer pointed at the planet, and the atmosphere was thin and near-freezing, glaciers and icefields had begun to cover the continents ... and I got tossed into jail where I found a boatload of you just planning to bust out!

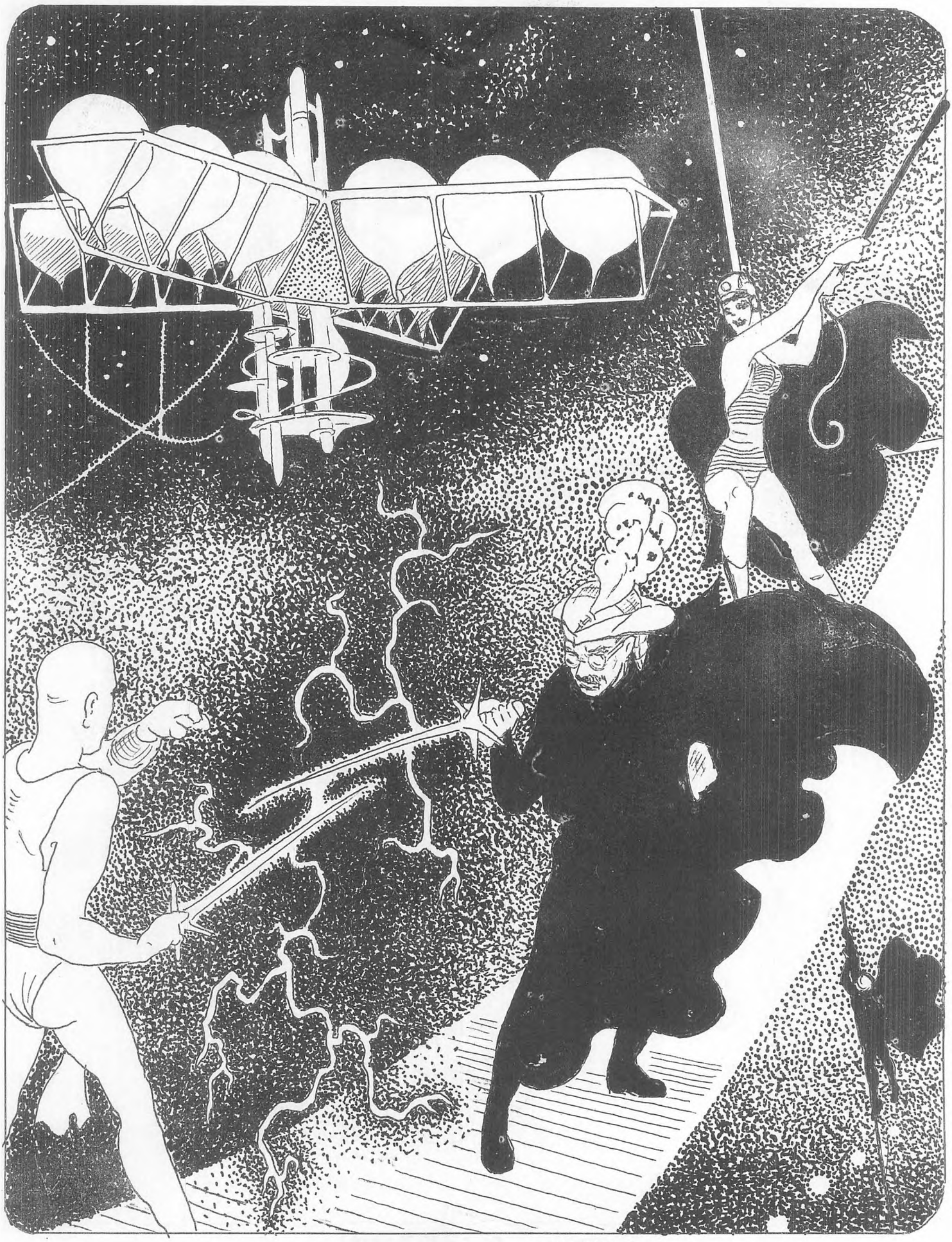
So we did -- made it to a liftboat and took off. Seemed the local yokels were working a racket whereby guys from the stars got ransomed off to Earth, who collected payment for their release from something called an Interstellar Center located way off in the Cluster somewhere. Also, on Pluto we saw people skinning animals and tanning hides (the only work besides hunting and fighting we were to see, and nobody even tanned hides anywhere else) from animals once known to Earth, which had bred on these new worlds nearly a thousand years.

But by the time we'd got thrown into jail on half the moons of Saturn -- each time, finding another boatload of our crew -- it began to get a little tiresome. We began to liberate a bit of the natives' fighting equipment for ourselves.

When we grabbed off "modern" spacecraft for our escapades, we saw it was a little like guys in the 20th Centry who sail around the world in a 30-foot boat. Fortunately, some of the stuff was fairly advanced -- or they'd never have made interplanetary trips on manual control and dead reckoning!



ESCAPE FROM **MARDZINN**



ESCAPE FROM **VENUS**

By the time we reach terraformed Mars (a slum area, obviously) we don't bother to wait to get thrown in jail, anymore. We just move in, bust open the jail, and get our crowd out.

By the time we work around the Sun to Venus, on our way to Earth (which is in opposition just then, astronomically speaking) we've got the whole operation down to a fairly set routine -- despite some of the oddball local settings we land in. The invariable theme is that Earth would ransom us as captives, that Earth likes star-rovers from out in the Big Time. It's not very clear because the natives speak a pidgin jargon with just over 1,000 words of vocabulary and are completely illiterate -- with the exception of a kind of priesthood called "Teknik" who are the bosses in some places, mere tools of warlords in others.

From all this series of misadventures in our attempts to reach Earth, I have depicted a few scenes of activity where it might be seen that a few of the rest of you get in some whacks at that "heroic" stuff. I could not record all such incidents since, naturally, I missed some while in others, I was entirely too busy. And some were just too messy to be recorded.

But I've got the skiboat getaway on Pluto -- and that damned trained seal.

And that aerial dogfight Robbie and I had on Titan.

And the time on Mars, Sir Ronel led me right in amidst the exploding rockets on some fool bit of rescue work....

It wasn't the sky-cities on Venus that puzzled me, or the nine-month-long moonless nights. It was the electric swords. Hell, just you go sliding down plastic cables in a black silk kimono and then have some joker try giving you fencing lessons with a steel foil! But Rick displayed a good wrist there....

And there's the Brothers of the Way Out doing rearguard action when we busted the jail on Luna....

Gentlemen, this is not mere pseudoscience/fantasy folderol! Next month, as they say in the serials, we'll get down to Earth and find out what's the cause of all this.

You just can't have this sort've thing without a good, basic reason, y'know.

And I've noticed all these barbaric types on their broken-down, once-terraformed worlds are stockpiling weapons and those crazy, little spacecraft as if they're planning a joint invasion somewhere:...

Besides which, if Earth does have contact with that Interstellar Center (whatever it is), it's the only place we can make a deal for the 100 new starships we want.

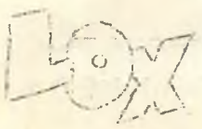
...And I got it from a "Teknik" on Mars that we're <u>expected</u> on Earth!

Gentlemen, this fantasy -- yes, I would say even this -- is also Speculative Science-Fiction.

(Damned shame I haven't a foto of George Scithers around here; somewhere! Y'know -- AMRA, Hyborean Age, and all that. Oh, well...)

(Some scenes were just <u>too</u> messy to illustrate!)

* * *



+ As it worked out, lastish was nearly a month late (with + this June ish coming almost on its heels.) The cause + was mostly this lettercol; it's the last thing I do for + each issue, and lastish it required some extra research + and preparation. Then, when I'd finally the whole ish + on stencil, Metcalf was in the midst of finals at his + end and it couldn't get run off that week. But if lastish had been + on time, then thish would've had to be nearly a month early -- still + coming right on its heels ... so I could get this done & out before + you guys start writing in LoCs which fatten the page-count around + here so appallingly. Now you can do your worst; I'm ready for you. + ...but you've also noticed, no doubt, that experiments proceed in + the production of g2? Sometimes backward. I consider lastish as a + set of experiments which compounded a dismal failure, beginning with + the lousy mimeo ink. Here, this one page is a new type of stencil...

FRITZ LEILER, 542 Frontera Drive, Pacific Palisades:

Statement on page 8 April '64 G2 ((+in LOX+)) wraps crucial point up nicely. I'm for free-wheeling science speculation in sf -- stuff that doesn't get bogged down in trying to conform to the details of currently most popular theories...but that expects & welcomes the toughest sort of criticism on the basis of those theories. ((+Uh huh -- and anyone inclined to pick that remark apart had better read it more than twice.+)) Best writer must be schizoid, aware of offtrail theories down to crackpot ones (including his own!--not necessarily crackpot) yet knowing the conformist positions & able at least to ape conformity convincingly.

+ You've done it thoroughly, not only with the science but the fiction + as well -- The Story That (right now) Will Sell. But once I've clear* + 'd decks a bit, here, I'd like to say more about THE WANDERER....it'll + get a Hugo, you know. Bound to.

Your plates are a joy, especially after working six months at field astronomy in smogfree Santa Barbara. Last night I saw a zero magnitude star in Leo -- it slowly moved past tail of bear, by Vega in Lyra, then down and out. Satellite (art.) I suppose. About the 4th such experience for me. O tempora, o astra!

+ Those plates of the Pleiades Cluster weren't the best I could've done + -- SCIENTIFIC AMERICAN had a beautiful color-foto showing it closer + (enlarged/magnified more) in much better detail ... as well as an art- + icle with much more data. But I'll get back there, eventually.... +
+ And this is LOX for this issue, by gum!

The Pacificon II (the 22nd World Science Fiction Convention) will be held Sept. 4, 5, 6 and 7, this year, at the Leamington Hotel in Oakland ...Robbie and I will reconnoiter and give you a precon report here in August. Meantime, membership for nonattendees is $1 for overseas fans, $2 for USA types; and an additional $1 if you attend. Address for same is: Pacificon II, P.O. Box 261, Fairmont Station, El Cerrito, Calif.

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