

Here it is, springtime again, and The Bomb has held off from falling long enough to allow the publication of volume 11, number 3, whole number 42, FAPA number 36, and VAPA number 16 of Horizons. The Doubledoubletoilandtrouble Limeograph may hold together long enough to reproduce this issue. Harry Warner, Jr., 303 Bryan Place, Hagerstown, Maryland, writes practically everything in this issue.

In the Beginning

It used to be that reviews of reviews cluttered up the mailings so badly that people were viewing with alarm. Now we've hit another extreme, and the winter mailing was disappointingly lacking in comment on what had gone before. Lest reviews become a lost art and the FAPA be deprived of its continuity, I'm expanding my reviews this time and hope that others will do likewise until that happy medium is approached. Horizons: The last issue contained one minor and one colossally major error. Minor: in the third paragraph, fifth line of the first page of Mind Under Matter, read Pirandello where it says Korzybski. Otherwise your notion of semantics and your opinion of my understanding of semantics will be rudely distorted. Major: the other mistake is so enormous that perhaps no one will notice it. Remember Hitler's philosophy on big and little lies. I've found in the past that a world-shaking mistake doesn't attract as much notice as a misplaced comma. The Fantasy Amateur: This sounds as if I were trying to juggle the FAPA financial records. Explanation: for reasons known only to themselves and Coslet, some members have been sending money for dues and surplus stock to Coslet. He has been keeping it and using it for expenses instead of forwarding it to me. He wants me to put it on the books as money received by the treasury and then paid to him for expenses, a matter which I don't do because I don't see the money, I don't pay it to him, and his expenses don't occur at those particular times. And for the benefit of anyone who wonders what in the world "Crane's fund" may be, there is no campaign to bring a fan from Japan to the next convention. This is a sum which Crane deposited with the FAPA a couple of years ago, to pay for airmailing his bundles. Idle thought about the membership: I think we're down to three charter members: Ackerman, Rothman, and Speer. A couple of other persons may have belonged at the start, dropped out, and then rejoined. The Insider: I'll bet the National Amateur Press Association is the first and last thing to call Lovecraft a "most colorful" figure. About checklists, it's obvious that no one reads them for entertainment. If the checklist exists, it must be meant for reference purposes. So its own purpose is defeated by a single line, saying it isn't complete, "nor necessarily all accurate." It's not a sin to present it in this form, but it is foolish not to specify exactly what may be wrong with it, in case anyone should want to complete and amend the project. Above all, please learn how to spell nickel before starting out on Frank Reade, Jr. Light: Remind me, Les, to tell you some time about efforts to buy phonograph records in Hagerstown. Just plain American phonograph records, the kind that the local stores actually send out advertising circles about. It's no less nerve-wracking that importing film to Canada. Fan-Dango: Wonderful but un-commentable stuff. Ackerman is becoming as famous as Al Ash-

ley at this late date. Mindwarp: I approve heartily with all the things said about fandom and the FAPA, up to the point where the NFFF enters. I've heard this assurance that big things are just around the corner for the NFFF so frequently for the last six years. It's funny by this time. The NFFF invariably has a half-dozen energetic people who can get things done, and several hundred members who are either content to let the mothers work hard, or jealous that the others are active. The organization may be justified by serving as an outlet for fans during a period of six months to a year--the time when they're just getting acquainted with fandom, with a yen to read long lists of fan addresses, high-sounding words about purposes, and so forth. After that, a verbal arrangement with two or three other people can accomplish more than the NFFF has ever done. Maybe the NFFF has recruited a few fans, but I'll bet it has kept some others out of activity, by those welcoming letters like the one sent to Burbee not long ago. Plenum: I've attended most conventions held in Hagerstown for the last decade. Most of them are comparable in size to the national fan conventions, with 200 or so delegates. I have yet to find one that showed a profit as the fan convention always does. I suspect that fandom is wrong; it seems doubtful that everyone else would be out of step. Of course fans in the host city appreciate a cut of the profits as a reward for sponsoring the science fiction convention. But that money doesn't amount to more than ten bucks or so apiece, after it's split up. Quite a bit of the hard work in staging a convention is caused by frantic efforts to raise the money which will be split up as a reward for doing all that hard work. It would be so simple to turn profits over to the next convention committee, and end the drumbeating between conventions. Spaceship: You'll get much better results, boys, if you'll take a pin, and use it once or twice in the course of each stencil to dig the dirt from the e, p, a, and any capital letters that clog up. In the spying eye edition, Eric Frank Russell is definitely not John Russell Fearn. If Arthur K. Barnes is another Kuttner penname, we've been had for the last 20 years. Moonshine: I like the trend toward reprinting or revising material from general fan publications for the FAPA. I get no subscription fanzines these days, but they still contain a limited amount of material that interests me. I wish I hadn't thrown out the cellar's accumulation of comic supplements, Rick. They included such monstrous piles of Flash Gordon that your declining days would have been solaced. Constitution: I'd like to see it included with every other mailing. And Coslet has supplied ~~much~~ me with extras for distribution to new members, a resource the FAPA had lacked up to now. By the way, I sniff trouble over one sentence in the constitution. Publications "must represent to a substantial extent the work of the member who has put them in the mailings." Joe Fann needs eight pages to avert expulsion, so he digs into his files, finds an eight-page story by another fan, sends it to his city's professional mimeo shop, orders 68 copies, and mails them to the official editor. Does this count as activity credit? Joe didn't write or publish, but he financed. It's bound to happen someday, and aruling now might be advisable for future guidance. F'nart: Why the apostrophe? An effort to leave us in doubt

whether it's the fine arts or fan art? Astra's Tower: This is the best example yet, of how far I've fallen away from fandom. Stephen Weber not only enters the field and becomes well known therein, but also dies, and this is the first time that I behold his name. Dark Kenascence is the first decent poem that the FAPA has had for many months. Someone told me that Smith told him that the lens stories have tried to cause the reader to accept the fact that there will be incest in the Kinnison family. Presumably it would be polygamous incest, which would simplify things a little for the Kinnison grandchildren. ATOTE: -I still prefer Evans' comments and ideas to his non-selling fiction. Giggling Angel must have fooled even the author. Obviously the ending is wrong, because Lavona gave money to Kane. She couldn't have done that, if she were just a projection from (ugh! the name!) Swylla. Fapanthology: The Rumor, I presume, is yet another Evans tale. This one suffers from that same trouble as an ~~EEE~~ story two or three mailings ago: a method of narration fit for a novel, not a short story. Here are eight pages of fiction. This is the plot: a mysterious monster appears in a swamp and chews up a little boy, so two high school students take their guns and shoot it to death. The writing is good but, but--you can't create a short story for the pulps with nothing more essential in the plot than that. The Talisman: A fine start, except for an atmosphere of stuffiness that presumably will vanish after another issue or two. What's the Name is my chief objection. It's all right, as long as it sticks to surveying the way stories have named et's. When it tries to regulate future procedure, it enters the realm of inaccuracy and absurdity. For instance, English does not form "pertaining to" names for peoples and races by adding -an or -ian to the country's name, as Bridges insists. Consider western Europe: French, Spaniards, Swiss, Scots, Welsh, Swedes, Finns, Portugese. There simply is not any set rule, except that when a nation's name ends in a vowel, n is often tacked on, frequently combined with a change in that final vowel. This Venusian vs. Venarian matter has been brought up frequently by people who know Latin. Any unabridged dictionary will show that Venusian is the accepted and proper word. If we're going to try to insist on using the genitive form of the Latin word, we must logically insist on using the Latin pronunciation of the V, mustn't we? My own guess is that any other worldly persons who may turn up will be named simply by adding -men to the name of the planet, when the planet's name isn't too long. Or it might proceed as in some sports where you occasionally hear the Dodgers called the Brooklyn's. A loud huzzah for the reprint of The Road to Fame. I might hint that The Fantast is a treasure trove of reprintable material which would be new for practically everyone in fandom today. The Unspeakable Thing: A monumental achievement, because it held my interest from end to beginning, despite my complete lack of interest in folklore in general and Japanese folklore in particular. Mike Fern had one of those English-language Kappa books when he visited Hagerstown. He thought he could swing a deal for publication in this country, but that was almost two years ago and I've heard nothing more about it. I read through the slim volume and couldn't find it more amusing or better

en than Stanton A. Coblentz, despite Fern's opinion that it
ned all the best things from Penguin Island and Gulliver.
might be a good place to mention something that I'll forget
ut into my Fantasy Amateur message. Crane's dues are due,
haven't been paid. The FAPA also has several dollars left
hat fund for airmailing bundles. I'm taking the liberty of
acting another \$1.50 from this sum for dues. If Crane disap-
ves, Crane should squawk immediately. Sky Hook: What decides
choice of quotations--good writing, discussion value, or the
fact that you agree with them? I think the Buck paragraph
a fall into only the second category. "It's as shallow as her
oks. It's true that the Chinaman "thinks instinctively in
rms of centuries and he sees himself as a 'particle in time."
at that's because the Chinaman does most things by instinct,
akes no effort to improve his land by changes, operates on the
ssumption that his great grandchildren centuries hence will be
urning incense at the ancestral shrines and plowing the same
wornout stretch of land with one descendant of his own undernou-
rished ox. The American who "stretches his imagination to pain
if he thinks two generations ahead" is no more to be censured
than the person who gets out tof breath in an effort to run a
four-minute mile. This country changes too fast for anyone to
plan logically for grandchildren. If America is changing too
rapidly, China has changed too slowly, and I think the American
way is the better of the extremes. Laney's article should have
been written long ago. It's pretty obvious that the Lovecraft
cult has been badly overdone. I can advance some reasons for
its existence: (1) HPL is safely dead. It's easier to get en-
thusiastic over a writer who won't embarrass you by making a
poor speech at a convention or turning out hack work to pay for
the new car. (2) HPL did have one stroke of genius, when he
tied the supernatural in with modern science and made his myth-
ology consistent through most of his important work. (3) He
wrote for magazines that were just scarce enough in the 40's--
hard enough to find to make collecting fun, not impossibly dif-
ficult to obtain. (4) Derleth likes to shine in reflected glo-
ry.

Cops, I forgot to say something about Fapanthology. I
think Dan Mulcahy has deduced the wrong effort from an actual
cause. In the past, the sudden appearance of a lot of local
fan clubs has come from a sudden influx of new fans into the
field. When they're popping up fast, the odds are that two or
three fans will appear in a single large city. Those two or
three combine to dig out a few others, and a club results. That
is what happened early in World War Two, in any event.
I'll have to skip comment on the postmailings, for lack
on Horizons begin. To the VAPA I regretfully say that there is
nothing much to be said about the last mailing. The poetry is
more mystifying than ever, and Norman Knight has done such a
thorough job that comments are almost impossible. The only im-
portant flaw in his reasoning seems to be its two-dimensional
nature: he doesn't take into account the possibilities of hydro-
ponic growth in tall buildings. Ten-story structures everywhere
would mean a big improvement on the space available. You ought
to break down and let the FAPA read this, Virginia.

We View the Review

Roy W. Loan, Jr., has bitten into a tough subject in the first issue of *The Talisman*. Book reviews have been a standard roughage for fanzines ever since fanzines sprang up. With more and more new books all the time, the crop of reviews seems likely to prosper. But over the years, there has been little improvement in the quality of those reviews. I know of no article which has attempted to survey through the fanzines how more vitamins and palate-tickling substances can be put into that steady diet of book reviews.

Roy has done a decent job of telling how to review a book. But we learn the same thing in high school, we find a chapter on this subject in any large book about journalism, and the public library can supply several books devoted solely to the topic of reviewing. I think that it would be more important for our purpose to summarize how to review fantasy books, emphasizing not the fact that these are books and subject to all book reviewing rules, but rather laying stress on the way in which these reviews of fantasy books should differ from reviews of mundane volumes. There are several important ways in which the review in the fanzine should differ from the review you write for *The New York Times*' Sunday supplement or your English teacher in your senior year.

The article in *The Talisman* brings up one important point which it might be well to dispose of immediately. This is the matter of "subjective" and "objective" reviews. You can say that this review is objective and that review is subjective, but I won't believe you; I don't see how it's possible. Roy himself doesn't seem quite clear about the distinction. He says, for instance, that the objective attitude toward a story calls for analysis of "the author's ability to handle it effectively," while the subjective method requires the reviewer "to evaluate the handling and effectiveness of the story."

This is an Aristotelian distinction. Let's look at it another way, and say that no review can be objective or subjective, for the simple reason that it must be a combination of both. The objective element in this situation is a book, and the subjective element is the man who reviews the book. If either element is missing, no book review can come into being. Something of the book and something of the reviewer enter into every review, even if the objective portion is confined to naming the book and author, even though the subjective element is limited to the reviewer's decision to tell this part of the plot but not that part.

Of course you read a lot about objective reviewing, just as you read of objective reporting and objective analysis. I've found that most persons who ask for an "objective" newspaper article actually mean that they want a newspaper account that won't make anyone angry. The ideal of the objective reporter is quite as unobtainable as that of the objective reviewer.

It's fairly simple to write a book review that won't peeve anyone, but that will still be a subjective review. A simple statement that this book contains many misprints is as close to a statement of fact as anything in a review can be. But it's subjective in the sense that the reviewer must choose between including or omitting that statement. He cannot possibly say all that there is to say about a book, and there is no point from

which a line may be drawn between the remarks that must be made and the remarks that may be omitted.

Incidentally, don't forget the third element that is helpful to any book review. That's someone to read the thing. He's another subjective factor. If the reviewer says that Heinlein's latest is a space opera, that may be a description for reader A and an insult for reader B.

All the above leads me to one conclusion. Any successful book review should be a combination of those subjective and objective factors. It will be a better review if the author tries consciously to include both, and tries to keep them in reasonable proportions. From here on, I'm going to emphasize reviewing of fantasy, not just reviewing.

I've been learning during the last two months to operate a \$200 camera. It has a range finder, corrector for parallax, a dozen shutter speeds, ten stops, two flash guns, solenoid, two view finders, and a dozen other gadgets. Not one of those aids to good picture-making is worth a darn, however, if I don't watch my background and take care that I don't photograph the champion Negro basketball team against a black wall. Similarly, the book reviewer can understand the philosophy of his work perfectly, can have a fine command of the language, can know all the tricks of his trade, and his reviews won't be worth reading if he hasn't kept an eye open for his equivalent of background--the nature of the audience for his reviews. Here is where fanzine reviewing has a strong point. The person who writes a review for the fanzines and realizes what he's doing can be sure of his audience. He knows approximately how many persons will read that review, he understands that almost all his readers have a fine knowledge of fantasy books, and that all of them are interested in fantasy. No one reads every review in the Sunday supplement to the Times, and the authors of those reviews cannot be technical because a lot of their readers will know nothing about the subject matter. But we're all specialists in the fantasy field, on a small or large scale. Therefore, point number one: The reviewer in the fanzines can do his stuff without endlessly interrupting himself to identify Deimos, or to point out that Lord Dunsany is an author of atmospheric fantasies, or to explain that the first Skylark story was written in the early 20's. It saves much space and trouble.

Point number two is the complete freedom of the press that fanzines enjoy. Aside from considerations of decency and libel, the fantasy book review in the fanzine need not be influenced by anyone. I suppose that publications like The Saturday Review of Literature try hard. But the SRL's pages are sadly conditioned by two factors: its advertisers and its readers. The magazine won't tell the whole truth about a very bad new novel if it's a source of the publisher's latest big advertising campaign. Moreover, the SRL has to keep the interest of its readers. Those readers would revolt if more space were given to a thin volume on aesthetics by some unknown writer and less space to the latest Taylor Caldwell novel, no matter how important the remarks on aesthetics and how unimportant the novel might be.

The book reviewer in the fanzines can forget such considerations. No one stops buying a fanzine because he disagrees with its contents. The general rule has been that the more learned

fanzines rate as high in polls and sell as many copies as the frivolous type. To my knowledge, only twice have publishers distributed review copies of books to fanzine editors on a large scale. Certainly there shouldn't be any danger of influence on reviewers or fanzine publishers, even from the hope of getting free books by saying nice things in review.

Fanzines also provide one of the very few ways in which to get a book review into print without concerning yourself about the length. There seems to be a tendency in fanzines to keep reviews down to a few hundred words, presumably by analogy with reviews in other magazines and in newspapers. There is no particular reason for being economical with words when you have something to say and the fanzine editor usually has many square feet of white space waiting to be filled.

How much of the book should the review "give away"? It's a complex question, and its answer in the fantasy field differs from the solution to the problem in other types of fiction. But in no case is "never give away the story" the right rule. The analogy of the person in the theater who whispers the plot over your shoulder as it unfolds on stage or screen is not valid. You obviously don't want the punches of the play or the movie telegraphed during its performance. But you do not read a book review while reading the book; you read it before or after you go through the volume.

Actually it's a matter for an open mind and common sense to decide in fantasy book reviews. At one extreme is John Dickson Carr's "The Burning Court," a novel which hinges on the question of whether the hero's wife is a witch. The truth is not revealed until the last paragraphs. Most of the novel's appeal lies in the way it holds the reader in suspense over this matter, so a book review which revealed the denouement and told which was witch would definitely hurt the story's entertainment value.

But this one example doesn't prove that most fantasy novels exist mostly for their endings. In many other books, the final chapter is less important than what has gone before, or the solution to the plot is inevitable from page 100 onward. All of us can list dozens of fantasy novels that are remembered only for the treatment, not for the plot.

Besides, two special things that apply mostly to fanzine reviews, and a third that applies to all reviews, must be remembered. (1) Lots of fantasy book reviews in fanzines concern old or rare books, which the reader of the review may never hold in his hands. (2) If it's a popular and recent fantasy book, there's an excellent chance that the reader of the review has already read that book. (3) The mind is a funny thing. Information that it has sopped up while reading a book review may remain submerged in the memory while the individual is reading the book, rather than remaining on the surface to spoil its entertainment value.

So if the reviewer has a reason for stating the plot in full or the denouement, I think he's justified in doing that. If the book is a good one, it will seldom do the reader any harm to know how it's going to come out, just as a first reading doesn't harm the second reading of a good novel.

There's no reason why the fantasy book review shouldn't be combined with the informal essay. In other words, the review

can serve as the jumping-off point for the reviewer's ideas and opinions on topics suggested by the book under consideration. In a detective story review, getting away from the book itself would be treason. But in fantasy volumes, one trend of thought is almost sure to open up at least one other. If reviewing a science fiction story about space travel makes it advisable, the reviewer shouldn't hesitate to get into a long discussion of physics. I won't understand the math, but someone will.

Incidentally, this is what makes the synopsis type of review so dreary. The endless summaries of books about future war are hardly worth the mimeographing, because the strength of such books does not lie in the matter of who invades whom, but in the manner of the relating of those invasions. My personal nomination for the best review in a fanzine in recent years doesn't exactly qualify as a book review, because it appeared before the magazine story went between hard covers. It was damon knight's long discussion of *The World of A*. Read it, and try to imagine it without damon's opinions on the van Vogt writing style, without the questions of logic that involved summarizing most of the plot. I think that damon learned something from writing it, I know that I gained some information by reading it, and I hope van Vogt had a chance to study it, although he certainly didn't learn anything from it.

Less important for the present purpose is the prefatory matter for book reviews. I don't see why this information in fanzine reviews should adhere slavishly to the style that Roy Loan cites. Knowing the date of publication of a book is a bit on the side of useless information, and it can be definitely misleading in the case of a volume containing a story written many years before publication. On the other hand, including in this prefatory matter a brief note, telling whether the book is included in the Bailey or Bleiler checklists of fantasy books might be of some service to the reader. In the case of out of print volumes, reviewers who are willing to say what price they paid for the books could help to build up a listing of prevalent prices in the second hand fantasy book market. (I presume that the standardization of book review format proposed about five years ago by Langley Searles and a few others has been completely forgotten by this time.)

I don't think that book reviews have any real "value," except to spread a little information, give the reviewer practice, provide some egoboo for the author, and act as a buying guide for the reader. But I think that reviews in fanzines could do more service to the fantasy book field, by increased emphasis on several matters. I've not bought many books from the semi-pro houses, so my list will be very brief. Add to it at your pleasure.

(1) Reviewers ought to call a spade a spade more often by getting tough about books that appear riddled with misprints. There is little excuse for typographical errors in the fantasy publishing field. If Simon & Schuster brings out a book about the coldwar, the volume's typography might be excused because it had to be rushed through to remain of current interest. But no such time element enters into fantasy book publishing. New titles never show up until six months or more after the originally announced publication date. Another two weeks spent in one last

inspection of galley proofs would mean only a slight further delay, little type-setting expense, and a more professional product. Remember, the semi-pro houses are charging pro prices for their books, and frequently are paying only republication fees for the rights to the story. These publishers should be able to afford a typo-free product.

(2) We ought to swing a big club at the growing practice of anthologies that are evenly divided between their-print and the out-of-print. The scheme of forcing the purchaser to pay full book price for a volume that contains a hundred pages or more of stories that are available in other books is bad. It's apt to become worse, as the flood of short story collections continues.

(3) Special attention should be paid by reviewers to publishers who are purchasing unpublished manuscripts for book form. This is very important, from both the practical and the idealistic viewpoint. It's practical because the prozines have been pretty thoroughly ransacked for reprintable stuff by now. Volumes drawing their content from the prozines either duplicate other books or must be content with hack stuff. It's idealistic, because in all other types of fiction, good novels that don't meet pulp magazine formulas or restrictions find a place in book form. The sooner this situation spreads to the fantasy field, the better.

(4) Every publisher who advertises that his latest book is appearing in a "limited edition" should be forced to give his definition of an unlimited edition.

Miscellany

Free advertisement first of all: Paul Spencer is now renewing his FAPA membership through lack of interest, and no longer feels that the world will come to an end if he doesn't own the mailings for the past few years. Therefore, he wants to sell all the mailings he owns, a half-dozen years of FAPA complete, more or less. I don't know his price, but I know that he prefers to sell the whole pile to one person.

There's a long story behind the contents of the next three pages. For the last two years of Spaceways' existence, the folder of manuscripts awaiting publication was padded by a long article by Georges Gallet, the French fan. Every time that I got set to start stencilling, something more timely in nature would arrive and crowd out Gallet. Somehow in the two-year period I conceived the notion that it was a very dull article in any event. Then Spaceways folded, in 1942, and I couldn't return the article because Gallet was in Occupied France. By the time Gallet made a brief reappearance in fandom (mostly through a Wollheim broadside) the existence of his article had slipped my mind.

Last night, the inevitable happened. Tottering piles of magazines piled almost ceiling-high in my closet collapsed. It has taken most of the afternoon to subdue the flood of pulp that roared out when the closet door was opened. While stuffing the magazines back into submission, some non-professional debris was left over, like driftwood...oh, golly, that participle! Anyway, Gallet's article came back to the light of day. The article I had planned to fill this issue of Horizons isn't quite ready, so I'm breaking my self-authorship rule. I think there's a lot of interest and worth in the article, which I'll turn over to anyone willing to print it intact. It runs to 16 single-spaced pages.

Infinitely Great, Infinitely Small

(What follows is a rather random sampling of Gallet's text. Parenthesized portions are my own comment, explanation, or further abridgment of his words. His words in turn are a summary of "Micromegas," an essay published in France in 1935 by R. G. Messac and not to my knowledge available today.)

In preliminary considerations, Prof. Messac says: "The widening of our horizon as much in the sense of the infinitely great as in the sense of the infinitely small is, without any doubt, one of the most surprising phenomena of modern and contemporary history, and one of the biggest in possible consequence. There will be found in this book a collection of texts relating to the same subject, or at least to the same stream of thoughts. This kind of study, sometimes called 'thematology,' a rather barbarous word, is seldom made and not at all valued in our beautiful country.

"I wish above all that the men of science would take interest from time to time in consequences and even deformations of their discoveries and their theories as they are revealed to us by literature. These repercussions and deformations are not without importance and interest, as much to the specialists as to the community. The huge majority of the people who make up the public and even those who are called 'the elite', the cultivated people, more often know the last results of scientific research only through the fantastic and fanciful interpretation of writers, and the interpretations and the explanations of vulgarizers who beside in some way belong to literature are but little less fanciful or fantastic. Would it not be good and useful that those who know exactly the truth should sometimes straighten out certain extravaganzas, or point out what is wrong in certain caricatures?"

The essay opens with a quotation from Bergson's "Duration and Simultaneity":

"There is no physics, no astronomy, no possible science if one denies to the man of science the right to figure schematically on a sheet of paper the totality of the whole universe. One admits implicitly the possibility of reducing without deforming. One estimates that dimension is not an absolute, that there are only relations between dimensions and that all would happen in the same way in a universe made little at will, if relations between parts were retained."

(Even primitive man measured smallness and largeness by comparison with his own body. Giants and dwarfs appear in all folklores.)

The first writer who, in modern times, has played with the contrasts of great and small is evidently Rabelais. It is true that he writes of giants without opposing them to pygmies, but they are so much greater than ordinary men that these look like pygmies beside them. It is enough that the storyteller takes sometimes Pantagruel's point of view and sometimes Panurge's, to give us the impression of going from Lilliput to Brobdingnag.

(Rabelais might have influenced Swift. But between the two the intellectual atmosphere had been ventilated by the invention of the microscope, which upset size ideas.)

Speculations on the macrocosmos and microcosmos, although familiar in certain philosophers of antiquity and echoing in the fathers of the Church, became more frequent and more convincing

from the end of the 16th century. Pascal's famous page on the infinitely great and the infinitely small is only the result. Father Nicolas Cassin in 1910 is enraptured by the subtlety of an ant's organs and in 1641 the author of "Francion" has one of his heroes, the pedant Hortensius, say: "You must hear of other designs that I have. Know that if the world seems great to us, our body does not seem less so to a louse or a mite. He finds there his countries and his cities. Now there is no body so little that it cannot be divided into innumerable parts, so it is well possible that inside or outside a mite there are still other smaller animals that live there as if in a very spacious world, and they may be little men, to whom beautiful things happen. Thus, there is no part in the universe where it cannot be imagined that there are little worlds. There are, within plants, small pebbles, and ants. I will write romances of the adventures of their people; I will sing their loves, their wars, and the revolutions of their empires, and principally, I will stop to represent the state where the peoples that inhabit the body of men may be, and I will show that it is not without reason that it has been called microcosm."

(Similar ideas are found in Cyrano de Bergerac's "States and Empires of the Moon," Hobbes' "Elements of Philosophy," Malebranche's "The Quest for Truth," La Bruyere's "Characters," Fenelon's "Telemachus" and "Treatise on God's Existence," Bernouilli, Leibnitz, Tyssot de Patot's "Voyages and Adventures of Jaques Masse," and the Cardinal de Polignac's "Anti-Lucretius," not to mention Dean Swift.)

In 1735/37 appeared a confused but curious and original story entitled "Lamekis" by le Chevalier de Mouchy. The hero is carried to the stars by sylphs using the laws of gravitation, attracting and repulsing forces as means of traveling. He is kidnapped by a monstrous worm-man, stronger, more intelligent, and more learned than ordinary man.

The crowning of this period is without any doubt "Micromegas" by Voltaire.

(Variations of this central theme are numerous. In 1795, Francois Felix Nogaret published "Earth Is an Animal." The 19th century produced many works, like the familiar "The Diamond Lens" by Fitz James O'Brien, and Poe's "The Sphinx." The former was ignored by Europe.)

In "Unbelievable Stories," 1885, Jules Lermina tells in "Quiet House" the story of two scientists: Aloysius and Truphemus of Hoboken, who have solved the problem of chemical food. But if they are happy with their meals of $C_{48}H_{36}Az_{16}$ and so on, Aloysius' wife and his daughter Netty do not seem happy. Both decline. Truphemus has an idea: if plants submitted to ultra violet rays grow faster than plants exposed to usual daylight, why not try it on the girl? "Girls are flowers." Netty is placed in a crystal house in which only violet rays are filtered, and inside a park with violet plants. She is dressed of violet gauze. In three months the little girl of five is four feet, eight inches, a woman in stature but still a child in mind. Aloysius and Truphemus have arguments, and Truphemus thinks of perfecting the miracle by an operation. A young traveller, Franz Kerry, who has seen Netty in her crystal tower is madly in love with her and asks for her hand. As he discusses with the sci-

entists, Netty, unwatched, plays with the electrical gadgets in the laboratory and provokes a catastrophe that destroys the "quiet house" and its inhabitants.

The idea of food is in the air about the same time. Andre Laurie publishes "Spiridon the Mute." A physician, Aristide Cordat, yachting along the coast of Sardinia, discovers in the ruins of an ancient Phoenician tower a colony of giant and learned ants. Their king is almost manhigh. He has a passion for vivisection. He is ready to dissect Cordat but the doctor succeeds in wounding and capturing him. They make a pact, Spiridon goes with Cordat to visit men's society. With a mask and various rags he has an almost human appearance and passes for a Japanese scientist, Baron Tasimoura, mute and deaf. The adventure ends in the wrong way. Spiridon, deprived of all sense of good and bad, commits several murders. Cordat is arrested and Spiridon half killed by the daughter of one of his victims. Nevertheless everything turns out well. Spiridon comes back to life, but almost unconscious. He passes his time in a garden, looking at the ants going to and fro.

(From this point on, authors turned their attention to stories in which the observers' nature was varied. About the same time, the "scientific romance" was developing rapidly between 1880 and 1914, thanks to scientists who pointed out the small amount of things known compared with the large amount that remains unknown, and the influence of H.G. Wells.)

Not without comebacks and detours. Some stories of which it must be spoken are not based upon modern atomic theories but upon the archaic conceptions of Cyrano and Francois Felix Nogaret: "The Globe's Murders," by Commandant de Wailly, about 1910.

Claude Rolland, his sister, and a multimillionnaire, Williamson, look for the mysterious "Old Sinker" whose real name is Lobanief and who has sworn to kill the globe. After a thousand vicissitudes, chased by Jonathan Loeb, president of the Globe Defenders League, who has a personal hate against Lobanief, they all find Old Sinker in Japan, where he is boring a gigantic mine shaft near a volcano. Old Sinker believes the earth to be a huge beast, and hates it because his wife and children have been killed in the Chicago earthquake. (?) But Old Sinker instead of stabbing the earth with his "pistoury" at a vital point to kill it only provokes an eruption and dies. "It was not an artery or an organ," sadly whispers Rose of the Snows. "It was a tumour or an abscess. The master, giving his life, wanted to wound mortally the monster. Maybe he only relieved it."

(Messac points out at some length the scientific points which these stories usually ignore, fears that we never will go from our world to the world that exists in the atom, but doesn't abandon all hope.) The likeness between the atom and a planetary system is contestable and is contested. But we must not abandon all hope. Even if observation deforms or destroys in part the observed object, it does not prevent science's progress. Now comes the electronic microscope, which will show what even light leaves in shadow. It may discover a world full of wonders which may revive the enthusiasm of the first microscopes of Leeuwenhoek or Spallanzani, and a new stream of imagination shall follow to give us new and better stories, beside which those of today will look as old as Wright's plane beside our round the world record breakers.