3010 N. Calvert
Baltimore, MD.

Editor, Amazing Stories
461 Eighth Avenue
New York, N.Y.

Dear Sir:

Since this is my first letter to you in a long time, I am especially regretful that much of it is to be critical in the scolding sense.

I have been interested in scientific fiction since the early days of Amazing Stories, and have been an interested reader of your magazine since its early issues. Since the major portion of scientific fiction published in this country has been published by you, and since you have published most of the greater stories, I, like many other readers have always looked to you for the best in scientific fiction. I expect that after the first year to the present date contributors to your Discussions columns have bemoaned the good old days when your stories were of a much higher quality than those of the date of the complaint, and certainly there have been lows and highs in the quality of your stories. The present time seems to be a low period, and I write this principally to point out what I consider the most objectionable weak points.

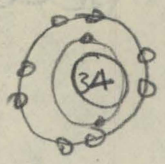
As I understand your editorial policy, it has been from the beginning to publish stories which exploit scientific possibilities ~~or improbabilities~~ not yet realized. Obviously this offers possibilities of extremely interesting and stimulating plots and is a legitimate policy, with certain qualifications. These qualifications are that the literary technique be adequate and that ideas definitely refuted by present scientific knowledge be excluded from the stories, or at least reduced to a minimum. As I see it, it is the upholding of this editorial ideal that alone can give you the right to term Amazing Stories the "aristocrat of science fiction".

With respect to adequacy of literary technique, it must be confessed that most of the available science fiction output falls far short of what might be considered the minimum requirement. It is all too rare an experience to find a story in which the plot is coherent, and well logical, and well worked out, in which the style is pleasing, and in which there is a certain amount of character exposition. Certain of your authors which have ~~better~~ avoided the worst pitfalls in literary technique that they stand far above their fellows are (were) Miles J. Breuer, M.D., David H. Keller, M.D., G. Peyton Wertenbaker, Stanton A. Coblentz, and, ~~of course~~, A. Merritt, John Taine, and E. E. Smith, Ph. D.

The most frequently occuring types of pseudoscientific plots used in your stories have been frequently discussed: interplanetary stories, fourth dimension and time travel stories, general predictions of the future, alterations in size, biological fantasies, Atlantis and other lost civilization stories. The scientific part of these various types can be made fairly rational, except perhaps the fourth dimensional and time travel ideas. ~~This is generally not done,~~ however, presumably because the authors' primary purpose is not intellectual stimulation, but blood-and-thunder spell binding.

~~The author~~ In the current output, the scientific basis of the plot is generally not emphasized, however,

Se



Se $(1s)^2(2s)^2(2p)^6(3s)^2(3p)^6$

		wt.
Se	$(4s)^2(4p)^4$	78.96
As	$(4s)^2(4p)^3$	74.91

Se must lose 1 electron
1 proton
3 neutrons

Among the authors who have excelled in ~~this~~ the scientifiction part of their scientifiction writing are John W. Campbell, Jr., E.E. Smith, Ph. D., and John Taine. Some of those who have offended the worst by foolish scientific absurdities are John Russell Fearn, ~~Stanley G. Weinbaum~~ Edmond Hamilton and other less frequent contributors. Personally, I consider Fearn's work as generally the most horrible example of this sort of defect.

The major defects in the current output of sciencefiction can be summarized as being due to violation of the two requisite qualifications I previously enumerated, scientific plausibility and decent literary technique. Many of your authors think that by writing a lot of meaningless gibberish with the indiscriminate use of scientific terms they justify the scientific requirement, and that the literary requirement is filled by any sort of hare brained adventure tale which has plenty of physical risk and adventure for individuals or for the entire earth. Not so.

After these generalizations, I will be specific. First I should apologize to Mr. Joe Skidmore for using his "Murder by Atom" as exhibit A of the objectionable type of sciencefiction story. I have read many worse; also I have enjoyed some of Mr. Skidmore's work, but the present story is in my mind because I have just perused it. My thesis is is that the yarn is scientifically absurd, and is crude and childish from the literary standpoint. Furthermore, by the way, it is incredibly hackneyed. In the first place the Brenizer ray ~~is~~ is the trite death ray idea not redeemed by a plausible explanation. A "strange, deadly ray" which would expand electronic orbits to many millions of their diameter would have to carry such a huge power that it would be much more logical to release its energy as heat, which would be just as devastating. Furthermore, if we must have this mechanism of death-dealing it is absurd to attribute the effect to the enlargement of the iron atoms in the body, which are present in extremely small concentration, even in the blood, ~~when the expansion of the carbon atoms, which are far more plentiful, as anyone knows, would contribute far more to such an effect.~~ It is specifically stated that carbon was also affected. The idea is not presented in a plausible manner, nor is it developed logically. As to the arsenical murders: It is stated that huge concentrations of arsenic were formed in the body by the action of X-rays on selenium. This is absurd, even from the quantitative standpoint, since selenium is present in such small quantities in the body that if it were entirely converted into arsenic, it would be barely detectable, and yet the author says the bodies were "saturated" with arsenic! The mechanism of the transmutation is also ridiculous. "By some strange, numerical influence" the ray caused the selenium atom to lose "five positive electrons and one negative electron", thus causing the formation of an atom of arsenic from an atom of selenium! In the first place this would give a group of net charge minus four, if the selenium were originally present in the atomic state, not a neutral arsenic atom, as the simplest arithmetic shows. (Of the term "positive electron I will speak more later.) To change the selenium atom to an arsenic atom you would have to remove one of the outer, "planetary" electrons, and remove from the nucleus one proton (which is apparently what Mr. Skidmore means by "positive electron",) and three neutrons. ~~The accomplishment of such~~ If the neutrons were left in, you would have an isotope of arsenic. ~~The~~ accomplishment of this process by X-rays sounds extremely improbable. The scientfic ideas in this story are not only childishly

naive, they are mostly erroneous. By the way selenium is poisonous, if at all, only in the most minute quantities. Mr. Skidmore states that their presence is beneficial — on what authority?

Now, as to literary criticisms. The characters are stereotyped. "World famous scientist and superinvestigator", mad Russian scientist with melodramatic appellation; we have a superfluity of these--in fiction. As to the exposition of Millstein's character, I can only that his thought processes might sound convincing to a Junior High School boy, but certainly they would not indicate scientific acumen to anyone possessed of a rudimentary scientific education and average intelligence. If desired, I can raise more points in support of my judgement of the literary merit of this story. [illegible]

It happens that selenium is so toxic that the lethal dose is 300 milligrams or [illegible] of an ounce

Incidentally, the term "positive electron" is used properly to refer to a particle of the same mass as that of the electron, but with a positive charge. It is otherwise known as the positron, and was discovered by recent Nobel Prize winner Carl David Anderson at the California Institute of Technology in 1932. This is not the same as a proton,

Dr. Sloane in his editorial makes the same mistake as Mr. Skidmore's, in referring to protons as a positive electron. It is also stated that "one of the developments of modern chemistry can be taken as the absolute denial of the possibility of the transmutation of metals". This is absolutely incorrect. Transmutation is a commonplace. For example ~~sodium has been transmitted into magnesium by proton bombardment. with the protons~~ vanadium is formed ~~by the neutron~~ bombardment of manganese ~~[illegible]~~ from iron and from cobalt, copper from zinc, by neutron bombardment. The products of such transmutations are [illegible] radioactive.

It is stated that (only) "ninety three elements make up the world as we know it." I think I am correct in stating that only ninety two elements make up the world as we know it. The ninety third element does not occur in nature, although it has been made by [illegible]. It is stated in the editorial that "unsaturated compounds" (meaning, apparently, free radicals) cannot exist. As a matter of fact they do exist; and their existence has been known by chemists for many years. (To name a few, triphenyl methyl exists in solution, and free methyl radicals have been shown to exist in the gas phase.) It is stated that the formula of sulfuric acid is H.S.Q. This is no doubt a misprint for H2SO4. Such misstatements are scarcely excusable.

I would suggest that Amazing Stories be read by a literary editor and by a scientific editor before publication. I believe that it is your policy to print critical letters. ~~It is perhaps too much to hope for an answer to these criticisms, either from the editor, or from Mr. Skidmore.~~ However, I should greatly welcome discussion of any of the points involved, with the editor, Mr. Skidmore, or any of the readers. I may say that other readers of science fiction of my acquaintance concur with me in these criticisms.

~~I have written the above letter because I am sincerely interested in the merit of your magazine, and I sincerely hope that some sort of answer will be forthcoming.~~ I shall be glad to answer any disagreement with any of the statements which I have made.

Sincerely yours,

Richard Dodge