

placed with a yard or two of glass tubing to get a higher lift. This whole outfit can be set up and show a rise of several inches to a foot or more within the usual forty-five minute period. It is free of complications necessarily present in the egg or parchment; it holds the interest of the students; it simplifies the problem and facilitates understanding. And it really takes less time than the other demonstrations. Bags prepared in this way in advance may be kept indefinitely suspended in sterile water, with the rubber stoppers in place ready for instant use.

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### DISCUSSIONS AT SCIENTIFIC MEETINGS

THIS is to voice the sentiments of many scientists with whom the undersigned has spoken concerning the machine-like method with which our scientific meetings are conducted. Time was and not far distant in the past when each paper was given critical examination and rarely indeed did a conclusion escape open-air discussion, with the result that erroneous conclusions did not bear the weight of conviction from having been presented to some august society and the conclusion not challenged. In the days when the Society for Experimental Biology and Medicine was enlivened by the searching criticisms of men like Lusk, Jacoby, Meltzer and others, both profit and pleasure resulted. It is common, at the present time, for the presiding officers of our societies to announce that eight minutes are available for the reading of a paper and two for discussion. The logical method would be to reverse this program.

Any attempt to limit the number of papers entails difficulties, but they are not wholly unsurmountable. If we keep clearly before us what value we expect from the reading of papers, our criterion is set. Then we may entrust to a selected group of men (or to a single member) the designation of a relatively few papers bearing the stamp of importance, or of some especial virtue such as promise, or even to further the work of some young and promising worker. There are always men who will place their own benefits above those of the majority, and they will be offended by not having their papers selected. There will always be papers embodying important factors which, because they are not evident, are passed by. However, in the long run, ten papers critically examined are preferable to double the number passed through the program like the film in a movie.

A decigram of discussion is worth a kilo of pulpwood paper required to print erroneous conclusions and faulty technique.

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### HEARING AND NOISE

IN the article on "Graduated amplifiers as an aid to hearing" in the June 20th number of *SCIENCE* appears this statement: "The fallacy that deafened persons can hear better in noisy surroundings was disposed of by Dr. Fletcher," etc.

The truth of the matter is that people who are deaf because of fixation of the foot plate of the stapes often do hear better in noisy places, as every otologist knows.

I recall one man who was so deaf I had to shout to make him hear, yet he stated that he could hear a pin drop in a boiler shop. Another patient, who was also quite deaf, said she could hear perfectly if the piano were being played.

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### SOME REMARKS ON THE LITERATURE OF RUST FUNGI

WHILE reading various mycological publications, the writer has noticed certain errors and omissions in reference to matters of fundamental importance, to which he wishes here to call attention and also to add some comments that may be of interest, bearing upon the same or similar subjects.

On page 202 of Harshberger's text-book,<sup>1</sup> which, by the way, is one of the best books of its class that the writer has read, it is stated that the black stem rust of wheat (*Puccinia graminis tritici*) occurs seldom on barley, whereas it is the common stem rust of barley, as well as of wheat, in the United States. Eriksson is evidently meant to be authority for the statement, as it is repeated on page 562, and there directly credited to him. Nevertheless, in 1899 the writer published results,<sup>2</sup> showing that barley stem rust and wheat stem rust are the same. (This publication is not included in the bibliography of the book.) Dozens of investigators have since confirmed these results, and yet others have made this same error of statement. To state an elementary fact, that should be generally known, but apparently is not, there are in the United States (1) a form of black stem rust very common on barley and wheat, (2) another distinct form on rye and rarely on barley, and (3) a third distinct form on oats, each of these being found

<sup>1</sup> Harshberger, John W., "Mycology and Plant Pathology," XIII + 779 pp., 271 ills., P. Blakiston's Son & Co., Philadelphia, 1917.

<sup>2</sup> Carleton, Mark Alfred, "Cereal rusts of the United States, a physiological investigation," U. S. D. A. Div. Veg. P. & P. Bull. 16, 74 p., 1 fig., 4 col. pl. Bibliogr. pp. 70-73, 1899.