(Bouvier's election dates from 1902, Giard's from 1900 and Henneguy's from 1908.) The others (elected between 1795 and 1900) were Émile Blanchard (elected 1862; president 1883), Léon Dufour (elected 1830), Fabre (elected 1887), Geoffroy (elected 1798), Mulsant (elected 1873) and Savigny (elected 1821).

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## VEGETABLE FOOD AS A SOURCE OF IODINE

IT has been shown by McClendon that there is a close correlation between the distribution of iodine in surface waters and the incidence of goiter in the United States, and the protective factor has been quite generally assumed to be the use of iodine-containing waters for drinking purposes. Fellenberg has made studies on the iodine content of spring waters and of soils in goitrous and non-goitrous regions of Switzerland, with similar correlation. When, however, Fellenberg examined vegetables grown in these districts, he did not find any such marked differences. He did find differences in milk and so concluded also that the water which the animals drank, rather than their feed, was the controlling factor.

Nevertheless, if iodine is present in the soil solution, we should expect plants to take it up and perhaps concentrate it in the tissues. The enormous ability of sea-weeds to concentrate iodine is well known. Both Fellenberg and Stoklasa have been successful in increasing the iodine content of beets by fertilizing with iodides, and Stoklasa found an increased growth when iodides were used, suggesting that iodine has an effect on the metabolism of the plant. If this is true, it seems likely that a part at least of the iodine of the plant exists in organic combination. No one has successfully proved the existence of such a compound, however.

Such public health measures as the addition of sodium iodide to water supplies, and the use of iodized salt, have become widespread. Sherman, however, has suggested that some less readily eliminated form of iodine, or perhaps some combination which more nearly approaches the structure of thyroxin, might be more efficiently utilized by the animal organism. Certainly the experiments of Abelin, Swingle, and Uhlenhuth have shown that in the metamorphosis of amphibian larvae, inorganic iodides are relatively without effect, as compared with iodine compounds of amino-acids.

The use of kelp as a feed for dairy cattle in order to produce an iodized milk for infant feeding has been the subject of research, and is now being commercialized.

South Carolina is practically free from goiter, and furnishes an excellent field for the study of iodine in human environment. Early results in our laboratory indicate that vegetable foods produced in parts of this state contain amounts of iodine which are truly enormous when compared with those usually reported.

If we assume as correct the value given by Fellenberg for the daily intake of iodine necessary to maintain equilibrium in a man (fourteen micrograms) some of these vegetables contain enough iodine to furnish a protective dose in the amount usually served at a single meal. For example, we have a number of samples of Irish potatoes from this state which contain enough so that, if none is lost in cooking, a single four-ounce potato per day will furnish the fourteen micrograms.

Leafy vegetables from this region have also been found to be very rich in iodine, beet-tops and lettuce running as high as one thousand parts per billion on the dry basis. Beet and turnip tops contain several times as much as do the roots. We have thus an additional argument for the inclusion of salad greens in the daily diet.

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## UNPROFITABLE METEORS

I HAVE this year lost a week through meteors. Not in observations or calculations which proved to be false, but in interviews, articles, phone calls. "This is the *Daily Star;* we have a story from Cambridge, etc., etc." A week lost, not in advancing truth but denying fiction.

First it was the harmless Perseids which yearly in August slightly increase the observed hourly average of the eight million or more meteors which strike the earth's atmosphere every twenty-four hours. A scintillating full column of "press" from Washington, containing more astronomy than the average reporter could possibly know, promised a wonderful display, to be seen only once every one hundred and twenty years. Most cleverly buried at the close, as a possible sop to the managing editor's standard of truth, was the shrinking statement that this really happens every year. But the damage was done; the secretary had a hard week of phone calls; I unsuccessfully tried to persuade the reporters that it was nearly all a lie, and at three A. M. on the fateful morning sent home three auto loads of people scanning the perfectly cloudy sky from in front of the observatory.

And now it is the equally harmless Leonids, most disappointing at their last scheduled 33-year appearance in 1898–99, and not even due yet for three or four years!

That such means of "arousing popular interest" are beneficial rather than detrimental to a science will be maintained by none. The fault must lie in the manner of giving out astronomical news or in insufficient disciplinary checks on the misuse of proffered information. In a somewhat extended experience I have met perhaps five gentlemen of the press who were exceptions to the general rule that a reporter is a brilliant young man whose mission in life is to improve the truth. The director of one of America's greatest observatories used to give out information only in typewritten form; when this was embroidered and improved by dailies of yellower tinge, information was refused these for a time. Such discipline is not hard to apply, and soon brings the promise to be good.

The following procedure may also help—in giving out "news" state fully and clearly its interest to the layman as well as its *actual importance to astronomy, and insist that this appraisal be included* in the "story."

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ALLEGHENY OBSERVATORY,
Nov. 17, 1928

## AGRONOMIC TERMINOLOGY

ON the return of the writer to Washington, after a summer spent largely in the field, his attention has been called again to an article[1] which appeared in SCIENCE last June.

There is neither need nor desire to attempt to reply in kind to the writer of the critique of the median terms suggested by the Committee on Terminology of the American Society of Agronomy. Constructive criticism is welcomed but careful reading for three successive times has failed to discover a single constructive suggestion. His discussion rises to no higher level than that of ridicule and personal abuse. In describing the proposed terms, he uses such phrases as "grotesque inventions," "fantasies of sounds," "etymological freaks," "ludicrous lexicon," "monster after monster," "bizarre," "orthographic solecisms" and "pleonasms." Not content with thus characterizing the words, he applies the following epithets, among others, to the actions and personnel of the committee, namely, "egotistic effrontery," "diaskeuasts," "ignorant minority," "illiteracy," "irresponsible committeemen," "modern Malaprops," "philological mountebanks," etc.

It is not necessary to consider further the value of such a presentation. The readers of SCIENCE are entitled, however, to a discussion of some facts and principles which were omitted, misstated or denied by the critic in the article in question.

(1) "One can not but be astonished at the egotistic effrontery of a group of men who, after a few weeks' consideration, attempt to improve a language which has met the test of world-wide use for so many centuries."

So far as the idea conveyed by the phrase "a few weeks' consideration" is concerned, the records of the committee show that the subject of median terms had been made a matter of study since 1923, as stated in the report criticized[2] (page 183). More important, however, is the implication that the English language has not been "improved" for "so many centuries." Any one at all familiar with the history and structure of a language knows that it is in a constant state of modification. Changes in spelling and pronunciation occur gradually but commonly from century to century. Narrowings or broadenings of the meaning of words come about with the passing of the years. Equally abundant and important are the additions of new words with the expanding knowledge and activities of mankind. Geoffrey Chaucer was a prolific writer of the English of his day in the latter half of the 14th century, something more than 500 years ago. The common words of our present English speech as used by Chaucer are so different in spelling and pronunciation, and sometimes in meaning, as to constitute almost a foreign language, exceedingly difficult for the modern to read. Still more important, thousands of words in the popular and scientific literature of to-day did not exist at all in Chaucer's time because the objects, actions or conditions they denote either did not then exist or were still unknown to man. Evidently the English language has been quite materially changed, and perhaps even improved, in the course of only a few centuries.

(2) "If the agronomists are successful in having their orthographic solecisms incorporated in the respectable dictionaries we may expect similar minority domination from all quarters and our language will become the plaything of irresponsible committeemen."

Whence come the numerous new terms constantly appearing in our language? Are they created by the dictionary makers and discovered in the new editions of dictionaries by the scientists who have occasion to consult these works? Not at all. They are created arbitrarily and intentionally by the persons who first recognize the need for them. They are then brought by publication to the attention of fellow craftsmen,

[1] J. H. Kempton, "Agronomic Jabberwocky," SCIENCE, n. s., 67 (1747): 629–630, June 22, 1928.

[2] Carleton R. Ball, Homer L. Shantz and Charles F. Shaw, "Median Terms in Adjectives of Comparison," *Jour. Amer. Soc. Agron.*, 20 (2): 182–191, fig. 1, February, 1928.