The calendar I would suggest puts four weeks of seven days each in eight months, and five weeks of seven days in March, June, September and December. Every fifth year a leap week is added to December, except that the last leap week is omitted each forty years, save the tenth; and each 20,000 years, save the tenth—time periods being reckoned since Christ. Thus there would be no leap week in 1960, 2040, 2080, etc., but there would be in 2000, 2400, 2800, etc., and again there would be no leap week in 20,000, 40,000, 60,000, etc., but there would be in 200,000, 400,000, 600,000, etc.

This provides for exactly the same number of days in a four-hundred-year period as the current calendar, and it makes a necessary correction beyond the four-hundred-year periods not provided for in the Gregorian calendar, thus reducing the error in the average length of the year from 26 seconds to less than 1 second.

Even the present calendar must be corrected daily for any exact measurements or computations; while, with the great meteorological variations in seasons, the adjustment proposed for the five- and forty-year periods could not be detected in single-year weather records and would be quite as acceptable as present adjustments for the four-year and century periods.

We are already accustomed to months with the number of days varying from 28 to 31. Indeed, probably half the people look to the wall calendar to learn how many days the month contains; and to date a letter "September 35" or even "December 42" (once in five years) would be systematic and simple in comparison with "Gregorian Week 7" or "New Year's Day, 1911," when that is to designate not the first day, but the last day of 1911.

It is suggested that the calendar proposed above be considered as becoming effective on Sunday, January 1, 1956; that it be called *Peace Calendar* and its inauguration mark the beginning of permanent peace among the civilized nations, time thereafter being designated P.C., when necessary to distinguish from O.S. or N.S.

Cyril G. Hopkins
University of Illinois,
December 1, 1910

AMŒBA MELEAGRIDIS

To the Editor of Science: In a recent issue of Science[1] Dr. Theobald Smith makes certain comments on a recent published report[2] by the undersigned, in which he dissents from the position taken by us regarding the relation of blackhead in turkeys to avian coccidiosis. Little is to be gained by a controversial discussion which makes no mention of details, and such will not be undertaken in this communication, but there are one or two points in Dr. Smith's communication which deserve notice.

The writers made observations which showed the relation of coccidiosis to certain cases of blackhead, and demonstrated what they believed to be the relation of *Amœba meleagridis* to the coccidium described. The evidence for the conclusions can not be repeated here; for the details the reader is referred to the bulletin in question. It may be said, however, as a result of further investigations by one of the writers, that some confusion probably existed between certain stages of the coccidium and stages in the development of certain flagellated organisms, but neither the earlier observations of the undersigned, nor any that have been made more recently by one of the writers, have given any warrant for assuming the existence of *Amœba meleagridis*. The reasons for not so considering the organisms found in the diseased tissues of turkeys affected with blackhead are stated in full in the report, and the only evidence which Dr. Smith has brought forward as supporting a contrary view, since the publication of his first description in 1895, is given in a foot-note to his recent communication (*loc. cit.*, p. 512),

[1] 1910, N. S., Vol. XXXII., No. 824, October 14, pp. 509–512.

[2] "Blackhead in Turkeys: A Study in Avian Coccidiosis," Bull. 141, Rhode Island Agricultural Experiment Station, 1910.

in which he says: "Amœbic changes in form have been noted recently in liver tissue [sic] examined *immediately after chloroforming affected turkeys*" (italics as in original). It is to be presumed that reference was meant to the parasites within the tissues. Dr. Smith is of the opinion that the varied etiological conditions encountered in the different species of birds, and in turkeys at different ages, leads to a conclusion that two distinct diseases were encountered and confused. It does not, however, seem to the writers that a different expression of the effects of a disease among various species, or in the same species at different ages, is anything remarkable. Furthermore, it was specifically stated that other complications were a common accompaniment of the coccidial infection, and one other organism was mentioned which, it was suggested, had the power to produce pathological conditions characteristic of blackhead.

Regarding the relation of the coccidium observed in blackhead to *Coccidium cuniculi*, the great variability in the shape and size of the cysts led to the tentative conclusion that the two were not to be separated on purely morphological grounds. On page 203 of Bulletin 141 appears the following:

> It may be here stated that the present writers (Cole and Hadley, 1908) have, in the past, used the name *Coccidium cuniculi*, merely to signify the *morphological* [italics not in original] resemblance to this organism. . . .

As to the biological tests, some inconclusive experiments are reported on p. 183, and on p. 203 it is said:

> Experiments involving such tests are now under way at the Rhode Island Experiment Station, and until their results are clear, the authors do not feel justified in attempting to place the organism of blackhead [*i. e.*, the *Coccidium*] in its proper systematic position.

Furthermore, the position taken in Bulletin 141 regarding roup as a coccidial disease is merely suggestive—on account of the similarity to the schizont stage of a coccidium of certain histological elements found in roup lesions—and in no sense positive. For example, it is stated on p. 205 that it "seems possible" that what Harrison and Streit figure as "swollen nuclei" may represent stages in the development of a coccidium; and again, on p. 206, it "seems possible" that the "refractive bodies" described by Cary may also be shizont stages of coccidia.

In closing, Dr. Smith (*op. cit.*) remarks:

> I also wish to protest against the publication of premature, undigested, controversial statements in the form of preliminary notices years before the appearance in print of the actual work on which such statements are presumably based.

It is certainly much to be regretted that the appearance of the full bulletin was long delayed awaiting the production of plates. It should be stated, however, that the "preliminary communication" referred to by Dr. Smith was not a special article on the subject. It was merely the *abstract* of a paper read at the scientific meetings at New Haven and Chicago; and, as such, partook of the abbreviated form characteristic of most other similar abstracts printed in SCIENCE. Needless to state, much "proof" could not be supplied in an article necessarily of so short a nature.

LEON J. COLE
PHILIP B. HADLEY

QUOTATIONS

WOMEN AND SCIENTIFIC RESEARCH

IT is a long time since so interesting a phase of the question of woman's place in the world of intellect has come up as that presented by the proposition that Mme. Curie be elected a member of the Académie des Sciences. Of course, nothing really analogous to this case has yet arisen in the course of the advancement of women that has been so remarkable a part of the history of the past generation; there is something more dramatic about the situation presented when the most distinguished group of scientific men in the world debates the admission of a woman into its charmed circle than in the gradual extension of the field involved in the opening of the doors of university after university in country after country, to women students. As for the merits of the case, and its probable outcome,