history of "l'Histoire naturelle" from pre-Aristotelian times to near the end of the eighteenth century, Camus considers in order and at some length all the forms mentioned by Aristotle. I am unacquainted with any other notes that include as much. Notes may be found in "Aristoteles Thierkunde" of Aubert and Wimmer (Leipzig, 1868), but of a meager sort compared with those of Camus. Aubert and Wimmer did us the favor of assigning specific names to many of Aristotle's animals, but made little effort to do more in a biologic way. One finds in the older work, however, an analysis of the errors and truths in the "Historia animalium." More than that, Camus analyzes Aristotle's work not only in the light of that of Linnaeus, Buffon and others among his contemporaries, but in comparison with that of other ancients —Hippocrates, Aristophanes, Aelian and others—as well. In other words, the notes of the second volume of Camus's translation analyze Aristotle's statements in the light of more than twenty centuries of biological ("natural history") writings.

Needless to say, a work completed in 1783 can not be relied upon explicitly for all information it is purported to contain. But as a useful reference it surely has possibilities. The zoologist who is interested in tracing back to the very sources certain ideas (with regard to particular forms) stated or foreshadowed in Aristotle may be able to use this volume to good advantage as a limited bibliography. It is certainly worth reading by all who, having read the "Historia animalium," marvel at the remarkable number of facts accumulated by Aristotle.

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A PERPETUAL CALENDAR

I ASSUME that it is generally known that there is an organization in California with headquarters in San Francisco, I believe, whose purpose is to secure a revision of our present calendar. This organization proposes to introduce a calendar in which the year shall consist of 13 months of exactly 4 weeks, or 28 days each. They also propose to intercalate the remaining 365th day between the 13th and 1st months, and call it "New Year's Day." In like manner they propose to intercalate another day, every fourth year, at the middle of the year, and call it "Midsummer Holiday," or something similar.

The chief advantage claimed for this plan is that it gives a "perpetual calendar," that is, one that does not change from year to year. This is a very desirable feature, I am frank to admit, and I am heartily in favor of revising the calendar so as to secure this result. But this proposed plan seems to me to have two very serious disadvantages.

In the first place it differs so radically from the present calendar that it is very doubtful whether a sufficiently large number of the important nations of the world could be induced to consent to its adoption.

In the second place, in this proposed calendar the unit, the year, is divided into a prime number (13) of parts. To my mind this is a fatal defect. I know of no table of weights or measures now in use in which this is done.

Every mathematician knows that 12 would be a much better number for the radix of our system of natural numbers than ten. This is because twelve is divisible by 2, 3, 4 and 6, whereas ten is divisible by only 2 and 5. A system using 13 for a radix would be an abomination for very obvious reasons. For the same reasons it seems to me that whenever and however the calendar is revised, 12 should be retained as the number of months in the year.

A large number of business obligations are made to run for three, six and nine months. Interest on long time notes and bonds as well as dividends on most stocks are made payable either quarterly or semi-annually. A few companies pay dividends as often as six times a year. For simple convenience in conducting this enormous line of business, it is vastly more desirable to have the number of months divisible by 2, 4 and 6, rather than to have a prime number.

Furthermore, it is not necessary to make any radical change in the calendar now in use in order to secure a perpetual calendar. The simple plan herewith suggested involves only slight changes. One day is taken from March, and one day from August, and added to February; one day is taken from May and added to April; and the last day of December is set apart for "New Year's Day" the same as in the plan referred to above. Likewise the "Midsummer Holiday." This makes the year consist of four equal parts with three months or 91 days in each quarter. The first month in each of these four quarters, *viz.*, January, April, July and October, has 31 days, and the first day of each of these months will always fall on Monday; the second month of each quarter has 30 days with the first always on Thursday; and the third month in each quarter has 30 days with the first on Saturday. Thus the first day of a month would never fall on Sunday. Also an obligation running for any multiple of three months would always fall due on the same day of the week as that on which it was made.

Such a calendar as this could be put into effect some year when the first day of January falls on Monday without causing any appreciable disturbance in the larger affairs of the world. No important anniversaries in this country would be changed. A

comparatively small number of birthdays would be dislocated, but this would not be serious.

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QUOTATION WRONGLY CREDITED

SCIENTISTS often hold men of letters up to ridicule for their ignorance or misuse of scientific terms—and very properly. But now and then an opportunity comes for a turning of the tables, as, for example, on page 558 of SCIENCE for December 19, 1924, where Pasteur is credited with the well-known passage from the close of Robert Louis Stevenson's El Dorado: "To travel hopefully is a better thing than to arrive, and the true success is to labor."

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SCIENTIFIC BOOKS

A Bibliography of American Natural History. The Pioneer Century, 1769–1865. Vol. 1. An annotated bibliography of the publications relating to the history, biography and bibliography of American natural history and its institutions, during Colonial times and the pioneer century, which have been published up to 1924; with a classified subject and geographic index; and a bibliography of biographers. By MAX MEISEL. Brooklyn, New York, The Premier Publishing Co. 244 pp. Price $5.00.

THE recent rather rapid extension of interest in Americana among libraries and bibliophiles and the growing attention paid to the historical development of scientific interests generally combine to make the publication of this bibliography both welcome and opportune. The classic series of papers by George Brown Goode on the history of American science, especially of natural history, of museums, of national scientific and educational institutions, of scientific congresses, of the United States National Museum and of the Smithsonian Institution furnishes a splendid résumé of the period covered by this bibliography, from the pen of one who took an active and by no means insignificant part in that pioneer period. This bibliography, which has utilized all the modern aids of library organization, will be of greatest assistance to some future historian who may seek to evaluate the effects of ideas, of the influences, both indigenous and foreign, of the leadership of men of ability and vision, of social groups and of environments which have inspired and moulded the development of American biology in the first century of its growth.

The scope of the work is an ambitious one and its proposed outline is as complete as bibliographic skill and training can make it. The author has been fortunate in receiving the personal aid of some who have had personal knowledge of the latter part of the era included, and also of those whose technical information in the wide range of subjects covered has been of great value in securing inclusiveness of pertinent titles especially of works in foreign periodicals, or of foreign publications, and of others whose titles afford no clue to the historical phases of their contents.

The work is more than a mere bibliography by virtue of the analysis and classification of the titles cited. The subjects included are the rôle played by scientific societies, scientific journals, natural history museums and botanic gardens, state geological and natural history surveys and federal exploring expeditions in the rise and progress of American botany, geology, mineralogy, paleontology and zoology. In the first volume the chronological list of institutions and publications which have fostered natural history in the United States is particularly instructive. So also are the annotations on the titles concerned with the history, biography and bibliography of American natural history; see, for example, the data on the group of members of the Philadelphia Academy who formed a center at New Harmony, Indiana. The classified subject index to the historical bibliography fills 37 pages and the geographic index 15 pages, while the bibliography of biographies, from John Abbot, the ornithologist, to Joseph Zentmayer, the maker of microscopes, fills almost a hundred pages. To scan the list is to gain a new vision of the wonderful galaxy of stars which illumined the dawn of American science—the Agassizs, Audubon, Baird, Barton, Bartram, Binney, Bonaparte, Brewer, Cassin, Cooper, Cope, Coues, Dana, Darlington, Elliott, Engelmann, Franklin, Gill, Gould, Gray, Guyot, Hagen, Haldeman, Hall, Hayden, Henry, the Hilgards, Hitchcock, Holbrook, Horn, Hyatt, Jefferson, Kalm, King, Lea, the Le Contes, Leidy, Lesquereux, Le Sueur, Marsh, Michaux, Newberry, Nuttall, Owen, Packard, Peale, Pickering, Pourtales, Powell, Putnam, Rafinesque, Rogers, Say, Scudder, Shaler, Silliman, Stimpson, Storer, Sullivant, Torrey, Tuckerman, Verrill, Whitney, Wilson, Winchell, Wistar, Wolle and Wyman.

The second and third volumes will contain the history of the institutions which have contributed to this field, bibliographies of their publications, and lists of their papers which deal with natural history. State surveys and expeditions will receive similar treatment. This will be followed by a full bibliography of books, articles and miscellaneous publications dealing with natural history and a chronological table of publications.

Indices of authors and institutions will also be provided. This bibliography when completed will