In the case of the majority of works issued in the past, or at periods too remote to bear obvious evidence of having been antedated, and especially of works issued by responsible publishers, the ostensible date must be accepted. This fortunately covers a large part of scientific literature, but strangely and most unfortunately does not always include the proceedings, memoirs and other publications of scientific societies, the ostensible dates of publication of which are not to be relied on, a fact now thoroughly well known. There are, of course, many exceptions, when the ostensible date is the correct date, and in many other cases the approximately correct date is determinable.

Prof. Cope states: "The probabilities are so great that a book is 'offered to the public' at the date affixed to it that it is not safe to assume that it is not, except in two contingencies." One of these is the fraudulent antedating of a book; the other is that "brought forward by Dr. Allen, that the government publications which are issued at a date later than that which they carry on their title pages." This latter case Prof. Cope claims 'is not well taken,' because, "although some reports issued by our government may bear dates much prior to the dates of issue, it does not follow that the date of printing bears any such relation to the date of issue!" Yet he tells us in another paragraph, as already quoted, that we must accept the date given on the title page as the date of publication! Sometimes a government scientific report is issued reasonably near the date it bears, but, at least in recent years, this is the exception rather than the rule, even with publications issued by the U. S. National Museum. This, of course, is not the fault of the authors, nor even of the Museum,* but is due to the peculiar ways of the Government Printing Office. Nor is the United States government the only offender; things are not managed any better under State Printers, and in some cases even worse. Columns of this JOURNAL could be filled with titles of State reports on geology and natural history bearing dates one to three years prior to the dates when the first copies were distributed, although the final proofs were read by the authors, and the pages probably printed in conformity with the date on the title page. And during the interval between the dates of printing and distribution copies of the works were *not* to be '*had on demand*,' even by the authors.

Hence it would seem that no one possessing a knowledge of these facts can candidly contend "that the date of printing [should] be regarded as the date of publication." In the case of official documents issued by the different States or by the general government, the date of distribution, or *publication*, is doubtless quite as easy to determine as the date of printing.

The 'whereases' preceding the resolution here under consideration, relating to the difficulties of determinating 'a rule of distribution,' were not considered in my former communication—a fact to which Prof. Cope calls attention—nor are they now, since for the most part they are obviously of little weight, and are sufficiently covered in considering the resolution itself.

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*The articles in the Proceedings of the U. S. National Museum are distributed separately to specialists, and to some extent to libraries, as soon as printed, but of late they are sent out without date. There is nothing on the title pages to show when they were issued. When the volume to which they belong is completed and issued, six months to a year after some of the papers were distributed, the date of distribution of each article is given on a leaf following the table of contents. As the early distribution of 'separates' of articles is obviously to secure an early date of publication, the desirability of adding the date is obvious. As this is a matter apparently within the control of the officials of the Museum, there may be some practical difficulty in the way of affixing a really correct date that is not obvious to the public.

VITALITY OF THE SPERMATOZOON.

AN instance that may illustrate some of the physiological properties of the mature male sex cells was observed last summer in the course of instruction in invertebrate zoology at the Marine Biological Laboratory at Woods Holl, Mass. Illustration is also given of the rate at which the more interior tissues may harden when the entire animal is subjected to the action of alcohol.

When the study of Mollusca was begun, a

large number of 'short clams' (*Venus mercenaria*) were brought into the laboratory to be used in dissection. It was the plan of the instructors to harden a portion of these in such a way that thick free-hand sections of the whole animal could be made, thus to aid in demonstration of the anatomy. To accomplish this result quickly, as we supposed, it was decided to place them directly into commercial alcohol.

About five dozen specimens were, therefore, selected for this treatment; one of the valves of the shell of each was crushed, in order to allow the fluid to penetrate freely into the mantle chambers, and the whole number was then placed in a large aquarium jar and covered with 95% alcohol. This was at about eleven o'clock in the evening of July 15th. The material was not used on the next day, and so lay undisturbed until ten o'clock of the day following, *i. e.*, July 17th, a period of not less than 35 hours. A series of thick sections was then made by one of the students in the course, Mr. N. B. Sloan, of Hillsdale College, and laid out in a dish of fresh sea-water. In order to determine the sex of the specimen so treated, a bit of the gonad was shown by him to be that of a male, in which the sex cells were not only mature but were also showing their characteristic movements in an unmistakable manner. The attention of the instructors was called to this, and the fact that the cells were alive was tested by adding a drop of corrosive sublimate at which all the movements quickly ceased.

These germinal cells were toward the interior of the visceral mass of the clam, and if the influence of the alcohol had reached them at all through the investing sheath they were at least able to resist it and to resume their normal activities under the proper conditions. Whether any of the somatic cells of the same tissues of the animal were also living, such as the leucocytes, was not tested, but even if no alcohol had reached these germ cells, yet under the adverse conditions, inasmuch as the ordinary life processes of the animal had been so long suspended, their vitality is remarkable.

It may be, therefore, inferred that as they reach maturity the spermatozoa of this lamellibranch may possess the ability of withstanding many unusual conditions of the surrounding water into which they may be shed. But whether it implies a long continued or a temporary vitality was not sought by us; nor was it attempted to show by experiment whether these sexual elements could withstand greater chemical changes in the ordinary sea-water than can the smaller marine Protozoa, for example. It is certain, however, that as far as this species is concerned, great promise is inherent in the spermatozoa for obtaining the necessary distribution.

J. I. Peck.

The Appearance of the Moon.

To the Editor of Science: The following incident might supplement Mr. Brinton's interesting account of the different pictures different persons see in the moon. I was a member of a jury in an important case a few months ago and the members were much more than ordinarily intelligent. While out for a walk in charge of the sheriff one evening, the full moon was coming over the hills to the east, and I suggested that each man write down the impression it gave him as to size. The slips were deposited in a hat, and when drawn out the comparisons ran from 'the size of a twenty-dollar piece' up to 'twelve feet.' When near to the horizon it struck me as being about eleven inches across, and several put it about that, but the thirteen men made it all sizes, four, six, ten inches, three feet, five feet, etc. One man said it was the size of a flour barrel and another of a buggy wheel, etc.

R. L. Fulton.

Reno, Nevada.

Scientific Literature.

Grundriss einer exacten Schöpfungsgesichte. Von Hermann Habenicht. Vienna, Hartleben. No date. 136 pages, 7 folded plates.

Habenicht has been for many years one of the expert cartographers in the geographical establishment of Justus Perthes at Gotha. His competent and sincere work in this exacting field must secure him a courteous hearing if he has anything to say about the world as a whole, so much of which has come, at second hand, under his fingers; but in the collection of his essays under the above title, the fruit of nearly forty years of professional, morphological study of the earth's surface, the deference that we owe