thrown on the dump by the dredge? Was even my friend Dr. Spier proceeding cautiously when he suggested a depression where the Frederick artifacts were discovered, apparently without inquiring of the owner of the pit and of the workmen whether they had observed anything of the kind?

Because certain existing tribes do not use metates Dr. Spier thinks it improbable that they were employed by people of early Pleistocene time. However, we do not yet know much about the climate of that period nor much about the resources and arts of the people.

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ONE HUNDRED PER CENT. HATCH

ON October 31, 1927, the writer artificially impregnated 230 eggs taken from a small two-year-old hatchery reared brook trout, *Salvelinus fontinalis*. Two males were used to effect fertilization. Instead of following the accepted method of washing the eggs soon after insemination, the eggs were allowed to harden in the milt. After sixty-one days of incubation, 230 normal fry emerged tail first with elongated yolk-sacs which is an index of perfect fertilization.

In state, commercial and private hatcheries, the writer has met with wonderful success by holding the eggs in milt during the agglutination period.

These results indicate that the concentration of sperm suspensions may have a direct influence on the micropyle of the egg, which activates complete fertilization when agglutination takes place in the milt.

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MORE DATA

IN spite of all the discussion on the subject that has been going on in SCIENCE, here is Mr. Sainton, of Cornell, saying (in the last number of the *Journal of The Optical Society of America*) "data is." It is known that Cornell is a special sinner in this respect.

As regards the two wrong pronunciations of *data* (lately discussed in SCIENCE), *dăta*, it may be pointed out, is far worse than *dāta*, for the reason that those who adopt the thoroughgoing modern pronunciation of their Latin and Greek may feel obliged to apply it to *datum* too.

It is remarkable what a high literary standard the medical people have preserved in their scientific language. But they are wrong in sometimes saying "photo-sensitive." One can say "photo-esthetic" or "light-sensitive," but "photo-sensory" (or photo-sensitive) is a sad hybrid.

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SCIENTIFIC BOOKS

Romance of the Sun. By MARY PROCTOR, xii + 266 pages. Harper and Brothers, London and New York, 1927. $2.50.

MISS MARY PROCTOR'S book, "Romance of the Sun," contains many interesting pages for those who have little or no knowledge of astronomy, and who wish information about that part of this science which deals with the nearest star, our own sun. The book is written in popular language so that it can be read easily by any one. The sun is so important, not only to astronomers for their investigations, but also to every person and to everything living on this earth, that it is well to have books on this subject written for all types of readers.

After a brief description of the appearance of the sun's surface, four chapters are devoted to the problem of finding the distance from the earth to the sun. Accounts are given of the attempts made to find this distance accurately by observing the various transits of Venus across the sun's disc which occurred between 1629 and 1882. Horrock's observation of the transit of Venus in 1639 is well described, and made more vivid by quotations from the writings of that exceptional young minister who was such an enthusiastic astronomical observer. The chapter on Sir David Gill's observations of Mars in connection with this same problem is likewise made more interesting by several extracts from Lady Gill's book, "Six Months in Ascension." Just at the end of this chapter, on page 70, there is an important misprint. The sun's mass is given as 32,000 times that of the earth instead of 332,000 times the earth's mass.

The fifth and sixth chapters deal with the constitution of the sun and its atmosphere, the analysis of its light and the subject of solar energy, especially the fraction of that energy received by the earth. Several times in the descriptions of phenomena on the sun, phrases are used which might give to readers without astronomical knowledge the impression that the sun was at least in part liquid. The words "Vast oceans of molten metal," on page 71, form such a phrase which can hardly be considered appropriate when applied to a body like the sun, which is known to be purely gaseous.

Even in a popular book of this length, it would seem that a fuller treatment of the source of the sun's heat would have been of interest to any reader. No reference is made to the latest theory, now generally accepted by astronomers, that the sun's energy is due to the radiation of its mass. A more detailed description of the sun's surface would have increased the value of the book for the majority of readers. The subject of sun-spots is rather neglected. A brief and superficial description of sun-spots is given in

the introduction. Nothing is said of the periodicity of these spots, or of the relation of the sun-spot curve to terrestrial phenomena and to the shape of the solar corona. Although hydrogen and calcium flocculi are referred to and also shown in two illustrations, no explanation of these terms is given.

Similarly there is a lack of explanation in the case of some of the instruments used in the study of the sun; especially in the case of the spectroheliograph and the spectrohelioscope, which are not so well known as the spectroscope. Brief descriptions of the main features of these instruments might have been given which would not have been at all technical but would have made much clearer the sections and quotations about observations with these instruments.

The remaining four chapters discuss the corona and its observation, and give descriptions of various eclipse experiences. It hardly seems worth while to give up twenty-five pages of one of these chapters to the unsuccessful attempts to photograph the corona without an eclipse, when in view of our present knowledge the reason for these failures is so obviously due to the feebleness of the light from the corona compared with the brilliant light of the sun itself.

In the description of the cause of a solar eclipse, no definition of a partial eclipse is given, though mention is made of a partial eclipse of the sun on January 24, 1925, in London. Those of us who remember this as the total eclipse seen under such favorable conditions by so many people in New York and Connecticut may be pardoned if we are a little disappointed to find no other reference in this book to this particular eclipse.

The quotations from the personal eclipse experiences of the writer and other observers can not fail to interest all readers, and to make those who have not seen a total eclipse eager to have that opportunity. After all, no description can do justice to the thrill of actually seeing this wonderful phenomenon. The description in the last chapter of the eclipse of June 29, 1927, visible in England and Norway, gives an excellent picture of the numerous activities connected with the observation of a total eclipse at the present time. The attempts to observe the eclipse from airplanes were only partially successful because of clouds, but gave to those who were in the airplanes experiences that would always be remembered.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

MOUNTING CHICK EMBRYOS

IN elementary courses in embryology sagittal sections often present considerable difficulty to the student. One reason for this is the practical impossibility of getting a truly sagittal section extending the

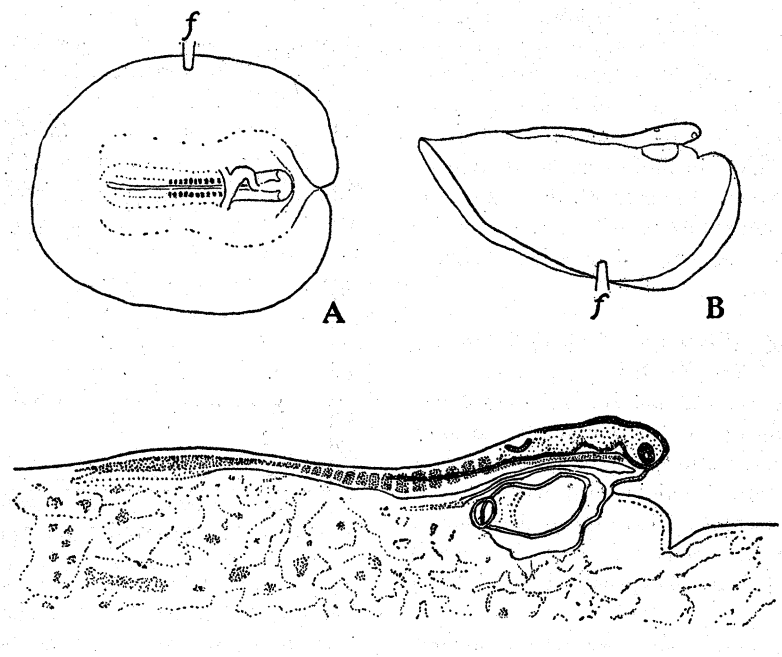

FIG. 1. Mounting chick embryos. A. Position of blastoderm in watch glass ventral side up, f, point at which forceps grasp edge of blastoderm. B. Folded blastoderm with right side folded over left side so that embryo lies along crease. C. Side view of embryo mounted as described.