

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), *dāta*, 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. Horrocks'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