

The highest recorded temperature in the shade occurs at Sandhurst in January, and was 117°; at Melbourne 111°. "There are other localities in which higher temperatures prevail in the same month, especially in the plains north of the dividing range, and along the banks of the Murray, in which the temperature has been as high as 123° to 125° for several days together. It is during the hot winds to which the climate is subject in summer that our highest temperatures occur, but they seldom last many hours, and are usually followed by a change in the direction of the wind, and by a comparatively low thermometer, when a fall of 20° to 25° often occurs in as many minutes."

We intended to make some remarks on the general advantages of a Department of Agriculture, but shall reserve them for a review of a similar volume which has come to us from the United States of America.

OUR BOOK SHELF

The Pathological Significance of Nematode Hæmatozoa.
By T. R. Lewis, M.B., Staff-Surgeon H.M.B.F., on Special Duty. (Calcutta: 1874).

THIS little work may be regarded as a companion volume to Dr. Lewis's essay "On a Hæmatozoon in Human Blood." Both are reprints from the Annual Reports of the Sanitary Commissioner with the Government of India, for the years 1871 and 1873 respectively, and as such testify to the high class of scientific labour performed by the staff officers on special duty.

The main points brought out by Dr. Lewis are such as afford proof that chyluria (or a milky-looking condition of the urine) and the elephantoid state of the tissues are associated with the presence of a microscopic nematode entozoon in the human blood. Having fairly established that conclusion, he next proceeds to show that the disorders in question are immediately "due to the mechanical interruption to the flow of the nutritive fluid in the capillaries and lymphatics." No one who takes the trouble to look into the evidence so carefully collected by the author can fail to see that he has thrown a great deal of light upon the pathology of chyluria, elephantiasis, and other more or less closely allied morbid conditions; but Dr. Lewis has done more than this, for he has extended our knowledge of the habits and genetic relations of the microscopic hæmatozoa of the dog (so long a puzzle to helminthologists), and has shown that the so-called *Filaria sanguinis hominis* are perfectly distinct from the canine *filarie*, which latter, moreover, he proves to be the progeny of the *Filaria sanguinolenta*. Further than this, the author has detected numerous specimens of an aberrant type of nematode worm in the walls of the stomach of pariah dogs. These parasites occupy small tumours, two or more being usually coiled together in the centre of each swelling. He speaks of them as *Echinorhynchi*, which, indeed, they somewhat resemble; but it is quite clear from the very admirable figures accompanying the description, that the worms are not members of the order *Acanthocephala*. They are, in fact, examples of the *Cheiracanthus robustus* hitherto found only in various species of *Felis*. The illustrations, throughout, are remarkably clear, and show the internal structure of the parasites to perfection. T. S. COBOLD

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

The Origin of the Jewish Week

MR. R. A. PROCTOR's paper on "Saturn and the Sabbath of the Jews," in the *Contemporary Review* of this month, reopens

one of the oldest and most interesting questions in the history of astronomy. Unfortunately, the writer is very imperfectly acquainted with the literature of his subject, and in consequence has, I think, imported not a little confusion into the discussion. That the week of seven days is directly connected with the worship of the seven planets known to the ancients, is a theory which has always had many supporters. It is at once suggested by the familiar names of the seven days, and would be absolutely proved if we could show that these names are as old as the division of the lunar month into four weeks. Again, it is also a well-known, though less wide-spread doctrine, that the Jewish Sabbath passed into Mosaism from an earlier planetary religion. Of course, if it can be shown that the Sabbath was originally sacred to Saturn, we have a strong proof of the antiquity of the names of the week-days, and a probability that these names are as old as the seven day week itself. In this way a question in the history of Semitic religions comes to have an important bearing on a question in the history of astronomy. Mr. Proctor reverses the argument. He assumes that we have the clearest possible evidence that all nations that adopted the seven-day week named the days after the planets, and did so in that peculiar order which is generally explained by assuming that a new planet presides over every successive hour of the week, and that each day takes the name of the planet of its first hour. It is then argued that Saturn, as the highest planet, was the supreme god of Assyria, and so also of the Egyptians who received their astrological lore from Chaldea. The Egyptians, we are told, certainly consecrated the seventh day of the week to Saturn, and since the Israelites left Egypt observing the Sabbath, while there is no evidence of a Sabbath in patriarchal times, "it is presumable that this day was a day of rest in Egypt." Now, whatever may be the ultimate solution of the problem of the origin and diffusion of the seven-day week, this theory rests partly on uncertain assumptions, partly on undoubted blunders. It is notorious that several Semitic nations, not to speak of the Peruvians, had a seven-day week without planetary names; so that Mr. Proctor's fundamental assumption begs the whole question. Then, again, it is the opinion of so great an authority as Lepsius that the Egyptians had no seven-day week, but divided the month into three decades. The passage of Dion Cassius from which the contrary opinion is drawn is certainly not decisive for ancient Egyptian usage, and Mr. Proctor seems to quote his author at second hand; for he asserts, in flat contradiction to Dion, that when the latter wrote, neither Greeks nor Romans used the week. For the supposition that Saturn was the supreme god of the Egyptians, not a shadow of proof is offered, while what is said of the Assyrian Saturn is directly in the teeth of the most recent researches. If Mr. Proctor had read Schrader's essay on the Babylonian origin of the week, he would have known that Adar or Saturn is quite distinct from the supreme god Asur. Thus, apart from the late and doubtful testimony of Dion, Mr. Proctor has no other evidence for his Egyptian theory of the week than that which he derives from the presumed non-existence of the Sabbath among the Hebrews before they entered Egypt. But the seven-day week appears in the narrative of the flood, which is certainly not an Egyptian legend. I say nothing of numerous minor inaccuracies in Mr. Proctor's paper, but repeat that the point on which new light requires to be thrown is whether it can be made out that the names of the seven days are as old as the week itself. This again seems to depend partly on the question whether the division of the day into twenty-four hours is older than the week, and partly on what can be determined as to early Egyptian and Chaldean subdivisions of the month. The Egyptians had a day of twenty-four hours, but had they a week? The Chaldeans may have had the week, but they seem to have divided the day (including the night) into twelve hours. Perhaps, however, it ought to be borne in mind that Dion gives another way of accounting for the names of the day, depending not on the division of the day into hours, but on the analogy of musical harmony (*ἡ ἀρμονία ἢ διὰ τῶν ὀργάνων*). The Jewish Sabbath can contribute little to the argument unless one is prepared with Lagarde to maintain that Shabbat is a name of Saturn. W. R. SMITH

Kirkes' Physiology

I HAVE observed in your issue of Jan. 28 (vol. xi. p. 248) a letter in answer to some previous remarks of mine concerning the true function of the sinuses of Valsalva. Your correspondent, Mr. Prideaux, does not, it seems, quarrel with the actual method of my reasoning, but urges that the conditions necessary for the