

the Thinker," describing the evolution of his religious belief; "Man the Discoverer and Inventor," treating of the progress of science. The treatment is essentially popular, and the wide knowledge of the writer, his pleasant style, and his skill in weaving into the narrative a store of interesting allusion and anecdote, render it an admirable introduction to the study of anthropology in its varied aspects. A series of well-selected illustrations, including the recently discovered frescoes in the French caves, with a useful bibliography, adds to its interest and value.

The present revision of the book is, on the whole, satisfactory. Detailed discussion of the complex problems of the past and future of man cannot be expected in a manual. But when mention is made of "the most ape-like" Piltdown skull, we might have anticipated at least a reference to the discoveries at Galley Hill and Ipswich. Some of the derivations, like those of "ship" and "gold" might be improved from Sir J. Murray's Dictionary. If he supposes that the modern Naga tribe in India are, like their forerunners of the same name, serpent worshippers, he is mistaken; and the taboo on the use of dry wood as fuel does not extend to the people of Berar, but to a single sacred grove. A curious press error gives the name of the Hindu sun-god Surya as "Sueya."

On the whole, this veteran anthropologist is to be congratulated on a book which, in its revised form, is certain to secure a new lease of popularity.

The School and College Atlas. One hundred and three maps, physical, political and commercial. Index. (London: G. W. Bacon and Co., Ltd., n.d.) Price 3s. 6d. net.

THIS Atlas is curiously unequal, for it contains a mixture of old style and new style maps; some maps are overcrowded with names, others are of striking simplicity. The summary maps dealing with temperatures are in some cases much too complicated. The colour-printed maps, showing relief on the layer system, indicate by the defective fit of the contours how difficult such cartographic work really is. For an atlas of this size the index is much too small.

The vegetation, annual and seasonal rainfall maps should prove of value, and the isotherms for the British Isles are based on actual temperatures and embody the latest official figures of the Meteorological Office. B. C. W.

The British Revolution. By Dr. R. A. P. Hill. Pp. xii + 116. (Cambridge: University Press, 1914.) Price 2s. net.

THE most striking feature of most political discussions is, Dr. Hill considers, an entire lack of first principles, and he proceeds to enunciate a "synthetic" principle, which he claims stands alone in uniting individualism and socialism, home rule and imperialism, actuality and the ideal, and many other opposed views. He also remarks that one of his objects is to supplant Herbert Spencer's synthetic philosophy, or rather to supplement it by the principles of the German school.

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LETTERS TO THE EDITOR.

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Dynamical Units for Meteorology.

IN the current number of the Quarterly Journal of the Royal Meteorological Society I have put forward a proposal for a name for a unit of acceleration, and shown how the introduction of such a unit leads up to the unit of potential which is required in the discussion of certain problems in aerodynamics. It has been suggested to me that as the proposal does not concern meteorologists alone it should be canvassed in a journal which is read by other physicists. I have written the following notes in the hope that you will be able to find room for them in NATURE.

The convenience of special names for such units as the *radian*, the *erg*, and the *volt*, is universally admitted. No apology is therefore needed for bringing forward a proposal for the adoption of a special name for a unit of acceleration. The particular unit for which a name is, I think, required is one decametre per second per second. This unit is slightly greater than the acceleration due to gravity at any point on the earth's surface, but so slightly that there is no difficulty in getting a clear conception of it. In this way it compares favourably with such units as one centimetre per second per second, or one foot per second per second. In accordance with the custom of honouring the pioneers of science by attaching their names to the units which occur in the branches which they discovered, it would be natural to name the unit of acceleration after Galileo. Unfortunately so long a name could not be used in forming compound names; I propose, however, to preserve the association of ideas by calling the unit a "leo." Accordingly I define the *leo* as the acceleration one decametre per second per second.

The acceleration of a falling body due to gravity and the earth's rotation is less than one leo by about 2 per cent.; the magnitude of the acceleration for various latitudes is shown in terms of the leo in the following table:—

Acceleration at the equator	...	0.9780 leo.
„ in latitude 45°	...	0.9806 leo.
„ at London	...	0.9812 leo.
„ at the poles	...	0.9832 leo.

Smaller accelerations may be expressed in terms of the same unit or in terms of smaller derived units; thus a vehicle which attains a velocity of 10 metres per second in 10 seconds from rest has an average acceleration 0.1 leo or 1 decileo. The unit of the c.g.s. system, 1 cm./sec.² is, of course, identical with the millileo.

Turning to units of *force*, we find it natural to call the force which gives an acceleration of one leo to the mass one gram, a *leogram*. The leogram is identical with the kilodyne, but the new name makes the unit easier to realise, as it is seen to be slightly greater than the weight of one gram. In the same way the names, leokilogram and leoton, speak for themselves much better than megadyne and kilomegadyne.

For *pressure*, units with simple names, the bar and its sub-multiples exist already, but it is not very easy for meteorologists who have not devoted much attention to theoretical dynamics to realise the meaning of the standard definition 1 bar = 1 megadyne per sq. cm. Perhaps the phrase 1 leokilogram per sq. cm. will be found easier to grasp. The millibar, which