

article on 'Some stages of Appalachian erosion' (Bull. Geol. Soc. Amer., VII., 1896, 519-525) was omitted from earlier notice. A tardy note upon it is therefore now presented. Keith contends against the conclusion of Hayes and Campbell regarding the warping of the Cretaceous and Tertiary Appalachian peneplains; he maintains that river basins at different distances from the sea must, in similar rocks and at similar stages of denudation, produce peneplains of different altitudes and of different inclinations; and that part of the inequality of altitude and attitude that was explained by the earlier authors as a result of warping is better explained as a result of difference of distance to the sea. The slopes of a number of peneplains, thus interpreted, is generally so slight that their present altitude is better accounted for by nearly uniform uplift than by pronounced warping. A fuller discussion of the problem is promised. We may then see it illustrated and argued with the detail that so important a matter deserves.

It may be noted that in New England a tilting of the Cretaceous peneplain of the uplands from its former lower and nearly level attitude is well proved; for the sub-mature rivers of to-day run to the sea on flatter grades than the descent of the uplands; and this would be impossible if the peneplain had not been distinctly tilted.

#### BALTZER ON THE DILUVIAL AAR GLACIER.

THE thirteenth number of the *Beiträge zur Geologischen Karte der Schweiz* is a treatise on the diluvial glacier of the Aar and its deposits in the neighborhood of Berne, by Professor A. Baltzer of that city. It is a handsome quarto volume of 170 pages and seventeen plates. The text is chiefly concerned with the results of glacial action in the neighborhood of the strong terminal moraines and the included amphitheatre of Belp (just above Berne). This

amphitheatre was in general eroded; the moraines outside of it were built up; and the forelying district was broadly aggraded by surcharged glacial rivers. The chief of the latter was the Aar, which shifted its course to the right and left across the foreland, as one part after another was sheeted with sands and gravels. Among the plates special mention should be made of a superb view showing the confluence of the two main glacial branches far up among the mountains, from a photograph by Sella; a pictorial section exhibiting the dimensions of the whole length of the diluvial glacier when it extended even beyond Berne; and several views of the drift topography in the piedmont district. The effect of the Rhone glacier in obstructing the natural outflow of the Aar glacier and requiring it to run over the Brunig pass towards Lucerne is clearly set forth. A large two-sheet map of the district about Berne will prove a valuable guide to foreign students who wish to examine a typical glaciated area in the light of detailed local investigations.

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#### CURRENT NOTES ON METEOROLOGY.

##### THE TEACHING OF CLIMATOLOGY IN MEDICAL SCHOOLS.

THE importance of a study of climatology by medical students is urged in a paper by R. DeC. Ward, under the above title, in the *Boston Medical and Surgical Journal* for February 4th. At present very little attention is paid to this subject in any of our medical schools, and a special course in climatology is given in but about half a dozen. Medical men all realize the close relations which exist between climatic conditions and health, but, so long as no instruction is provided for them during their medical course, they are left to pursue the subject as best they can after they begin to practise. In this paper a general outline of

a course in meteorology and climatology, suitable for medical schools, is given, and reference is made to the books which will be found most useful in the work. The writer believes that the subject of climatology is of sufficient importance to stand by itself, as an independent course in the medical curriculum, and that every medical student should have a general knowledge of it. The special relations of climate in the different branches of medicine can be discussed by the instructors in hygiene, or therapeutics, or bacteriology, after the students have the general knowledge just referred to. Correspondence has shown that a large number of the deans of our medical schools favor the giving of some such instruction in climatology in the medical course, and there can be no doubt that all the most progressive schools of medicine will provide such instruction before long.

#### SUNSTROKE WEATHER OF AUGUST, 1896.

WE are reminded of the exceptionally hot weather which prevailed over the eastern two-thirds of the United States early last August, by a paper by Dr. W. F. R. Phillips, entitled 'Sunstroke Weather of August, 1896,' in the November *Monthly Weather Review*. The opportunity which this extraordinary heat wave offered, of studying the relations of meteorologic conditions and the occurrence of sunstroke, was made good use of by our Weather Bureau, and, as a result of a careful study, Dr. Phillips has been able to draw some interesting conclusions from the large body of hospital and official city statistics collected. The most important results are as follows: (a) the number of sunstrokes follows more closely the excess of temperature above the normal than it does that of any other meteorological condition; (b) the number of sunstrokes does not appear to sustain any definite relation to the relative humidity; (c) although the absolute humidity was

greatest during the maximum of sunstrokes, yet it does not appear that the variations influenced the number of cases; (d) the liability to sunstroke increases in proportion as the mean temperature of the day approaches the normal maximum temperature for that day. It is rather striking to find no decided connection between the humidity of the atmosphere and the occurrence of sunstroke. So far as can be ascertained, the whole number of deaths during August, 1896, directly attributable to sunstroke was 2,038.

#### DEFORESTATION AND RAINFALL.

*Nature* for January 28th contains a note on the much vexed question of the influence of forests on rainfall. According to a recent *Bulletin of the Royal Botanic Gardens, Trinidad*, the rainfall on that island is slowly but surely decreasing. The average rainfall for the decade 1862-71 was 66.715 inches; for 1872-81, 65.993 inches, and for 1882-91, 65.037 inches. The cause of this decrease is said to be the disappearance of the forests. It would be well, however, to wait a good many years more before coming to that conclusion. Records for only thirty years, even if they are absolutely comparable and reliable, are hardly sufficient to warrant holding such a belief at the present time.

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#### CURRENT NOTES ON ANTHROPOLOGY.

##### THE EUROPEAN 'QUATERNARY' MAN.

OUR geologists rarely use the term 'quaternary.' By European writers it is understood to mean the period which followed the Tertiary and includes the present time. Archæologically it is divided into two epochs, the older including the pre-glacial, the glacial and the post-glacial ages, all characterized by a chipped-stone industry; the later beginning with the neolithic culture and continuing till now.