

in the March number of the quarterly publications of the American Statistical Association. It is upon ethnic influences in vital statistics, illustrated by a comparison of the Walloon and Flemish inhabitants of Belgium. The facts presented are interesting and from the best obtainable sources; but the complexity of the problem is enormous, and after one has excluded all other possible or probable explanations for the diversity discovered, very little is left which can be strictly called ethnic. For instance, the birth rates, the excess of male infants and the infant mortality may have quite other explanations than those connected with ethnic contrasts.

BUDDHA-LIKE FIGURES IN AMERICA AND ELSEWHERE.

IN Egypt, in Greece and abundantly in France, representations of deities seated cross-legged have been found, and frequently by archaeologists have been referred to as Buddhistic or Buddha-like figures. In the museum of the Trocadero, Paris, there are a number of such in terra cotta from Chiapas; and at Palenque the cross-legged divinity has been pictured by Stephens (*Travels*, vol. II, p. 318) and others. Of course, these have been utilized as evidence of Buddhistic influence in North America and Europe.

A severe blow at such illusions is dealt by M. H. Galiment in the *Revue de l'Ecole d'Anthropologie* (Feb. 15), in an article on 'the oriental attitude of divinities.' By this he means merely the ordinary oriental method of sitting which is common also to our tailors and to many non-oriental nations. This he sharply distinguishes from the religious attitude assigned to the Buddhas. In the latter the legs are crossed, and each foot rests on the thigh of the opposite leg, with the sole turned upward and in full view. This is quite different from the attitude in any of the American specimens

known to me, either by observation or by copies. They are seated with the legs crossed beneath the thighs, in the ordinary sartorial position. Thus does another prop fall from the weak structure of the builders of American aboriginal culture on Asiatic foundations.

CURRENT NOTES ON METEOROLOGY.

HURRICANES IN JAMAICA.

A CHRONOLOGICAL list of hurricanes, earthquakes, and other physical occurrences noted in Jamaica between 1504 and 1880, is given by Maxwell Hall in Vol. II. of the *Jamaica Meteorological Observations* (1896). The first great hurricane experienced by the English in Jamaica was on August 28, 1712, and on August 28, 1722, another very violent one occurred, which resulted in the loss of about 400 lives and the wrecking of forty-four vessels in the harbor of Port Royal. In order that these two visitations might be remembered by the inhabitants, August 28th was appointed to be kept as a perpetual fast by the Act 9 Geo. I., ch. I., passed in 1722. On June 3, 1770, there was a smart shock of earthquake, which was immediately preceded at Cape François by a fall of 2.5 in. in the water barometer, corresponding to a fall of 0.2 in. in the mercurial barometer. Small oscillations of this character have since been noticed at Kingston as accompanying earthquake shocks.

Previous to the hurricane of October 3, 1770, a noise resembling the roar of distant thunder was heard to issue from the bottom of all the wells in the neighborhood of Kingston, twenty hours before the commencement of the storm. A ship captain who noted this fact, and who was informed that it was a prognostic of an approaching hurricane, managed to get his ship into the inner harbor in time to save her from destruction.

THE CLIMATE OF VENEZUELA.

SOME notes on the Venezuelan climate are quite in place at the present time. Three climatic zones are recognized: The *tierra caliente*, extending from sea level to about 1,800 feet, with a mean temperature of 77° to 86° F.; the *tierra templada*, reaching up to about 7,200 feet, with a mean temperature of 60° to 77° F., and the *tierra fría*, above 7,200 feet, with a mean temperature below 60° F. The heat on the northern coast is excessive, owing to the trade wind, which blows on shore there after crossing the hot Caribbean Sea. Maracaibo, which has the reputation of being the hottest place in the world, is on this northern coast, while Caracas, at an elevation of 3,000 feet above sea level, is in the *tierra templada* and enjoys a cooler and more agreeable climate. The maximum temperature is between 68° and 82° in the hot months, and 52° and 71° in the cool months. In Acarigua, south of the Portuguesa range, a temperature of 125.5° has been reached in the sun and 89.5° in the shade. The climate is, as a whole, healthy. Yellow fever prevails near the coast and in the Llanos and forests of the lowlands, and sometimes visits towns in the *tierra templada*. The higher mountains are free from it and have a very healthy climate. The foregoing facts are taken from a paper on Venezuela in the *Scottish Geographical Magazine* for April, 1896.

A QUICK VOYAGE ACROSS THE PACIFIC.

THE May Pilot Chart of the North Pacific Ocean contains mention of a remarkable passage recently made from Shanghai to Port Townsend by the American schooner 'Aida,' the time from port to port being only 27 days. During the greater part of the voyage the wind was between north and west, and on three days blew with the force of a whole gale. The 'Aida' started

in the western half of a cyclonic depression central over Japan, and hence experienced northwesterly winds for several days. These were followed by southerly winds of considerable force, due to the approach from the west of another cyclonic storm. The last few days she had southwesterly winds from an anti-cyclone central in Lat. 40° N., Long. 135° W., this high pressure area diverting the preceding cyclone to the northward and thus preventing the 'Aida' from experiencing the northwest gales on its rear. This passage of the 'Aida' may be regarded as an excellent example of what may be accomplished by a well-found sailing vessel whose master makes the most of the meteorological conditions prevailing over the ocean, and of the information now available concerning them.

A TORNADO IN NEW JERSEY.

TORNADOES are of such infrequent occurrence in the eastern United States that accounts of them, when they do occur, are of special interest. On July 13, 1895, a distinct tornado developed near Cherry Hill, N. J., causing the death of three persons, injuring about twenty others and entailing a loss to property, livestock, etc., of about \$60,000 (6th Annual Report, New Jersey weather service, 1895, 203-208). It appears that while the general characteristics of tornado action were present, such as the funnel cloud, the whirling, the roar and the thunderstorm, the usual atmospheric conditions which precede such storms were lacking. A number of curious tricks were performed by the tornado, after the usual fashion of these disturbances. In the Dutch Reformed Church, whose sides and windows were punctured with holes, a large beam was found lying across the pews, it having been blown there from outside. A splinter of wood, 15 inches long, 2 inches square at one end, and tapering to a point at the other, was found firmly stuck

into a fence post. A number of excellent photographic views accompany this report.

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SCIENTIFIC NOTES AND NEWS.

ANNUAL REPORT OF THE GEOLOGICAL SURVEY.

THE Fifteenth Annual Report of the United States Geological Survey has just been delivered by the Public Printer. It is a handsome volume of 755 pages and 48 plates, and contains, besides the administrative reports of the Director himself and of chiefs in charge of work, the following special papers:

'Preliminary Report on the Geology of the Common Roads of the United States,' by Prof. N. S. Shaler; 'The Potomac Formation,' by Prof. L. F. Ward; 'Sketch of the Geology of the San Francisco Peninsula,' by Andrew C. Lawson; 'Preliminary Report on the Marquette Iron-bearing District of Michigan,' by Prof. C. R. Van Hise, W. S. Bayley and H. L. Smyth; and 'The Origin and Relation of Central Maryland Granites,' by C. R. Keyes, with an 'Introduction on the General Relations of the Granitic Rocks in the Middle Atlantic Piedmont Plateau,' by the late Prof. G. H. Williams.

From these titles it is evident that the paper of most popular interest is the first one, on roads, by the versatile Harvard professor. He treats of the history of American roads, the methods of using stone in road-building, the relative value of road stones, their distribution, sources of supply, etc.; and thus makes a timely contribution to a subject which is receiving special attention in all parts of the country.

This is the last report made by Major J. W. Powell as Director of the Survey, who until recently has had charge of the work, under different organizations, for twenty-five years.

FISH CULTURE.

IN a lecture on fish culture before the Royal Institution of Great Britain, Mr. J. J. Armistead, of the Royal Commission on Tweed and Solway Fisheries, thus compares the methods used in Great Britain and the United States:

The hatching apparatus which is now chiefly used in England consists of a long box, the water flowing in at one end protected by a water board or break water, which is simply to break the current and prevent it from washing away the eggs which are placed in the box. It also diverts the current and sends it down to the bottom of the box. The water passes underneath and passes out at a higher level, where we have a screen of perforated metal to prevent the escape of the little fish, and in this box is placed the hatching apparatus proper, that is, the trays or grilles upon which the ova are deposited. The grilles now in use are made of glass. We found, after trying a variety of substances, that glass is the best of anything. It gives off nothing. Wood and metal we know corrode in water, and in some waters some metals corrode very much, and a great deal of loss has been suffered by some who have used metallic trays for the purposes of incubation. The Americans like to do things, as we know, on a wholesale scale, and, not content with putting a layer of eggs upon the apparatus, they fill a basket, as they call it, half full of eggs. Then they send a current of water welling up from underneath, and of course the effect is that it flows through amongst the eggs, and they find that in due time they hatch. I have made very careful inquiries with regard to the result of the hatching of ova in this way, and I have found that the Americans are quite prepared to admit that they had a larger percentage of mortality in their metal baskets or trays than they had when they used glass grilles. They said, "We have discarded glass grilles long ago. They are too expensive." And they made use of other excuses. But, however, we find in practice that we can get far better results from these glass grilles, because, as I have said, there is nothing to contaminate the ova or do them injury. The trout eggs absorb any metallic matter which may be in the water, and become so saturated with it in course of time as to be very seriously injured. They may not be absolutely killed at the time, but it has been found that, although there is only a slightly increased mortality in hatching upon the metal, there is a greater mortality amongst the fish afterwards. They