esting references to the researches in which the institution is engaged.

The most noteworthy relates to the exploration of the ancient city of Copan, Honduras. A wonderful stairway has been discovered, twenty-four feet in width, and leading to the summit of a pyramid over one hundred feet in height. It is built of massive blocks of stone, the front of each of the steps being covered with deeply-cut hieroglyphs and delineations of the human form. When once restored and copied, we may indeed find on it, as the report says, "the most important hieroglyphic inscription in Central America."

A curious addition to the Museum is the only ancient New England bow in existence. It is five feet seven inches in length, being much longer than has generally been stated. The Hemenway collection from the Salt River valley has been deposited in the Museum by the executors and arranged by Dr. J. Walter Fewkes. About twelve students are studying in the department under the direction of Professor F. W. Putnam and his assistant, Dr. Dorsey.

THE ALLEGED TERTIARY MAN OF BURMAH.

CONSIDERABLE attention was attracted early last year by the assertion of Dr. Noetling, repeated in various periodicals, that he had discovered in a miocene layer, on the banks of the Irrawadi river, rude flint implements of 'palæolithic' patterns. Later in the year he announced that the strata were not miocene, but certainly pliocene, and therefore tertiary man was still saved.

Another geologist, Mr. Oldham, in *Natural Science*, September, 1895, questioned the occurrence of the flints in the original deposit. It appears that the face of the outcrop has a veneer of mud washed down from the super-incumbent strata, adherent to its ferruginous surface, and that the chipped flints are found in this coating. Just such 'implements' are scattered over the plateau above, and would naturally be washed down with the surface soil in heavy rains.

This demonstration seems to relegate the Burmese find to that region of extreme doubtfulness in which at present every alleged discovery of tertiary man in Europe or America rests.

RACIAL DEGENERACY IN AMERICA.

A WELL prepared article on this subject is contributed to the *University Medical Magazine*, January, 1896, by Dr. Albert S. Ashmead. He reviews the prevalence of goitre, cretinism, leprosy and dwarf stature in America as factors in ethnic physical and psychical degeneration. In his survey he includes the native as well as the immigrant American and African races, and collects a large amount of references on the subject. On the whole, it cannot be said that he has shown any special tendency of humanity in the New World to retrogressive transformation or racial pathology. The causes to which he alludes are frequent in the other continents with like effects.

What would be especially desirable in this direction would be a study of the white race in the United States in isolated localities where its members have been subjected to the environment for a hundred years or more with little access of crossings from without. Undoubtedly, important modifications have taken place, but they have not yet been critically collected.

PSYCHOLOGICAL NOTES.

THE SENSE OF EQUILIBRIUM.

INTERESTING experiments are reported in the *Biologisches Centralblatt* by Bethe on the connection between the sense of equilibrium and the semi-circular canals. He finds that doves are not well adapted to exhibiting this connection; he allows dead doves with their wings distended by wires, to fall

through the air, and finds that the structure of the body is such that equilibrium is preserved, and is even recovered if the body is started half way over. Hence these birds, if active, can still often fly reasonably well after the semi-circular canals have been extirpated. But the case is very different with fishes, and they, consequently, exhibit the usual effects of mutilation very perfectly; after total extirpation of the labyrinth on both sides, they swim with complete oblivion of the attitude proper to the fish in water. The author also believes that some fishes at least learn to guide themselves by their labyrinth sense only after some experience. The subject is one of great interest, and this paper is a distinct contribution to our knowledge regarding it.

C. L. F.

THE PHYSIOLOGICAL CONCOMITANTS OF SENSATIONS AND EMOTIONS.

The first issue of the *Journal of Experimental Medicine* contains an experimental research from the Physiological Laboratory of John Hopkins University by Dr. T. E. Shields on the effects of odors, irritant vapors and mental work upon the blood flow. The author regards his chief results to be improvements in Mosso's plethysmograph. With this instrument changes in the volume of the arm are measured and it is assumed that the blood withdrawn from the arm is called to the brain as a result of mental activity. The apparatus is complicated and Dr. Shields has used great care in eliminating various sources of error. He finds that odors and mental work cause (presumably) congestion of the brain. Even when the volume of the arm is at first increased, this is due to the acceleration of the heart rate, which would also tend to increase the supply of blood to the brain. Dr. Shields' experiments contradict Lehman's view that pleasant sensations decrease the blood supply to the brain. The article is admirably illustrated.

Dr. F. Kiesow, in a paper (*Philos. Studien*, XI., 1) not referred to by Dr. Shields, has used Mosso's new sphygmomanometer for similar purposes. With this instrument the pressure of the blood in two fingers is measured. Strained attention, mental operations, such as multiplying, sudden noises, sudden pains, etc., were used. The results were varied and difficult to interpret. Sometimes there was no alteration in pressure, sometimes there was a decrease, but more commonly an increase. Dr. Kiesow concludes that the alterations are not due to the sensations nor to the attention as such, but to the feelings that accompany them.

In an extended investigation (*Philos. Studien* XI., 1, 3 and 4) Dr. Paul Mentz has studied the effects of sounds on the pulse and on breathing. A single noise or tone of moderate intensity caused a slower pulse and usually a slower rate of breathing, which the author attributes chiefly to the pleasure accompanying the sensation. If the sounds are intense or long continued the pulse becomes quickened. When music was listened to passively the rate of the pulse was decreased, but it was quickened when the attention was strained.

J. McK. C.

SCIENTIFIC NOTES AND NEWS.

THE ACTION OF THE HOUSE OF REPRESENTATIVES ON THE METRIC BILL.*

The Hon. C. W. Stone, Chairman of the Committee on Coinage, Weights and Measures, received notice on Tuesday afternoon, April 7th, that he would be given an opportunity to call up at once the Committee's Bill in regard to fixing the standard of weights and measures, according to the Metric System of weights and measures. The hour was late, but Mr. Stone promptly made his argument in favor of the Bill, Mr. Stone's speech was a thorough and

* Based upon the report of the correspondent of the New York Dry Goods Economist.