

tematic changes in the form of the land with the passage of time has come to be generally accepted as a means of geographical description, but not with entire agreement by all writers. One of the first illustrations of this good fashion was in an account of the driftless region of Wisconsin, in which 'topographic old age' was applied to the beautifully dissected hills of the driftless area, where an abundant and varied relief still survives. This would seem to exclude such a term as 'mature,' and to leave no appropriate term for a plain of complete denudation. In another paper the Alps are cited as 'young' mountains, denudation having there progressed 'only far enough to sculpture into very rugged relief the strata of varying hardness.' This would seem to underestimate the enormous amount of destructive work done in the Alps, and to imply that their deformation began not very long ago. Indeed, if 'young' is to be applied geographically to mountain ranges like the Alps, thoroughly dissected by adjusted valleys, some other term than 'young' would be needed for the moderately denuded Jura, or for the still less denuded lava blocks of southern Oregon. It is hardly advisable to increase the series of age terms very far, although infantile, young, youthful, adolescent, mature, decadent, senile and old have all been more or less used. Young, mature and old, with qualifying adverbs, should at any rate suffice for elementary descriptions; and in such a series both the dissected uplands of the driftless area of Wisconsin and the vigorous peaks and valleys of the Alps should be called 'mature.'

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#### CURRENT NOTES ON ANTHROPOLOGY.

##### RACIAL SOCIOLOGY OF EUROPE.

An interesting review of the researches of Lapouge and Ammon on the above subject is presented by Carlos C. Closson in the

*American Journal of Sociology* for November last. The principal racial criterion, the sole one, indeed, is assumed to be the shape of the skull, and particularly of the cranial index. Dividing the area of France into the most dolichocephalic and the most brachycephalic departments, the sociological comparison shows that the dolichocephalic elements excel, not simply in the ownership of wealth, but still more in wealth-producing capacity, and most of all in commercial and financial activity. The dolichocephalic departments pay the most taxes, are more densely populated, richer and generally flourishing. They owe more money and own more bicycles. They also travel more to the cities in larger numbers.

Both Lapouge and Closson accept these results as in some way the consequences of dolichocephaly; but another view, not discussed by either, is that this form of skull is less a cause than a consequence. The studies of the late Dr. Harrison Allen on Hawaiian skulls, now in process of publication, will show that improved conditions of life profoundly modify the cranial form within the limits of the race.

#### THE DOOM OF THE AMERICANS.

An able and profound study of the birth rate in Massachusetts is given by Arsene Dumont in the *Journal de la Société de Statistique de Paris*, November, 1897. He shows by incontrovertible data that the marriages among the 'American born' in that State and in surrounding parts of New England reveal a steady diminution in the birth rate. This is not new. It has been emphasized by several of our own statisticians. But what is new is M. Dumont's study of its causes.

He finds its chief cause in the principle of democracy. This develops individualism, the overpowering desire of each to live his own life to the best personal advantage, to get all the good there is going, be it in the

sphere of intellect or of other gratification. But the numerical increase of the race is and must be inversely to the effort of the individual to develop himself personally. Republican civilization, he claims, contains a toxic principle. The more intense and general it becomes in a community, the more acute becomes individualism, and this will finally destroy the race and its culture. There may, however, be a democracy directed by science which can escape this poison. With this cheering but vague intimation the article closes.

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#### SCIENTIFIC NOTES AND NEWS.

PRESIDENT MCKINLEY has, as had been feared, nominated the person from Martinsburg, W. Va., named Bowers for United States Fish Commissioner. Efforts should still be made to prevent confirmation by the Senate, but that talkative body has no time to listen, and only irrelevant accidents are likely to intervene. It is within the limits of possibility that a man chosen by lot from a penitentiary would make a better chief executive than the present 'incumbrance,' and it is quite possible that Mr. Bowers may become a competent Fish Commissioner. His record should not be prejudged and he should be given all possible assistance by men of science. No subsequent events can, however, excuse Mr. McKinley. Those having knowledge of his flabby character will not be surprised when he does a weak and foolish thing, but it is humiliating to know that the President of the United States can deliberately and with full knowledge perform an illegal act.

At the annual public meeting of the Paris Academy of Sciences held on January 10th the numerous prizes in the gift of the Academy were awarded. Among these we may mention, in addition to the *Cuvier* prize of 1,500 francs awarded to Professor Marsh, and the *Lalande* prize of 540 francs awarded to Professor Perrine, previously announced in SCIENCE, the *Poucelet* prize of 2,000 francs awarded to M. R.

Liouville for his work in mathematics and mechanics, the three *La Caze* prizes of 10,000 francs each, in physics, to Professor P. Lenard for his researches on the cathode rays, in chemistry to M. Paul Sabatier for his chemical researches, and in physiology to Professor Röntgen for his researches on the properties of X-rays and their application in therapeutics; the *Parkin* prize of 3,400 francs to Professor Augustus Waller for his researches on the effects produced by certain gases and vapors on the nerves, the *Grand prix des sciences physiques* of 3,000 francs to M. Joseph Vallot, founder of the observatory near the summit of Mt. Blanc, for his researches on the conditions of animal and vegetable life in high altitudes; and the *Petit d'Ormay* prize to the late M. Tisserand for his researches, and especially for the *Traité de mécanique céleste*.

It is stated in *Nature* that the Council of the Royal Astronomical Society have awarded the gold medal of the Society for this year to Mr. W. F. Denning, 'for his meteoric observations, his cometary discoveries and other astronomical work.'

It is reported that a prize of \$10,000 is offered by the Belgian government for the discovery of a chemical that will take the place of phosphorus in the manufacture of matches.

THE U. S. National Museum has recently received, by bequest, the 'I. H. Harris Collection,' composed of fossils and archæological material. Mr. Harris, a graduate of Yale in 1846, was born in Waynesville, Ohio. This village, like many other settlements in southwestern Ohio, is situated upon the Cincinnati formation, widely known for its abundant and well preserved Lower Silurian fossils. These attracted his attention about 1846, and up to his death, last October, Mr. Harris was constantly in search of new or better preserved material. The collection has more than 20,000 specimens, of which about one-third are prehistoric stone implements. Many of the latter are from the vicinity of the interesting locality, Fort Ancient, a short distance south of Waynesville. Crinoids, trilobites and starfishes are the distinguishing characteristics of this collection. Other Cincinnati group fossils are also well represented, par-