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It appears to be a fact not generally known in the United States that a prize is annually offered by His Majesty, the King of the Belgians, amounting to the sum of twenty-five thousand francs, for the encouragement of intellectual effort.

The intentions of the King were made known by a decree dated the 14th of December, 1874, inviting the authors of all nations to compete, and placing the settlement of the award in the hands of a jury appointed by His Majesty, composed of seven members, three of whom must be Belgians, and four foreigners of different nationalities.

The prize for the year 1881 will be awarded "to the best work on the means of improving ports established on low and sandy coasts like those of Belgium."

The original time for sending in these essays, which may be either printed or in manuscript, was the 1st of January, now last past, but we are authorized in stating that the time has been extended to the 31st day of March, 1881.

Foreigners desiring to compete for this prize are required to send their works to the Minister of the Interior at Brussels; but Mr. John Eaton, U. S. Commissioner of Education, advises competitors in the United States to forward their articles through the Department of State at Washington.

We are informed that the manuscript work obtaining the prize must be published in the course of the year following that in which the prize shall have been awarded, but in what manner the publication shall be made is not stated in the document placed in our hands.

Engineers and scientific men who would avail themselves of this opportunity must act promptly, and we would advise such to apply directly to Mr. John Eaton, of the Bureau of Education, in regard to any further information required for facilitating their work.

CHIMPANZEES IN NEW YORK.

THE last of the Chimpanzees at the New York Aquarium died on the 2d of February, of a throat affection. It was a remarkably well developed specimen. Its principle dimensions were, height (when standing) from heel to vertex 33 inches, distance from coccyx to vertex 20½ inches. Length of foot 6½ inches. Length of hand exactly the same. Its weight was twenty-four pounds. The brain was obtained by Dr. Edward C. Spitzka, making the third brain of this species in his possession. New York has been comparatively rich in anthropoids during the past three years. At one time there were five Chimpanzees and one Orang-Outang on exhibition together. The former lived about nine months. Altogether there have been at different times nine Chimpanzees at the Aquarium. Of the first pair, "Nip" and "Tuck," the former died of a tubercular meningitis, the latter passed successfully through an attack of Enteritis and later of Diphtheria, to die at Coney Island. A comparatively large animal standing over 3½ feet high, died of neoplasm in the lung. A female of depraved propensities such as have not yet been noted in anthropoids (devouring her own excrement), and a little two year old, one of the finest and most active anthropoids yet kept in captivity, died of catarrhal affections contracted at the seaside Aquarium, whither supposed business interest had directed they should go. Two well-developed animals, aged over two years, were sold to the Philadelphia Zoological Gardens.

A single survivor remained at the Aquarium. This animal had been in excellent health for a year and grown considerably during that period. About two years ago a new specimen arrived which had been brought from Africa, after a very stormy voyage, in a sailing vessel; it looked shrivelled and shrunken, weighed nine pounds, and was not expected to live. Those who saw it remarked that it bore the same relation to the other that a starved inmate of a baby farm does to a healthy, well-nourished child. But after a year it had outstripped its comrade in growth, and altogether gained fifteen pounds weight in the two years of its life of captivity. There must be considerable disparity between individual anthropoid apes in a state of nature, and this observation seems to confirm it,

TRICHINÆ IN PORK.

Dr. Ed. W. Germer, Health officer, of Erie, Pa., sends to us a portion of trichinous pork, as a sample of meat which infected a family of seven persons with trichinosis. The pig in question was raised with another, both being fed with the same food and reared under the same conditions. The pigs were killed at the same time, and an examination by Dr. Germer showed that one of these pigs was infected with trichinæ while the other was free from the parasite.

The owner of the diseased pig, his wife and two children were all taken sick simultaneously, and were treated for typhoid fever. Later three persons visited the house and were all seized with the same symptoms. The attending physician attributed the trouble to a well which supplied the family water. The mystery was solved by Dr. Germer who made the discovery of trichinous pork, and under his treatment the patients recovered. Dr. Germer suggests the possibility that many cases of trichinosis occur which are treated for other diseases, and trusts the time is not distant when young physicians will purchase a microscope before buying a gold watch or a gold-headed cane. We have examined the sample of trichinous pork, and confirm Dr. Germer's report; stripping a portion of the sarcolemma from the muscle we found seven trichinæ in the field of the microscope, using a ¼th objective. The trichinæ were in a free condition without cysts, and very transparent; for this reason they could be seen only by making very thin sections,

and would probably have been passed over by one making a careless examination. The Medical *Presse* of Vienna reports 80 cases at one town and 40 at another city, and the more recent fatal cases on board the British School ship *Cornwallis* would appear to suggest the importance of an official examination of all pork to be used for food.

PHILOSOPHICAL SOCIETY OF WASHINGTON.

At the one hundred and ninety-second meeting of the Philosophical Society, of Washington, a very interesting communication was read by Prof. J. W. Chickering, entitled, "Notes on Roan Mountain, North Carolina."

The Appalachian chain with its undulating line of 1300 miles from the promontory of Gaspé on the Gulf of St. Lawrence to Georgia and Alabama, beginning as a series of folds of moderate height, increases in complexity and altitude from north to south, attaining its greatest elevation in the Black Range of North Carolina. Following it from Gaspé to the Hudson we find the single chain of the Green Mountains reaching its extreme height in Mt. Mansfield, 4430 feet; the outlying cluster of the White Mountains with Mt. Washington, 6288 feet, and others exceeding 5000 feet; Mt. Katahdin, in Maine, about 5200 feet; the Adirondacks, with Mt. Marcy, 5379 and the Catskills considerably lower. From the Hudson to New River, Va., a distance of 450 miles, it gradually gains both in width and altitude. It consists of many parallel ranges with fertile valleys between, of which the great Valley of Virginia is the largest and best known, and all in reality a part of that Piedmont region. In Pennsylvania the summits vary from 800 to 2500 feet. Towards the south the chains become more numerous and indented, and in Virginia the Peaks of Otter reach 4000 feet. The extreme eastern range is called the Blue Ridge, the extreme western the Cumberland Mountains, or more properly *plateaus*, while the high range or ranges between is in general called the Alleghenies.

From the New River southward, the system becomes more complex. The main chain hitherto called the Blue Ridge is deflected to the west, and for 250-300 miles in a circuitous chain under the names of Iron, Stone, Bald, Great Smoky and Unaska Mountains joins the boundary between North Carolina and Tennessee, rising frequently to a height exceeding 6000 feet. The more easterly range retaining the name of Blue Ridge, having its southern terminus in Caesar's Head in South Carolina, turns abruptly to the northwest and reaches even loftier altitudes, Mitchells Peak being accredited with 6717 feet. In North Carolina these two ranges are more than 50 miles apart, are partially connected by transverse ranges, and for more than 100 miles constitute a great central plateau like that of Colorado on a small scale.

The eastern chain or Blue Ridge is still the watershed, and on the Atlantic slope gives rise to the Roanoke, Catawba, Broad, Saluda and Savannah rivers. On the other side, this area of mountains and plateaus is separated by transverse chains into many deep basins. At the bottom of each runs one of those mountain streams, the New Watanga, Nolechucky, French, Broad and others. These are compelled to cut their way to join the Tennessee through gaps, gorges and defiles in the heart of this great chain, giving us some of the most picturesque scenery to be found on the continent.

In the midst of this region with all three ranges in sight stands Roan Mountain (a Laurentian mass), the State line crossing it at an altitude of 6391 feet. I desire to call attention to some of the peculiarities of the region as contrasted with the northern Appalachians.

Standing upon the summit of Roan we look into seven different States, and command a horizon of 30 to 80 miles. On the north and west the eye catches the Cumberland Range on the horizon, and in the interval the great Cumberland plateau, and and many other ranges, but all as level as if designed for railroad embankments—sometimes not a peak to be seen in 40 miles of crest. On the south is a wilderness of mountains. Guyot gives fifty to sixty with altitudes exceeding 6000 feet, and yet the highest is only 6717, and perhaps forty of them between 6000 and 6500, and hundreds of others 5000 +. The valleys rarely go below 3000 feet. The railroad after leaving Lynchburgh in a few miles reaches 1000 feet, and from that point for nearly 300 miles rarely goes below 1500 feet, and at one point reaches 2550. The true Piedmont region, extending through to Virginia, North and South Carolina, Georgia, Alabama and Tennessee, at an elevation of 1500 to 2500 feet, offers as attractive a region for health and comfort as can be found on the globe.

Uniformity of temperature. During nine weeks the mercury indicated once 75°, seven times 70°+, once 45°, three times 50°—, the general daily variation being between 55° and 65°. The spring a few rods from the hotel, has a temperature of 45°. Equally remarkable was the uniformity of atmospheric pressure, the highest barometer being 24.19, and the lowest 23.87. No wind had a velocity greater than 20 miles an hour, and seldom reached ten miles. The last time I was at Mt. Washington, in August, the mercury was 36° and the wind 40 miles.

Fertility of summit. Instead of the upper 1000 feet being, as in most of the higher northern peaks, a pile of barren rocks with lichens their only vegetation, the summit of Roan and many other peaks is a smooth grassy slope of the most vivid green, dotted with clumps of *Alnus viridis, Rhododendron Catawbiense*, the soil one or two feet deep and black. How this amount of humus was accumulated, and what cause destroyed the forests which its existence seems to indicate as formerly existing are questions not easily answered. The valleys are very fertile and adapted to almost any crop.

At an elevation of 3000 to 4000 feet occurs a belt of the most magnificent forest trees I have ever seen. Hundreds of chestnuts, sugar maples, lindens, tulip trees, yellow beeches, and buck-eyes were seen from four to seven feet in diameter, and rising 70 to 80 feet without a limb. One chestnut measured 24 feet in circumference, and one black cherry 19 feet. Thorn bushes were as large as apple trees, and with dwarf buck-eyes and yellow beeches looked like old orchards of vast extent in the higher levels.

Flora. Ascending the mountain, the vegetation takes on a northern aspect. Hemlocks abound till near the summit, where they are replaced by Abies Fraseri, the characteristic spruce of these summits. Anemone nemorosa, Oxalis acetosella, Rubrus'ordoratus, Aster acuminatus, Habenaria orbiculata, Ribes lacustris and prostratum, Veratrum viride, Lycopodium lucidulum and similar species, remind one of the woods of Maine and New Hampshire. The peculiar flora of the upper 1000 feet greatly resembles in habit those of the White Mountains, but very few are of the same species. Paronychia argyrocoma, Alnus viridis, and a species of Lycopodium are almost the only plants occurring to me as common to the two localities. Anemone Grœnlandensis is replaced by A. glabra; Solidago thyrsoidea by S. glomerata. The species peculiar to these mountains in general are hardly sub-alpine, and thus continuous with similar species further north but rather apparent instances of local variation, many species being confined to very narrow localities. The same is true of the molluscs. On Mt. Washington, a few rods will sometimes give the same plant in bud, flower and fruit, as a north or south exposure, a precipice, or a snowdrift, may retard or accelerate growth. But on these southern mountains no such difference obtains any more than in the valleys below.

On this communication Professor J. W. Powell remarked that the uniformity of altitude of the peaks is a a feature resulting from the fact that the mass out of which they have been carved by erosion possesses a plateau structure. The elevation of that region was dis-