The prevailing color is "pale yellow with occasional darker patches." A rude paleolith of the Chellean type was found in the middle of this layer, which likewise contained rolled iron-stained subangular flints. The third layer, some 50 cm. thick, is easily distinguished because of its dark ferruginous appearance. It contains rolled and subangular flints similar to those found in the layer above. All the fossils (with the exception of the remains of the deer) were either discovered in or have been traced to this third layer. So-called eoliths and at least one worked flint were likewise found here. The *Eoanthropus* remains came from it and near the uneven floor forming the upper limit of the fourth stratum. The latter has a thickness of about 25 cm., is non-fossiliferous, and "contains flints of a much larger size than any of those in the overlying strata." Nothing that could be called an implement or eolith has been reported from the fourth bed. Below are undisturbed strata of the Tunbridge Wells Sand (Cretaceous).

Our knowledge of the Piltdown fossil fauna has been supplemented by the finding of remains of one new form, a fragment of a tooth of *Rhinoceros,* in the same state of mineralization as the teeth of *Stegodon* and *Mastodon* previously described; while the specimen can not be determined with absolute certainty, it belongs either to *Rhinoceros mercki* or *R. etruscus,* with the evidence rather favoring the latter. Additional remains of *Stegodon* (fragment of a molar) and *Castor* (fragment of mandible) were likewise recovered. Judged from its fossil content, the third stratum at Piltdown would be classed as Pliocene were it not for the presence of *Eoanthropus* and the beaver. In view of the fact that the remains of these, although softer, are not so rolled and worn as the other fossil remains, the third bed, although composed in the main of Pliocene drift, was probably reconstructed in early Pleistocene times.

Those who might once have objected to the use of the name *Eoanthropus* for the Piltdown skull can no longer deny its appropriateness when applied to the lower jaw, especially since the finding of the canine tooth. While the probabilities are all in favor of the three parts belonging to one and the same individual, the case for *Eoanthropus* does not have to depend on producing positive proof to that effect. The only flint implement of Chellean type came from the layer above (No. 2), and is of later date than the human remains. Did *Eoanthropus* make use of the eoliths found in tell-tale association with him? The future holds this secret, and if hard enough pressed, may some day reveal it.

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THE PRODUCTION OF COAL IN 1913

THE production of coal in the United States has again broken all previous records, the output for 1913 being 570,048,125 short tons, which is considerably more than double the production of 1900 and more than eight times the production of 1880, according to a statement just issued by the United States Geological Survey, from figures compiled by Edward W. Parker, coal statistician. The value of the coal mined in 1913 is given as $760,488,785.

Compared with the previous year the output for 1913 shows an increase of 35,581,545 tons, or nearly 7 per cent. The increased activity indicated by these figures was well distributed throughout the 29 coal-producing states, 23 of which showed increases and only 6 decreased production, the decrease in one of these—Colorado—being due solely to labor trouble. Of those showing increase, 12 made record yields, and Pennsylvania, the leading coal state, broke records in both bituminous and anthracite production. The states which broke all former records in coal production were Alabama, Illinois, Kentucky, Montana, New Mexico, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia and West Virginia. The largest increase in the production of bituminous coal was in Pennsylvania, where 11,915,729 tons was added to the output of 1912. West Virginia showed the second largest gain, 4,522,295 tons, and Kentucky the

third largest gain, 3,126,079 tons, which was also the largest percentage of increase, amounting to 19 per cent., of all the important coal-producing states. Indiana was fourth, Illinois fifth, Ohio sixth, and Alabama seventh. While the total increase was very large as figured in tons, the percentage is what may be considered normal and indicative of healthy industrial activity throughout the country.

Coal mining, like all other industries in the Ohio Valley states, was seriously interfered with by the great floods during the spring of 1913, and Mr. Parker estimates that from 5 to 10 million tons of coal would have been added to the year's output but for this disaster. With no violent fluctuations in the demand by the blast furnaces, steel works, and other manufacturing industries, the demand for coal for those purposes shows only a normal increase. The continued decrease in the use of fuel oil in the Mid-Continent oil field and the strike in the Colorado coal mines resulted in an increased output of coal in the central and southwestern states. With a few exceptions, notably in Illinois, Indiana and Oklahoma, values ranged higher than in former normal years, so that from the producers' standpoint the conditions in 1913 were fairly satisfactory.

The development of our coal-mining industry with reference to population presents some interesting comparisons. In 1850 the coal output was 7,018,181 tons, or 0.3 ton for each of the 23,191,876 inhabitants; in 1880 the population had increased to about 50,000,000 and the production of coal to about 71,000,000 tons; an average of 1.42 tons per capita. At the close of the nineteenth century the population was 76,303,387, an increase of a little over 50 per cent. as compared with 1880, while the production of coal had increased nearly 400 per cent. in the same period and averaged 3.53 tons for each person. In 1913 the per capita production was figured at 5.85 tons. In addition to this increase in the consumption of coal, the use in recent years of petroleum and natural gas should also be considered.

The coal mines of the country gave employment in 1913 to an army of nearly three quarters of a million men—747,644. The average number of days worked by the bituminous miners in 1913 was 232, against 223 in 1912, while the average time made in the anthracite mines in 1913 was the best on record—257 days for each man. The average production per miner in the bituminous mines increased from 820 tons in 1912 to 838 tons in 1913, both being record-breaking averages, while anthracite miners increased their average from 485 tons in 1912 to 532 tons in 1913.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

THE board of scientific directors of the Rockefeller Institute for Medical Research announces the following appointments and promotions:

Dr. Hideyo Noguchi, hitherto an associate member in the department of pathology and bacteriology, has been made a member of the institute.

Dr. Alfred E. Cohn, hitherto an associate in medicine, has been made an associate member for the term of three years.

Dr. Wade H. Brown, hitherto an associate in the department of pathology and bacteriology, has been made an associate member for the term of three years.

The following assistants have been made associates:

Harold Lindsay Amoss, M.D. (pathology and bacteriology).

Arthur William Mickle Ellis, M.D (medicine).

Thomas Stotesbury Githens, M.D. (physiology and pharmacology).

Israel Simon Kleiner, M.D. (physiology and pharmacology).

Alphonse Raymond Dochez, M.D. (medicine). Dr. Dochez has also been appointed resident physician in the hospital to succeed Dr. Swift.

The following fellows have been made assistants:

Frederick Lamont Gates, M.D. (physiology and pharmacology).

Louise Pearce, M.D. (pathology and bacteriology).

The following new appointments are announced:

Chester Harmon Allen, M.S., fellow in chemistry.