

CONDITION OF WORKINGMEN IN MICHIGAN.

The Bureau of Labor and Statistics of the State of Michigan has just completed a most interesting investigation. A personal canvass has been made of 8,838 workmen in 201 shops and manufacturing institutions in 25 villages and cities. The industries covered in the investigation were manufactories of agricultural implements and iron-working establishments, and the information was obtained, not by sending out blanks nor by special canvassers, but by the regular employes of the Bureau of Labor, who visited each workman in person and secured the facts desired. When it was necessary each question was fully explained to the person interrogated, in order to place him in a position to give an honest and intelligent answer.

In the industries canvassed the best of feeling is reported as existing between the workmen and proprietors. With the exception of the carpenters' strike in Detroit, there were no serious labor troubles in Michigan in 1890, and the good feeling now prevailing promises to continue.

Of the 8,838 employes, 57 per cent were born in the United States and 43 per cent in foreign countries. The total amount of earnings for the year was \$4,127,591.20, average per man \$467.02. The lowest annual wages was \$312.46, and the highest \$653.54. The average weekly wages of married men is \$11.50, single men \$8.12, all employes in the canvass taken together, both married and single, \$10.06 per week, or \$1.67½ per day.

There is no "child" labor in the industries canvassed, but 235 boys are employed between 11 and 15 years of age. According to law, all boys under 14 years of age are prohibited from working more than 9 hours a day and must attend school 4 months in the year. The total family expenses for the year is given as \$2,550,521, making per capita \$122.48. Scotchmen, Englishmen, and Americans in the order named are the best livers, and have the highest per capita of family expenses. The Poles and Germans spend the least money.

Two thousand three hundred and twenty-eight employes own homes, of which 2,242 are married men, the percentage of married men owning their own homes being 46. The Germans are the home-owning nationality. The percentage of those who own their house and lot is 37, Hollanders 35 per cent, Irishmen 33 per cent, Scotchmen 30 per cent, Poles 28 per cent, Englishmen 25 per cent, Americans 22 per cent, and Canadians 18 per cent. The total value of homes is \$3,055,965—which gives an average value for each home of \$1,312.70.

One thousand three hundred and forty-two homes are mortgaged, which is 58 per cent. The total value of the mortgaged homes is \$1,630,360, amount of mortgages \$614,485, which is 37 per cent of the valuation. In the towns and cities outside of Detroit the average age of those who own homes and have them paid for is 41 years.

The average weekly wages of those employes outside of Detroit who own homes upon which there is no incumbrance is \$12.29.

During the year 1890, 1,390 employes made payments and improvements upon homes amounting to \$175,470, and 2,477 saved \$329,880 in money; 264 of the 1,390 who made payments and improvements on homes also saved money and are included in the 2,477 above stated. The total number of persons who saved something during the year, including payments and improvements upon homes and money, is 3,603, which is 40 per cent of the total employes canvassed.

The total present worth of 7,474 employes (1,364 not reporting) is \$3,461,164, average \$950.98. Eighty-eight employes are reported to be worth over \$5,000.

Two thousand one hundred and sixteen workmen carry life insurance, which is 23 per cent of the total employes. In Battle Creek 51 per cent of the lives of the workmen are insured, and the amount for which all the workmen canvassed are insured is \$1,945,706; average \$1,488.80. Two thousand two hundred and forty-three, or 25 per cent of total employes, belong to benefit societies paying an average weekly sick benefit of \$6.41.

One thousand and forty-six foreigners brought money with them when they came to the United States amounting to \$176,354; average \$168.57. Total present worth of foreigners, 3,293 reporting, \$2,693,610; average \$817.98. Total increase over the entire amount brought to this country, 1527 per cent.

Three thousand six hundred and twenty-seven persons own sewing machines, which is 69 per cent of those who support families. One thousand eight hundred and seventy-five own musical instruments, which is 21 per cent of total employes. Number of musical instruments owned, 2,046, of which 709 are organs, 314 pianos, and 299 violins.

There were found to be 5,949 persons who took newspapers and magazines, which is 67 per cent of all the employes canvassed. In the city of Tecumseh 87 per cent of the employes covered by the investigation take newspapers and magazines. The number of newspapers and magazines taken among the 8,838 workmen is 9,924, as follows: Dailies 5,103, or 51 per cent; story papers 443, or 4 per cent; magazines 343, or 3 per cent. Only about 5 per cent of the workmen cannot read or write.

Among the questions asked the workmen by the representatives of the Labor Bureau was this: "Has your labor organization been of any financial benefit to you?" and only 1,212 persons were willing to reply to the question, 778, or 64 per cent, of these answering yes, and 434, or 35 per cent, saying no.

Two thousand four hundred and twenty-one men, or 27 per cent, work at hand work, and 5,816, or 65 per cent, at machine work, and 601, or 6 per cent, at both.

Prehistoric Man and the Horse in North America.

The genealogy of the horse has been most admirably worked out in various publications, and the fact has long been established that the genus originated on the North American continent. The question, however, as to whether prehistoric man in America had the horse as a contemporary has been a disputed point. This question may now be considered set at rest by the discovery of a skull of an extinct species of horse in strata with human implements. This discovery was announced by Prof. E. D. Cope, at the meeting of the American Association for the Advancement of Science, held in Washington the past month (August). A skull of a horse was exhibited to the members by Prof. Cope, who pointed out the characters of the teeth and who stated it would be impossible for any one to separate the fossil teeth from those of the quagga and zebra if the three were all thrown together. In minor characters, such as those of the size of the bones, the differences are perceptible. So there is no doubt the skull represents an animal different from any now living. That it was a horse, however, any one could see.

The most curious thing about the skull was its condition. The frontal bone had been crushed in exactly as we see in the case of animals slaughtered for food. The friable bones protecting the eye sockets were intact, as were also the long nasal bones. Found in the same bed with the skull was a stone hammer that bore evident marks of having been fashioned by the hand of man.

What inference was to be drawn from this? In the first place it has been suspected and considered probable that early man on this continent had been contemporaneous with a horse, though not the present living species, but no direct proof had hitherto been found. When Europeans landed on the new continent, the horse was an unknown animal to the natives. So it had evidently long been extinct. All the horses now found in either North or South America came from stock originally brought over by Europeans. But here we had evidence in the association of a human implement and a horse's skull that man and horse had lived together: and the peculiar fracture of the skull of the latter leads to the belief that the animal had met its death at the hands of man.

This fact opens several questions. What became of the race of horses that once lived on the continent? Were they exterminated by savage man as civilized man has exterminated the bison? Did they once serve as beasts of burden or were they used only as food? Were they wild or domesticated?

It seems probable that they were not used for any other purpose than as food, and that they existed only in a wild state, for it is scarcely reasonable to suppose that having once been used by man and so domesticated, their use would ever have been forgotten or the breed allowed to die out. Neither is it probable that they were exterminated solely by the agency of contemporaneous man, for we know that in spite of the use of the bison by the Indians of North America, their numbers did not decrease to any great extent. It was only when civilized (?) man began his destructive work that the bison began to disappear.

What, then, was the cause of the disappearance of the horse? The age of the beds in which the remains are found is prior to the Ice Age that once prevailed in North America, and in this period of cold it is possible we have a factor to account for the extinction of the horse. The intense cold coming on forced the animals to migrate from their homes in the northwest of the United States, and retreating southward, they probably found many competitors for existence. The scanty vegetation of New Mexico, Arizona, and Northern Mexico probably did not suffice for the support of the great herds of animals coming from the north. New conditions of existence may have weakened the vitality of the species; starvation may have decimated their numbers; competition with other races must have cut off a large supply of food, and the hand of man may have hastened the struggle to its inevitable end. All we know, however, is that the race became extinct. That man lived previous to and of course during the Ice Age is now well established. That he lived at the same time with a species of horse is made known by the discovery of Prof. Cope. His influence in the extermination of many of the large mammals at one time inhabiting North America is as yet undetermined.

Washington, D. C.

JOSEPH F. JAMES.

FOR a good stove polish in the form of a powder, use good quality plumbago, applied with a stiff brush.

The Latest Facts about the Megalonyx.

BY H. C. HOVEY.

Perhaps the most grotesque of all living animals is the sloth of South America. Buffon and Cuvier thought Nature must have made such an animal merely to "amuse herself." It can neither walk nor stand; but it is perfectly at home amid tangled tropical forests, where it travels for many miles merely by swinging from bough to bough, while feeding on the foliage. When weary, it curls up for sleep in the fork of a tree. Unless attacked, it is a harmless creature; but when put on the defensive, its great claws are dangerous weapons.

Extinct sloths have been found larger than the elephant, and so numerous that Darwin describes the whole area of the pampas of Uruguay as "one wide sepulcher of these gigantic quadrupeds." These are known to the naturalist by the names Megatherium, Mylodon, and Skelidotherium, of which there are several species, with whose habits and peculiarities we are not concerned in writing this article.

What we have now to deal with is the giant sloth of North America, first described by President Jefferson, and named by him the Megalonyx, on account of its enormous claws. The typical specimen was found in some one of the fifty caves in the Greenbrier valley of West Virginia, and its huge bones are now in the cabinet of the Academy of Natural Sciences at Philadelphia. Other specimens have since been found in the White Cave, half a mile from the Mammoth Cave, Ky., at Big Bone Lick, Ky., at the mouth of Canoe Creek, Ky., in the vicinity of Millersburg, O., in McPherson Co., Kansas, in a locality in Mississippi, and in Big Bone Cave, Tenn. These specimens have been very fully described by Dr. Harlan, Prof. Leidy, Prof. Cope, Prof. Claypole, Prof. Orton and others.

The latest contribution to Megalonyx literature is from Prof. J. M. Safford, of Vanderbilt University, Tenn., whose communication to the Geological Society of America, at its meeting in August, 1891, was especially interesting, because he exhibited what had never previously been found, namely, the pelvis of the Megalonyx Jeffersonii, along with other bones, from the Big Bone Cave, of Tennessee. These relics were purchased from the owner, Mr. A. J. Denton, and now belong to the Vanderbilt University.

They were found in the cave already named, at the foot of the western slope of the Cumberland mountain, at a point midway between the towns of Sparta and McMinnville. They were discovered in 1884 by a laborer who was digging for bat guano, covered to the depth of three feet, and lying in such a position as to show that they had never been disturbed. The head, vertebrae, and hip bones were lying as would have been necessary after the decay of the animal, and showed it to have been eight or nine feet long. The general form of the pelvis of Megalonyx strongly recalls the broad hip bones of the Megatherium; which is what we should expect, considering the affinity of the genera.

These bones are in various degrees of preservation. Some have lost one or more epiphyses. On some, portions of cartilage and tendons yet remain. The latter is a feature of great interest, agreeing with the similar condition of the bones found in the White Cave of Kentucky, and proving that the animal existed in very recent geological times, and was probably contemporaneous with the primitive men of this continent. Many of the bones have been more or less gnawed by rodents.

It is a curious fact that, in their condition and state of preservation, these bones resemble those of another lot described by Dr. Leidy, in 1853, and now in a museum at Philadelphia; being also from the same cave. In enumerating the bones of the two lots it seems probable that those described by Dr. Safford really supplement those described and figured by Dr. Leidy, and that they all belonged originally to the same individual—a question to be settled only by direct comparison.

It may be added that Big Bone Cave is of large size, and once contained much saltpeter earth. In 1811-12 much of the most accessible of this material was dug out and leached to make the saltpeter. It was at the time an important industry, in pursuit of which quite a village grew around the mouth of the cave. It was during this early period that the large bones were found that suggested the name by which the cave has been known ever since.

A New Twenty-Four Knot Torpedo Boat.

Bids were opened at Washington, August 26, for the construction, exclusive of armament and of torpedoes and their appendages, of a steel twin screw sea-going torpedo boat of not less than 120 tons displacement. The vessel is, in all its parts, including shafting, to be of material of a domestic manufacture. It is also provided that the speed developed by the vessel shall be not less than an average of twenty-four knots per hour, maintained successfully for two consecutive hours. There were but two bids submitted, and they were for department plans. They were: The Cowles Engineering Company, of Brooklyn, N. Y., \$117,490, and the Iowa Iron Works, of Dubuque, Iowa, \$113,500.