

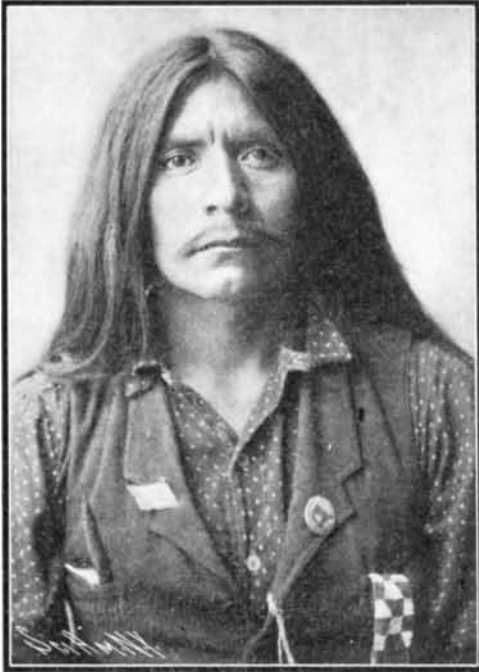
THE RACIAL EXHIBIT AT THE ST. LOUIS FAIR.

Several circumstances conspired to make the anthropological exhibit at St. Louis one of the most instructive of the whole Exposition. In the first place, the government put up a commodious building in connection with the United States Indian industrial exhibit, and this formed the nucleus around which were gathered the various Indian tribes with their winter and summer houses, built by themselves and illustrative of the native dwellings before civilization brought its power-

ful modifying influences to bear upon their lives. The main building crowned the summit of a rounded and sloping hill. In front of it was a large parade ground, in which the most excellent Indian School band played, and where the various exercises of the school were held. Surrounding the parade ground on the three sides were the native dwellings above referred to, many of which were illustrated in our issue of September 24.

The ground floor of the industrial school was devoted to an exhibit of arts and crafts of the native tribes.

On one side the Indians were shown in their native dress engaged in the manufacture of Indian articles of use and ornament. The processes shown were carried out exactly as they were before civilization had taught them new methods and placed new tools in their hands; while on the opposite side of the main central aisle, the children of the native tribes were shown, dressed in modern costume, handling modern tools, and engaged in modern manufacture. First in
(Continued on page 414.)



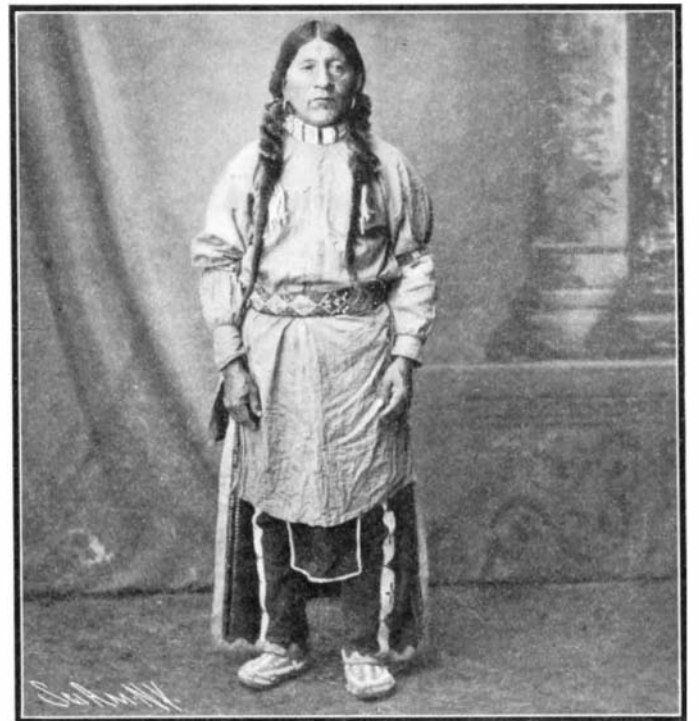
A Cocopa Indian from Old Mexico.



The United States Indian Industrial Exhibit.



Hairy Ainus, the Aborigines of Japan.



A Pueblo Sub-Chief from Santa Clara, New Mexico.



A Pawnee Chief 6 ft. 6 in. Tall and a Sioux Chief.



A Group of Patagonian "Giants."

the four batteries of ovens when all are in operation; and in order to supply the coal as required, there are two 1,000-ton elevated bins provided, and a storage of 50,000 tons, while the coal is all handled automatically, the conveying machinery all being operated by electric power. The fact that the power cost for this work is only a trifle over one cent per ton, not including the manual labor, is ample proof that the electrical system of driving coal-handling machinery is most economical, while the system has shown itself to be more convenient and satisfactory in every way than any method not employing electric power, for doing this class of work.

Anomalies of Ocean Travel.

There have been a number of anomalies this year in the British shipping trade, and one of these is as to emigration and the return of saloon passengers from Europe to the United States. When the cheap rates were established it was the expectation, shared in on both sides of the Atlantic, that there would be a tremendous rush of emigrants from the start, and that these emigrants would be of the lowest and most undesirable character. The facts are that the rush did not take place until late in the season, and the indications are that the total number for this year will be less than for last year (which, however, was an extraordinary year), and the character of the emigrants has not materially changed, nor their status appreciably lowered. For about six weeks the saloon accommodation of all the liners leaving Liverpool (and the same is true as to other British ports, and also the Continental ports) has been unusually crowded. The principal reason for this is that American tourists delayed their departure for home until late in the season, chiefly because the weather over here was very fine all through the summer and early fall.

There are two developments of the ocean passenger traffic, both steerage and saloon, which have not attracted much attention heretofore, and yet which are getting to be important features in the business. The first is the increasing number of citizens of the United States, by adoption, who come over to visit their native land and stay for a season and then return. This has always been the custom of the Scandinavian peoples, but it is also getting to be a growing one among emigrants from the British Islands. The second development is the increasing number of British people, and Europeans generally, who go to the United States, not with any intention of settling, but simply as tourists. It is a common mistake of Americans to suppose that the British people do not travel. As a matter of fact, they are great travelers, but the habit has been to take their holidays either in their own country or on the Continent. Formerly they seldom thought of going to the United States simply for a holiday, but there is a marked change in this regard. Still, on an Atlantic liner, the vast majority of the saloon passengers are Americans and the great majority of the steerage passengers leaving this side are original emigrants.

An Insect Pest.

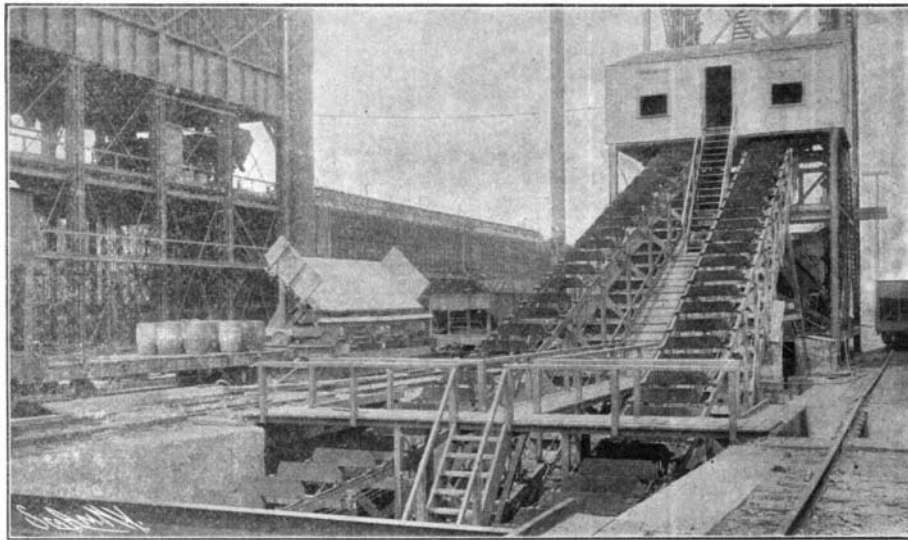
One of the most terrible of insect pests appears to be the minute black fly of the Mississippi Valley, says the writer of Zoological Notes in Knowledge, commonly known as the buffalo-gnat, from a fancied resemblance in outline to the buffalo, or bison. The buffalo-gnat chiefly attacks the larger kinds of live stock, although it will occasionally bite, and even kill, human beings. In the year 1874 it is stated that in a single county in Tennessee these insects killed stock to the value of \$500,000; while within a single week one parish in Louisiana lost 3,200 head of live stock. Horses and mules, during such visitations, are killed while working, or before they can be got under cover when grazing; while in some of the cities on the Mississippi the running of tramcars has been rendered impossible.

Among the new things to be placed in houses of the more imposing character is a combined garbage crematory and water heater. This is in the shape of a small, round stove with a coil of pipe placed in the upper part, and through this a circulation of water is maintained in connection with the regular water supply. A coal fire is kept in the lower portion of the apparatus, and any garbage to be burned is thrown in the top and falls upon the coil of water pipe. The garbage to a certain extent takes the place of fuel and is consumed as such. The moisture of the garbage is driven out by the heat of the coal fire and the residue then burns in the same manner as the fuel and gives out considerable heat.

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(Continued from page 412.)

order were the Arapahoes of old Algonquin stock, engaged in the manufacture of curious symbolic and beaded buckskin articles. In the next inclosure were some Navajo Indians from the Navajo reservation. These were famous blanket weavers, workers in silver and turquoise, and they were seen engaged in the weaving of blankets. Then there was a group of Apache women busy at basket weaving; next some Sioux, skilled decorative artists in buckskin work. On the opposite side of the room to these was the exhibit of the Lawrence Industrial Training School. First there were some students undergoing manual training and learning mechanical drawing; beyond were others engaged in wagon making. Then, in another section, was a complete blacksmith shop, following that a printing outfit in which a daily paper was printed for distribution among visitors. This paper was the journal of the Chilocco Indian Agricultural School, and was published at the school in the interests of the Indian service. Proceeding further down the first floor of the building, on the right, was another group of Navajos engaged in blanket weaving; then a group of Maricopa Indians from Arizona making most exquisite baskets and pottery work, then some Pomo Indians, renowned also for their exquisite basket work. Following them another group of Pomo Indians, makers of stone and shell wampum (money), stone tools, musical instruments, etc., while last and most instructive of all was a room shown by the Chilocco Agricultural School, in which was found a display of native grasses and a model of an educated Indian's farm, with its irrigation ditches and the various crops set out as they would be under actual conditions, while at the back of this model was shown the old Indian home or tepee, set up among the hills near a creek. Under the old native life the Indian went to the water in the hills;



Inclined Suspended Light Conveyors Which Deliver Coal to Disintegrators.

THE USE OF ELECTRICITY IN DRIVING COAL-CONVEYING MACHINERY.

under the new he brings down the water by irrigation to himself in the plains. Opposite these displays was a set of inclosures representing the work of the Chilocco Indian Agricultural School. First there was a laundry in which the Indian girls were shown at work with the latest modern laundry appliances; then a kitchen where they were seen engaged in thoroughly up-to-date cooking, and lastly, there was a very dainty dining room set out with its china and glass, the table and furniture of which were made by the Chilocco Indians.

After a stroll through the Indian school and among the native tribes surrounding the parade ground, one was pretty thoroughly saturated with the atmosphere of Indian native and civilized life, and it must be confessed that in passing on around the brow of the hill to investigate other tribal exhibits, one was impressed with the fact that the North American Indian, particularly such splendid fellows as the Sioux, are greatly superior to the average savage tribes of the world, at least so far as they are represented at St. Louis. This is particularly true of the first native tribe encountered after the Indian reservation had been left behind, namely, an exhibit of the pygmies, a black race from the Congo Free State. These diminutive specimens of humanity are intellectually far below the average American Indian. Their faces are coarse, features brutal, and evidence an intelligence of an extremely low order, while of the dignity which sits so splendidly upon the Indian as we know him, there is absolutely not a trace. Three tribes were represented, the Badingas, Batros, and the Bacoubas. One of the pygmies, Otto Bang, twenty-seven years old, looked, because of his small and attenuated stature and beardless face, more like a boy of sixteen or eighteen years. Yet he is a father of two children, and for the visitor who was on the lookout for sensations, he must have possessed rare interest, for the reason that his teeth have been filed to sharp points and have done duty in many a

cannibal meal. The average stature of these people is about four feet. Their native houses are made of a framework of flexible bamboo, covered with palm leaf.

Beyond the pygmies was the hut of a group of Patagonian "giants" so called. Although the specimens of these people at the fair were some of them of fair height, they would not by any means pass for giants in America. How the Patagonian race acquired their reputation for giant stature is difficult to explain, except on the hypothesis that the white races of many centuries ago were smaller of stature than they are to-day, and that when the early navigators first saw the Patagonians on their voyages around Cape Horn, they appeared as giants compared to themselves. This suggestion is borne out by the fact that the armor of that day is most of it very small for the average European or American of to-day. In fact, the typical football player of a college team would have to institute quite a lengthy search in an armory collection to find a suit that he could wear with comfort.

For many reasons the exhibit of the hairy Ainus, the aborigines of Japan, was interesting to the average visitor to the fair. This was the first time that these strange people have been represented in America. They come from the far north of Japan, where they engage chiefly in hunting and fishing. Inquiry among the Japanese revealed the fact that even to them the Ainus are a strange race whose beginnings are lost in the obscurity of earlier times. Like so many of the races that were included in this most fascinating exhibit, the Ainus are a very kindly, peaceable, and gentle people, far removed from the typical bloodthirsty savage of childhood's imagination and of much of the juvenile literature of adventure and travel.

Improvements Needed in Torpedoes.

Owing to the success that has attended its utilization in the Russo-Japanese war, the torpedo is claiming greater attention from the various naval powers than formerly. Especially is this noticeable in connection with the British Admiralty. Although the torpedo has proved so deadly, there are two improvements which are urgent: the greater range of the weapon, and greater acceleration in firing rapidly from the tube. The British authorities are carrying out tests with a torpedo 18 inches in diameter, but with an increased range of 1,300 yards, so that it can be effective at 3,300 yards. This increase is deemed to be imperative, not only to augment the destructiveness of the weapon, but to enable it to be effective at a range exceeding that of the small quick-firing arms on the vessels. Owing to the rapidity of the fire of these light weapons, great danger attends the approach of the torpedo boat to the range at which the torpedo is effective, and the risk attending the operation is considered to be too great to compensate for the chance of the torpedo's accomplishing its purpose. But there is a much more important point in course of development. The present speed of firing torpedoes is far too slow. It is contended that what is required is a lighter rapid-firing mechanism than is now employed. Such an improvement would enable the torpedo to be launched from a smaller type of vessel than the torpedo boat, thereby offering a smaller target to the quick-firing guns on the hostile vessel. By increasing the rapidity of fire of the torpedo, its effectiveness could be considerably enhanced, as a far greater number of weapons could be discharged before the fire from the hostile guns became so withering as to compel the retreat of the torpedo craft than is now possible with the existing discharging gear.

Winds and the Temperature.

In an article on the "Temperature of the Air," which Mr. William Marriott, secretary of the Royal Meteorological Society, contributes to Knowledge as the first of a series on "Practical Meteorology," is a summary of the effects of the prevailing winds of Great Britain on the temperature:

N. winds depress the temperature throughout the year.

N.E. winds do the same, except in summer, when their effect is small.

E. winds lower the temperature very much in winter, and generally raise it in summer.

S.E. winds do nearly the same, but less markedly in winter.

S. winds raise the temperature much in winter, but scarcely affect it in summer.

S.W. winds do nearly the same.

W. winds decidedly raise the temperature in winter, and lower it in summer.

N.W. winds lower the temperature generally, but most in summer.