

the feed they are given. The average bullock is small and poorly fed and is not strong even for his size. They weigh from 500 to 700 pounds, and in demonstrating a 4-foot cut reaper I had four of these bullocks on and it was all they could do to pull it.

"Among the factors retarding the progress of India are overpopulation of the country, and the extremely low wages at which labor can be secured—also the several hundred different casts of the people which keep them from progressing, because those who are born in a certain cast must remain in that cast—they cannot advance. The average wage paid an able-bodied farm laborer in India is about 4 7/17 annas, or 8 2/5 cents per day. Women and children work in the fields for one-half this amount or less. Wheat, as well as other crops, is cut with a sickle, and it takes on an average about seven men to harvest an acre in one day.

"The grain drill is one of the machines that India has great need for, as their old-fashioned drills are very poor. In making a drill, the natives take a wood piece about 5 inches long, bore five holes through it and put bamboo pieces through the holes. A small piece of iron is attached on the point, and a hole fastened in front to hitch to. Boys follow along behind the drill and drop the seeds in the top of the bamboo sticks, and you can readily understand that the seeding is not very evenly done. The government has offered a prize of 500 rupees for a drill that is adapted to the conditions found in India.

"The wagon used is a two-wheel cart. The user buys a pair of wheels, an iron axle, puts a piece of wood on it, and makes the other parts out of bamboo poles. The total cost to him would not exceed \$4.00 or \$5.00.

"Two years ago a European company sold two steam threshing outfits, and sent a man with each machine to run it. The machines did the work in good shape and after the season was over the purchasers refused to pay for the machines, saying that they did not leave any dirt in the wheat and therefore the grain did not weigh as much as when threshed with bullocks, and that the expense was too great, and the straw was not chopped up fine enough for their bullocks to eat easily. In India the threshing is

done by laying the grain on the ground and driving bullocks over it, treading the wheat out, and trampling the straw into fine bits. All the straw is saved to feed the bullocks, and the wheat is fanned out by hand—which leaves plenty of dirt in it. The buyers deduct 8 to 10 pounds per bushel for dirt, and the same amount was deducted from the wheat threshed with the modern machines. The claim was also made that the

say there are only two systems that you would call lines of railway—they both run into northern India, and both run across from Bombay to Calcutta. Then there are lines across to Lahore and another line down the western coast, as well as lines across the north-eastern part of Calcutta, and lines to the southern part of the country."

"Are there any more telegraph lines than there are railroads?"



Operating the Reaping Attachment

threshing came at a time when they had nothing else to do with the bullocks and they preferred working them. Both the threshing machines referred to are standing idle and rotting down."

"What is the population of India?"

"The last census places the figure at about 320,000,000—but I understand that the population is not less than 400,000,000, as I was told by good authority that many towns of 100,000 people in the interior were never counted."

"How does India rank as a wheat producer?"

"India is the fourth wheat growing country in the world, the crop yielding approximately 300,000,000 bushels annually. India exports considerable wheat and flour to Europe. The natives use but very little wheat flour. They use a crude flour made out of red rice—they eat rice and that is their principal living. Red rice is grown extensively and the yield is large. The whites do not eat it at all. Its cheapness makes it the principal diet for the natives."

"How many miles of railroad are there in India today?"

"I could not tell you exactly, but would estimate from seventeen to twenty thousand miles."

"Are there any new railways under construction?"

"The government has been putting in some new roads, but there is no great amount of railway building going on at the present. The English Government, of course, controls the railroads absolutely, and you might

Bombay, which is considered the best hotel in India. On the boat I went over on, I met a Mr. Arthur E. Wolsey and his wife of Chicago, and a Mr. Hoit; Mr. Wolsey went to India as general superintendent, and Mr. Hoit as his assistant, to take charge of the Tata Iron & Steel Company's plant. They were formerly with the Illinois Steel Company. They are making steel rails at the Tata Works, which were the first rails ever made in India, and I understand the government has given them a contract to take their output for quite a little term, and I was told they already have a contract to furnish a large amount at once; however, that does not necessarily indicate that there is a large amount of new railroad development, because with the amount of road they have already in operation in India, it would take perhaps more rails for repairs and reconstructing than that plant would turn out for some time to come."

"Do you think the time will ever come when the small farms will be replaced by large areas—will be consolidated and made modern?"

"On a large portion of them, I cannot say that the time will ever come when they will even be made into small farms of 20 to 40 acres. I would not think they would ever be consolidated to that extent."

"The general merchandise lines are handled largely by European concerns, or large English corporations that have stores in many of the large cities in India as well as other of the tropical countries around there, and I was informed that they were quite successful."

"The hotels in India are high-class only in price, and the American tourists support them, as I think without the Americans and Europeans they could not possibly pay expenses, and during the tourist season they double their rates."

"While the British Government is doing all it can to educate and induce the natives to apply modern methods of farming by opening up many agricultural farms and colleges throughout the country, to induce the younger class of natives to apply methods of farming, I feel that such efforts are not bringing the good results

they are entitled to; however inasmuch as India moves slow they may in time convince the natives that modern methods of farming is the secret of success in farming as well as other lines of business followed in India."

"There are some more telegraph lines—there are some extensions to some of the interior cities, but not many."

"Do they use the telephone?"

"The telephone is used but very little—there are no telephones in the country to speak of. While there are telephone systems in Bombay and Calcutta, and other large cities, but a very small percentage of the business houses use them. They can send a boy with a "chit" (a note) as



Carrying Cotton to Market

they call it, cheaper than to use the telephone. There are very few houses that have telephone connections at all."

"Tell us something about the Tata Iron & Steel Co., Ltd."

"These works are owned by the Tatas at Bombay; they also own the Taj Mahal Hotel at