bina. These great hunts were conducted under almost military discipline with an elected leader and subordinate captains and policemen. The laws of the hunt were strictly defined and rigidly carried out and woe to the man who killed a buffalo before the signal for the general hunt had been given. If caught he was certain to be publicly and severely flogged if he did not forfeit his life.

## A Process of Extinction.

According to estimates made by Prof. Henry Hind and others, the number of buffaloes killed by the Red River settlers and Indians from 1820 to 1840 was at least 652,000. Steadily the species was killed off and driven back until by 1820 it was extinct from Fort Garry (Winnipeg) down to the Cheyenne River, to which the Red River hunt had gradually extended. The White Horse Plains division had also practically cleared the country in which it worked and the half-breeds and Indians, who would never work if they could hunt, turned their eyes to the. hunting grounds of Saskatchewan. In a few more years, in what had once been the rich hunting country between the two branches of the Saskatchewan, the buf falo had also been exterminated.

In the meantime the buffalo in the southern and middle western States were being steadily slaughtered by both In dians and whites. The danger of extermination was, however, yet a long way off. There were still millions left. In 1865 an event occurred which did much to hasten the action of the tragedy. This was the building of the Union Pacific Railway, the first Railway line across the continent. It passed through one of the most populous remaining buffalo territories and made the marketing of buffalo products easy and profitable. By a fatal coincidence, as Hornaday points out, this event was backed up by an unlimited supply of new and marvellously accurate breech-loading rifles and fixed ammunition, and then, he says, "there followed a wild rush of hunters to the buffalo country, eager to destroy as many as possible in the shortest time. For these greedy ones the chase on horseback was "too slow" and too unfruitful. That was a retail method of killing, whereas they wanted to kill by wholesale." The still or "sneak" hunt became the order of the day. Where it formerly took from 15 to 25 mounted hunters a whole season to kill 1,000 buffalo, a single still hunter with a long range breech loader could now kill from 1,000 to 3,000 in a season by his own efforts. Col. Dodge stated that he once counted 112 carcasses inside a semicircle of 200 yards radius all killed by one man from the same spot in less than threequarters of an hour. Another writer says that he saw one of the best hunters kill 54 buffalo with 54 shots at one stand.

The famous Buffalo Bill's record was 4,-280 buffalo shot by his own hand in 18 months. In the early days buffalo robes were sold for as low as a dollar, but as the demand increased the price rose to three and four dollars and the business became a lucrative one. Traders bought robes from the Indians at a price of a pint of whiskey, and once the latter had learned the taste of fire water a new incentive was added to their zest for the hunt. Often nothing but the robes and tongues were taken, the carcasses being left to rot by hundreds on the plains. Indeed after the buffalo were gone the gathering of bones for fertilizers and refining purposes became a profitable industry. Old sketches show some of the immense piles gathered together and awaiting shipment and they speak more eloquently than words of the enormous waste of valuable meat which took place.

Much of the western Canada is by nature a grazing country. In the buffalo we had the ideal grazing animal-an animal, which could live where no other ruminant could, which could "rustle" for its own food summer or winter and which could face the severest blizzards. Experiments made with small herds in several parts of the country show that the buffalo can be domesticated or at least semi-domesticated without much difficulty. Whether great herds could have been driven out to the great ranching country of the foothills and north to the Peace River and guarded by range riders as the great ranches are today is a matter of conjecture. Twenty years from now when the experiments at present being made in connection with the government herd at Wainwright and in domestication by the University of Saskatchewan are carried out we shall be in a better position to figure up our national bill of loss.



A model of a pulp and paper town to suggest the industrial and municipal growth that are produced by the conserving of our own forest resources. This model is six feet long and five feet deep and was produced by W. C. Wilmore, of Ottawa, from photographs of the Espanola plant of the Spanish River Pulp and Paper Mills, Limited. The model, of course, does not pretend to do justice to the great dimensions of the Espanola mill. It is installed as one of the exhibits of the Canadian Forestry Association's "Forest Exhibit Cars" which has visited scores of communities this summer.

## The White Man's Prodigality.

The inevitable happened so rapidly that even those who had the best reasons to know could scarcely believe that the buffalo were gone. In 1875 they were still numerous, in 1880 they were rapidly disappearing, by 1885 they were gone. By 1890 there was probably not a single wild buffalo left on the whole North American continent, with the exception of one herd which had wandered into the inaccessible region near Great Slave Lake, a herd which still exists and which for many years has been under the protection of the Canadian Government.

Speculations as to what "might have been" with regard to the buffalo are perhaps idle. Over the greater part of the continent his extermination sooner or later was inevitable. Once his habitat was invaded by settlement the buffalo had to go. His pasture grounds had to be turned into more valuable wheat fields. But there is no doubt that the end might, under a wise policy of conservation, have been considerably prolonged with great commercial advantage to the country and perhaps even indefinitely postponed.

## **INSTINCT VERSUS SCIENCE.**

A party of foresters and surveyors were inspecting some difficult country when a heavy fog settled down on it, and they hopelessly lost their sense of direction. The day was closing in, and, in their anxiety to get back to camp before dark, they swung their compasses and discussed the way out, suggesting various cardinal points as the correct direction. Attached to the party was an aborigine, who, with open mouth and protruding eyeballs, listened to the party's wisdom. Presently the darkie remarked: "Well, genelmen, nebbor mind about Nor', Sou', East, and West, I bin goin' home." And he forthwith went. Needless to say, the rest of the party followed him and experienced no difficulty about getting back to camp. -Australian Forestry Journal.