

over ten. In England, where the soil is more carefully studied and cared for, the average is twenty-nine bushels per acre, in Holland twenty-five bushels, and in France eighteen bushels. The most of the wheat in this country is raised by Italian immigrants, many of whom farm the land on shares. They do their work in the roughest and most slovenly way. Much of the wheat is sowed on the ground as it is first ploughed, the grain being dropped among the clods. Other farmers drag brush over the field and some of the better farmers use the harrow. The ploughing is done with bullocks, who drag the ploughs through the furrows by means of a yoke attached to their horns. No fertilizer whatever is used, and the only idea of the man seems to be to get the wheat into the ground and then sit down and wait for the crop.

The life of the Argentine farmer would never suit our people. An American farmer could not be happy here without he brought his associates and friends along with him. I cannot describe the barrenness and dreariness of the life. In most of the wheat country there are no trees. The little hut of the farmer made of mud, stands out alone on the dreary landscape. It has not a sign of comfort, and the farmers do not seem to care for anything but their wheat crop. Most of them have no garden. They run their accounts at the nearest gracy and make annual settlements when they sell their wheat. Most of them drink to excess, and few of them have any thought beyond this one crop. All have large families, and at times of planting and harvesting, nearly all work. You may see boys of eight riding horses in the field, and girls of nine and ten are doing their share of the harvest. The lack of elevators and other conditions, demand that the wheat should be harvested quickly, and at this time you will not find a harder working people in the world than these Italian farmers of the Argentine. Women and girls, men and boys, labor with all strength from sunrise to sunset, and when it is moonlight you may see them out under the stars binding and thrashing wheat. It is the same in planting time, but between these two seasons there is a long vacation. The result is that the failure of a crop means partial starvation. There is no reason for this. The land is susceptible of growing of a great variety of crops, and, as plowing can be done here every month in the year, the Argentine farmer could raise everything he uses. As it is, is said he can now produce wheat at a cost of from 25 to 30 cents a bushel. This may be so, hut, taking the average of good and bad crops, it is probable that wheat costs as much here as it does in the United States.

It is curious to see how the wheat is carried to the cars from such farms as are far from the railroad. It is hauled in bullock carts, the wheels of which are about eight feet high. A load weighing several tons is balanced between a couple of these wheels, and from a dozen to sixteen bullocks are harnessed up in double file in front of it. As the cart moves onward over the rough road the wheels give out such a screeching that you think there must be a hog-killing going on near by. If you tell the farmer that a bit of grease on the axle would stop the noise, he replies that this is necessary, and that the bullocks will not move unless they hear it. In some few of the large farms modern machinery is used, and the threshing is commonly done with European or American threshers.

The Argentine is subject to drought and the crop rises and falls according to the weather. The worst thing, however, that the farmers have to contend with is the locusts. The pest that in-

fects the Argentine is fully as bad as the locust plague with which the Lord afflicted Pharaoh. The only difference was that Pharaoh had his locusts for a few days, but the Argentines seems to be having theirs as a regular thing. The plague does not extend to the extreme south, but for the past seven years the wheat farmers of the Parana valley have been seriously damaged by it. There are a lot of locusts this year. Many people believe that the situation is such that the number of locusts will increase from year to year and that the country can never be free from them. They argue this from the location of the Argentine. It is, you know, situated in the temperate zone, with a delightful climate and a fairly good soil. Just above it lies Brazil, which is covered with tropical vegetation and vast areas of which will never be different from what they are now. In this country it is claimed that the locusts have their breeding grounds. They are produced by the millions there every year, and as a swarm thinks nothing of a flight of 500 miles, you can see that an army starting out from there is a dangerous enemy. They say that the locusts breed in Brazil and annually start out for the south, eating up everything as they go. They argue and they did not come in the remote past, because the Argentine was then covered with the coarse grass of the pampas. This the locusts did not especially care for, but now, since they have learned of the juicy, green wheat, they come every year.

It is hard to realize what a terrible thing such an invasion is. The locusts appear in great swarms, which often darken the sun if they fly between you and it. They light on everything green and begin eating. The branches of the trees bend down with their weight and you can hear the snapping of their jaws and they crunch the leaves. They will strip an orchard in a night. They often eat the flesh from the fruit, leaving the stones of the peaches hanging to the bare branches. They are capricious in their feeding and all choice trees or those which have been especially cultivated are sure to be eaten. They will clean the crops from the fields, eating the grain down to the ground. Sometimes they will take the green wheat from one side of the road and pass by that on the other, and they sometimes fly on and on for days over rich fields to feed on those beyond. The next swarm may eat that which is left.

It seems funny to think of these locusts stopping railroad trains, but I have been told again and again that this is the case. They come in such numbers that they cover the tracks. The cars crush them. The rails become greasy, and the wheels spin around without touching the rails and without moving the cars onward. At such times the rails have to be sanded to get the cars to run. In some of the towns it is said that they even ate the paint off the houses.

The pest of the locust has been so great that the Argentine government has been spending large sums of money to get rid of them. Among other things, they have sent to the United States for Prof. Lawrence Bruner of the University of Nebraska to come here to investigate the subject and to give them advice. Mr. Bruner is one of the best authorities of the world on locusts, and it is from his report which has just been received that I get much of my information. The pictures I use are from him. The Argentine locusts look very much like grasshoppers. They are very prolific, and the greatest damage is caused not by those which come in swarms, but by the young locusts which follow. As the locusts move over the country they lay their eggs in the ground. Each female lo-

cust makes a hole in the ground and lays about 100 eggs, and a month or so later these turn into 100 young locusts, who crawl out and begin their march over the country. Their parents have pretty well cleaned up the crop. The babies start out to eat what has grown up in the meanwhile. They cannot fly far at first, and they crawl along, eating up everything as they go. They cover the ground, crawl over the fences and sweep the country of everything green.

In a few weeks they grow wings and then fly onward to other feeding grounds. No conception can be formed of the enormous numbers of these locusts. In one year sixteen tons of eggs were destroyed in one place. Billions of eggs are now being dug out of the ground and crushed, and today the Argentine farmers are fighting for their life with the locusts.

The methods for exterminating them are many and costly. Thousands of dollars are spent every year to kill them. At the time of an invasion all the farmers must turn out and destroy them. They are caught in traps of corrugated iron. They are scooped up with scrapers and killed. Poisons are used and the grass, plants and weeds are sometimes sprinkled with arsenic, kerosene and creosote. They are caught in bags, driven into ditches and are killed in all sorts of ways. Nevertheless, in 1896 it is estimated that \$80,000,000 worth of wheat was thus destroyed in two states of the Argentine. This impoverished the farmers of those states, and the national government spent \$10,000,000 that year in giving them seed wheat.

As to what is to be the future no one can tell. If it is true that the locusts are to come every year it will be a long time before the Argentine can have a serious permanent effect upon the wheat market of the world. Still the invasions up to this time have not extended very far south, and it may be that the new wheat regions will not be affected by them.

FRANK G. CARPENTER.

#### WHEN THE GAME WAS BIG.

"Times lack a lot of being what they used to be," said Ed. Findley, the once famous gambler boss.

Findley was reflective. He had just put a small bet on Meddlesome, an even money favorite at Ingleside. Through the clouds of smoke that rose up in the crowded pool room, the blackboard showed that Meddlesome had been heavily backed. There were other horses in the race, but the wise ones figured that Meddlesome ought to win "on form."

The telegraph instrument clicked, the telegraph operator announced that "Rare Perfume" was off in the lead, "Tyran" is second, Bony Boy is third, Meddlesome a length behind."

No one paid much attention to this, for the horse that has the lead at the start doesn't always win the race.

"As I was saying," Findley resumed in a reminiscent strain, "I remember when there were twenty-two faro banks running on Main street and around Missouri avenue."

Here the voice of the operator broke in and for a minute everybody else in the pool room kept quiet.

"In the stretch," the caller shouted, "Tyran is ahead, Meddlesome is second—Tyran wins."

Tyran was an 8 to 1 shot. Findley tore up the ticket on Meddlesome and sat down to resume the conversation. Money clinked, but the bookmakers paid out little, for very few had bet on Tyran.

"There was plenty of money in those days," he went on. "There wasn't any limit to some of the games. It was al-