

FARM.

The Credit System.

nothing but red," as preached and practiced in Kentucky; of the days of depression that lasted from 1886 to 1897; of the attacks made upon the supremacy of the breed by the Hereford and Aberdeen-Angus; and now when all these had been weathered, when the breeders had worked out their own salvation, mainly by the introduction of Cruickshank cattle, added to a steady effort by men of the Moberly type to improve our home productions, along come our Shorthorn savants, who are not big enough to keep an office in Chicago, the center of the world's cattle trade, but hide themselves in Springfield, Ill., and issue a dictum that unless the importer pays \$100 fine per animal he can get no certificate.

"The time has come to speak, and speak with no uncertain sound. Are we to close the avenues of improvement and trust to ourselves? If we could do so it would be all right, but experience teaches us that we must go to Great Britain for an infusion of fresh blood. The climatic conditions are against us. Our cattle decline in bone; they lose their mellow hides, and evidently the blood gets thinner. We miss the sappy animals of the English show-yards. Our best breeders are attracted to the Old Country. There they buy the best and gradually build up, directly and indirectly, our beef production. We do not look at this question in the mere light that a Platt, a Clarke or a Miller is to be hampered in his enterprise, but we take the broad view that every man who is raising Shorthorn cattle, either as a breeder or feeder, is affected; we go further, and say that the consumer's interest is injured by such autocratic action as that of the Shorthorn Association."

If your renewal subscription to the "Farmer's Advocate"—the handsomest and most helpful paper published—has not been remitted, please do so at once.

Look Out for Influenza.

According to reports in the lay and professional press, the country to the south, especially the Eastern States, has suffered heavily from influenza. The fall months are dangerous times for horseflesh, as damp weather and raw, cold winds often are the prevailing conditions at that time. Colds and influenza are rarely dangerous if uncomplicated, especially if a system of careful nursing be carried out. The symptoms of the disease, often termed pink-eye, are partial or complete loss of appetite, fever, great nervous depression, partial loss of control of the limbs, constipation, slimy feces, discharges from eyes—the membranes of which are often highly colored (hence pink-eye), cough, sore throat, swelling of the limbs, sheath and along the belly, and sometimes a nasal discharge. Pregnant mares often abort. The disease takes from a week to ten days to run its course, and requires in the main, good nursing and a constant watch out for complications. Be careful to avoid drafts, but have the stables well ventilated and lighted. If attacked, at once lay off from work, and feed at the evening meal, or oftener if the bowels need it, hot mashes, in which may be placed half an ounce of nitrate or chlorate of potash and ginger. In case of signs of difficult breathing, blowing hard, etc., call your veterinarian without delay.

The Farmer's Pocketknife.

The suggestion has been frequently made that we should offer a superior pocketknife, suitable for farmers and farmers' boys, as a premium for obtaining new subscribers to the "Farmer's Advocate." Everybody on the farm wants a good strong knife every day of the week, but for a long time our difficulty has been to find just what suited us in size, quality and appearance, as well as the necessary strength. However, when in England during the past summer, the Manager of the "Farmer's Advocate" visited several of the leading cutlery manufacturers of Sheffield, and finally made an arrangement with Messrs. J. Beal & Sons to submit several samples, and out of these one was finally selected, an engraving of which (being an exact representation of the knife) appears on another page of this issue. A special order was given for their manufacture, and we are now in a position to offer the premium for which we look for sharp competition among our readers everywhere. The handle is beautifully made of the popular metal, nickel, highly polished and strongly riveted, and the blades are of the finest steel, every knife being fully warranted. A duplicate of this knife cannot be obtained in Canada or the U. S., and being nickel-plated, and the name "Farmer's Advocate" being stamped on the side of the handle, makes it conspicuous and easily identified. It is by all odds the handsomest and most valuable pocketknife ever offered in this way, and one may be secured by sending us the names of two new subscribers to the "Farmer's Advocate," accompanied by \$2. Send in the names and the cash at once, and the knife will be mailed you, securely boxed and postpaid.

There is something which keeps many farmers poor—something which is so strong a temptation that they have not the courage, or determination, to resist, but which keeps them year after year in trouble. I refer to the prevalent credit system. Business men often persuade the farmer to buy on time. He promises to pay in the fall. But, alas!

In the fall his spirits fall,
When the bills come flying home;
They at first were very small,
But how very large they've grown.
"Sure," he says, "there's some mistake—
(Then he reads the items o'er)—
Credit, it is all a fake:
I shall run in debt no more."

But good resolutions do not amount to much unless backed up by firmness and decision. The farmer says to his wife, "Well, Susan, I think I'll take a few loads of grain to town to raise money to pay those bills. Oats is low, but the bills must be paid." He starts for town in the morning with his grain. He has to sell cheap, for the market is glutted. He receives his money, and goes around to pay his bills. He calls on the dry-goods merchant first. The merchant is pleased to see him call to settle so promptly. The farmer pays him and gets a receipt. The merchant says: "Now, don't you want some goods to-day? Winter is coming, you know." "Well, sir," the farmer answers, to tell you the truth, I am short of money." "Never mind the money. Your credit is good. I'll give you until the fall—you'll have plenty of money then. Don't you want a nice warm overcoat, now?"

The farmer looks at his old overcoat and says,

who have shaken off this galling yoke by a mighty effort (and will not, under any circumstance, be tempted to put it on again), don't you feel a hundred times better? Don't you enjoy riding in your own carriage (even though it has no rubber tires) and wearing your own suit of clothes (although it may be homespun, instead of broadcloth)—I say your own, because it is paid for—don't you feel happy when you can proudly say, "I owe no man a dollar!" A farmer who can truthfully say this is on the road to fortune. This ruinous credit system should be abolished entirely.

Now, farmers, take a friend's advice: If you have been in the habit of running up bills, and paying them in the fall (keeping your heads under water, as it were, all the time), make a desperate effort this fall—pay up all your bills honestly, and take no more credit. Pay as you go. Debt is slavery! Set your children a good example, and in after years they will bless you for it. Keep clear of the three D's—Debt, Dishonor, and the Devil,—for they are all nearly related.

Pay as you go,
For don't you know,
That credit is the farmer's foe!

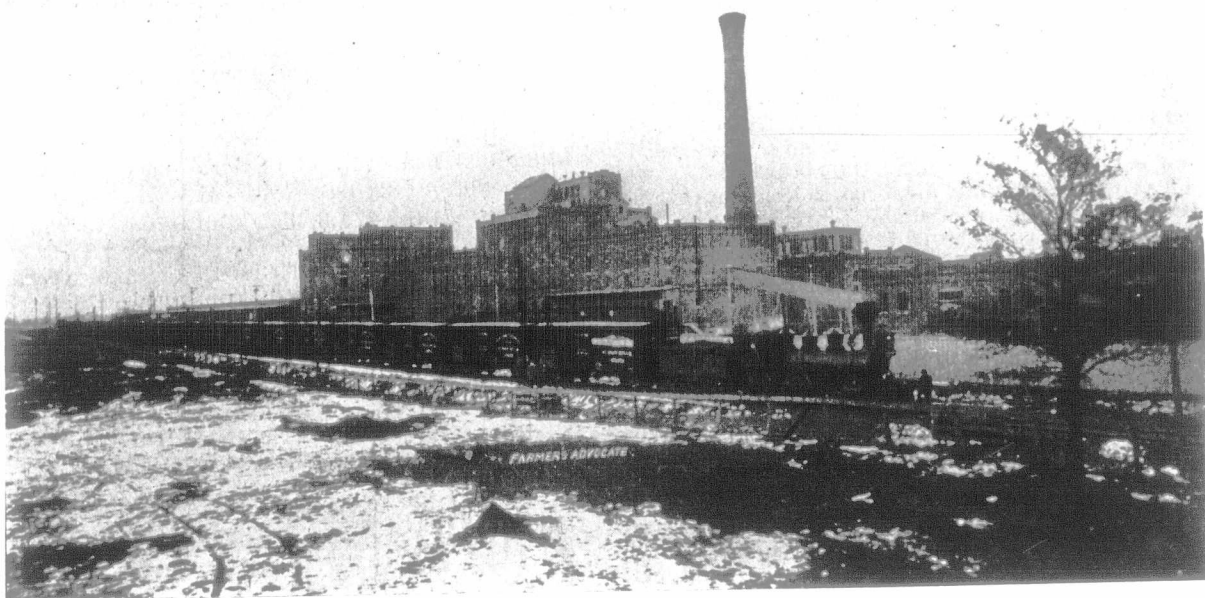
P. E. I.

A. R.

The Manufacture of Beet Sugar.

(Continued from page 740, Nov. 15th issue.)

Of late we have heard a good deal about beet-sugar factories, and the one thing more than any other which has struck the most of us has been the immense cost of the plant. From half a million to \$800,000 that it costs to build and equip a factory seems a vast sum to spend for the carrying out of a simple process. No one, however, who has seen one of these factories will wonder at their costliness. They are immense



BEET-SUGAR FACTORY, BAY CITY, MICHIGAN.

"Oh, I think this one will do me this winter all right." But after a little persuasion he tries on one of the overcoats. It fits him perfectly. He buys it. "Now," says the merchant, "don't you want a new dress for the wife?" "Oh, no, Susan didn't say a word about a new dress, and I know she hates running in debt. Perhaps she wouldn't be pleased if I bought her one." "Nonsense, man," says the merchant, "she certainly will not be pleased if you go home with a new overcoat for yourself and nothing for her. I never saw the woman yet who wasn't pleased when her husband brought her home a new dress. But buy her something good; women don't like cheap things. Here is a nice dark serge, only \$1.00 a yard."

"Well, cut off enough for a dress, and put in the fixings, too, all complete." "Now, is that all?" says the merchant. "Yes, that is all this time," positively the farmer says; but every time he or his wife comes to town a little more is added to the bill. It keeps growing, and when the fall comes a good deal of his crop has to be sold to pay it. Many of the things he buys could be done without very well, and would be if he was not tempted by this abominable credit system. In the fall he does it all over again, and never gets out of the mire of debt. He is continually kept poor, and unhappy. Credit is a temptation and a snare to those who lack firmness and decision.

It keeps people poor. Why?

In the first place, because one can buy much cheaper for cash. Secondly, because many buy things they do not really need, when they buy on credit. Thirdly, a conscientious man or woman cannot feel independent while in debt. Better, a thousand times better, to do without things until one has the money to pay for them than run in debt. Farmers, be candid, now. Those of you

structures of brick, with steel framework and cement floors, scarcely any wood being used in their construction. The costly vats and evaporating pans, diffusion cells, carriers, driers, etc., are all on a gigantic scale.

There are three main divisions in a sugar factory: the beet sheds, the factory proper, and the lime kiln. In some cases there is a fourth—a cooper shop, where the sugar barrels are made. Usually each of these divisions is in a separate building. A beet shed is a long, low building, with several driveways, on either side of which unloading can be done, besides one or two tracks for cars. When empty, 80 or more team-loads can be unloaded at once. Capacity, 10,000 tons and upwards. The beets are floated from the sheds to the factory by water running in narrow sluiceways. They are then washed in warm water by machinery, elevated to the top floor, automatically weighed and dumped into the shredder.

The shreds are about the size of a large straw. They are conveyed to the diffusion battery, a long row of steel cylinders, where 95 per cent. of the beet juice is washed out by the forcing of warm water through the shredded beets. The liquid is then mixed with lime, and carbonic acid gas passed through it. By this means the impurities present are rendered insoluble and are extracted by filtering. After being treated with sulphur fumes to further purify and bleach it, the liquid is boiled down. This is done in vacuum pans, the heat being applied by steam pipes passing through. Upon leaving the last vacuum pan, the mass, partially crystallized, is passed to the crystallizers, where the process is completed as far as possible. The sugar and molasses are separated in the centrifugals. These resemble immense cream separators, except that the walls of the bowl are of fine wire gauze hooped with perforated steel, through which the