

also help out his neighbors by sharpening their shares, and by this can soon earn the cost of a few tools necessary to do his own work. For myself I could not farm without a blacksmith's and carpenter's outfit, for I have had these things from first starting up and I know full well the value of them.

Sask.

GEO. A. HARRIS.

### Unloading Basket Racks

To unload a basket rack alone and load it up again when required is something of an undertaking. To call in the neighbors to help is not always convenient. Every farmer who uses this style of rack wants some easier way of loading and unloading it than the strong arm method generally employed. Some months ago a reader asked, through this paper for a home-made contrivance that would make it easier for basket racks to be handled. Sketches of two contrivances are published herewith, and if anyone is using a simpler or better plan than either of them we would appreciate it, and our readers would also, if he would send along a description and rough drawing of what he is using.

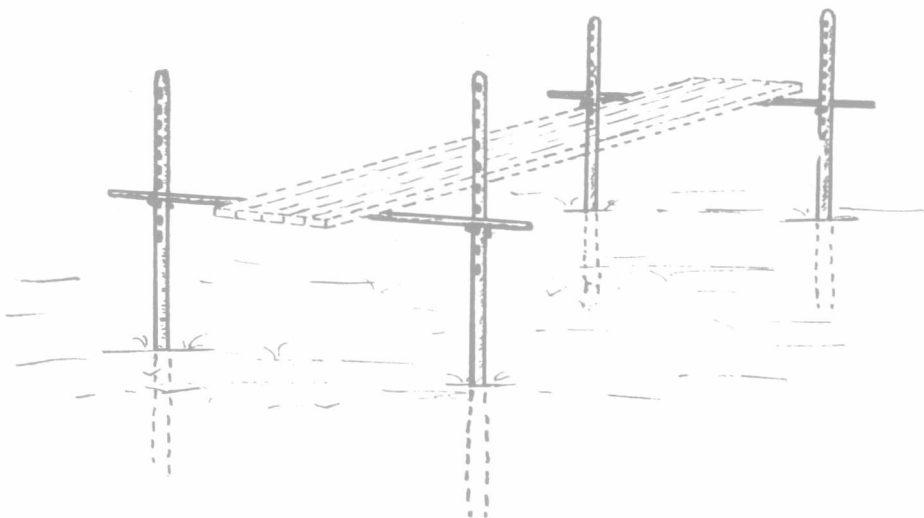


FIG. 1.—Contrivance for Loading and Unloading a Basket Rack by Lever and Pins

UNLOADING BY LEVER FIG. 1.

H. J. O., Sask., describes the contrivance shown in Fig. 1. He says: Cut four posts six inches in diameter and ten feet long. Bore a row of three-quarter-inch holes in each post, each hole slanting so that when a pin is inserted in it the pin will point slightly upward to prevent the cross bar from falling off. Then get two poles about four inches in diameter and fourteen feet long to use as cross bars. The post should be set three and a half feet in the ground. The distance between post for the rack should be about ten feet. The distance apart the other way will depend upon the length of the rack. About twelve feet will be the distance.

"To use the contrivance run the wagon with the rack on between the posts. Run a cross bar from post to post at each end of the rack. Have ends of the cross bars rest on three-eighth inch bolts inserted in the slanting holes in the posts. Lift one each end of the cross bar six or twelve inches at a time, set the bolt, go to the other end and do the same, and so on around, until the rack is clear of the wagon. One man with this outfit can load or unload a rack with ease."

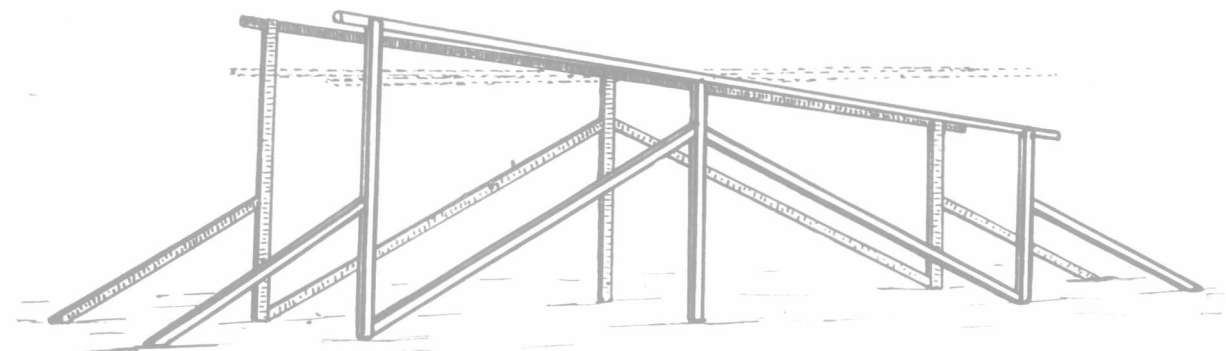


FIG. 2.—Contrivance for Loading and Unloading a Basket Rack by Horse Power

UNLOADING WITH HORSES FIG. 2.

R. O. H., Sask., writes: Anyone with a little ingenuity can build the contrivance shown. The horses do most of the work and there are no pulleys or ropes to get out of order. The posts should be set far enough apart so that one may easily drive between them. The side rails or skids are at just the right height to catch the cross

pieces of the rack. Drive the wagon in between the ends at the low end of the unloader and when the rack is far enough up the skids to just about balance, pull down the high end, fasten it and drive out the wagon. When the rack is to be loaded back in the wagon, let the hind end of the rack down, back on out and the rack is loaded.

The posts should be set at least two feet in the ground and well braced, for when the wind blows there is quite a strain on them. The side rails or skids should be fastened at the middle with a strong bolt and mortised into the end posts so that they will not get out of place. The tools needed are not many and the man who will exercise his judgment and skill in building the contrivance will save himself a lot of useless work, besides having a place for his rack where it will not be broken to pieces.

### First-Hand Facts on Depth to Put Seed.

EDITOR FARMER'S ADVOCATE:

In your issue of 16th you ask for an expression of opinion on an article, "Plow Wheat in Deep," written by Joshua La Marsh. Mr. La Marsh deals

altogether with fall wheat, while my experience in this country has been entirely with spring grains.

Our soil is a dark loam blending into a whitish clay subsoil. My experience is that it is a mistake to sow spring wheat too deep. I would say the best depth for Manitoba and eastern Saskatchewan would be from 1½ to 2½ inches on summerfallow and 2 to 3 inches on spring and fall plowing, with a well prepared seedbed before sowing in each case. That lesson was learned about six years ago, by accident. I put on patent heels on my shoe drill. The spring was a dry one and I intended to put the seed down about 3 inches and was guided by the appearance of the shoes in the soil and failed to allow for the two inches extra heels, and sowed my wheat from 4 to 5 inches deep. Result: the grain was longer coming up and was a tall, thin, weakly plant, and was later in ripening than if sown two inches shallower, besides being more liable to be attacked by smut spores while coming to the surface.

In 1895 I sowed oats broadcast and plowed them in with a 14-inch walking plow. Some of them were covered nearly 5 inches. It was a dry spring with some good rains in June and July. The oats were slow in coming up and did not stool to any extent, but grew a very tall, strong straw, and yielded well, but I prefer to thoroughly prepare the seedbed, and drill the oats about 3 inches deep.

The three essentials to perfect germination are heat, air and moisture, and these conditions are more likely to obtain if the seed is sown 2 to 3 inches than if sown at greater depth. Mr. La Marsh fails to take into account the root system of the plant, which is the most important

to send down roots into the earth for the moisture necessary to sustain life, sometimes to the depth of 3 or 4 feet in the full grown plant. So the extra two inches gained by deep sowing counts for very little on that score.

We are taught that the depth of the soil mulch or dust-blanket necessary to prevent evaporation varies according to the amount of rainfall and the prevalence of drying winds. For instance, in the reasonably moist climate of Eastern Canada one inch of soil mulch would be sufficient, while 2 to 3 inches (according to the season) would be required in Manitoba and eastern Saskatchewan, and even a greater depth further west. Therefore I can well understand why it is necessary in Egypt, where, as Mr. La Marsh says, there is no rain while the grain is growing, and blistering hot as well, to have a mulch of 5 inches over the seed.

Man.

CHRIS. STINSON.

### New Wheat in England

According to J. M. Mussen, trade commissioner for Leeds and Hull, a new wheat has been developed that promises to displace varieties formerly grown. Writing to Trade and Commerce Report for November 14, he says:

As a result of experiments which have been carried on during the past few years a new seed wheat is claimed to have been produced, which will combine the well known milling strength of Canadian "Fife" with the yielding qualities of English wheat. These experiments were first referred to in a report originating from this office, published in Weekly Report No. 290. The success of the experiments under review lies with Professor Biffen, of the department of agriculture of the Cambridge University, who has been working in conjunction with the home-grown wheat committee of the National Association of British and Irish Millers.

The new seed wheat, which is a cross of "Fife" and Essex rough chaff, will be known as Burgoyne's Fife, and it has already been tested on a large scale on various soils in different parts of the country. After considering the reports furnished by the growers and the milling and baking interests, the committee have come to the conclusion that Burgoyne's Fife is an improvement upon any known variety of English wheat so far as quality is concerned, and is a wheat which is likely to succeed as regards yield under many conditions, both for autumn and spring sowing.

## Dairy

### Dairying in Saskatchewan

That the Saskatchewan farmers are giving considerable attention to mixed farming is evidenced by the business done in the dairy branch of the department of agriculture during the past summer. The development is largely due to the government's policy of centralizing the creamery work at the most promising points and not encouraging creameries where success is doubtful, thus permitting business being done on a paying basis where farmers receive a satisfactory price for their product and are thereby encouraged. The farmer who is not close to a creamery is provided for in having the express charges paid on his cream. He thus derives the full benefits accruing from the large output of butter at one point and has every advantage of a creamery at his nearest railway station.

The northern portion of the province is destined to become a splendid mixed farming country. In 1909 there were six creameries under government supervision, and the make of butter was 342,404 pounds for the six summer months, or an average of 57,067 pounds for each creamery. In 1910 there was one new creamery recommended by the dairy branch, and it was built by the farmers and taken over, to be operated, by the government. For the six months ending October 31st, the make of butter in those seven creameries was approximately 462,000 pounds, representing an increase of 199,59