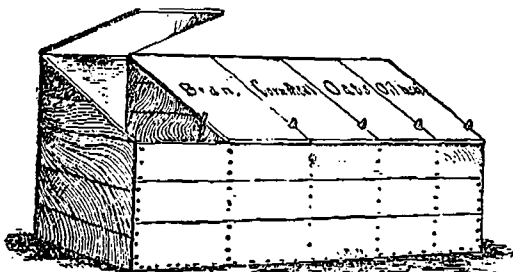


A Safety Feed Chest.

Those who have noted the numerous losses of valuable horses, cows and other animals, caused by gorging themselves at a meal chest carelessly left open, or have perhaps lost valuable animals themselves from the same cause, will appreciate a contrivance that will make such a disaster almost an impossibility. It may be urged that feed chests should be kept closed, and that animals should not have a chance to enter the barn floor, or the room where the feed is kept. But accidents will occur, and carelessness will sometimes appear, even in well-regulated stables, which makes important some device that will mechanically and

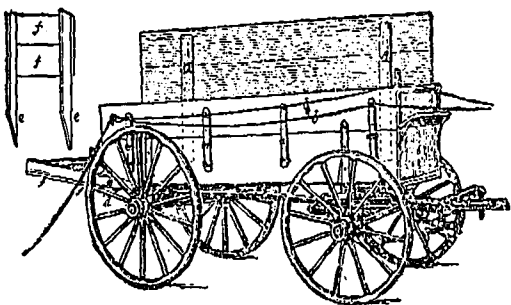


A SECURE FEED CHEST.

automatically render accidents or carelessness impossible. The illustration shows a feed chest with numerous compartments, each cover hinged at the rear and arranged against the side of the wall so that it will not remain open except while held open. If, with the chest close to the wall, the covers still stand open, balanced upon their hinges, a narrow strip of board nailed to the wall above the chest will obviate the difficulty. Then each cover must be held open while feed is being removed—a condition that will keep the covers always closed. It happens, however, that some animals will raise such covers and help themselves. To guard against this, a spring catch at the side of each compartment holds each cover until released by the hand.

Husking Wagon.

In husking and gathering corn from standing stalks, the work is greatly facilitated by placing two boards on the far side of the wagon box, as shown by the dotted lines in the illustration, engraved from sketches by J. Whildin, of Kansas. These are fastened together by four brackets, two on each side, two of which are shown at *a*, which pass down astride the far side of the box. This enables the husker to



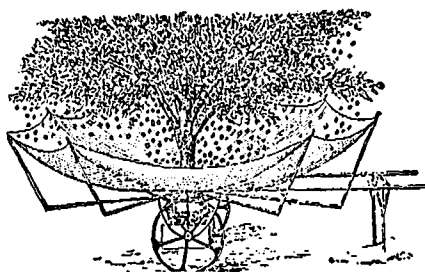
IMPROVED HUSKING WAGON.

throw the ears of corn quickly without watching their passage. In this method of gathering corn it is customary for the team to walk on the rows already husked, but just alongside the unhusked rows. As the husker advances, he

calls to his horses to go on, which they do with unguided lines until spoken to; but they frequently do not stop promptly at the word, and if allowed the habit of disobeying they often get beyond his reach, when he is obliged to run to catch them, which leads to, and often causes, a runaway. This difficulty can be avoided by passing the lines, *b*, loosely through the loops at the tops of the standards and tying to them a long rope, to be trailed on the ground, a part of which is shown trailing. When the team gets too far beyond the driver, the rope is yet within easy reach, which he grasps and pulls, speaking to the team at the same time. A few lessons of this kind, promptly administered, make the team stop at the word. In unloading ear corn from a wagon, different methods are used to enable the operator to pass the scoop under the corn on the upper surface of the floor of the wagon bed. One of these devices is a wide scoop board, placed on the end gate and passing obliquely downward until it rests near the center of the floor of the wagon. In another method, the floor of the bed extends about twenty inches beyond the tail gate. In another, the tail gate is hinged at the bottom so that it opens downward until held by supporting chains on a level with the floor of the wagon box. All these devices are unhandy, having to be carried along and in position before the corn is loaded, and with the last method it is difficult to keep the box sufficiently tight to hold small grain, which is necessary where much of the grain is drawn to market, not in bags, but loose in the wagon bed. A superior device is shown in the illustration which represents a wagon with the seat and brake removed, showing how the scoop board, *e*, *f*, is made and applied. Select a two-by-four inch scantling, *e*, and bevel it eighteen inches back on one edge to a point on the opposite edge. Place it with beveled edge upward on the side of the rear end of the box, and on the projecting end of the cross bar, *d*, with the sharpened point resting under the projecting end of the bolster. Cut off the other end of the scantling two feet behind the wagon box. Bevel and cut from the remainder of the scantling a similar board and place it in the same manner on the other side of the wagon. Then with small nails fasten a wide board across the top of side pieces for a temporary stay. Now draw this frame out from the wagon, lay it upside down on the ground, and with three and one-half inch wire nails, firmly nail two boards, one by twelve inches, across the back end of the side pieces, as shown at *f*, *e*. Remove the temporary stayboard, saw the permanent ones, *f*, even with the outer edge of the scantling, and the scoop board is complete. To unload, place it in position, raise the end gate, stand on this platform and scoop away. If the end gate opens backward with hinges it may strike the platform before it is quite open. To remedy this obstruction, cut a little of the upper side of the end of the cross bar, *d*, or cut a notch in the bottom of the scantling, or both.—*American Agriculturist*.

An Apple Picker.

The illustration here shown is taken from an advertisement in a California paper. It will illustrate the principle on which several pickers



AN APPLE PICKER.

are made. It is like an inverted umbrella on wheels, with a box below it. It is pushed under the tree. The fruit is shaken down into it and rolls into the box.

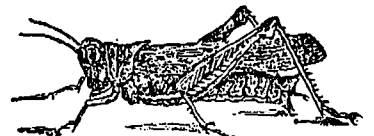
Our Two Most Injurious Species.

Melanoplus femur-rubrum, the red-legged grasshopper, although not known ever to become migratory, from its being the more abundant of the two is probably chargeable with a greater aggregate amount of injury to gardens, fruit-trees and crops than the *M. attanis*. Both of these species belong to the same genus with the Rocky Mountain locust, and resemble it closely in life-history and habits. The three are so much alike in appearance that a close inspection by an ordinary observer would only show that *M. spretus* of the West is the better



THE ROCKY MOUNTAIN LOCUST. *M. SPRETUS*.

fitted for long flight by its considerably longer wings. *M. attanis* was confounded with *M.*

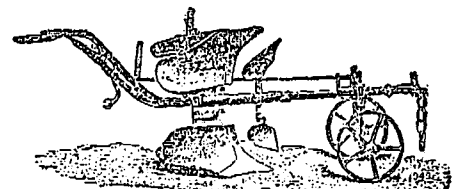


RED-LEGGED LOCUST, *M. FEMUR-RUBRUM*.

femur-rubrum until within less than twenty years ago; it is hardly separable except by comparison of the last segment of the abdomen. Until lately, and up to the present by some writers, the above three species and their associates have had place in the genus *Caloptenus*.—*Country Gentleman*.

A New Plow.

The English papers are now advertising the plow shown below. It is evidently designed to take the place of a sulky or reversible plow. It is easy to see how it works. After one furrow



NEW ENGLISH REVERSIBLE PLOW.

across, the plow is turned around and the share then above turned under, thus throwing the next furrow into the previous one. This makes a less cumbersome machine than the sulky and gives a lighter draft than the ordinary swivel plow.

He is not a free man, who is not the master of his own work.

MANY farmers have an unsuspected mine of wealth in an ill-looking swamp, which they despise as so much waste land. Every ton of the muck may have five dollars' worth of nitrogen in it, and it will rarely have less than one dollar's worth. An acre will have about two thousand tons in it if the muck is three feet deep. When the muck is dug out the land is there still, and, being drained, will, under proper cultivation, make the richest grass meadow, good for two tons of hay to the acre. Or, it may be ditched and planted with water cress; or willows, which give a profit of several times as much as the grass. Or, if there is abundance of water in the bottom, it will make a pond valuable for ice. If a pond is made of it, it will only go back to its first condition, for every swamp has once been a pond filled up by aquatic vegetation, and it may easily be that under it is a valuable body of marl, which is worth much money as a fertilizer. It will pay the owner of any swamp to take what Nature has given to him.