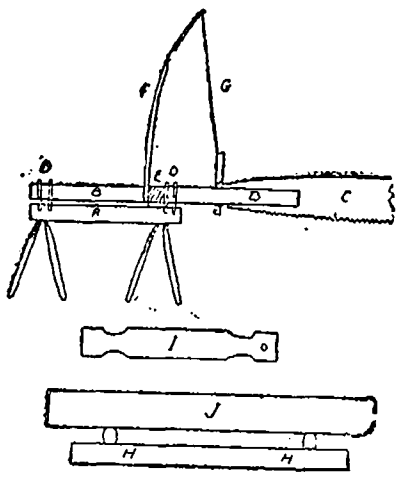
Cross Cut Sawing.

THE following pointers will be found useful by the farmer or farm help, especially in winter:—A is the bench made of a log flattened on top. B B two boards, four inches wide, placed on top of the bench which are far enough apart



for the saw handle to work between. C is the saw. D D pins in the bench to hold the boards which should be nailed down. E is the block of wood between the boards to hold them in their place. F is the spring pole. G is the rope attached to spring pole and saw. H H is the log way, consisting of two logs placed about two feet apart, and showing the ends of two rollers on them to keep the front one in its place at each end. I is the shape of the front roller on the one side where it rests on the log way. Bore two holes in either end in opposite directions to insert a short lever with which to turn the roller. J is log to be sawed. Attach the saw and see how easy one man can use it and thus save expense.

Desirable Modern Barn.

A New England farmer, who is interested in the subject and has inspected a large number of barns in several states, gives the benefit of his observations and experience to others through the columns of *The Farm Journal*. He says:

After giving much thought to the subject I have drawn a plan of some features which the modern model should contain, with greater or less modifications. It does not embrace everything, and yet for dairying and stock feeding its main features are invaluable, as it saves time and labor without being more expensive than if it were built after the old-time plans.

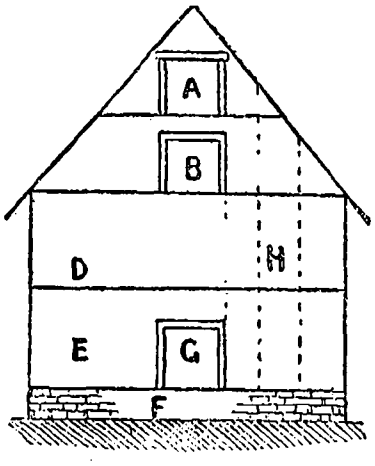
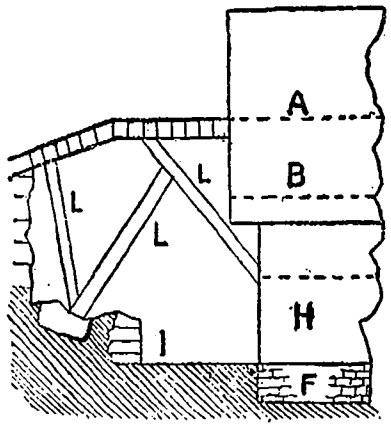


DIAGRAM OF MODERN BARN.

My model may be termed a gravity barn, because the natural law is taken advantage of in handling all fodder, including ensilage and other heavy substances, no lifting nor high pitching being required. It is erected in a side-hill, from the highest point of which wagons loaded are driven into the peak at the gable end. Where a plank incline is required, an extra heavy timber frame should first be erected and then well planked. This portion of the edifice should be made as short as possible by filling in the approach. An extreme case is shown in the second cut, including the heavy frame required for such a length of incline and platform.



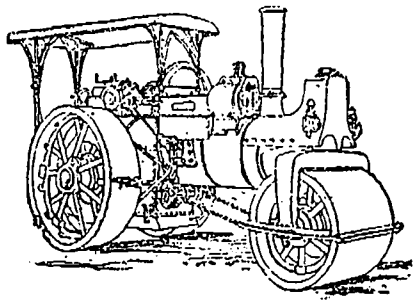
SHOWING DRIVE, FLOORS, SILOS, ETC,

Directly beneath the drive floor the threshing floor is located, and this may be filled full to the drive door if desired through trap doors or removable sections in the drive floor. No ensilage carriers, hay forks nor machinery nor time for driving them will ever be required in such a barn. The stock enters the first floor from a level, and the manure is drawn out through a large door on the lower hillside. On this side also mowers and other machinery and farm rolling are run in out of the weather. The posts of this barn are 18 by 20 and the roof is a quarter pitch.

In the first cut is represented at A, platform and floor; B, threshing floor, G, dung pit; D, cows or sheep; E, wagons and machines; F, underground foundation; H, silos. In the second cut is shown at A, platform and floor; B, threshing floor; F, underground foundation; H, silos; I, drive; L, supports.

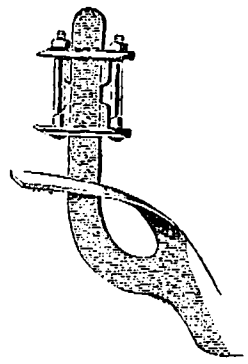
Steam Road Roller.

To construct a good roadway the use of a roller is necessary. When so much is spoken and written on good roads these days, a few pointers as to construction will be in place. And first of all the earth foundation upon which



the broken stone is to rest should be well rolled. It cannot be rolled too solidly. No matter what may be the appearance of the earth bottom after the excavation is completed, it is more than likely to contain many soft spots, which can be brought to light very quickly by the passage of a heavy roller. In rolling the earth bottom it is generally best to begin at the sides of the excavation and work toward the center—that is, begin by rolling along the outer edge of the excavation from end to end, and on the second passage of the roller let it move along parallel with the first course of the roller and slightly lap the portion already rolled. When a point near the center of the road is reached, begin on the other side of the excavation and repeat the operation, finishing at the center. Rolling is omitted when the soil is of a hard, gravelly nature, or when a stiff clay is found which presents a firm surface, but whatever be the nature of the soil the use of a heavy roller will generally develop weak spots, the presence of which would not otherwise have been suspected. This fact may be demonstrated by passing a heavy steam roller over the earth foundation after excavation has been made for the macadam roadway. It will be found that the passage of the roller over what appeared to be a well graded surface of compact material will develop a series of humps, holes and undulations, utterly destroying the uniformity of the grade in places, and revealing many soft and weak places which are wholly unfit to sustain a permanent stone roadway and the wagons which are to pass over it.

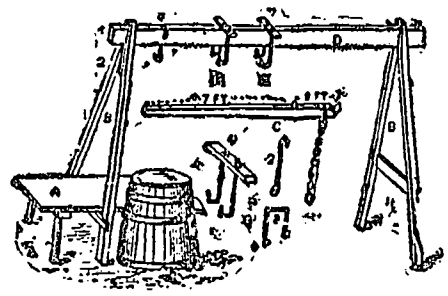
A Useful Plow Coulter.



THE illustration here given is engraved for the MASSEY ILLUSTRATED from a picture in the *Rural New Yorker*. In plowing sod or turning under weeds or grass this coulter will prove a great help. It is specially designed to effect this purpose and is said to be quite successful.

Butchering Outfit.

FARMERS who butcher their own hogs in the fall, all know the old way of butchering is very inconvenient and tiresome. The following illustrated arrangement makes the labor com-



paratively easy. The top piece is 8 x 5 inches and 12 feet long. The mortises for B B to fit in are made 5 inches from the ends of piece, and are ½ inch deep, 2⅝ inches wide at bottom, by 1¾ inches at top, thus only one bolt is needed to hold them together at top. The upright pieces B B are 2 x 2⅝ and 7 ft. long; crosspiece, 1¼ x 2½ and at one end this should be bolted on upright pieces, down low enough so that the bench will set over it. The lever is 3½ x 2 at staple, and shaved down to 1¾ at end. Staples made of 5-16 inch rod iron, and long enough to clinch. Clevis where chain is fastened is made of ⅜ inch iron. Fig. 1 is iron, 6 x 2 x ½ bent, as shown for gambrel stick to rest on, while lifting hog to Fig. 4, which is made large enough to slip back and forth easily on upper piece. Rods ½ inch, bent to hold gambrel stick, Fig. 2, is ⅜ x 13 inches long, on which lever rests while lifting to Fig. 4, Fig. 3, ½ inch iron on which lever rests in scalding. Bench, 19 x 1½ inches, 20 inches high. 8 ft. long. Barrel to set in the ground ¼ its length

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A STRAW shed is a cheaper stock shelter than is a board fence.

DON'T drink impure water. If you have any suspicions as to its purity, boil it.

Now let the best work of the farm be commenced, by laying out plans for the next year's work.

STAGNANT water should never be allowed near the farm houses. It is not only an eyesore; it is positively dangerous to the health.