

walls, outward pressure of roof and shear, due to unequal settling. In barns and other building in which large stock is kept, the crowding of the stock should always be considered in addition to the forms already mentioned in dwellings. In all out-buildings the different materials to be stored should always be considered.

In regard to the danger of stock crowding masonry walls, I was interested in finding a clay block blacksmith shop in the northern part of Iowa. This shop was some 30 feet wide and some 50 feet long. At the front end the walls were 12 feet high sloping to 9 feet at the back end. They were 8 in. thick and contained no reinforcement. Along side of this shop, and secured to the wall, were 13 tie rings. Frequently to all of these rings have been secured horses waiting to be shod. Halter pullers have repeatedly broken  $\frac{5}{8}$  inch ropes secured to them and the wall has not been injured in any way.

Instead of an 8 in. wall in this shop a 5 ft. wall could have been made fully as strong and more cheaply by reinforcing it. In reinforcing a straight wall against flexure, there must be side supports. Joists may be utilized for tying walls together. In the absence of other supports reinforced pilasters may be built into the wall. All corners must be thoroughly tied into the wall with good wall ties.

Horizontal reinforcement may generally be placed in the mortar

See our Large Free Prize Offer in our Catalog—Page 5



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joint to the best advantage, but in some cases such as over windows and doors, a hole may be broken in each block at the top and steel extending through the blocks may then be secured by pouring the block full of concrete.

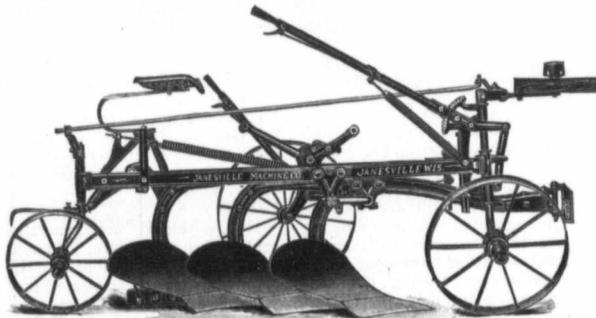
The most convenient size of reinforcement to use for mortar joints is No. 3 wire which is  $\frac{1}{4}$  in. in diameter. Sometimes the greater availability of No. 9 wire may recommend its use and for reinforcing blocks which are fill-

ed with steel and concrete, any convenient size of steel may be used.

#### House Construction.

Clay blocks have been used to quite an extent in the construction of houses. The usual meth-

# The One Great Plow for the Great Northwest



## Here's the Plow that Meets Your Needs Best

### The Top-Notch of Plow Value

You farmers of the Northwest require a much heavier and a much stronger plow than is regularly used in other territories. You have more work and the work is harder. An ordinary plow won't stand the strain long enough to pay for itself. Besides extra strength, you must have a plow with certain distinct features, which are absolutely essential to the greatest efficiency on your land. We have made a plow just for you—a plow that meets every condition of the Northwest and every requirement of the Northwest Farmer. It's the

### JANESVILLE NORTHWESTERN GANG

In the first place, this Janesville gang is provided with extra heavy beams—both of which extend beyond the frame in front, allowing a very long cross clevis to be attached. This clevis gives you choice of four horse abreast—or four, five or six horse tandem hitch.

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The Janesville foot-trip horse-lift is a big feature found on no other plow. Simply trip the "lift" with your foot while riding or throw the land wheel lever while walking, and the horses will pull the plow bottom into the ground at the start and out of the furrow at the end. The point of the plow bottom always goes in and comes out first just like the walking plow, because the movement is just like your arms. In entering the ground the heel of the plow bottom is held up, so the point must go down first. In leaving the ground, the heel of the bottom is held down, so the point must come out of the ground first. This Janesville feature eliminates the objections to the foot lift as compared with the hand-lift. Our self-leveling device is unequalled on any other plow made. You have absolute control of the Janesville Plow Bottoms at all points.

All levers are spring balanced which makes it possible for even a mere boy to operate them. The bottoms and beams on the Janesville Northwestern Gang Plow are not held rigidly in the frame but are balanced over the single bale which permits adaptability to the unevenness of the surface of the ground, which has a great effect on the draft. The single bale feature also permits raising the Plows and leveling at the same time, which is not possible with a two bale construction.

The connection between the front and rear furrow wheel is automatic in action and in place of forcing the rear furrow wheel around in turning at the corners it simply permits it to follow along behind in the corner of the furrow. All the side and down pressure caused in turning over the soil is carried on the wheels. We use nothing but steel and malleable iron in the construction of the frame. The shares furnished on all Janesville Northwestern gangs are 1-16 inch thick and made much stronger than the ordinary kind. The front furrow wheel is 24 in. high; the rear 20 in.; the land wheel 30 in.; all with 2 1/2 in. tire. There are so many other features and advantages of Janesville Northwestern Gangs that we want you to know them all before you decide on any plow. Let us send you

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