F. M. STIER.

CLOD CRUSHER.

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985,641. Patented Feb. 28, 1911.

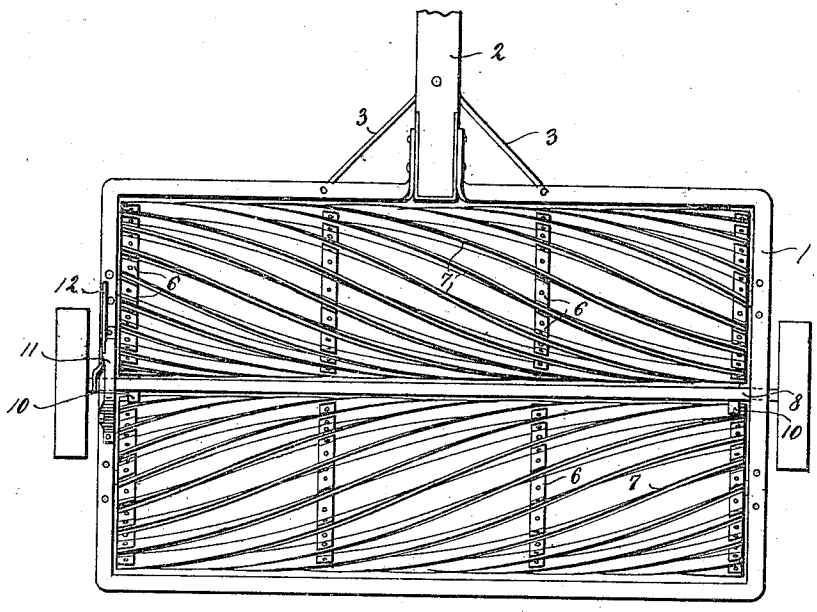


Fig. 1

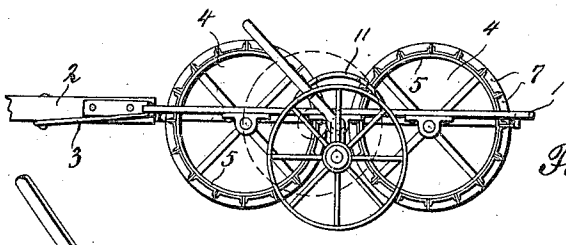


Fig. 2

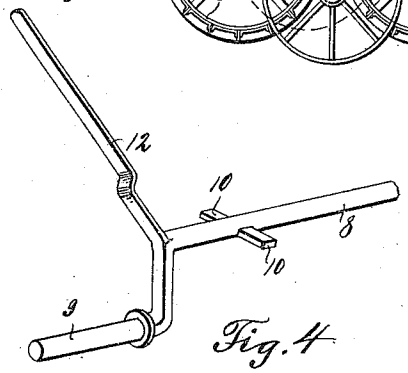
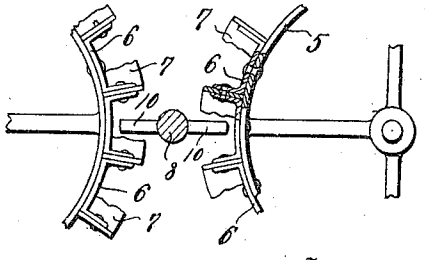


Fig. 4

Fig. 3



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UNITED STATES PATENT OFFICE.

FREDRICK M. STIER, OF ATLANTIC, IOWA.

CLOD-CRUSHER.

985,641. Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed August 15, 1910. Serial No. 577,246.

To all whom it may concern:

Be it known that I, FREDRICK M. STIER, a citizen of the United States, residing at Atlantic, in the county of Cass and State of Iowa, have invented certain new and useful Improvements in Clod-Crushers, of which the following is a specification.

This invention relates to clod crushers and is primarily designed to provide a clod crusher with wheels which may be thrown into an operative position when the implement may be taken from place to place without operating the clod crusher rollers, or may be thrown into an operative position thus permitting the rollers to operate upon the ground.

A further object of this invention is to provide a simple improvement which will lock the rollers to prevent them from revolving when they are not in use.

For a full understanding of the present invention reference is to be had to the following description, claims, and the accompanying drawings, in which:

Figure 1 is a plan view of the clod crusher; Fig. 2 is a side elevation thereof; Fig. 3 is a view illustrating the locking members hereinafter described; Fig. 4 is a view showing more clearly the shaft of the vehicle.

Referring more particularly to the drawings, 1 designates a preferred frame structure of a single piece of angle iron having its extremities flattened and bent approximately at right angles as illustrated in the drawings. Between the bent extremities of the frame is secured a tongue 2, of any desirable length, said tongue being braced by rods 3. Journaled on the frame are two rollers 4, each roller comprising a plurality of rims 5 to which are secured a plurality of blades 7, the same extending the length of the rollers. These blades or knives are secured to irons or members 6, the latter having a base portion which is secured to the rims and upwardly bent extremities which secure the blades to the rims as illustrated in Fig. 3. The outer rims are provided with spokes extending to a hub by which the rollers are rotatably mounted. The inner rims may be constructed similarly if it is desired.

Rotatably mounted intermediate the rollers and on the frame is the shaft 8 having its terminals bent at right angles to which may be fastened a stud 9 upon which wheels may be mounted. Instead of having studs 9 secured upon the terminals of the shaft 8 the said terminals may be bent again outwardly in a plane parallel to the main body portion of the shaft 8 forming a double crank shaft. Rigidly secured to the shaft are a plurality of arms 10 extending transversely to the shaft, and adapted to be rotated into engagement with the blades of the rollers for retaining the latter in rigid relation to the frame. The arms or cross members 10 are secured to the shaft at such an angle that when the wheels are in their operative positions the cross or lock members 10 will engage the rollers as illustrated in Fig. 3. When the wheels are in their inoperative positions the cross members 10 are thrown out of engagement with the rollers thus permitting free rotation of the latter. A lever 12 is provided to throw the wheels into and out of their operative positions, said lever being retained in predetermined positions by engagement with a retaining member 11 secured to the frame.

In use, it will be seen when the wheels are in their operative positions the clod crusher rollers will be engaged by the members 10 and prevent the former from rotating thus eliminating accidents which may occur by tampering with the rollers and adapt the implement for use for many other purposes on the farm. To use the rollers the wheels are brought out of contact with the ground thus unlocking the rollers and permitting them to operate.

Having thus described my invention, what is claimed as new is:

1. In an implement of the class described, the combination with a main frame, of a plurality of rollers journaled therein, a shaft journaled on said frame, wheels mounted on said shaft adapted to be thrown into and out of their operative positions and locking means carried by said shaft adapted to be

thrown into engagement with the said rollers simultaneously as the wheels are thrown into their operative positions, as set forth.

2. In an implement of the class described, the combination with a main frame, of a plurality of rollers journaled therein, a double crank shaft rotatably mounted on said frame, wheels mounted on said crank shaft, locking members mounted on said crank shaft adapted to engage said rollers, and means for operating said wheels and locking members as herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FREDRICK M. STIER.

Witnesses:
JAMES H. POWERS,
HENRY D. JACOBSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."