

(No Model.)

J. D. LOOMER.
REVOLVING COLTER.

No. 328,127.

Patented Oct. 13, 1885.

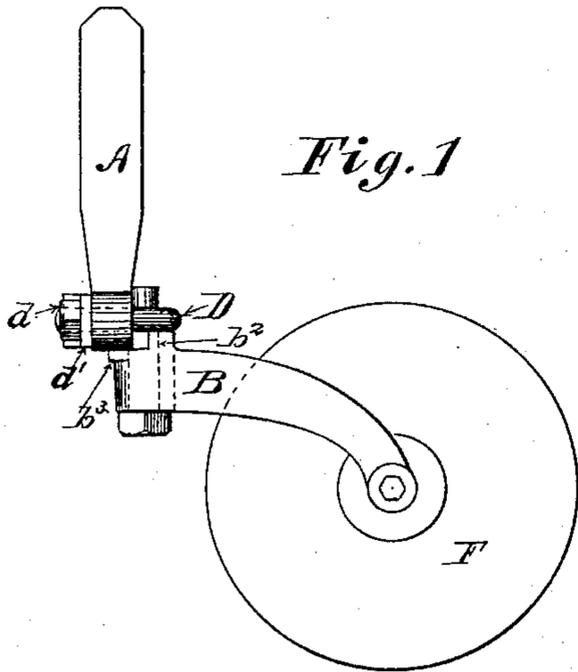


Fig. 1

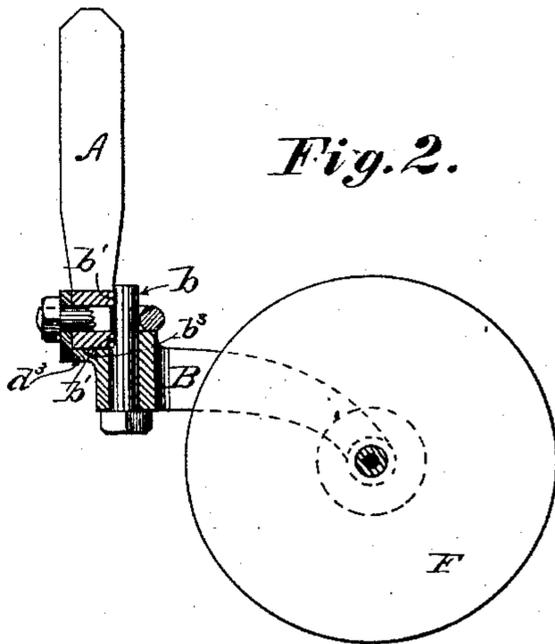


Fig. 2.

Fig. 3.

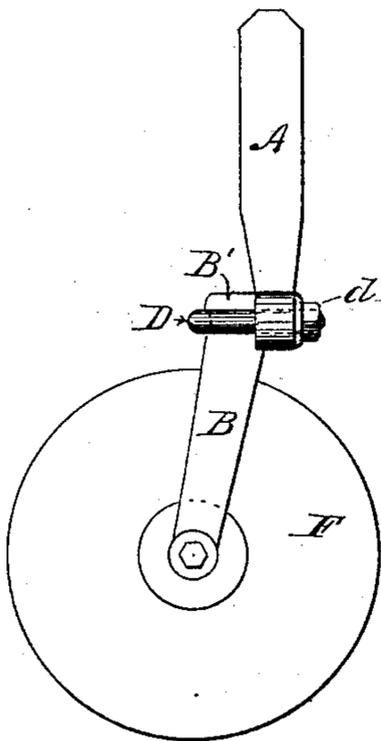


Fig. 4.

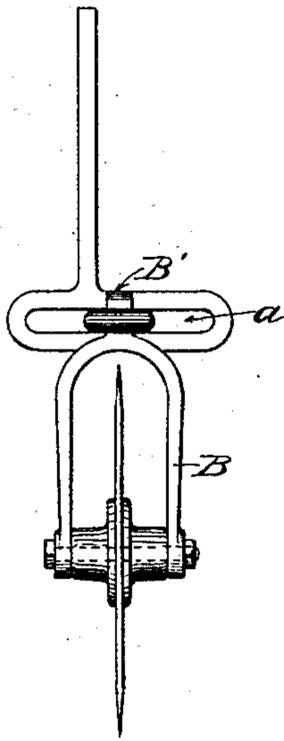


Fig. 5.

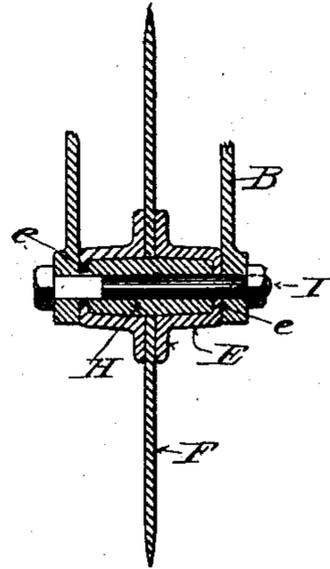
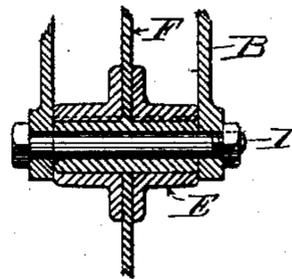


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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REVOLVING COLTER.

SPECIFICATION forming part of Letters Patent No. 328,127, dated October 13, 1885.

Application filed July 22, 1885. Serial No. 172,338. (No model.)

To all whom it may concern:

Be it known that I, JASPER D. LOOMER, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain Improvements in Revolving Colters for Plows, of which the following is a specification.

My invention relates to certain improvements in revolving colters for plows; and it consists, generally, in the construction and combination hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved colter. Fig. 2 is a vertical section of the same. Fig. 3 is a side elevation showing a modified construction. Fig. 4 is a front elevation of the same. Fig. 5 is a section through the colter and its hub. Fig. 6 is a similar view of a modified construction.

A, in the drawings, represents the shank by which the colter is secured to the plow-beam. This shank may be held against the side of the beam by a clamp or other suitable means. The shank A is preferably of the irregular T shape shown in Fig. 4, the short or cross arm projecting farther from one side than from the other. The cross-arm of the shank is horizontally slotted nearly its full length at *a*. The shorter branch of the cross-arm is preferably arranged beneath the plow-beam when the colter is in position.

B represents the yoke, between the forks of which the colter proper is mounted, as hereinafter described. I have shown two constructions for the upper part of the yoke B. The yoke shown in Figs. 1 and 2 is so constructed that the colter may be used either as a swiveled colter or as a rigid (unswiveled) one. The yoke B, Figs. 1 and 2, is provided with a vertical bolt-hole, through which extends a bolt, *b*, having its head beneath the yoke.

D is an eyebolt arranged to pass through the slot *a* in the cross-arm of the shank and provided with the nut *d* and the washer *d'*. The bolt *b* is preferably flattened at *b' b'* at the points where it bears against the shank. Between the points *b' b'* it is preferably of full size and cylindrical in shape. The bolt *b* is

placed in the eye of the eyebolt D, and by means of nut *d* is clamped against the cross-bar of the shank. The part of the bolt between the flat portions *b' b'* projects into the slot *a*, thus rendering it impossible for the bolt to slip.

With the construction above described the colter is swiveled, as the yoke is free to turn upon the bolt *b*. I prefer to provide a projecting lug, *b²*, on top of the yoke, beneath the eyebolt D, the ends of which strike the shank and thereby serve as stops for the yoke of the colter.

In some instances it is desirable to have the yoke of the colter rigid, and in order that it may readily be converted from a swiveled colter into a rigid colter I provide the yoke with a rectangular lug or projection, *b³*, directly under the cross-bar of the shank, and I also provide a projection, *d³*, on the washer *d'*. The nut *d* may be removed and the washer reversed from the position it occupies in Fig. 1, bringing the projection *d³* beneath the shank and abutting against the projection *b³* on the colter-yoke, as shown in Fig. 2. By this means the yoke is held rigidly on the bolt.

The yoke B is in some instances provided with the head or top *B'*, which fits within the eye of the eyebolt D, and by which the yoke is held firmly to the shank, as shown in Figs. 3 and 4. In this case the colter can be used only as a rigid or stiff one.

The colter may be vertically adjusted in the usual way, and it may be horizontally adjusted in either direction by loosening the nut and moving the eyebolt D in the slot *a*. I have also shown in Figs. 5 and 6 means that I employ for mounting the colter between the forks of the yoke.

In Fig. 5, *EE* represent hubs, between which the colter *F* is bolted. *H* is a chilled bearing, of cylindrical or double-taper shape, upon which the hubs and colter revolve. A bolt, *I*, passes through the bearing *H* and through the forks of the yoke. The bolt is square for a portion of its length and the bearing has a corresponding opening, so that the bearing is kept from turning with the hubs. The bearing is somewhat less in length than the distance through the hubs and colter, and each hub is provided with an inwardly-projecting flange,

e e, which projects over the end of the bearing and covers the opening or joint between the bearing and hub. This flange serves as a sand-ring and keeps all sand and dust from getting between the bearing and the hub.

In Fig. 6 the bearing or cylinder and the hub are splined together. The bolt is cylindrical, and the colter, hub, and bearing all revolve on the bolt.

I claim as my invention—

1. The combination, with a colter-shank having a cross-arm at right angles to its main part, a horizontal slot extending lengthwise in said cross-arm, an eyebolt passing through said slot, a colter-yoke carried by said eyebolt, and a nut holding the eyebolt in position, substantially as described.

2. The combination, with the T-shaped shank A, having the horizontal slot *a*, of eyebolt D, the colter-yoke B, carried by said eye-

bolt, and means for holding said eyebolt within the slot *a*, all substantially as described.

3. The combination, with the T-shaped shank A, having the horizontal slot *a*, of the eyebolt D, secured within said slot, the yoke 25 B, bolt *b*, having the flattened portions *b'*, the colter F, and means for holding said colter in the yoke B, all substantially as described.

4. The combination, with the T-shaped shank A, having the slot *a*, of the yoke B, 30 having projection *b''*, bolt *b*, eyebolt D, the reversible washer *d'*, having projection *d''*, and the nut *d*, all substantially as described.

In testimony whereof I have hereunto set my hand this 11th day of July, 1885.

JASPER D. LOOMER.

In presence of—

AMASA C. PAUL,
GEO. McNEIR.