(No Model.)

F. BROTHER, D. MORRIS & H. SPEIRS.

COLTER ATTACHMENT.

No. 300,688. Patented June 17, 1884.

Fig. 1.

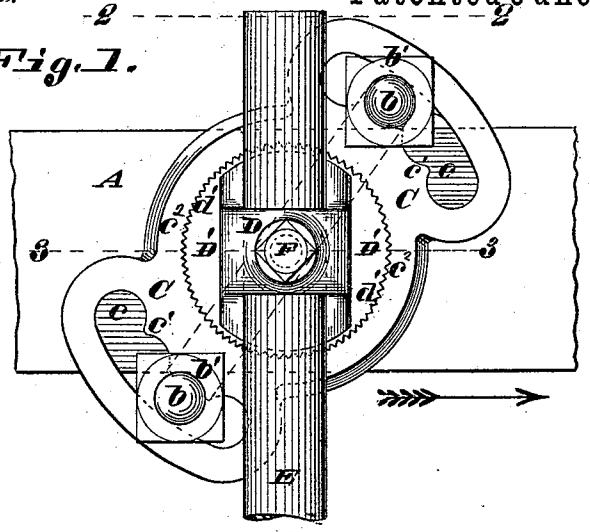


Fig. 2.

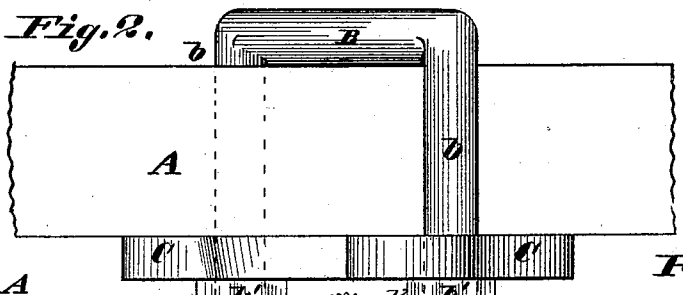


Fig. 3.

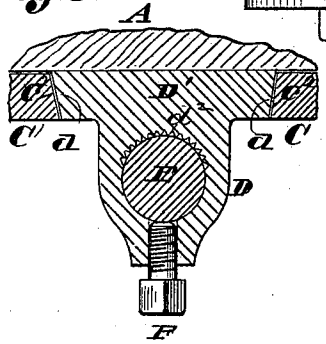


Fig. 4.

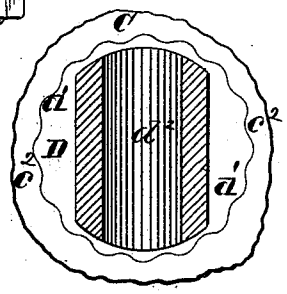
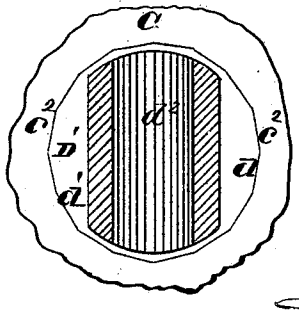


Fig. 5.



Attest:
Charles Pickles
Geo. H. Wheelock

Inventor:
Ferdinand Brother
David Morris
Hugh Speirs
By Knight Bros.
Attys

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

FERDINAND BROTHER, DAVID MORRIS, AND HUGH SPEIRS, OF BUNKER HILL, ILLINOIS.

COLTER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 300,688, dated June 17, 1884.

Application filed October 3, 1883. (No model.)

To all whom it may concern:

Be it known that we, FERDINAND BROTHER, DAVID MORRIS, and HUGH SPEIRS, all of Bunker Hill, Macoupin county, State of Illinois, have invented a certain new and useful device for attaching colters to plow-beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Reference is made to the claim for statement of invention.

Figure 1 is a side view of the attaching device. Fig. 2 is a top view of the same, showing the colter-shank in transverse section at 2 2, Fig. 1. Fig. 3 is a horizontal section at 3 3, Fig. 1. Fig. 4 is a detail section at 4 5 of a modification, and Fig. 5 is a similar view showing another modification.

A is the plow-beam. This may be of any material or dimensions.

B is a usual clip or clasp embracing three sides of the beam in an oblique position, so that the resistance of the earth upon the colter will press the top and bottom arms, *b*, of the clip firmly against the beam, (the movement of the plow being in the direction of the arrow in Fig. 1.) The ends of the arms *b* of the clip are screw-threaded to receive nuts *b'*, by which the clamp-plate C is secured to the beam. The clamp-plate, in its most perfect form, is made with a number of holes at each end for the passage of the ends *b* of the clip, or with transverse slots *c*, as shown, with teeth *c'*, holding the screw ends *b* to their position in the slots. As a modification, the projections or teeth *c'* might be dispensed with, the slots being made plain. The socket D, through which the shank E of the colter passes, may be in one piece with the clamp-plate C, and with the described means for the adjustment of the clamp-plate upon the beam this construction answers very well; but we prefer to form the socket D in one piece with a disk, D', that has means for adjustment in a socket of the clamp-plate, so as to allow the colter-shank to be inclined to any position in a vertical plane. The disk D' is made with a beveled edge, *d*, and is thus of frusto-conical form, and fits in the socket c^2 of the clamp-plate, whose edge is similarly beveled, the larger diameter in both being at the inside, toward the plow-beam, so that when the clamp-plate is held tightly against the plow-beam by the clip the disk is pressed hard into its socket. The disk is prevented from turning in its socket by interlocking teeth or other projections, *d*, and depressions, or by making the edge of the disk with a number of flat sides, *d'*, as shown in Fig. 5, and the socket c^2 made of suitable form to fit, so that the disk may be adjusted in the socket by drawing it inward when the clamp-plate is loose upon the beam, and after adjustment returning it to the socket and screwing up the nuts *b'* fast. The small numerous teeth *d'* are shown in Figs. 1 and 2, and larger projections interlocking with each other in Fig. 4. The socket D is made with teeth d^2 at the inner side, and with a set-screw, F, by which the shank E is forced against the teeth to prevent all movement in the socket, the teeth assisting, by their frictional hold upon the shank, to hold it firmly.

This improvement is intended especially for the attachment of rotary colters having offsets at the lower end of the shank or stem for setting the colter to or from the land, such colters being set in or out by turning the shank in the socket.

It will be seen that our attachment can be secured to plow-beams of any size, the screws *b* being changed in their position in the clamp-plate, or the clamp-plate being set in a more or less oblique position, so that the screw-arms *b* will lie against the bottom and top of the beam.

We claim as our invention—

1. The combination, in a colter attachment, of a clamp-plate formed with a central opening to form a socket, and openings in the ends to receive the clip-arms, and a disk having a socket and fitting the central opening in the clamp-plate.

2. The combination of a clamp-plate formed with a central opening to form a socket flaring

inwardly, having recesses in the wall thereof to present projections, and a disk having a colter-socket and formed with recesses and projections to fit the socket in the clamp-plate, as set forth.

3. The combination, in a colter attachment, of a clamp-plate having a central opening, and a disk to occupy the opening, having a socket formed with teeth at the inner side, and a screw-bolt to press the shank of the colter against the teeth.

FERDINAND BROTHER.
DAVID MORRIS.
HUGH SPEIRS.

Witnesses:
N. P. FROST,
MARCUS SESSEL.