(No Model.)

2 Sheets—Sheet 1.

H. WIARD & W. R. BULLOCK.

SIDE HILL PLOW.

No. 329,607. Patented Nov. 3, 1885.

Fig. 1.

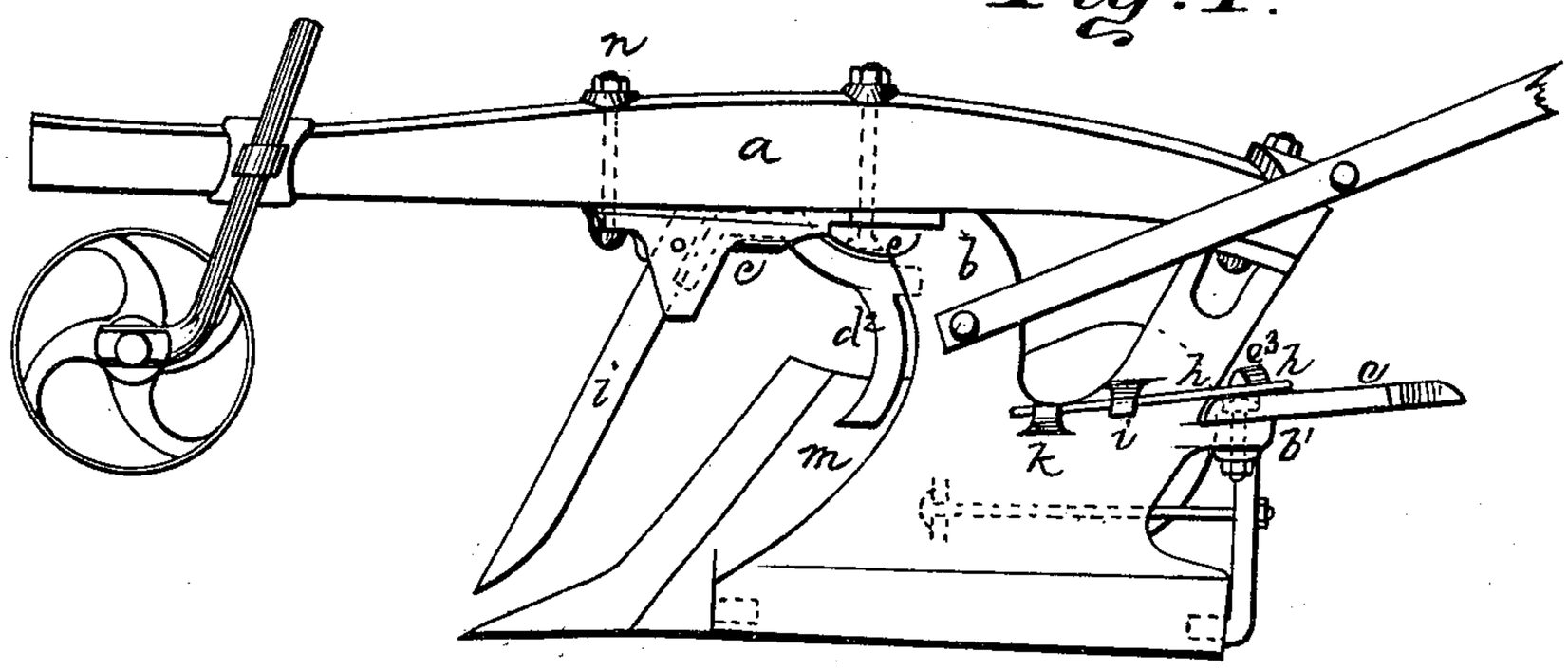
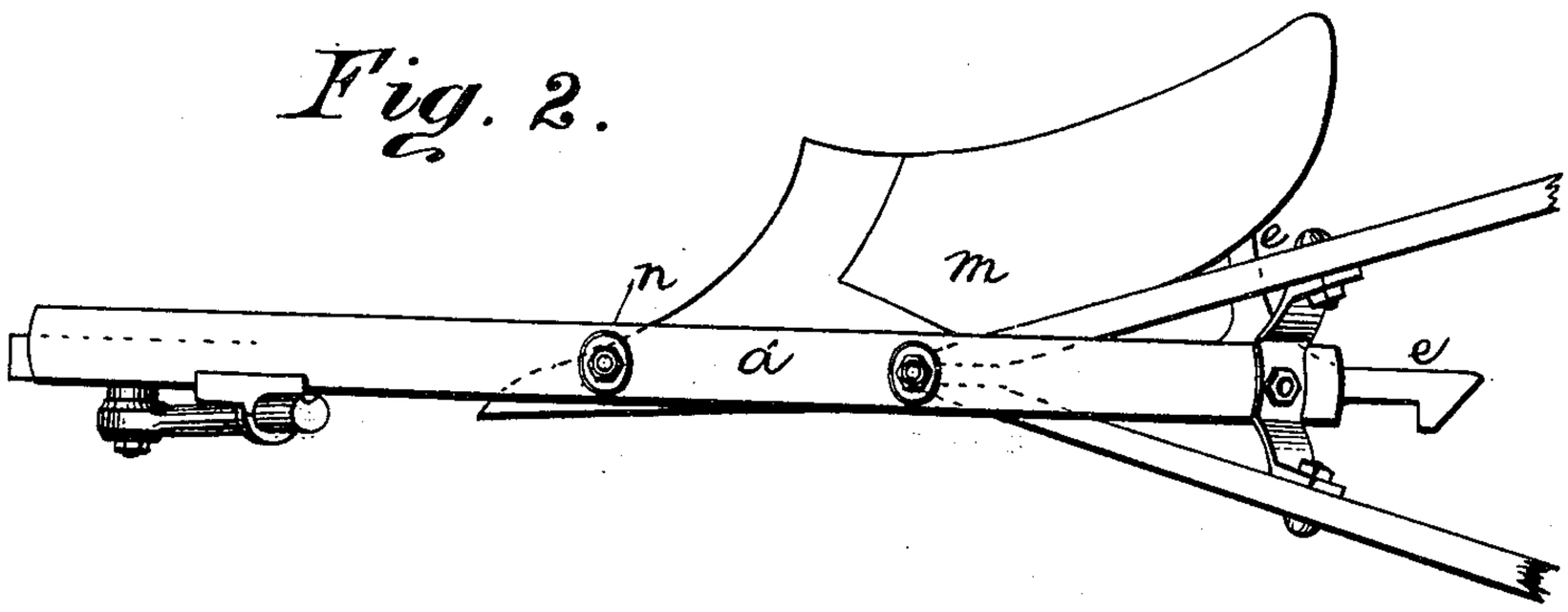


Fig. 2.



Witnesses:

E M Bullock

E Le Meldrum

Inventor:

Henry Wiard

William R Bullock

(No Model.)

2 Sheets—Sheet 2.

H. WIARD & W. R. BULLOCK.

SIDE HILL PLOW.

No. 329,607. Patented Nov. 3, 1885.

Fig. 3.

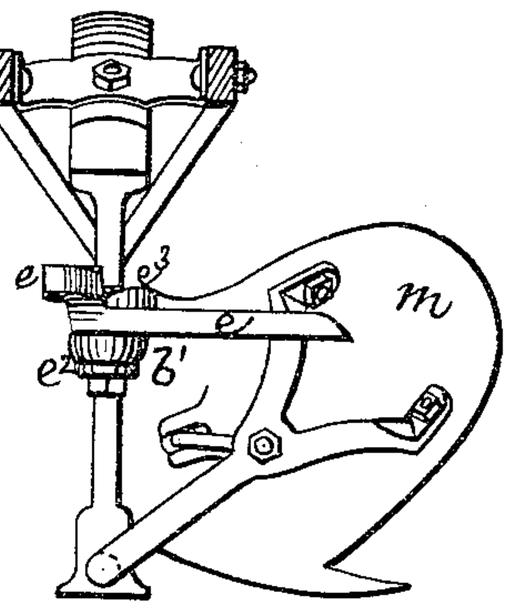
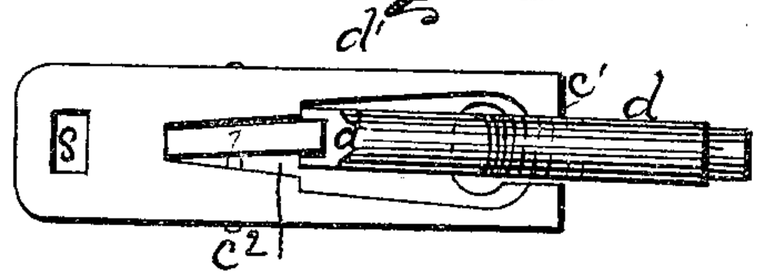


Fig. 4



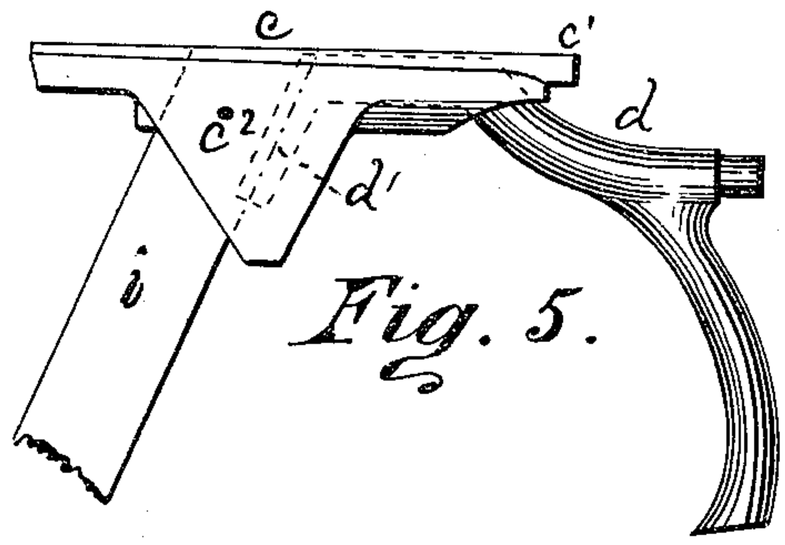


Fig. 5.

Fig. 6.

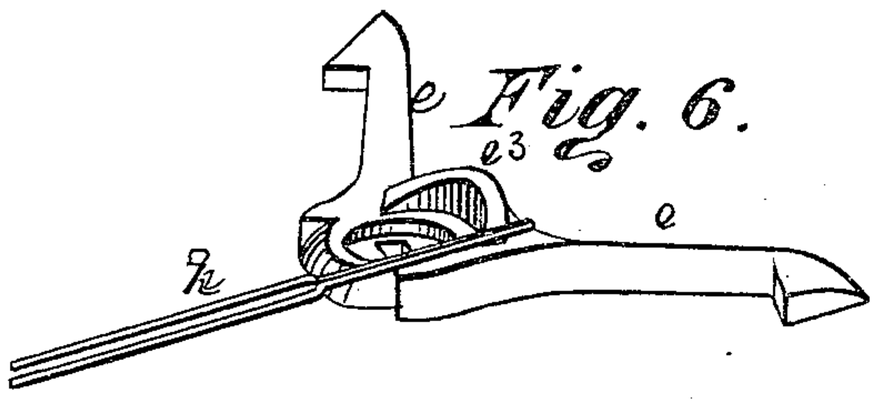
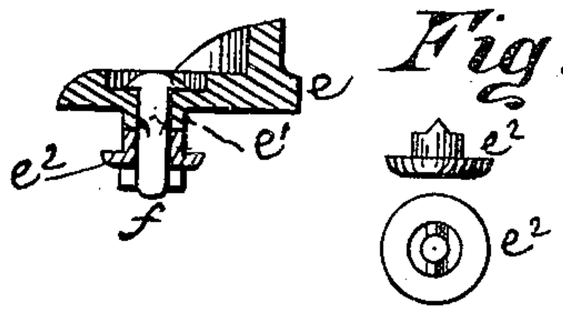


Fig. 7.



Witnesses:

E M Bullock

E L Meldrum

Inventor:

Harry Wiard

William R Bullock

UNITED STATES PATENT OFFICE.

HARRY WIARD AND WILLIAM R. BULLOCK, OF SYRACUSE, NEW YORK.

SIDE-HILL PLOW.

SPECIFICATION forming part of Letters Patent No. 329,607, dated November 3, 1885.

Application filed February 2, 1885. Serial No. 154,720. (No model.)

To all whom it may concern:

Be it known that we, HARRY WIARD and WILLIAM R. BULLOCK, of Syracuse, county of Onondaga, State of New York, have invented certain new and useful Improvements in Side-Hill Plows, of which the following is a specification.

Our invention relates to the connection of the colter with a reversible side-hill plow, by which it is properly adjusted to the landside when the mold-board is reversed, and of the adjustment of the beam, handles, and mold-board. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the landside; Fig. 2, a plan of the plow; Fig. 3, a rear view; Figs. 4, 5, a plan and side view of the colter; Figs. 6 and 7, details of the locking device.

Like parts are designated by the same letters of reference in the several figures.

In the drawings, *a* represents the plow-beam, which is affixed to the standard *b* by bolts. In front of this standard a socket-piece, *c*, is bolted to the underside of the beam, the rear end of which is interlocked with the front of the standard by the fork *c'*. (See Fig. 4.) Within this socket-piece a guide-shaft, *d*, rests, the rear end of which is curved downward and fits in a socket in the front edge of the standard. From the front end of shaft *d* depends an arm, *d'*, within a recess, *c''*, in this socket-piece *c*. The arm *d'* is grooved on its front face to receive the rear edge of the colter *i*. (See Figs. 4, 5.) The recess *c'* in the socket is sufficiently large to allow the arm and colter a sufficient lateral play to assume its proper position. The colter is held and suspended loosely in the recess *c'* by a pin, c^2, that passes horizontally through them, on which the colter plays. An arm, d^2, projects downward from the shaft *d*, just in front of the standard that rests against the front side of the mold-board, by which it is borne to the right or left as the mold-board is shifted from one side of the landside to the other. This, causing the shaft *d* to vibrate, moves the colter into the proper position relatively to the landside, the movement being aided by the downward curve of the rear end of the shaft *d* and the play of the colter in the recess *c'*, aforesaid, in the socket-piece *c*. The front end of the socket-piece *c* has an oblong hole through it at *s*, through which and the beam above a bolt, *n*, passes to fasten them together, the oblong hole *s* being formed to adjust the plate to the beam laterally. From the rear standard of the landside there is a horizontal projection backward at *b'*. Through this projection there is a vertical hole, into which a boss, *e'*, fits, (see Fig. 7,) projecting from the under side of the hook brace *e*, that holds the mold-board in position. On this projection *b'* the hook-brace *e* is pivoted and turns to the right or left, it being bolted to the projection *b'* by a bolt, *f*, that extends down through the hook-brace *e*, boss *e'*, and a washer, e^2, that extends up from below to meet the boss *e'*, with which it is coupled by a spur on the washer entering a notch on the face of the boss, so as to cause them to move together when the hook-brace *e* is turned. The bolt is secured by a nut screwed onto its lower end up against the washer, as shown in section, Fig. 7. On the upper side of the hook-brace *e*, near the center, there is a projecting cam, e^3, upon which a spring, *h*, is made to bear, to hold the hook *e* in contact with the rear brace of the mold-board when hooked in position for work. The spring *h* is formed of a looped piece of wire. (Shown detached in Fig. 6.) The ends of this wire spring embrace the rear standard of the landside, passing under a hook, *i*, and over another hook, *k*, projecting from the sides of the standard, (see Fig. 1,) which attachment permits its ready replacing when broken.

Having thus described our invention, we claim—

1. The combination of the socket *c*, shaft *d*, with its arms, as described, and the colter *i*, constructed and arranged substantially as and for the purposes specified.

2. The combination of the shaft *d* and arms *d' d²*, for guiding and holding the colter in position in a reversible plow, as described.

3. The brace-hook *e* and cam e^3, combined with the spring *h*, constructed and arranged in the manner and for the purposes specified.

4. The combination of the looped wire spring *h*, as described, with the brace-hook and cam, in the manner and for the purposes specified.

5. The combination of the brace-hook *e*, washer e^2, and screw-bolt *f*, jointly forming a pivot for holding the brace-hook *e* in the socket *b'*, substantially as herein specified.

HARRY WIARD.
WILLIAM R. BULLOCK.

Witnesses:
E. M. BULLOCK,
E. L. WHELDRAM.