(Model.)

C. R. HARTMAN.

Colter.

No. 238,115. Patented Feb. 22, 1881.

Fig. 1.

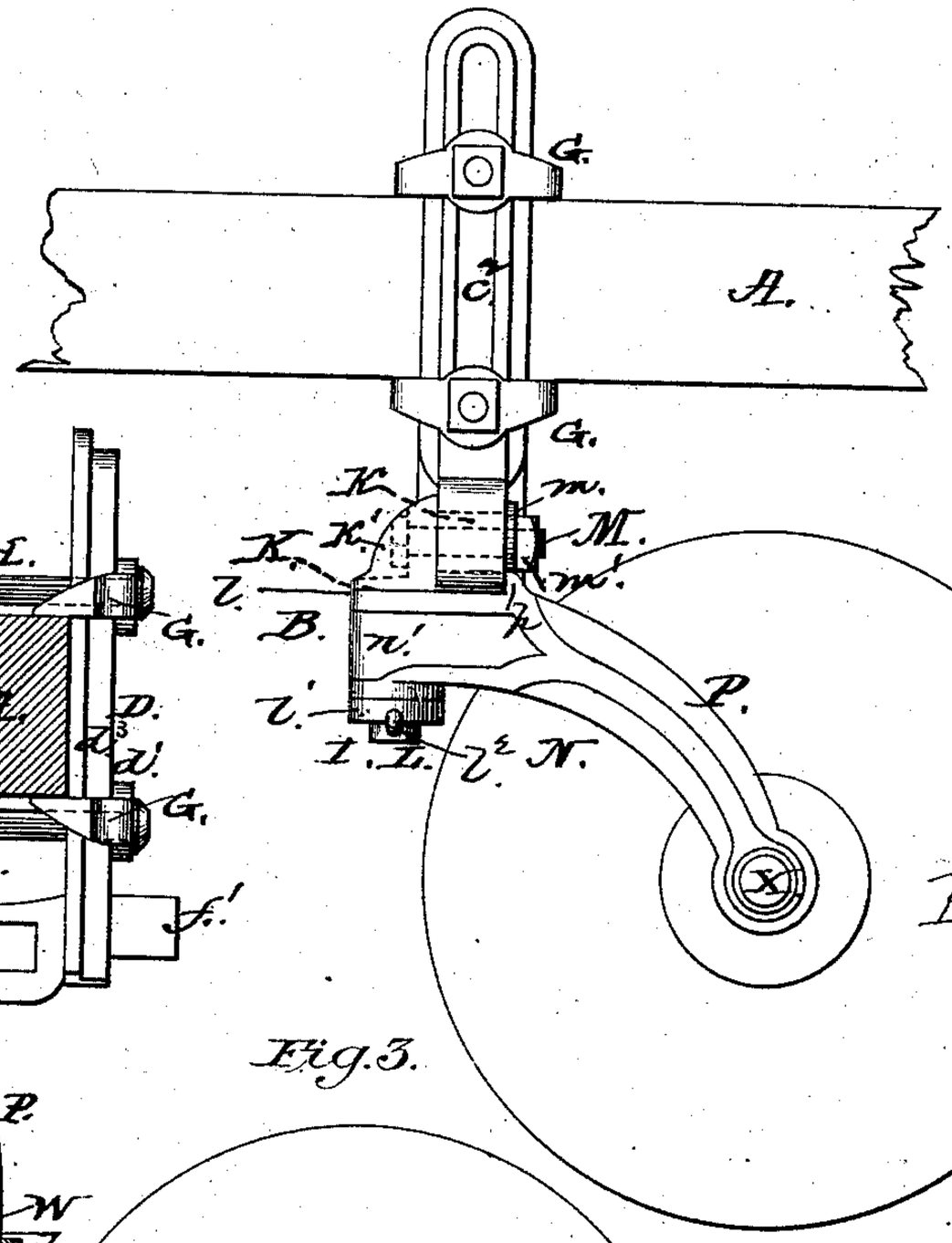


Fig. 2.

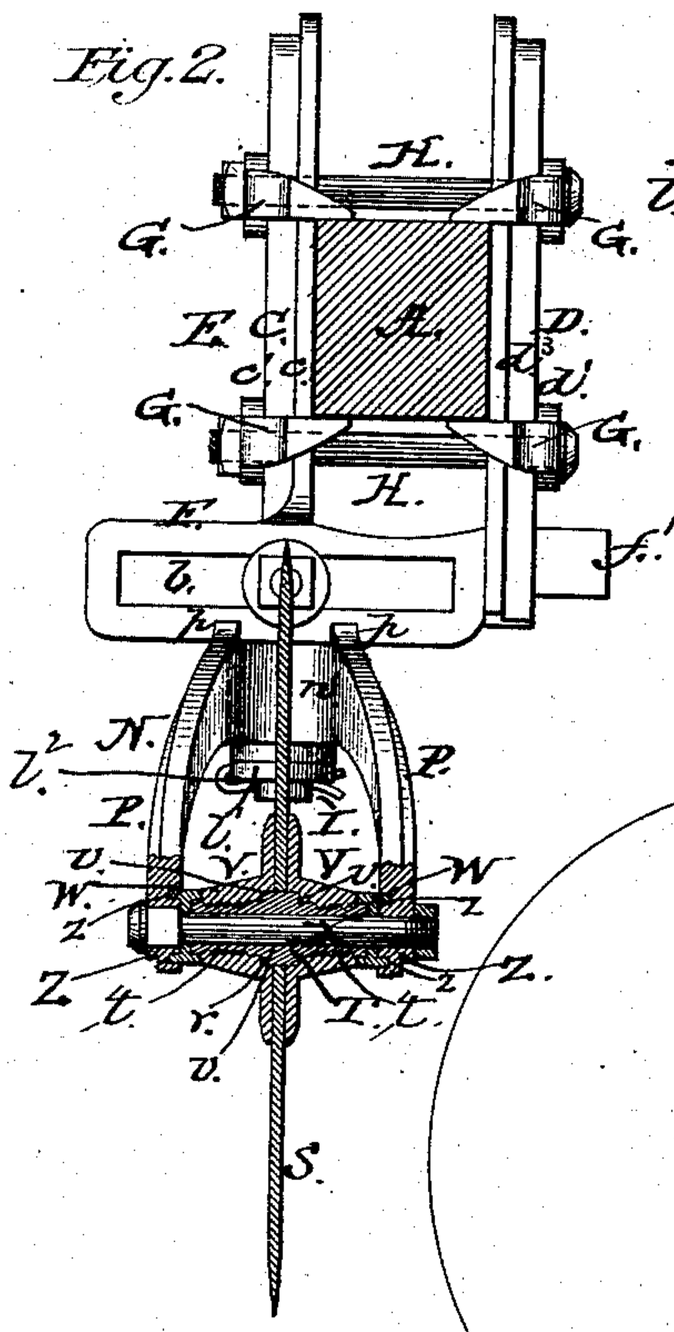


Fig. 3.

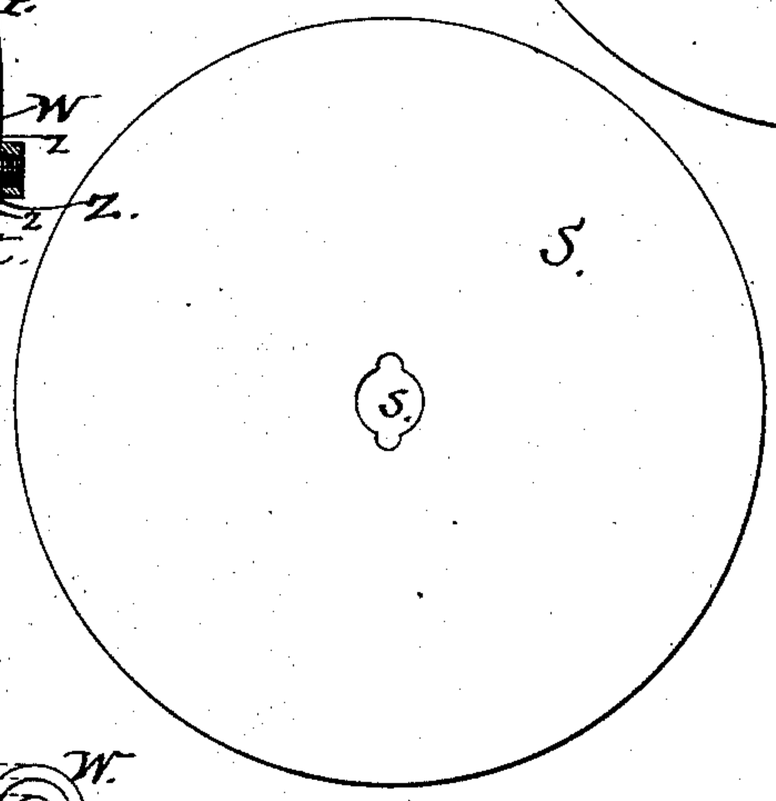


Fig. 4.

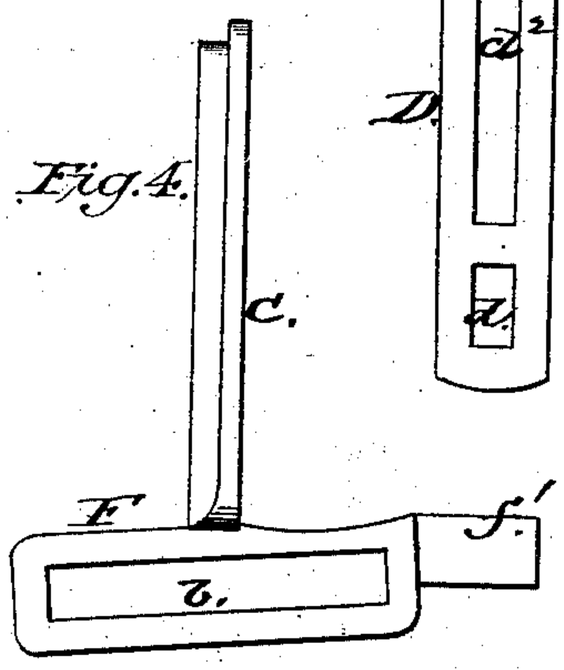


Fig. 5.

Fig. 7.

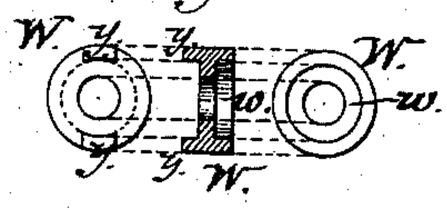
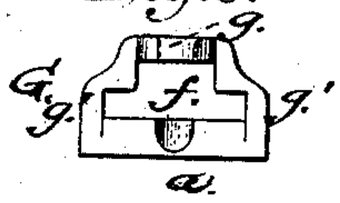


Fig. 6.



WITNESSES

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COLTER.

SPECIFICATION forming part of Letters Patent No. 238,115, dated February 22, 1881.

Application filed December 30, 1880. (Model.)

To all whom it may concern:

Be it known that I, C. R. HARTMAN, a citizen of the United States, resident at Vincennes, in the county of Knox and State of Indiana, have invented certain new and useful Improvements in Colters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side-elevation view. Fig. 2 is a front view, partly in section, and Figs. 3, 4, 5, 6, and 7 are detail views.

This invention relates to colters for plows, more especially wheel-colters.

The invention consists in the construction hereinafter described.

In the drawings hereto annexed, A is the beam. B is the colter-standard. E is one cheek thereof, and D the other. Cheek E consists of a vertical arm, C, and a horizontal one, F. Arm C and cheek D have flanges c d^3, ribs c' d', and are slotted at c^2 d^2 through said ribs and flanged portions.

G are clamps which fit the shape of arm C and cheek D, and have holes g. Arm C and cheek D are run through the openings f in said clamps, the arms g' g' being on the sides of the arm C and cheek D. These clamps are placed one above and one below beam A, on each side, with bar a bearing against said beam, and are held tight by rods H passing through holes g and running across beam A. The lower end of cheek D has a slot, d, through which passes the reduced end f' of horizontal arm F. This arm is straight when the land-side is the same, and inclined when the land-side is also. The arm F has a slot, b, running through it.

I is a swivel-post, whose upper arm, K, is at right angles to its journal L. This arm K has a reduced flat portion, k, passing through slot b, and the post is held at any point by a bolt, M, and washer m, the head of bolt M resting between and being kept from turning by the cheek-pieces K′ K′, and held tight by nut m'.

N is the colter-yoke, having arms P P, at whose converging ends is the eye n', through which passes journal L, being held on said journal against its shoulder l by a washer, l', and nut l^2, or other equivalent device. p p are lugs on arms P P bearing on arm F. R is the colter.

S is the blade, consisting of a disk having a knife-edge and an irregular hole, s, at the center. Passed through this hole, and having a middle, r, to correspond with is shape, is a hub, T, whose ends t t are screw-threaded. The preferred shape to hole s is a circle having notches at the opposite ends of a diameter; but any form other than a true circle will do. The screw-threaded ends t t are smaller than the middle, r, of hub T, and over these are screwed the caps V, threaded to correspond, and having recesses v to receive such middle r, said caps being shorter than ends t, and when screwed home these ends project.

W are caps having lugs y which are inserted in apertures z in the lower ends of arms P P. The inner ends of said caps are recessed at w, of a shape to fit the projecting ends of hub T t, and form bearings for said ends.

The colter, as described, is held in the fork by a bolt, X, its ends t t resting in caps W W, as described.

By the construction shown and described the colter can be readily raised or lowered for different depths, and the standard can be separated for different width of beams. The colter comes close to the standard, and its yoke, bearing against the under side of the horizontal arm, takes much of the strain from the swivel-post, and the lugs allow plenty of play to the colter, while preventing its going too far.

What I claim is—

1. The cheek-piece E, having slots c^2 and b, and reduced end f', cheek-piece D, having slots d^2 and d, in combination with clamps G and rods H, substantially as and for the purpose set forth.

2. The slotted arm F b, secured to the cheek-pieces E D, in combination with a laterally-adjustable colter, as set forth.

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

CHARLES R. HARTMAN.

Witnesses:

CHARLES HEIDENREICH,

RICHD. J. GREENHOW.