

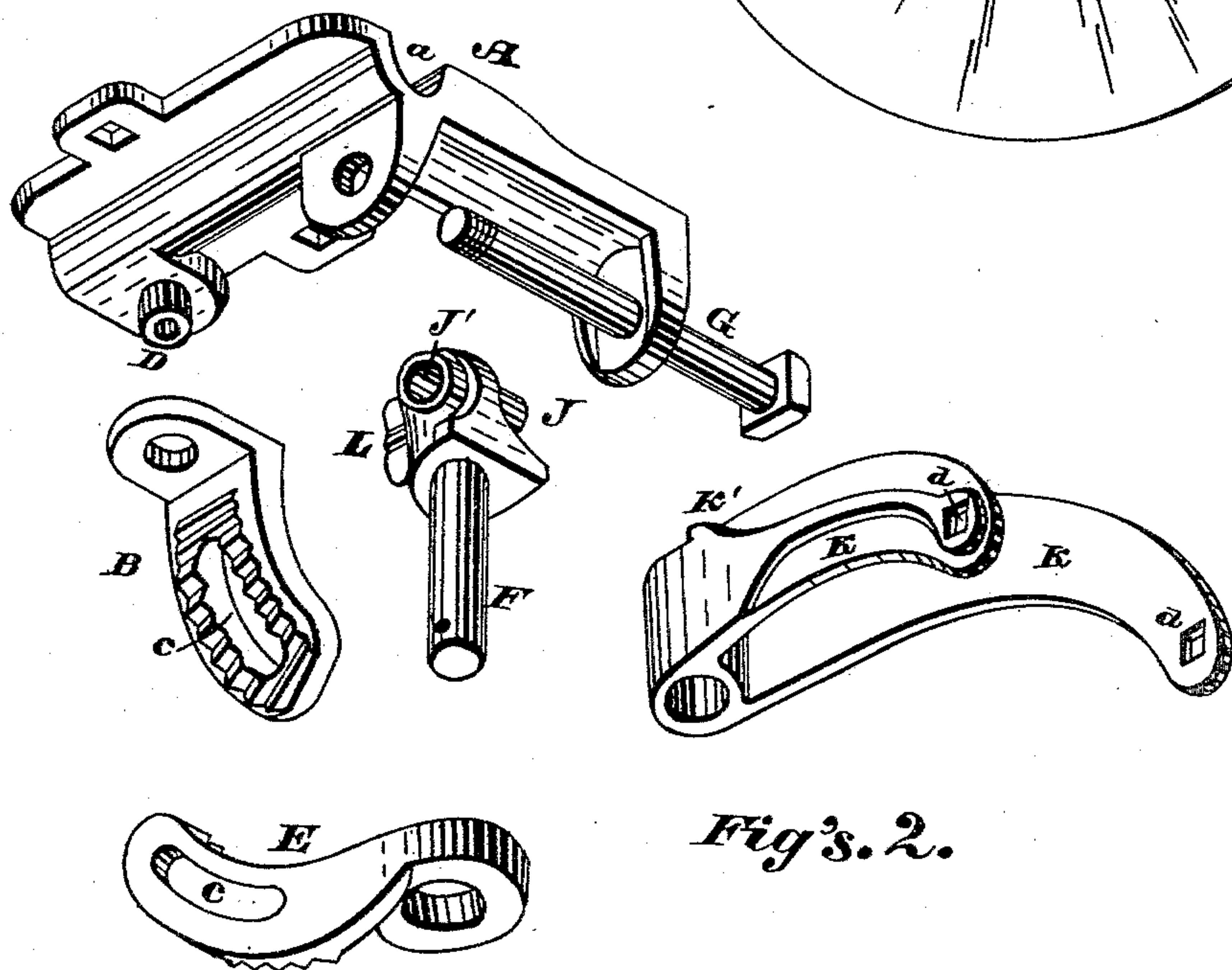
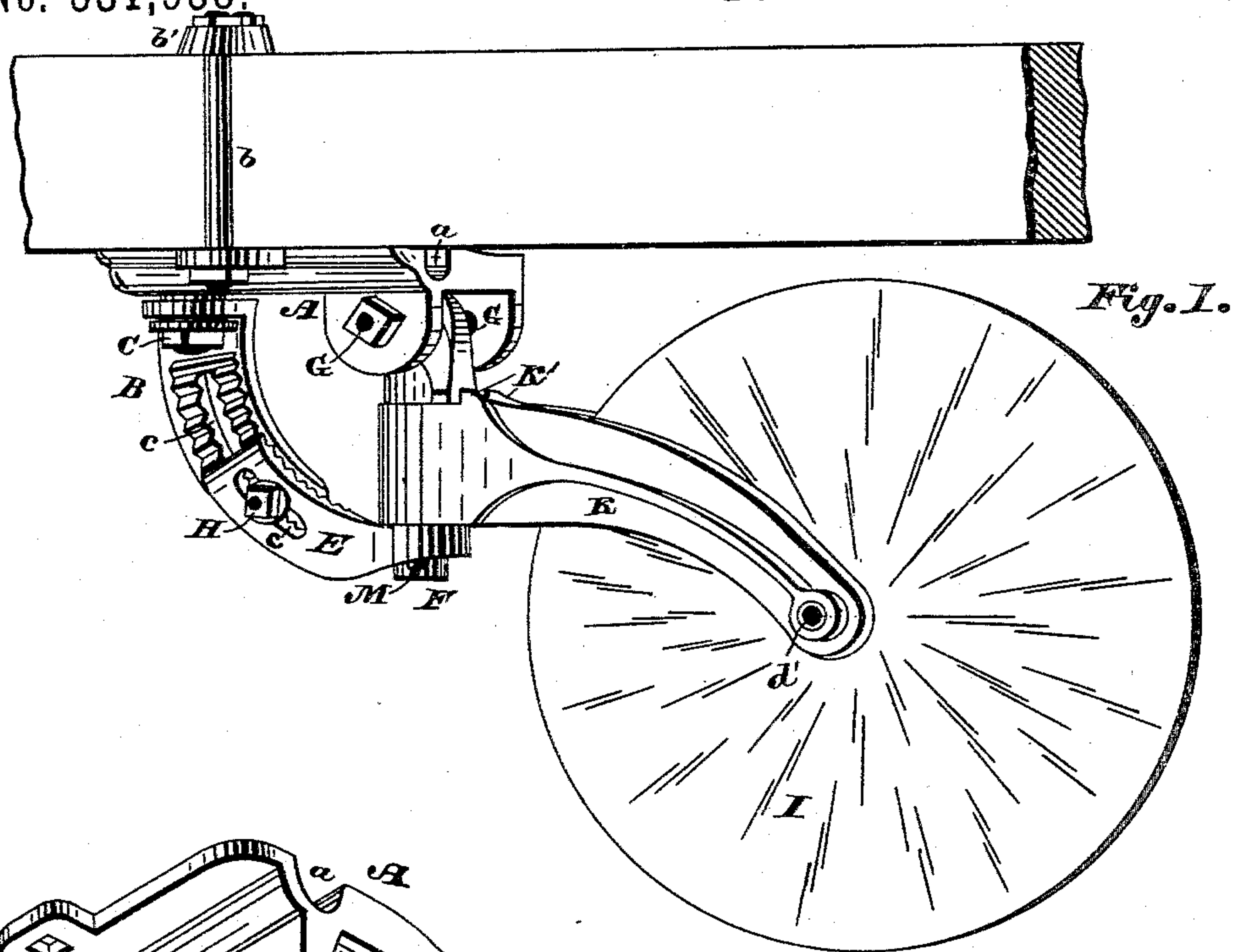
(No Model.)

L. D. BALL & J. T. BENDER.

ROLLING COLTER.

No. 331,935.

Patented Dec. 8, 1885.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LORENZO D. BALL AND JOHN T. BENDER, OF CANTON, OHIO.

ROLLING COLTER.

SPECIFICATION forming part of Letters Patent No. 331,935, dated December 8, 1935.

Application filed July 29, 1885. Serial No. 172,752. (No model.)

To all whom it may concern:

Be it known that we, LORENZO D. BALL and JOHN T. BENDER, citizens of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Rolling Colters; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a side elevation showing colter attached to a plow-beam. Fig. 2 are detached isometrical views of different parts of the colter.

The present invention has relation to rolling colters designed and calculated to be attached to plows of any kind in which rolling colters are used; and its nature consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the frame, which is substantially of the form shown in the drawings, and, as shown, it is provided with the groove *a*, which is for the purpose of receiving the rod under the plow-beam in case it is desired to attach the colter to a plow having a rod upon the under side of its beam, and at the same time said groove will receive the lower portion of a V or U shaped plow-beam, in case it is desired to attach to that class of plow-beams. The frame is securely held to the beam by means of the clamping-bolts and bar *b b'*.

To the front or forward end of the frame A is attached the curved arm B, as shown in Fig. 1, and is securely held in proper position by means of the clamping-bolt C. For the purpose of permitting said curved arm to turn so as to adjust the colter proper laterally, the hollow extension D is located as shown in Fig. 2, through which the clamping-bolt C passes.

To the lower portion of the curved arm B is attached the curved arm E, which is a segment of a circle having the same diameter as the curved arm B. The bottom or lower end of the curved arm E is attached to the frame

A by means of the king-bolt F and the bolt or bar G, as seen in Fig. 1, the curved arms being securely held together by means of the clamping-bolt H, and for the purpose of adjusting the colter I up and down the slots *c c* are provided, through which the clamping-bolt H passes.

The meeting faces of the curved arms B and E are provided with corrugated or serrated surfaces, as illustrated in the drawings, and are so formed for the purpose of holding the said arms B and E rigidly together after the colter I has been properly adjusted by means of the clamping-bolt H, which holds the corrugated or serrated surfaces closely together, as seen in Fig. 1.

The king-bolt F is substantially of the form shown in the drawings, and, as shown, is provided with the head J, which is provided with the opening *J'*, for the purpose of permitting the bolt or bar G to pass through said head J, as seen in Fig. 1.

To the king-bolt F is attached the colter-arms K K, which are substantially of the form shown in Fig. 2, and, as shown, are provided with openings *d d'*, which are for the purpose of receiving and holding the colter-shaft *d'*, as seen in Fig. 1. To the colter-shaft is attached in the ordinary manner the colter I. The top or upper sides of the colter-arms K K are provided with the extensions or knobs *K' K'*, which are for the purpose of preventing the colter-arms K K, together with the colter I, from turning on the king-bolt F, and at the same time permitting a limited lateral motion of the colter-arms K K. The head J is provided with the set-screw L, which is for the purpose of locking the king-bolt F on the bolt or bar G when the colter has been properly adjusted laterally. To properly adjust the colter from end to end of the bolt or bar G, the distance should be the same from each end of the bar or bolt G to the clamping-bolt C. The bottom or lower end of the king-bolt F is provided with the pin M, which is for the purpose of holding the arm E, together with the colter-arms K K, on the king-bolt F.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the frame A, pro-

vided with the attached arm B, having a segmental slot, c, the rotary colter having its supporting-arms connected with and laterally adjustable on the frame, the curved arm E, connected with the attachment of the colter-supporting arms K, the frame, and the clamping-bolt connecting the curved arm to the slotted arm, substantially as described.

2. The combination of the frame A, having an arm, B, the king-bolt F, connected with the frame, the rotary colter having its supporting-arms mounted on the king-bolt, and the curved arm E, adjustably connected at one end with the arm on the frame and at the other end secured to the lower end of the king-bolt, substantially as described.

3. The combination of the frame A, having the transverse bolt or bar G, and pendent arm B, provided with a segmental slot, c, the king-bolt F, adjustable along the bolt or bar, the colter-supporting arms mounted on the king-bolt, the curved arm E, connected with the king-bolt, and the clamping-bolt H, substantially as described.

4. The combination of a frame, A, carrying a transverse bolt or bar, G, the king-bolt F, having a head, J, adjustable along said bolt or bar, a set-screw, L, for clamping the head to the bolt or bar, and the colter-supporting arms mounted on the king-bolt and movable laterally thereon, substantially as described.

5. In a rolling colter, the combination of the curved arms B and E, of the king-bolt F, provided with the head J and having the set-screw L, of the bolt or bar G, and the colter-arms K K, substantially as and for the purpose specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

LORENZO D. BALL.
JOHN T. BENDER.

Witnesses:

FRED W. BOND,
HARRY FREASE.