

No. 630,679.

A. C. GAYLORD.
COLTER CLAMP.

Patented Aug. 8, 1899.

(Application filed Oct. 6, 1898.)

(No Model.)

Fig. 1.

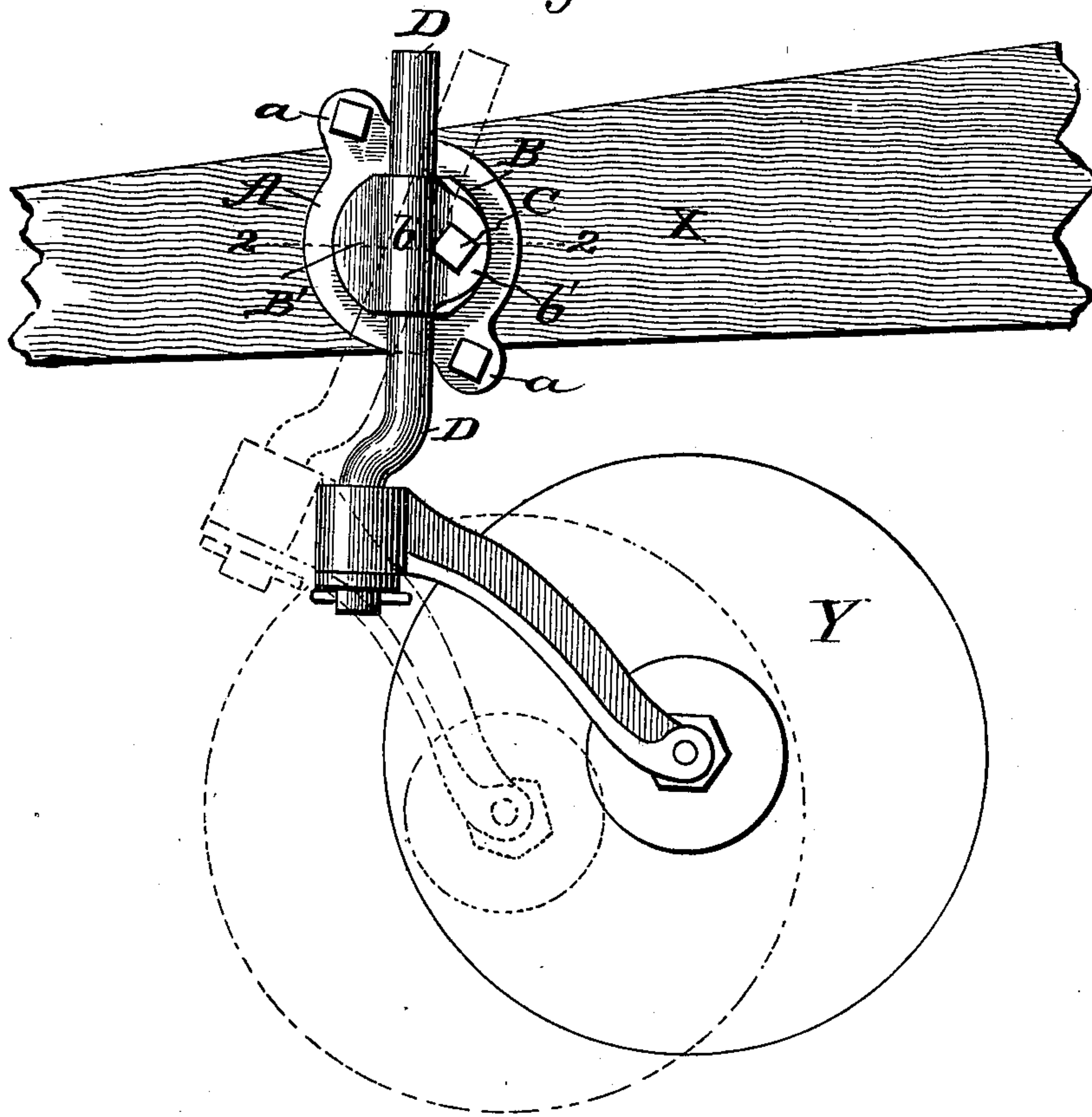


Fig. 2.

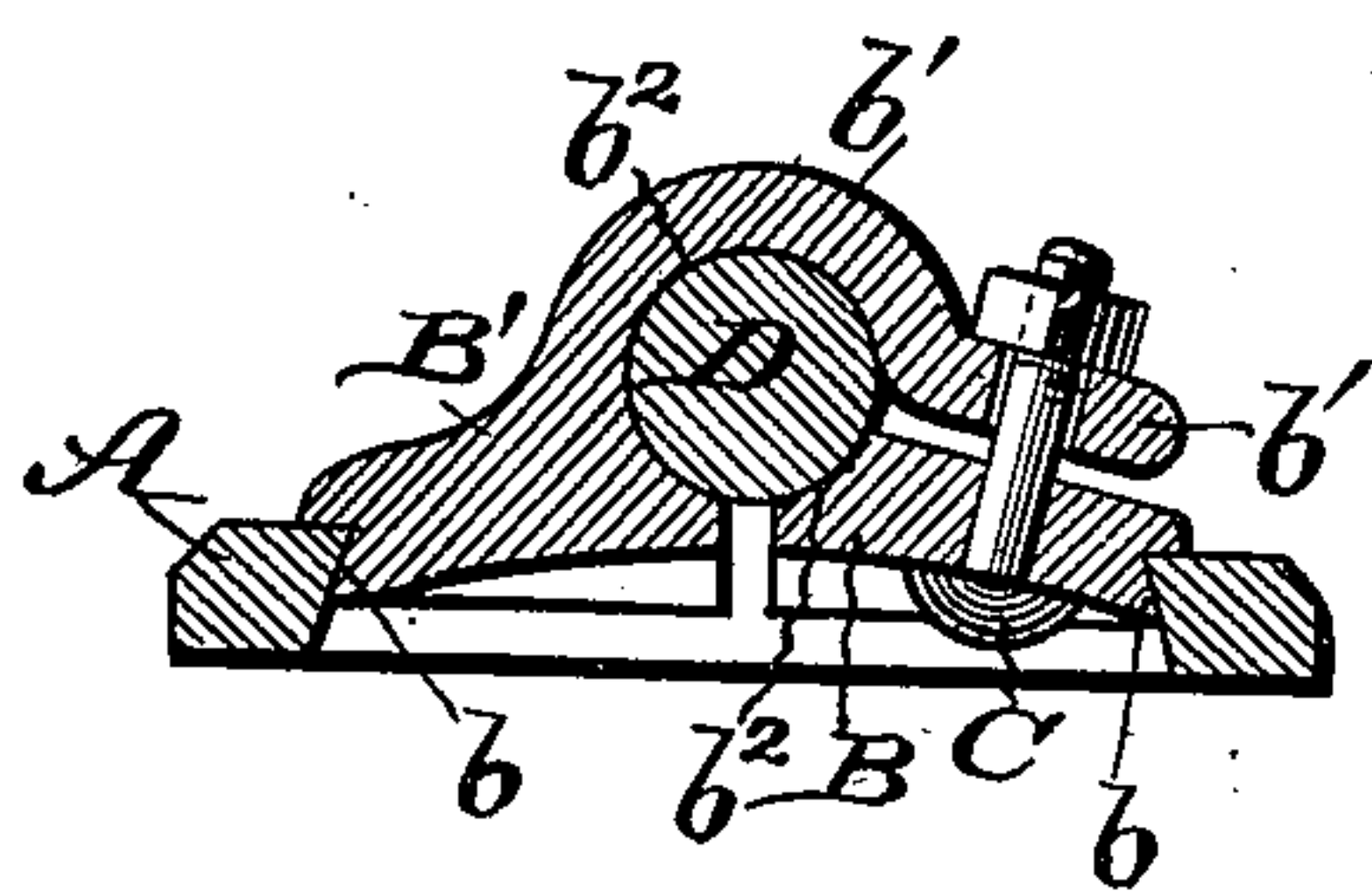
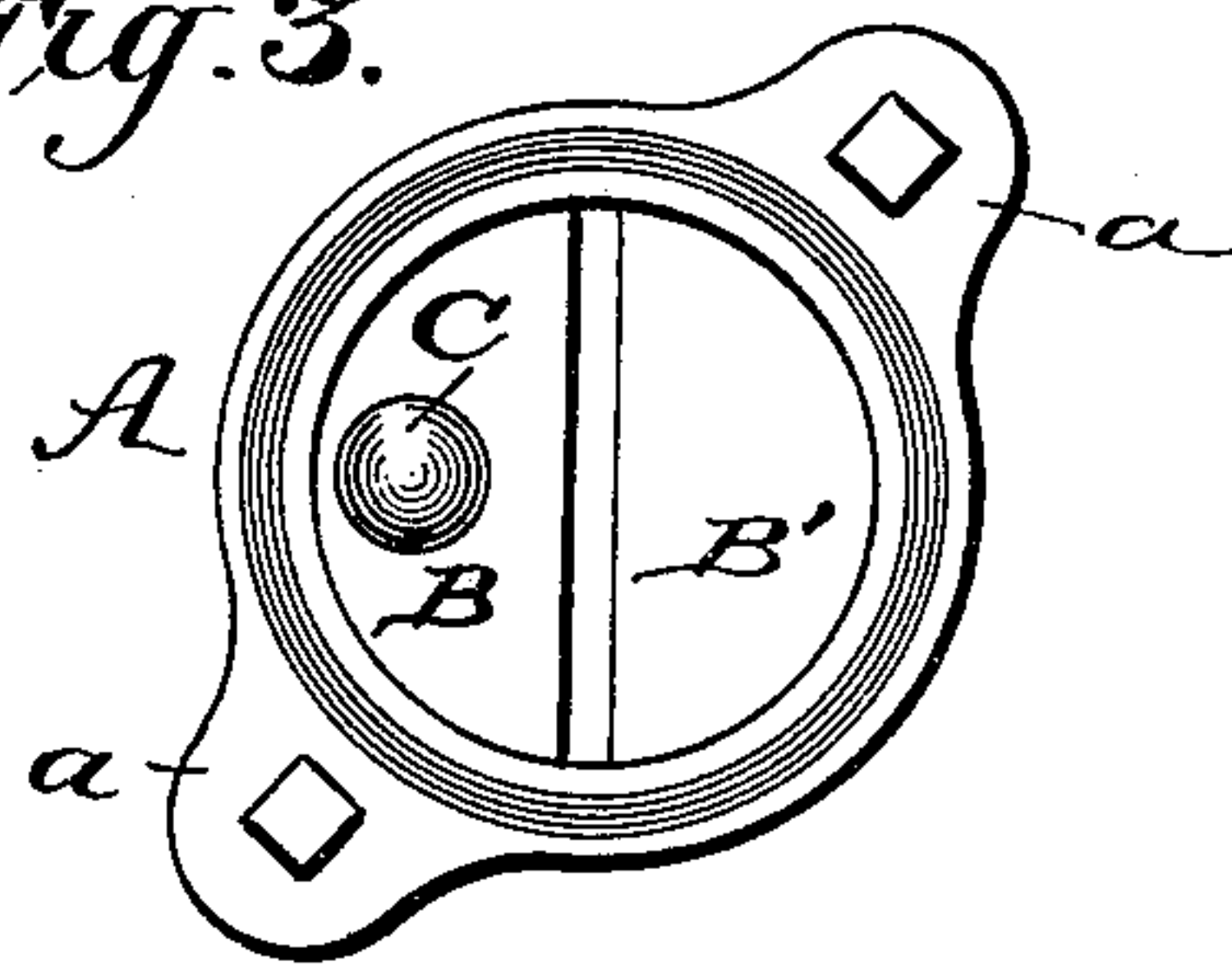


Fig. 3.



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ARTHUR COWLES GAYLORD, OF SANDOVAL, ILLINOIS.

COLTER-CLAMP.

SPECIFICATION forming part of Letters Patent No. 630,679, dated August 8, 1899.

Application filed October 6, 1898. Serial No. 692,836. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR COWLES GAYLORD, of Sandoval, in the county of Marion and State of Illinois, have invented a new and useful Improvement in Colter-Clamps, of which the following is a specification.

My invention is in the nature of an improved colter-clamp for securing a plow-colter to the plow-beam; and it consists in the peculiar construction and arrangement of parts whereby the colter may be adjusted to various heights and at various angles, also laterally where a crooked standard is used, without loosening the connection of the clamp to the beam, the construction being such that a single bolt is made to adjustably clamp the standard of the colter and also fix its angular position in relation to the plow-beam, as will be hereinafter fully described.

Figure 1 is a side view of the colter and clamp applied to a plow-beam. Fig. 2 is an enlarged cross-section of the clamp on line 2 2 of Fig. 1, and Fig. 3 is a rear view.

In the drawings, X represents the plow-beam, and Y is a disk-colter which is provided with a vertical standard D, which is to be attached to the plow-beam by my improved clamp.

A is the clamp-plate, which is provided with perforated lugs or ears to receive bolts *a a*, which secure the clamp-plate to a yoke-piece on the opposite side of the plow-beam in the usual way. These bolts *a a* should, however, be threaded nearly their entire length, so as to adapt them to clamp either thick wooden beams or thin metal beams. The clamp-plate A is formed with a circular hole having smooth inclined and undercut edges, as shown in Fig. 2. Within this hole fits the base portions of two clamping-jaws B B'. The base portions of these are of semicircular contour at their outer edges and have dovetail or underlapping edges *b b*, which lie under the overhanging edges of the circular opening in the clamp-plate A, as seen in Fig. 2. The clamping-jaw B' has projecting from its base portion a perforated lug *b'*, which extends around the colter-standard D and receives a clamp-bolt C, which also passes through a hole in the jaw B. In the opposing faces of the jaws B B' are formed opposite seats *b² b²*, which receive and clamp the standard D of

the colter. These seats may be circular in cross-section, as shown, or they may be of angular shape or other form suitable for gripping the standard. In this construction it will be seen that the head of the bolt is housed within the clamp and the nut is at one side of and below the bulging portion of the jaw B', so that it is not liable to get caught in grass and weeds nor to snag the legs of the team. With this construction it will be seen that when the bolt C is tightened the jaw B' fulcrums on the colter-standard D and tilting slightly about this fulcrum-point causes its semicircular base to be thrown outwardly and its inclined edge *b* to jam tightly against the inclined undercut of the plate A. At the same time jaw B is pulled upwardly by the same action to similarly bind its semicircular edge against the plate A and to lock the standard D. It will thus be seen that a single bolt C is made to simultaneously grip and lock the standard D of the colter in the jaws and also lock rigidly the base portions of the jaws in the clamp-plate A by one and the same action. To adjust the colter in a vertical line or laterally, the bolt C is relaxed, and the standard D is slid up or down or oscillated for a lateral adjustment of blade between the jaws. To adjust the colter in an angular relation to the plow-beam, as shown by dotted lines in Fig. 1, or to change from right to left hand plows, the jaws B B' are when the bolt C is relaxed simply rotated within the plate A as a bearing. In all three of these adjustments it will be seen that it is only necessary to manipulate the one bolt C, and in said adjustments, except when changing from right to left plows, or vice versa, it is not necessary to disturb the rigid connection of plate A to the plow-beam, thus making a simple, practical, and universal adjustment with a minimum number of parts.

In the rotary adjustment of the jaws B B' within the circular opening in plate A it will be seen that perfectly smooth meeting edges only are used. This I find greatly superior to the clutching action of interlocking serrations, for the reason that the smooth edges under the powerful leverage obtained bind and lock the parts absolutely rigid, and has the further advantage that it permits a much finer degree of adjustment, and, furthermore,

when the bolt C is slightly loosened for adjustment the parts do not suddenly fall loosely away from each other, as when interlocking teeth are used, but an easy and constant friction is maintained in making the change.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A colter-clamp comprising a plate with an undercut circular opening, two jaws having edges fitting in said opening, one of said jaws having a lug extending around and forming a seat for the colter-standard and terminating in a perforated end lying within the outer bend, and a bolt arranged substantially at right angles to one of the base-plates and passing through the same and the said perforated lug to give a double adjustment with

a single construction, substantially as shown and described.

2. A colter-clamp comprising a plate with an undercut circular opening having smooth edges inclined as described, two jaws with smooth edges fitting in said opening, one of said jaws having a lug extending around and forming a seat for the colter-standard and terminating in a perforated end lying within the outer bend, and a bolt arranged substantially at right angles to one of the base-plates and passing through the same and the said perforated lug substantially as and for the purpose described.

ARTHUR COWLES GAYLORD.

Witnesses:

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