J. OLIVER.

COLTER OR JOINTER SUPPORTER FOR PLOWS.

No. 190,510. Patented May 8, 1877.

Fig. 1.

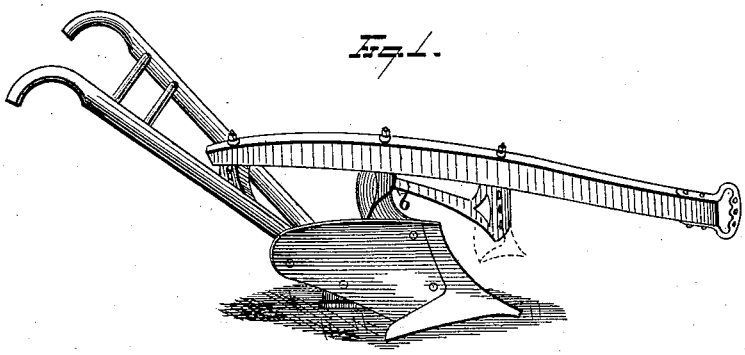


Fig. 2.

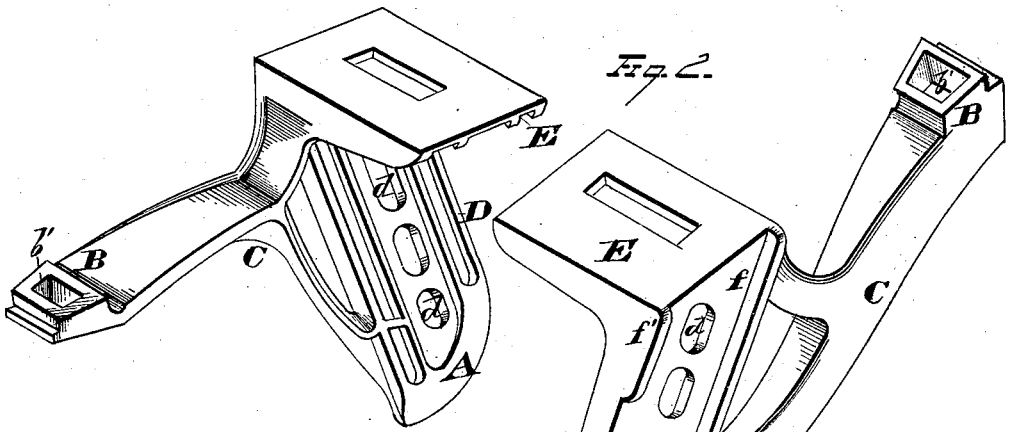


Fig. 3.

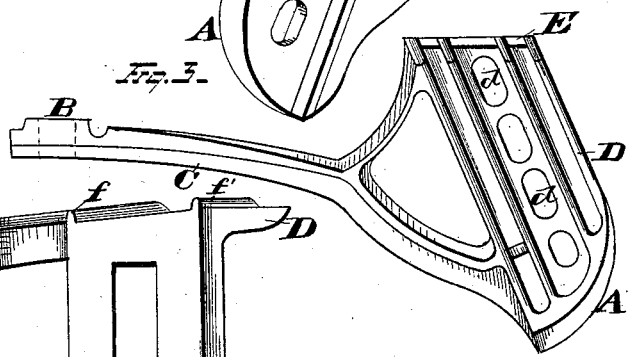
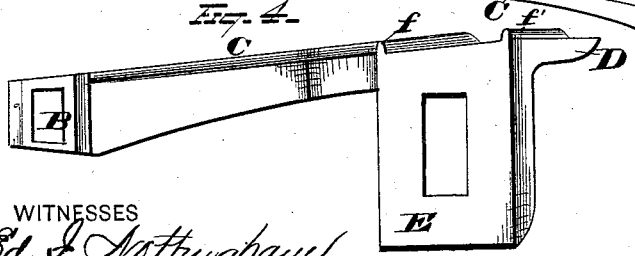


Fig. 4.



WITNESSES

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JAMES OLIVER, OF SOUTH BEND, INDIANA.

IMPROVEMENT IN COLTER OR JOINTER SUPPORTERS FOR PLOWS.

Specification forming part of Letters Patent No. **190,510**, dated May 8, 1877; application filed April 18, 1877.

To all whom it may concern:

Be it known that I, JAMES OLIVER, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Colter or Jointer Supporter for Plows; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a colter or jointer supporter, and to the peculiar manner of its attachment to the plow; and consists of an arm or bracket secured to the standard and beam, and so constructed as to allow of a lateral movement of the beam relative to the bracket, and to permit a colter or jointer to be attached to, and adjusted on, the same, as will be hereinafter fully specified and claimed.

In the drawing, Figure 1 represents a perspective view of a plow embodying my invention. Fig. 2 shows two different perspective views of the colter or jointer supporter. Fig. 3 is a side view of the same; and Fig. 4 is a top view, showing the slot and opening through which the bolts pass that secure the supporter to the plow.

The object of my invention is to avoid the necessity, in plows as usually constructed, of a readjustment of the colter or jointer every time the relative position of the beam to the standard or plow-share is changed, so that the cutting-edge of the colter shall always be in line with that of the plow-share. Jointers and colters are usually secured to the plow-beam by iron clamps or bolts, but when so secured on plows whose beams are movable for adjusting width of furrows, &c., the colter is moved out of its proper relative position every time the line of direction of the beam is changed, and, therefore, a readjustment of the jointer or colter is rendered necessary.

The colter-supporter A may be of any convenient form suitable for the purpose. It is provided with a projection, B, at or near one end of the arm or brace C, of the supporter, which fits into a like-shaped depression in the under side of the plow-standard head *b*. (See Fig. 1.) Through said projection or enlarged end B passes a bolt-hole, *b'*, and the same bolt that secures the standard-head to the beam also serves to hold in place the said end of the supporter.

It is obvious that, by reason of the projection B fitting in a like-shaped angular depression in the said head, the supporter is held in line with the standard, irrespective of the position of the beam.

The supporter A, as represented in the drawing, may be described as consisting of the brace C, the supporter-frame D, and the slotted flange E. It may also be properly denominated a bracket. The slotted flange or plate E is secured to, or stands at right angles with, the supporter frame or holder D. Through the slot of said plate E passes a bolt, which also passes through the plow-beam, and by which the holder D is rigidly secured to the said beam, and thus firmly held in position. The slot in the plate is made sufficiently large to permit the bolt to pass freely through the same, so that the beam may have a lateral movement relative to the holder.

Since the supporter is thus secured at both ends, it prevents any side movement, which would be likely to occur if the supporter or bracket were secured only at the end of the brace at B.

The holder D of the supporter is provided with a number of holes or slots, *d*, or may be constructed with only one long slot. The colter or jointer is secured to the holder by means of bolts which pass through the colter and the holes or slot in said holder.

It is evident that the colter can be adjusted up and down on the holder. The outer side of the holder is provided with the projections *f f'*, between which the shank of the colter or jointer passes.

Instead of securing the end of the brace in a depression in the under side of the standard-head, it may be fitted in a depression in the top of the same, or it may be secured to either side of the standard-head, or in an opening in the front of the same, or it may be secured to the neck, between the head and mold-board. Instead of constructing the brace with one arm, it may be provided with two or more, each fastened as above. The end of the brace is preferably constructed with the

projection B; but it may be dispensed with, if desired.

The operation of adjusting the device is as follows: After removing the bolt that secures the standard to the plow-beam, (the head of said bolt having occupied the depression in the under side of the standard-head *b*,) the projection B of the brace is inserted in the said depression, and the bolt that was removed is inserted and passed through the bolt-holes of the brace, standard-head, and plow-beam, and is then tightened, whereby the several parts are firmly secured to each other. When so tightened the holder D of the supporter occupies such a position that when the colter or jointer is attached to the same its cutting edge will be in line with that of the plow-share and the line of direction of the draft. The bolt is then introduced through the slotted plate E and the bolt-hole of the beam and tightened, which completes the operation of securing the bracket to the plow.

When it is desired to change the relative position of the beam to plow a wider or narrower furrow, or to change from a three-horse to a two-horse adjustment, or vice versa, or in order to balance the plow, the bolts at B and E are loosened, which allows the beam to be shifted on the bolt at B, as a pivot. The relative positions of plow-share and colter to each other are not altered thereby, however, since the angular projection of the brace fits snugly, or nearly so, in the like depression, of the standard-head, and the slotted plate E slides freely by the bolt, since the slot thereof is wider than the bolt. When, therefore, the beam is shifted, the bolt at E slides freely in the said slot, and when the beam has been adjusted as desired, the two bolts at B and E are again tightened.

What I claim is—

1. In combination with a plow, a colter or jointer supporter adjustably secured to the plow-beam and rigidly connected to the plow-standard, substantially as and for the purpose described.

2. In combination with a plow, a colter or jointer supporter having an arm or brace rigidly secured to the plow-standard, and provided with a slotted plate by which, through the medium of a bolt which freely passes through the slot of said plate, the supporter is secured to the plow-beam, and which slot permits a lateral adjustment of the beam relative to the supporter, substantially as described.

3. A colter or jointer supporter consisting of a holder, D, provided with a slot or openings to permit a vertical adjustment of the colter or jointer, a slotted plate, E, and a brace, C, substantially as described.

4. A colter or jointer supporter, consisting of a holder, D, provided with a slot or openings to permit a vertical adjustment of the colter or jointer, a slotted plate, E, adjustably secured to the plow-beam, and a brace, C, rigidly connected to the plow-standard, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

JAMES OLIVER.

Witnesses:
ROBERT HARDY,
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