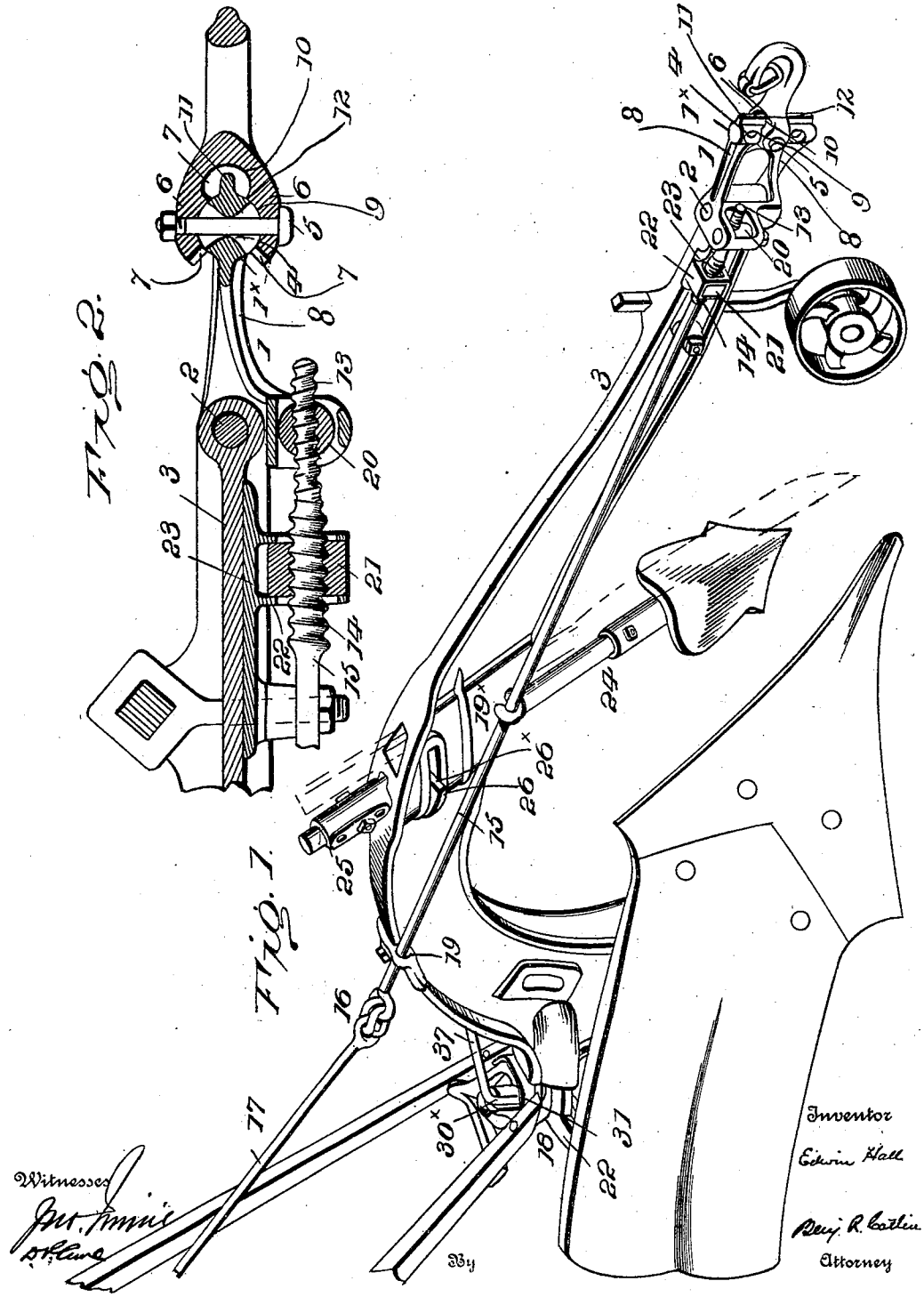
No. 683,753. Patented Oct. 1, 1901.

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REVERSIBLE PLOW.

(Application filed Nov. 26, 1900.)

(No Model.) 3 Sheets—Sheet 1.



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Fig. 3.

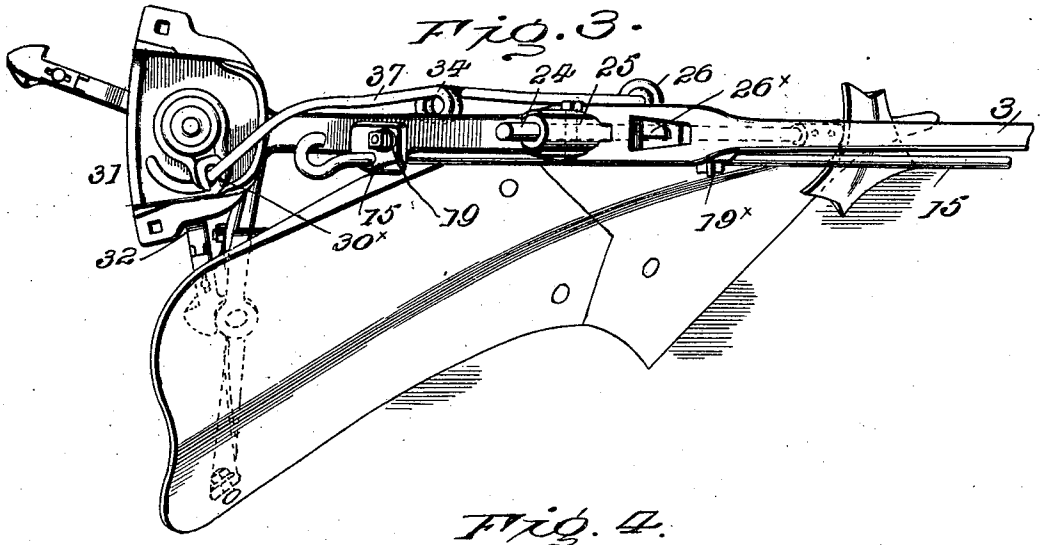


Fig. 4.

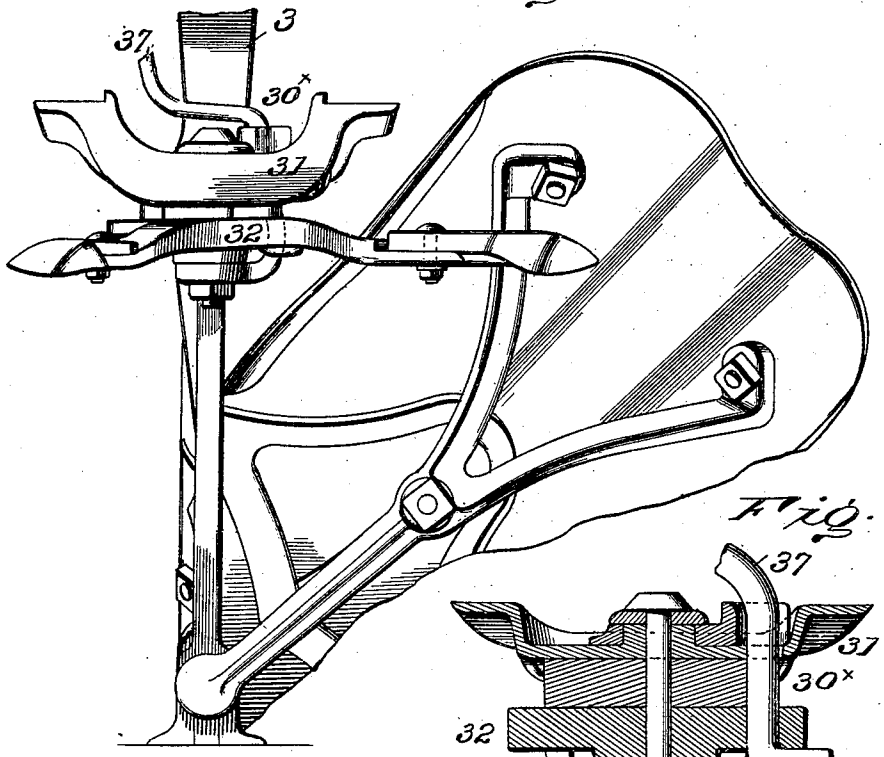


Fig. 5.

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Fig. 6.

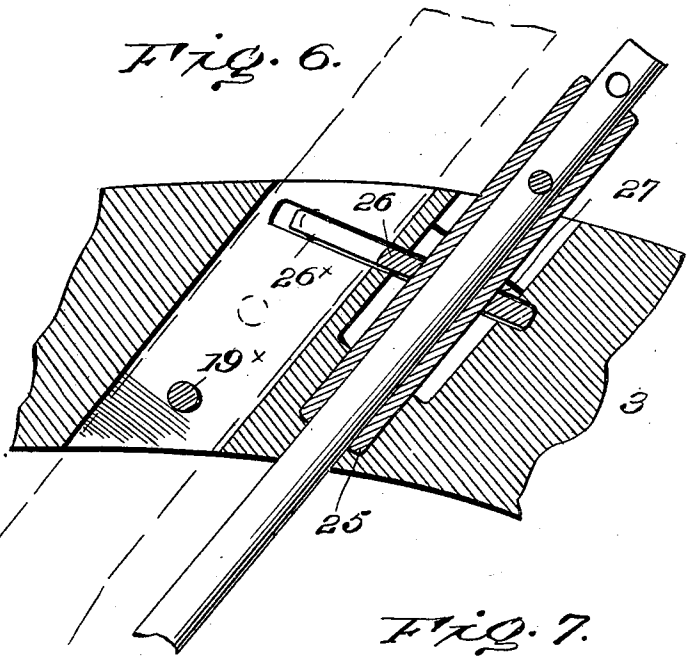


Fig. 7.

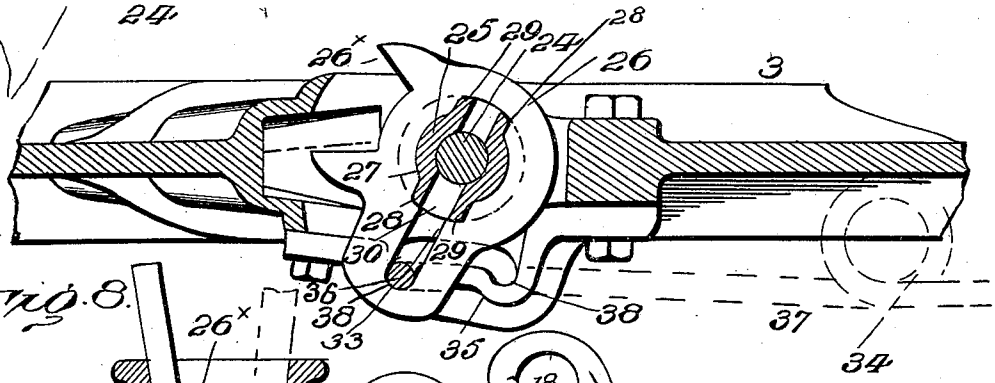


Fig. 8.

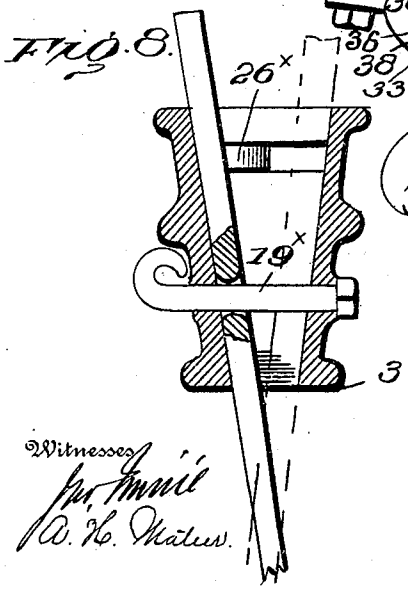
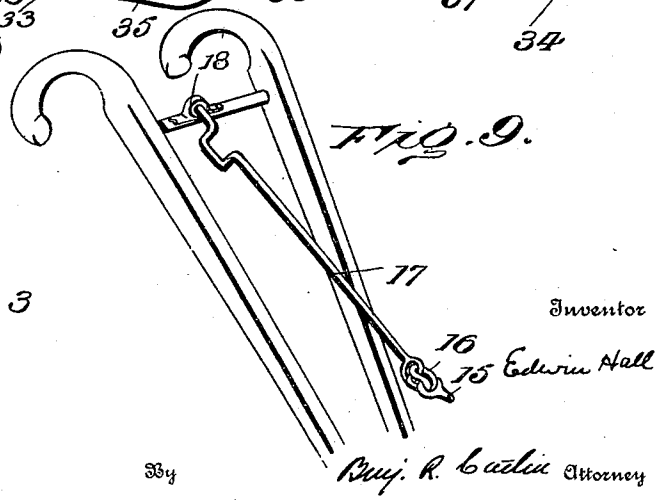


Fig. 9.



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UNITED STATES PATENT OFFICE.

EDWIN HALL, OF LEROY, NEW YORK, ASSIGNOR TO THE LE ROY PLOW COMPANY, OF SAME PLACE.

REVERSIBLE PLOW.

SPECIFICATION forming part of Letters Patent No. 683,753, dated October 1, 1901.

Application filed November 26, 1900. Serial No. 37,849. (No model.)

To all whom it may concern:

Be it known that I, EDWIN HALL, a resident of Leroy, in the county of Genesee and State of New York, have invented certain new and useful Improvements in Reversible 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 the same.

The invention relates to reversible plows, and has for its object to provide simple, efficient, and durable means for automatically adjusting either a colter or jointer in a reversible plow and for other useful purposes.

The invention consists in the construction herein described and pointed out.

In the accompanying drawings, Figure 1 is a perspective of a plow embodying the improvements. Fig. 2 is a partial vertical section of the plow-beam. Fig. 3 is a partial plan. Fig. 4 is a partial rear elevation. Fig. 5 is a partial section showing the connection of the colter-plate-reversing spring with the plow-locking latch. Fig. 6 is a partial longitudinal section showing means for supporting either a colter or a jointer in the beam. Fig. 7 is a transverse section lengthwise the beam. Fig. 8 is a partial section lengthwise the colter transversely of the beam. Fig. 9 is a perspective showing a clevis-shifting rod.

The improved plow is provided with a clevis that can be swung about its connection with the beam by means of a rod extending to the vicinity of the plow-handles and which permits the evener-hook to be raised or lowered without separation from the evener and without danger of disconnecting the hook and clevis. The clevis 1 has the usual pivot-bolt connection 2 with the plow-beam 3, and its front bar $1^{\times}$ is provided with a series of holes 4 for attaching the hook by the bolt at different elevations.

5 denotes the bolt connecting the hook and clevis. The hook has jaws 6 to embrace the front bar of the clevis.

7 denotes slots in the jaw-lips to receive the strengthening-ribs 8 of the clevis when the hook is adjusted to either its highest or lowest position and swung either to the extreme right or left.

9 and 10 denote openings within the jaws 6. The first receives the front bar of the clevis and the latter receives a rib 11, which rib coacts with the ribs 12, situated between said jaw-openings, and limits the independent lateral swing of the hook. Similar ribs at the rear of the clevis front bar have a like operation.

The described construction, including the ribs 12, provides that the hook will be adjustably held on the clevis by gravity when the bolt 5 is removed, and particularly when the weight of an evener or evener and whiffletrees are added to that of the forward portion of the hook. The latter can therefore be adjusted vertically and the bolt suitably moved without danger of inconvenient separation of the hook and clevis. This gives the plowman more liberty for controlling a restless team, and should the team unexpectedly start the plow before the bolt is inserted the hook will not ordinarily drop. The clevis is adjusted laterally about its bolt by means of right and left hand screws 13 and 14 on a rod 15, which has a universal-joint or knuckle coupling 16 with a handle 17.

18 denotes a detachable bearing which may be situated between the handles.

19 denotes sockets or bearings for the screw-rod.

The screw 13 works through a correspondingly-threaded nut 20, rotatably held in a seat formed in a clevis-bracket. This provides that the screw may be moved back and forth by means of its rod and handle, with the effect to swing the clevis about its bolt and so adjust horizontally the line of draft. The screw 14 works through a threaded nut 21, movably supported in a seat 22, formed in a bracket 23, fixed to the plow-beam. When the screws are turned, the nut 20 turns and nut 21 slides, thus obviating any binding by reason of the swing of the clevis. For example, referring to Figs. 1 and 2 of the drawings, if the operator at the plow-handles turns the rods 17 and 15 to his right the screw 14 will be screwed through nut 21, held in its seat 22, fixed to the beam, and the screw 13 will push the nut 20, together with its seat, in the clevis, which pushing movement will turn the clevis about its bolt 2, the nut 20 turning and the

nut 21 sliding in their seats sufficiently to prevent binding. It is obvious that either nut and its corresponding screw could be used separately to adjust the clevis.

The jointer 24 is supported in a tubular rotatable sleeve 25, in which it may be fixed by a bolt. The sleeve or socket 25 is held in a slot in the plow-beam by means of a plate or dog 26, having an opening 27, with opening extensions 28 to receive projections 29 on the sleeve. In Fig. 7 the body of the sleeve 25 is shown fitting the opening 27 in plate 26, and the sleeve projections 29 are shown in the extensions 28 of said openings 27. These projections engage the plate 26, so that the sleeve may be turned by said plate.

30 denotes a slot through the projections to diminish weight.

The jointer having been removed from its socket, a colter may be received by the same plate 26 between its ears $26^{\times}$. The colter when entered in the beam-slot is secured therein by the bolt $19^{\times}$, which has for its head the screw-rod hook-shaped bearing 19, said bolt being passed through one of the openings in the colter. The dog 26 is reversed to reverse either a colter or a jointer to correspond to a reversal of the plow by means of a spring 37, having its rear end connected at $30^{\times}$ to the suitably-slotted handle-support 31 and to the swinging handle-support latch 32, (see Figs. 5 and 3,) and at its forward end it is connected to the dog, being provided with a hook 36, which extends through a slot 33 in the dog and engages one of the notches 38 in the bracket attachment 35, situated immediately below the dog.

34 denotes a coil in the spring, which may bear on the beam and increase the action of the spring which holds the dog in either of its operative situations, which situations correspond to notches 38 in a spring-holding plow-beam attachment 35. The spring-hook 36 is automatically thrown from one notch to the other and the dog 26 reversed whenever the plow and its latch are reversed. The ends of the spring are connected to the plow on opposite sides of a vertical plane passing through the beam, which gives torsion to the spring. When the dog is turned, it acts on the projections 29 of the sleeve and rotates it and the jointer, or in case the colter is used one of the ears $26^{\times}$ of the dog acts on the colter to turn it slightly on its supporting-bolt $19^{\times}$, the holes of the colter being made oblong to permit the operation. Said bolt has one of its ends provided with a hook suitable for a bearing for the rod that adjusts the clevis, as before stated.

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

1. In a plow, a jointer-supporting sleeve, and a sleeve-adjusting dog surrounding the jointer within the plow-beam.

2. In a plow, a jointer-supporting sleeve, and a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter.

3. In a plow, a jointer-supporting sleeve, a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter, and devices to shift the dog to reverse the jointer.

4. In a plow, a jointer-supporting sleeve, a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter, and devices to shift the dog to reverse the jointer, said devices comprising a spring connected to the handle-rest latch of a reversible plow.

5. In a plow, a jointer-supporting sleeve, a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter, devices to shift the dog to reverse the jointer, said devices comprising a spring connected to the handle-rest latch of a reversible plow, and a notched dog attached to the plow-beam to engage and adjustably hold the spring under either adjustment of the reversible jointer-holding dog.

6. In a plow, a jointer-supporting sleeve, a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter, and devices to shift the dog to reverse the jointer, said devices comprising a spring connected to the handle-rest latch of a reversible plow, said spring having a coil bearing on the plow-beam.

7. In a plow, a jointer-supporting sleeve, a sleeve-adjusting dog surrounding the jointer within the plow-beam, said dog having projections to embrace a colter, and devices to shift the dog to reverse the jointer, said devices comprising a spring connected to the handle-rest latch of a reversible plow, said spring having its ends secured on opposite sides of a vertical plane passing longitudinally through the plow-beam.

8. In a plow, a jointer and a spring-actuated dog reversible to reverse the jointer.

9. In a plow, a jointer and a spring-actuated dog reversible to reverse the jointer, said dog being adapted to move the colter on its support when the plow is reversed.

10. In a plow, the combination of the dog adapted to support a jointer, said dog being also adapted, when not in use as a jointer-support, to support a colter, and the colter-securing bolt $19^{\times}$.

11. In a plow, the combination of the dog adapted to support a jointer, said dog being also adapted, when not in use as a jointer-support, to support a colter, and the colter-securing bolt $19^{\times}$, said bolt having a hook to support a clevis-adjusting rod 15.

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

EDWIN HALL.

Witnesses:
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F. L. B. TAFT.