(No Model.)

E. C. WESTERVELT & C. W. CLAPP.

PLOW COLTER.

No. 458,086. Patented Aug. 18, 1891.

Fig. 1.

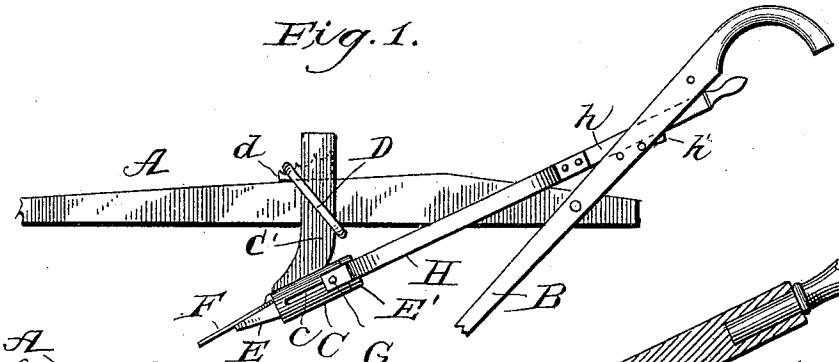


Fig. 2.

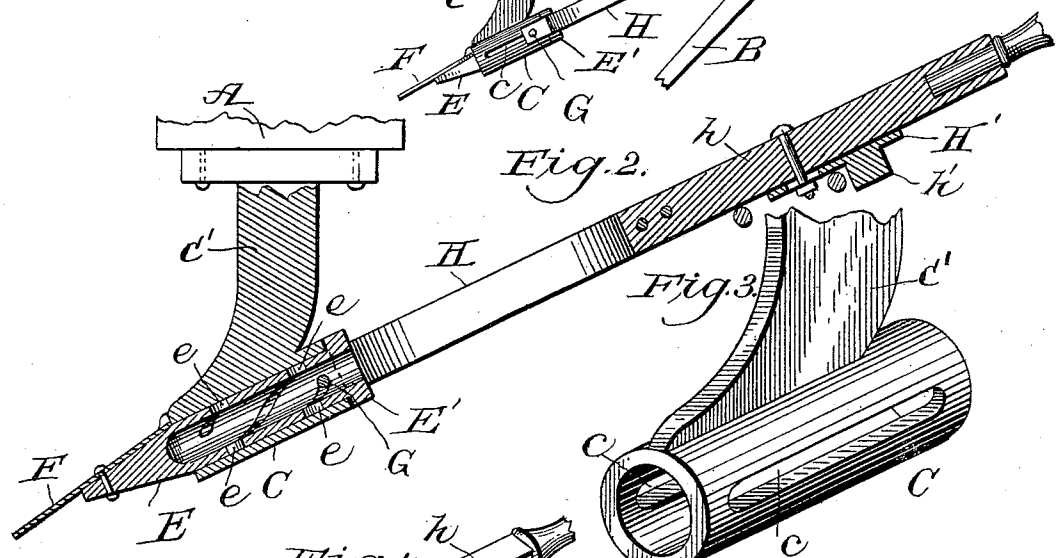


Fig. 3.

Fig. 4.

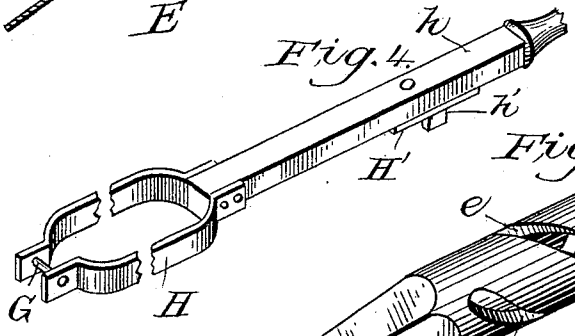


Fig. 5.

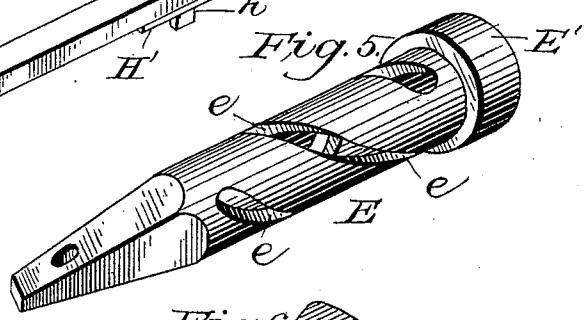
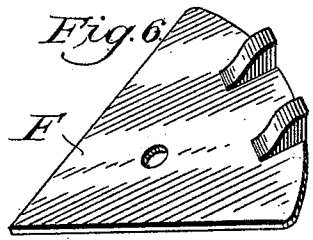


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDMUND C. WESTERVELT AND CHARLES W. CLAPP, OF SOUTH BEND, INDIANA.

PLOW-COLTER.

SPECIFICATION forming part of Letters Patent No. 458,086, dated August 18, 1891.

Application filed May 5, 1891. Serial No. 391,658. (No model.)

To all whom it may concern:

Be it known that we, EDMUND C. WESTERVELT and CHARLES W. CLAPP, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Adjustable Plow Colters or Jointers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side elevation of a portion of a plow, showing our improved jointer applied thereto. Fig. 2 is a detail sectional view. Figs. 3, 4, 5, and 6 are detail perspective views of the main operating parts of the device.

This invention is an improvement in an adjusting device for plow-jointers, and its object is to provide a simple device for shifting the jointer right or left and to enable the same to be adjusted vertically; and it consists in the novel construction and combination of parts hereinafter more particularly described and claimed.

In the drawings, letter A designates the plow-beam; B, the plow; C, a metallic sleeve suspended from the plow-beam in front of the plow either by a bracket-arm bolted to the beam or by a shank C′, which is suspended or bound to the beam by a clip-loop D, as shown in Fig. 1, and *d* is an adjusting-block inserted between top of beam and loop and by which the inclination of the loop and consequent angle at which shank C′ and sleeve C are suspended is regulated. Sleeve C has longitudinal parallel slots *c c* in its opposite sides, as shown.

E designates a tube placed within sleeve C and adapted to be turned therein and having a collar E′ on its rear end, by which it is confined in the sleeve, and its front end projects beyond the sleeve, and to it is attached a jointer-blade F, which may be collared or socketed to fit up against the front end of the sleeve, so that the working-pressure on the jointer is transferred direct to the sleeve. The tube is formed with directly-opposite spiral slots *e e* in its sides, so that a bolt G may be passed transversely through the sleeve and tube, engaging and resting in the slots *e e*, as shown, as the spiral slots in tube E will at some point or points pass and register with slots *c* of sleeve C. The ends of bolt G are attached to the ends of a bifurcated strap or stirrup H, which straddles the beam, and has its upper end above the beam connected to a pull-rod *h*, which extends back toward the handles within easy reach of the plowman, and has a depending lug *h′* on its rear end, which is adapted to engage one of the connecting-rounds of the handle or a suitable catch-plate attached thereto, (not shown,) so as to regulate the position of the stirrup and hold bolt G in any position desired in sleeve C. The lug *h′* may be formed on a slotted plate H′, bolted to rod *h*, so as to permit adjustment of lug *h′* longitudinally on rod *h*.

In operation, if bolt G be slid forward or backward in sleeve C it will tend to ride up in the spiral slots *c* of tube E; but as it cannot do this the tube E is compelled to turn, so that by simply pushing or pulling rod *h* forward or backward the sleeve E and attached jointer are turned right or left and to any angle desired, regulated by the adjustment of the rod. The pitch of the spiral slots in tube E is such that the rod G will scarcely be affected by any direct longitudinal thrust on the tube, but will lock the same in any position to which it is shifted until it is itself forcibly and directly moved.

It would be possible to make the spiral slots in the sleeve instead of in the tube; but by the construction shown the weakest parts are protected. By adjusting the position of the sleeve below the beam the depth of cut of the jointer is regulated, and by the means described its turning angle can be regulated.

Having described the invention, what we claim as new is—

1. In a jointer-operating device, the combination of the sleeve and tube therein carrying the jointer-blade, one of said parts having a spiral and the other a straight slot, with a bolt transfixing said tube and sleeve playing in the slots therein, and means for shifting said bolt, substantially as described.

2. The combination of the jointer mounted

upon a revoluble support suspended from the plow-beam, with a device longitudinally movable along said support and engaging the same in such manner that as it is moved beneath the beam the jointer will be turned thereby, substantially as described.

3. In a jointer-operating device, the combination of a sleeve and a tube therein carrying a jointer-blade, one of said parts having a spiral and the other a straight slot, with a bolt transfixing said tube and sleeve and playing in the slots therein, and the stirrup rod and catch for operating and locking said bolt, substantially as described.

4. The combination of the sleeve adjustably suspended from the plow-beam, a tube in said sleeve, one of said parts being longitudinally slotted and the other spirally slotted, with devices supported by said sleeve and longitudinally movable thereof and engaging the slot of the tube, whereby the latter is revolved as said device is shifted along the sleeve, substantially as and for the purpose described.

5. The combination of the slotted sleeve, the devices, substantially as described, for adjustably suspending it from a plow-beam, the spirally-slotted tube secured in said sleeve, the jointer attached thereto, the bolt transfixing said sleeve and tube through the slots therein, and the stirrup, rod, and lug for shifting said bolt, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

EDMUND C. WESTERVELT.
CHAS. W. CLAPP.

Witnesses:
JAMES DUSHANE,
NEILL G. CRABILL.