

J. JARRELL.
SUBSOIL PLOW.

No. 187,637.

Patented Feb. 20, 1877.

Fig. 1.

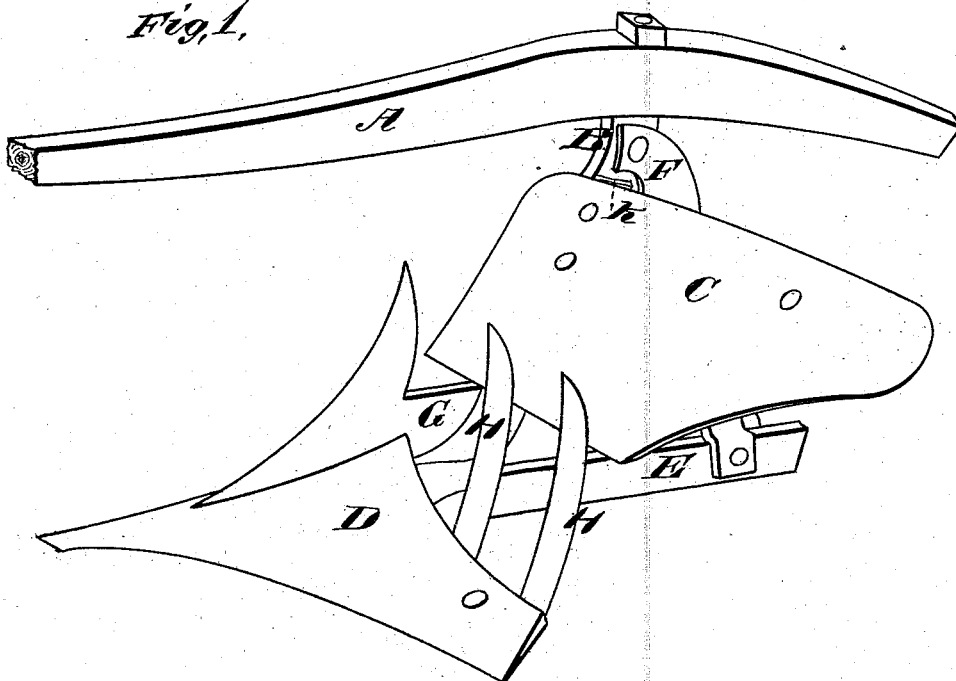


Fig. 2.

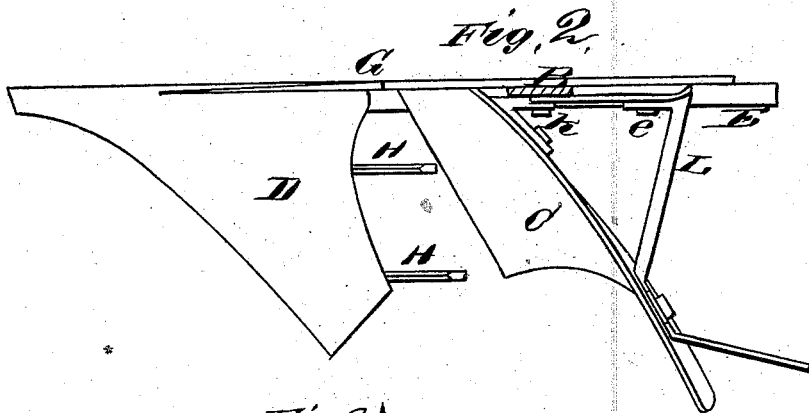
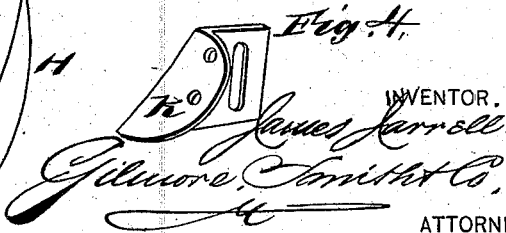


Fig. 3.



Fig. 4.



WITNESSES
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JAMES JARRELL, OF THORNTOWN, INDIANA.

IMPROVEMENT IN SUBSOIL-PLOWS.

Specification forming part of Letters Patent No. **187,637**, dated February 20, 1877; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, JAMES JARRELL, of Thorntown, in the county of Boone and State of Indiana, have invented a new and valuable Improvement in Subsoil-Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation 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.

Figure 1 of the drawings is a representation of a perspective view of my subsoil-plow, and Fig. 2 is a plan view of the same. Figs. 3 and 4 are detail views thereof.

This invention relates to subsoil-pulverizing plows; and the nature of my invention consists in certain improvements therein, as hereinafter more fully set forth and claimed.

In the accompanying drawings, A designates a beam; B, a standard, which is preferably of metal; C, a mold-board; D, a subsoil-plowshare, and E the main part of the land-side, which is rigidly connected therewith. F is a supplemental standard, which connects standard B (near the upper end thereof) with land-side E. G is a plate of steel or other metal, the rear part of which sets upon the main part E of the land-side, and the forward part of which is provided with a curved cutting-edge, so as to form a colter. The general outline of plate G very nearly corresponds to a crescent attached on its outer side about the middle to one end of a long parallelogram. Its under edge, at the forward end, sets into a groove in the upper side of share D. Plate G thus constitutes at once a colter and a part of a land-side. It is rigidly attached to standards B and F.

H H are cutting-knives for pulverizing the earth, and are made in a single piece, the lower plate I of which is detachably connected to the under side of share D. C is a mold-board, which is detachably connected to standard B by bolts, which pass through holes in said standard, and through similar holes in a V-shaped connecting-plate, K, which is bolted

to said mold-board. Mold-board C is also connected to supplemental standard F by means of a brace-arm, L, and a detachable bolt, which passes through a flange, e, on the end of said brace-arm, and through a perforation in said supplemental standard. As there are more holes in each one of said standards B and F than in the attachments of the mold-board, which register therewith, and through which the bolts pass, it follows that mold-board C is vertically adjustable on said standard. By this adjustability I regulate the thickness of the slice of warm surface-earth cut off by said mold-board and thrown from the furrow.

By removing the cutter-blades or knives H H, and adjusting mold-board C at the lowest possible point, I have a compact plow for ordinary use.

When used for subsoiling, the share D and colter G cut off a slice of subsoil, which will be regulated in its thickness by the space between mold-board C and share D, and this slice is made to pass through and against cutting-blades H H, which pulverize it, while the mold-board C turns over the warm surface-soil in greater or less quantity, according to adjustment.

Plate G, forming a colter and part of a land-side, as described, is detachably connected to standard B, and to supplemental standard F, and is without other attachment except the groove in share D, so that the device may be used as a whole without said plate, if preferred.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of adjustable mold-board C with subsoil share D and cutting-blades H H, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES JARRELL.

Witnesses:

WASH. GRIFFIN,
L. D. CHAFEE.