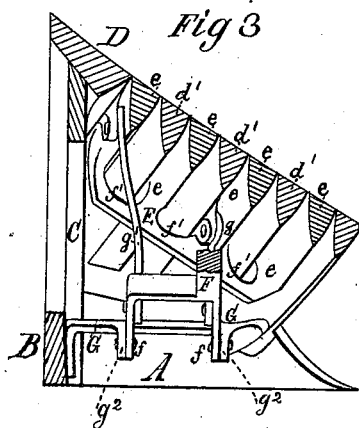
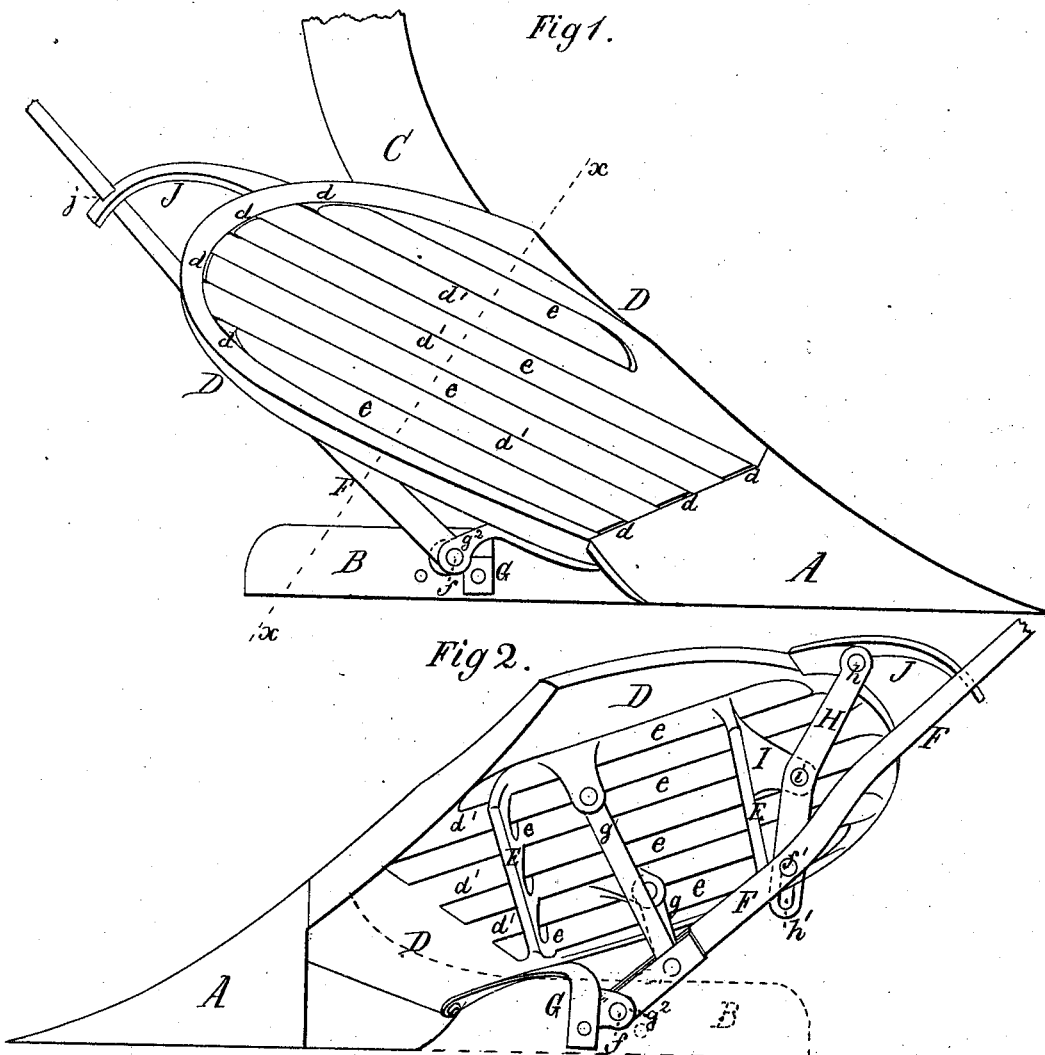


R. CORETH.
Plows.

No. 196,744.

Patented Nov. 6, 1877.



Witnesses:
James Martin Jr
J. P. Theodore Lang.

Inventor,
Rudolph Coreth
by
Mason, Fenwick & Lawrence,

UNITED STATES PATENT OFFICE.

RUDOLPH CORETH, OF BELLEVILLE, ILLINOIS, ASSIGNOR TO OTTO C. MEUSEBACH, OF SAME PLACE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 196,744, dated November 6, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that I, RUDOLPH CORETH, of Belleville, in the county of St. Clair and State of Illinois, have invented a new and useful Improvement in Plows, which improvement is fully set forth in the following specification and accompanying drawings, in which latter—

Figure 1 is a view of my improved plow from the mold-board side. Fig. 2 is a view of the same from the opposite side. Fig. 3 is a transverse section in the line *xx* of Fig. 1.

The nature of my invention consists in certain constructions, combinations, and arrangements of parts, hereinafter fully described and specifically claimed, whereby a plow with an improved mold-board is produced; the object of which is to enable the operator to free the said mold-board from adhering soil or clay, during the operation of plowing, without stopping the plow or taking it out of the ground.

In the drawings, A represents the plow-share of my improved plow; B, the land-side, and C the standard, which three parts may be constructed in any ordinary mode as used at the present time. To the said parts I fit a mold-board, D, in a suitable manner, which mold-board has a number of slots or openings, *d*, in its operating surface, and into these openings a number of slats or bars, *e*, are loosely fitted, in such manner that they may be moved either above or below the said surface, or flush with the same. I unite the said bars *e* by transverse braces E, with which they are either cast together or otherwise united.

The braces E are at the back of the mold-board, and are cut away, as at *f'*, so as to allow the movable bars *e* to freely pass between the grate-bars *d'* of the mold-board D and in the slots *d* thereof.

The movable bars *e* and their braces E are supported and operated, at the back of the mold-board, by a hand-lever, F, which, to make laterally steady, is forked above its fulcrums *f*, as shown. From the forked portions of the lever F, links *g* and *g'* form an articulating connection with the lower parts of two of the bars *e*, as indicated in Figs. 2 and 3.

In order to obtain a uniform leverage or a parallel motion of the bars *e* when operated by the lever F, I make use of an intermediate le-

ver, H, as shown in Fig. 2, which has a stationary fulcrum, *h*, on the mold-board, and is connected to the lever F by means of a slot, *h'*, and a pin, *f'*. This lever H, at a suitable point between its fulcrum *h* and slot *h'*, is connected, by means of a pin, *i*, and a lug, I, to the upper brace E.

The described arrangement and connections of the levers F and H and connecting-links *g* and *g'* gives the same amount of leverage and movement to the upper and lower ends of the movable bars *e*, as well as a simultaneous and parallel motion, when the lever F is moved.

The fulcrums *f* of the lever F are upon lugs *g²* of a transverse bar, G, which may be fastened between the mold-board and land-side.

The normal position of the bars *e* is such that they present a smooth and even surface with grate-bars *d'*. This position of the bars *e* may be maintained or secured by means of a notch, *j*, in a steady-bar, J, on the mold-board, into which notch the lever F is sprung when the plowing goes on smoothly.

I have made the movable bars *e* and grate-bars *d'* of triangular sectional shape for the purpose of strengthening them; but any other shape which answers the said purpose may be adopted without changing the principle of my invention. The same may be said of the connections between the lever F and the bars *e*, which connections may be attached directly to the said bars *e* or to the braces E.

Operation: In ordinary plowing the normal position of the bars *e* is maintained in the aforesaid manner; but when the soil is wet and very tough it will adhere to the mold-board and coat it over thickly, thereby causing the furrow-slice to turn over irregularly and break into pieces. The common practice heretofore in such cases has been to stop the team, draw the plow from the furrow, and with a paddle or scraper remove the adherent muck from the mold-board.

If it is found that my mold-board becomes coated with muck or tough soil, the driver or plowman keeps on plowing, removes the lever F from the notch *j*, and, by moving it up and down several times, moves the bars *e* above and below the stationary part of the mold-board surface. This operation causes the coat-

ing of soil or muck on the mold-board to be broken into small transverse slices or fragments, which are readily pushed off the mold-board and the bars *e* by the passing furrow-slice. The lever *F* is then replaced in the notch *j* without interruption of the plowing operation.

The main part of my invention is the mode of breaking up and removing the soil from the mold-board during the passage of the plow in the ground, and the manner of constructing the mold-board of stationary and movable parts, over which the furrow-slice must pass; therefore any other mold-board, with movable bars or grates with any other motion—as, for instance, bars swung on hinges, and so on—would only be a modification of my invention, without changing its principle of operation.

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

1. The movable bars *e*, in combination with the skeleton mold-board *D*, substantially in the manner and for the purpose set forth.

2. The combination of the bars *e*, braces *E*, links *g g'*, levers *H* and *F*, and the slotted mold-board *D*, substantially as set forth.

Witness my hand, in the matter of my application for a patent for a plow, this 26th day of June, A. D. 1877.

RUDOLPH CORETH.

Witnesses:

GEO. C. BUNSE,
FRED. ROPIEQUET.