R. CORETH.
Plows.

No. 196,744. Patented Nov. 6, 1877.

Fig 1.

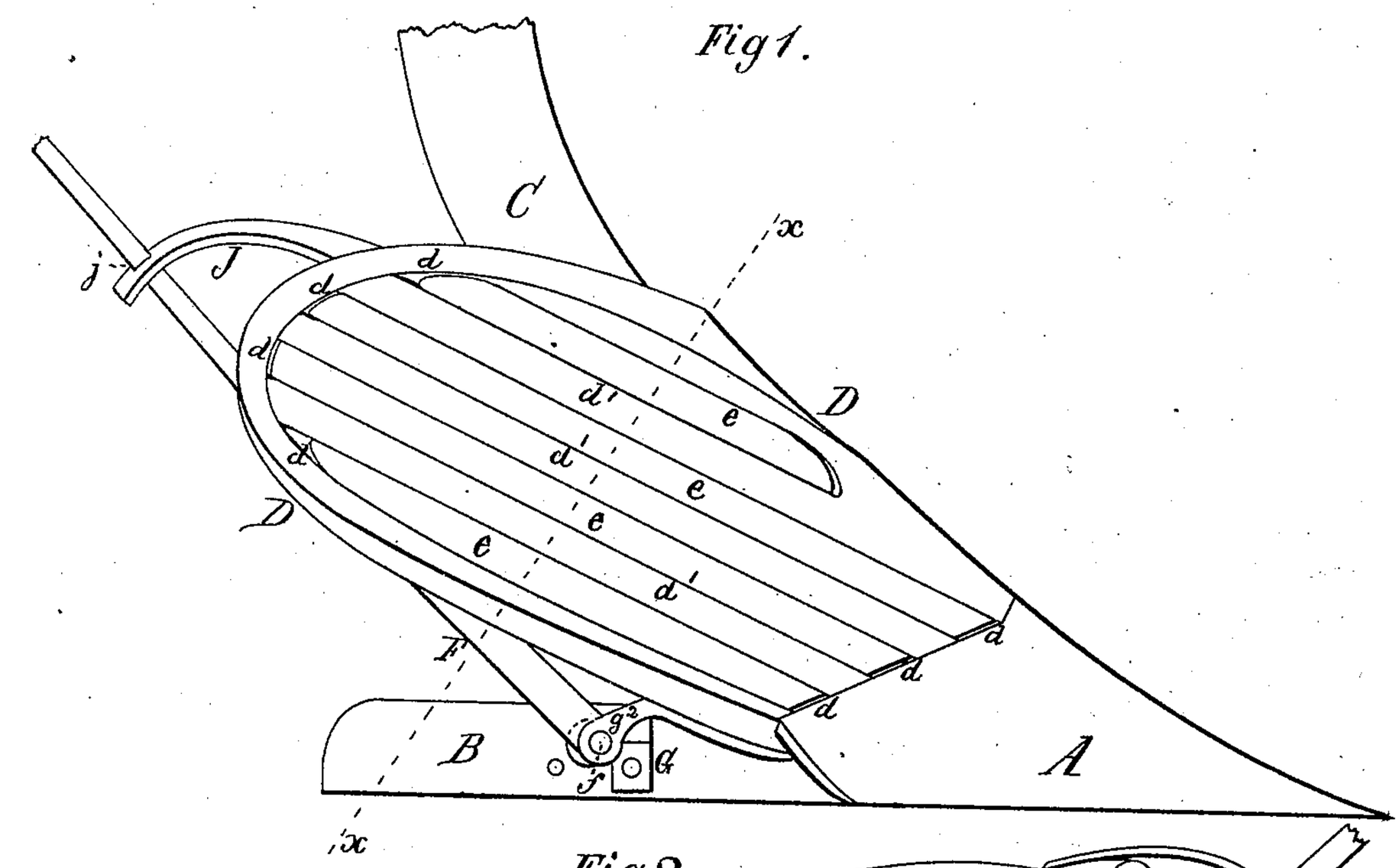


Fig 2.

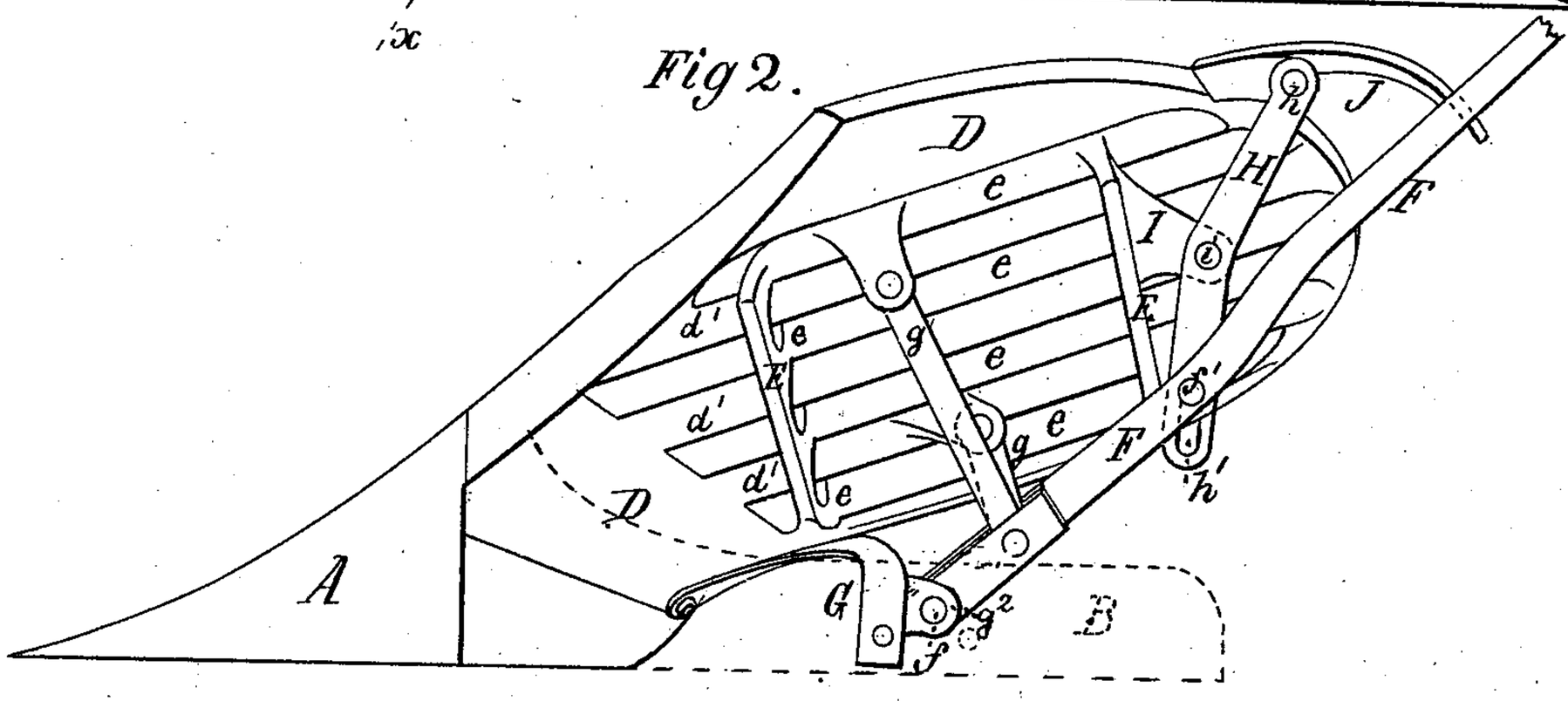
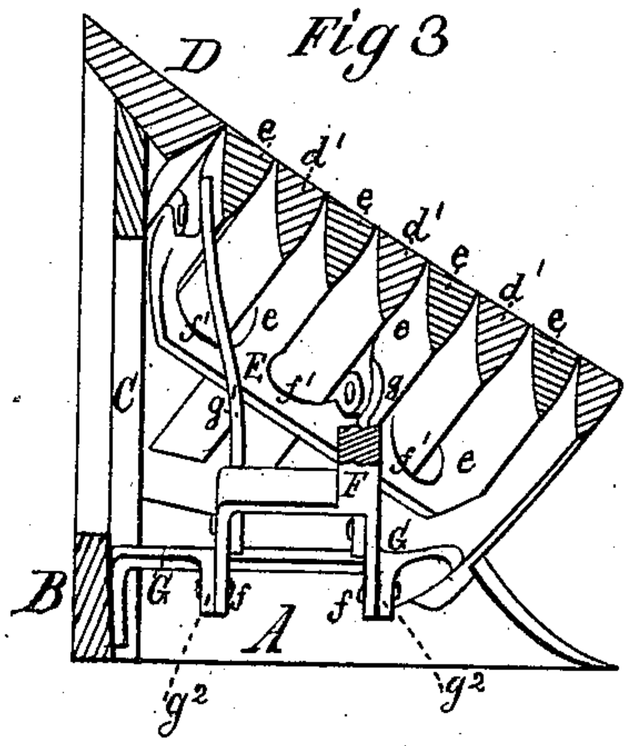


Fig 3



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

Inventor.
Rudolph Coreth
by
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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 *x x* 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^1 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 lever, 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 g^2 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^1, 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.