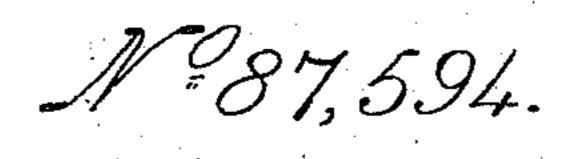
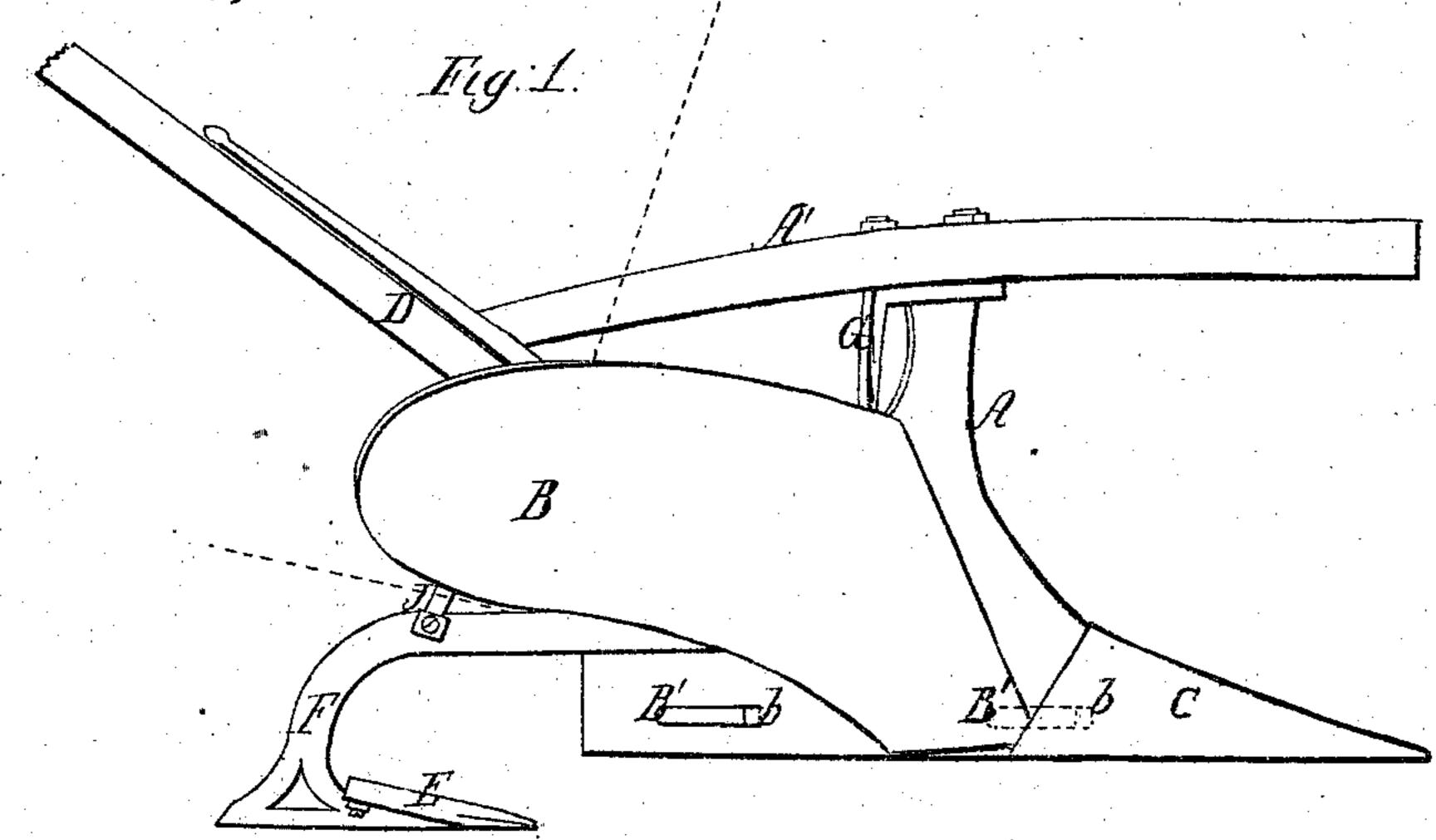
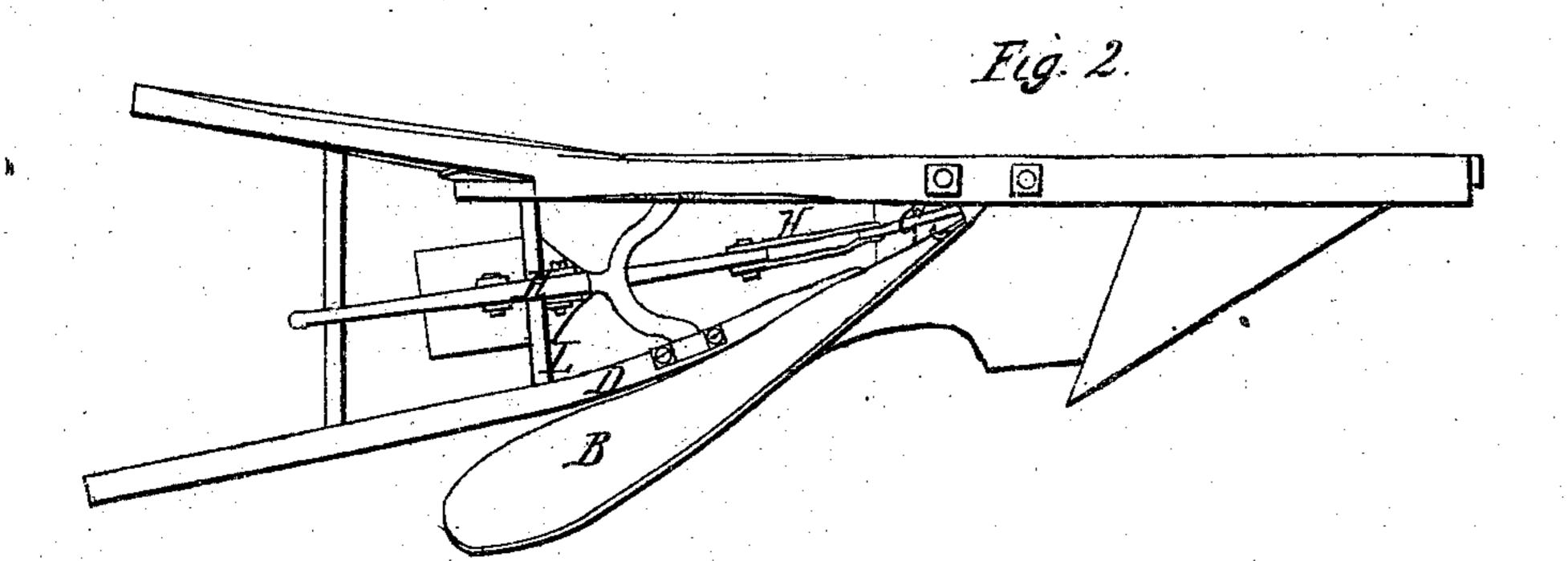
## Cr. 100/1/25017

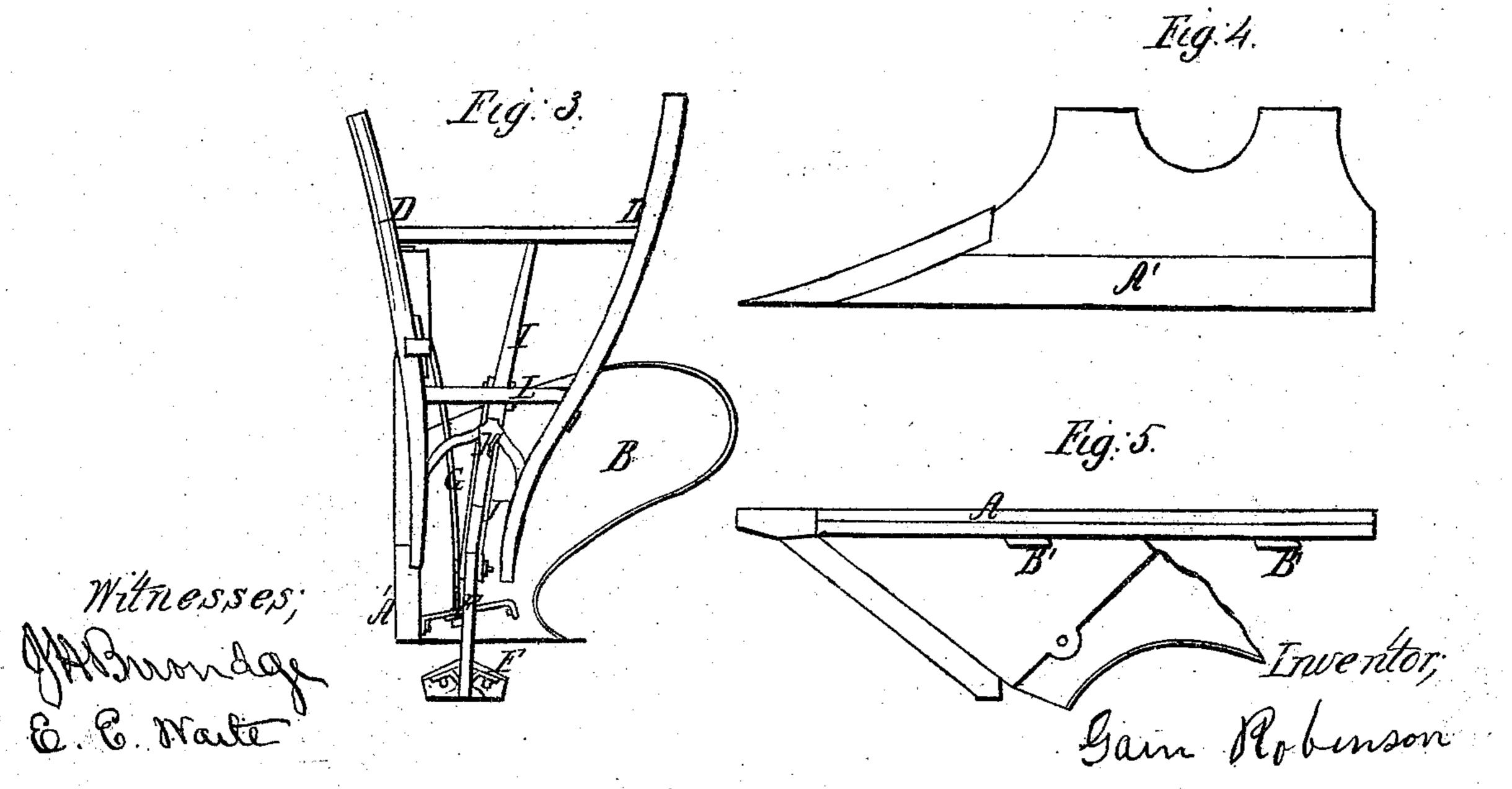
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Pale 11/2/11/19,1869.







N.PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



## GAIN ROBINSON, OF PLYMOUTH, OHIO.

Letters Patent No. 87,594, dated March 9, 1869.

## IMPROVEMENT IN PLOW AND SUBSOILER

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, GAIN ROBINSON, of Plymouth, in the county of Richland, and State of Ohio, have invented a certain new and useful Improvement in Plows; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawing, making a part of this specification, in which-

Figure 1 is a side view of the plow.

Figure 2, a view of the top.

Figure 3, an end view.

Figures 4 and 5, detached sections.

Like letters of reference refer to like parts in the different views.

In this invention, the object attained is the combination of a subsoil-plow with an ordinary surface-soil plow, thereby producing, in one implement, the combined action and advantage of both, at a much less expense than two separate plows, and not greatly exceeding the cost of one.

In fig. 1, A represents the plow, of which A' is the beam, B, the mould-board, C, the share, and D, the handles, all of which are or may be constructed in the

ordinary way.

To said plow is attached the subsoiler, or plow, E, directly in the rear of the plow, by means of the curved beam F, the inner end being secured to the upright bolt G, fig. 1, by the straps H, between which the end of the beam is pivoted, thereby allowing to it a vertitical movement.

I is a lever, the lower end of which is bifurcated. The end of each bifurcation is pivoted to the handles D, as shown in fig. 2, the purpose of which will hereinafter be shown.

The beam F referred to, is connected to the lever I, by means of the link J, whereby it may be elevated above the ground by means of said lever, and is thus secured by the spring K.

Said spring, on elevating the lever, catches upon the brace L, and thus supports the subsoil-plow out of the furrow while the surface-plow only may be in operation.

As above observed, the special purpose of this plow is to perform the surface-soiling and subsoiling at one operation, thereby saving the expense of two plows for the performance of the work.

The ordinary practice pursued in this kind of work

is to follow the surface-plow with the subsoil, which not only requires a double team, but also a man to each team and plow; whereas, in combining the two plows in one, as above described, one team only is required to do the work, and the plowing can be effectually performed by one person, instead of two, as required when done in the ordinary way.

When desired to use the plow without the subsoiler, the latter can be easily detached, or raised up out of the way, by means of the lever I, which, on throwing it forward, as indicated by the dotted lines a, fig. 1, will draw upward the beam and plow EF. In this condition, the surface-plow can be used for all ordinary

surface-work as a common plow.

It will be observed that the landside of the plow is double, it being provided with a false side, A', fig. 3, a side view of which is shown in fig. 4, and of which

fig. 5 is an under-side view.

This false side is secured to the plow by means of the hooks B', projecting from the false side, and inserted in slots b, fig. 1, made in the true side of the plow.

The false side is put on before the share C is secured in place, and thereby prevents the side from working frontward, as the front end of the side abuts against the share. By this means, the side is firmly and securely attached to the plow, without the aid of bolts or keys.

I am aware that false landsides are used, but this I do not claim; but that which I do claim is the peculiar manner of attaching the sides to the plow, which, as ordinarily done, is by the means of bolts, which I dispense with by the use of the more simple and less expensive hooks referred to.

What I claim as my invention, and desire to secure

by Letters Patent, is—

1. The plow E, beam F, links J, and spring K, as arranged, and operated by the lever I, in combination with the plow A, substantially as and for the purpose set forth.

2. Attaching the false landside A' to the plow, by means of the hooks B', substantially as specified.

GAIN ROBINSON.

Witnesses:

DOR. CUYKENDALL, W. A. SMITH.