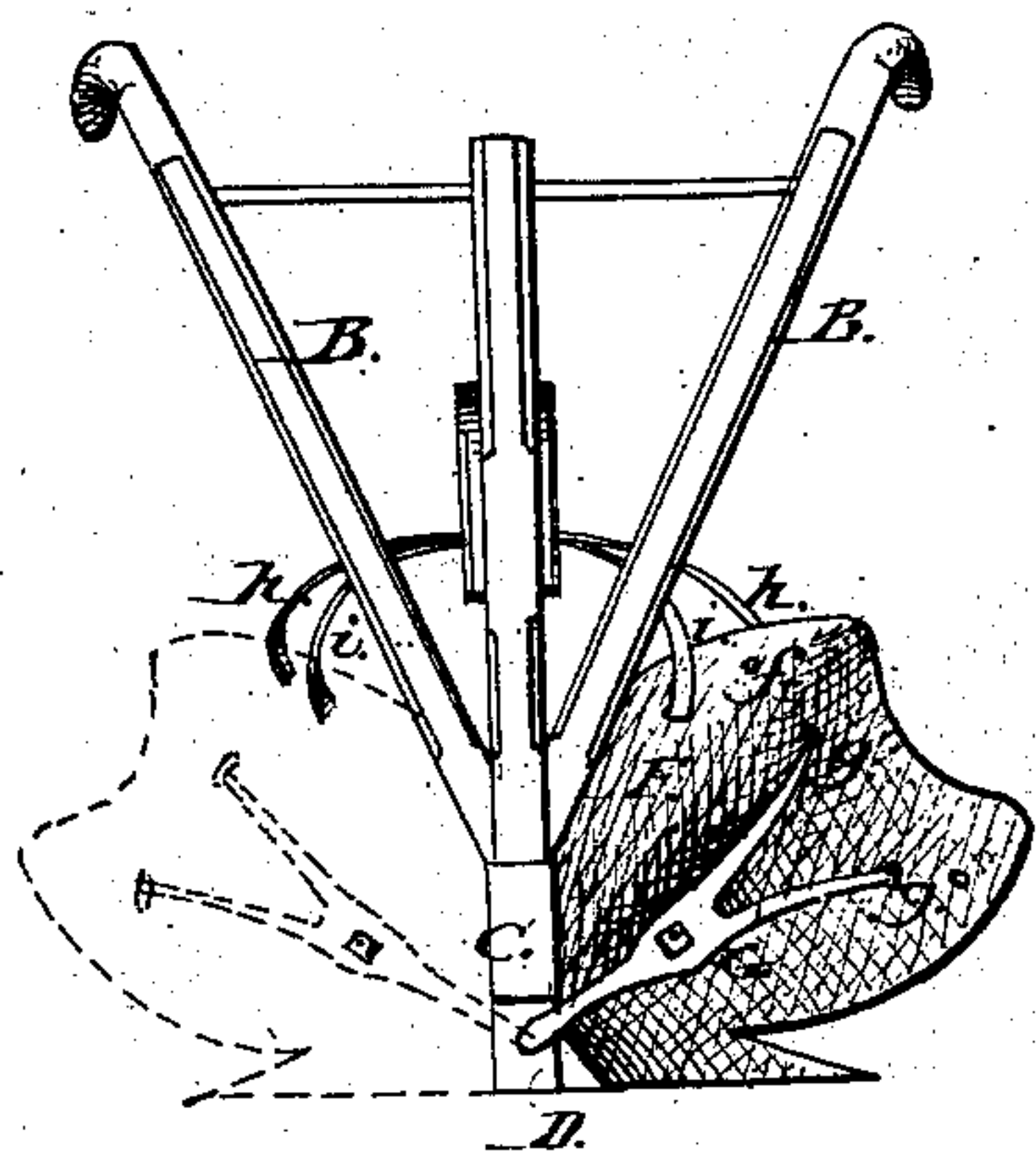
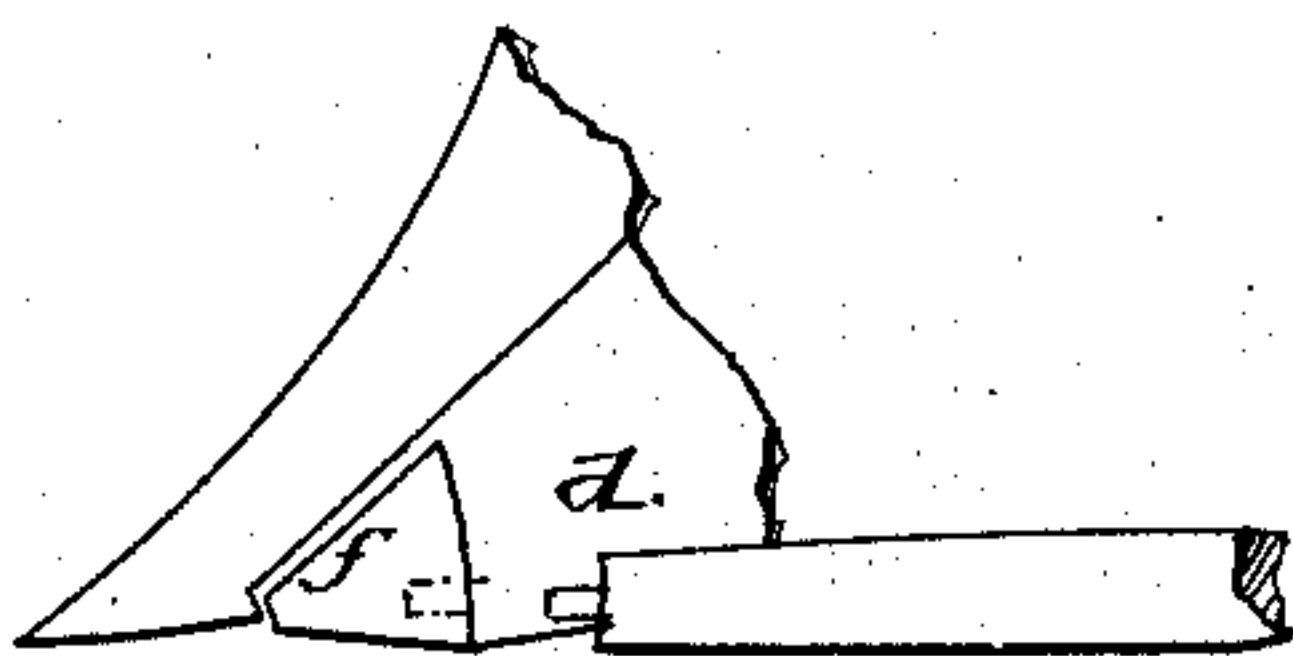
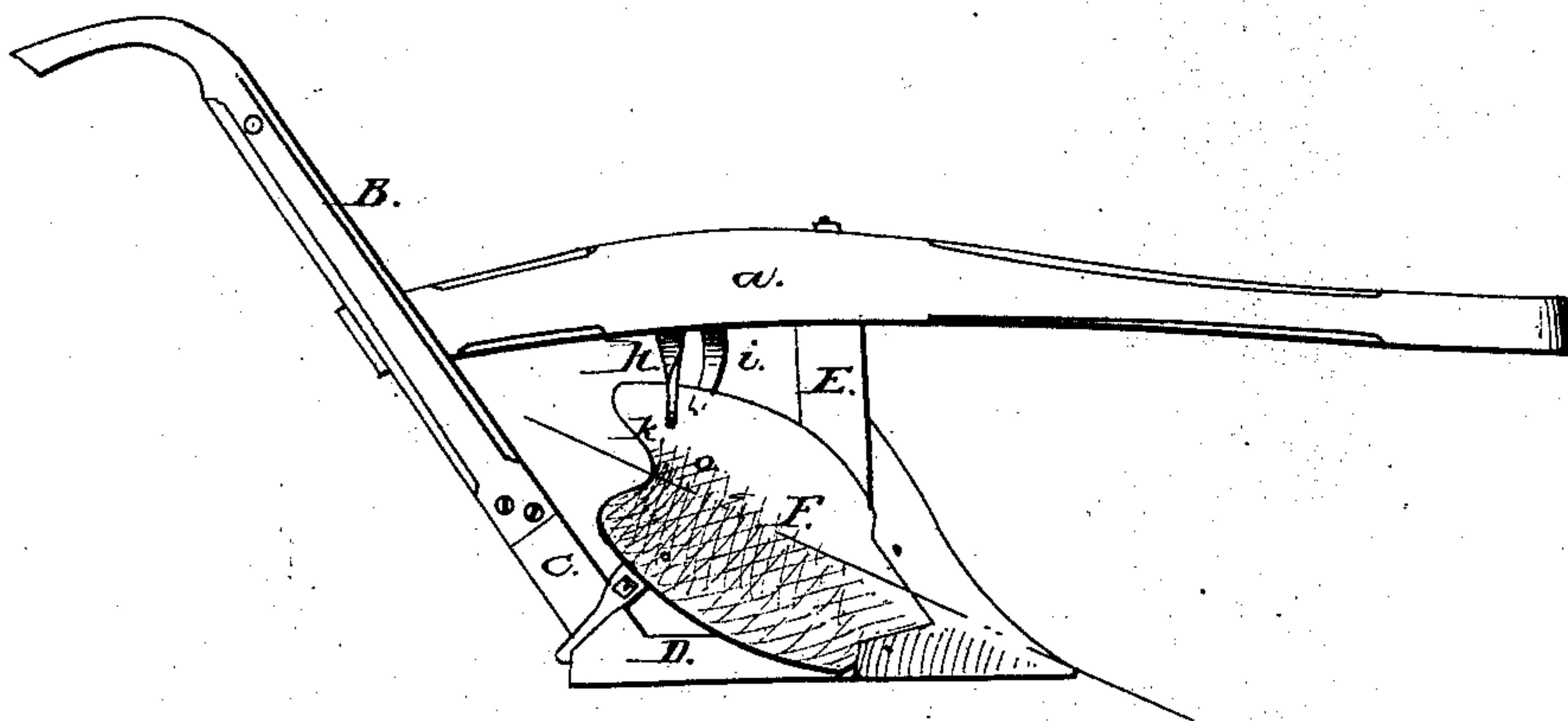


F. Watson.

Side-Hill Plow.

N^o 69,874.

Patented Oct. 15, 1867.



WITNESSES:
Chas. M. Gay
J. E. Porter

INVENTOR:
Franklin Watson
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attorneys

United States Patent Office.

FRANKLIN WATSON, OF HARRISON, ILLINOIS.

Letters Patent No. 69,874, dated October 15, 1867.

IMPROVED PLOUGH.

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, FRANKLIN WATSON, of Harrison, in the county of Winnebago, and State of Illinois, have invented a new and improved Plough; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists of a plough of peculiar shape, so constructed that the share and mould-board change from side to side, being operated by a simple arrangement of springs.

To enable others to make and use my invention, I will now proceed to describe its construction and operation.

A represents a plough-beam of ordinary construction, and B the handles, which latter unite and terminate in a socket in the projection C, which slopes upward from the plough-foot D. The latter is supported near its forward end by the standard E. The combination of the plough-foot, standard, beam, and handles may be termed the framework of the plough, to which are attached the share and mould-board and the devices for operating them. Upon the front end of the plough-foot is a pin, *d*, which fits into a socket of corresponding size in the triangular block *f*, arranged for the purpose on the forward end of the mould-board F. At the rear end of the foot is a socket, into which fits the corresponding projection on the support G, which divides, as shown, and hooks into the eyes *g* of the mould-board. The rod H holds the support G firmly in position. The connection of the mould-board with the plough-foot, by means of the pin and socket at the forward end, and by means of the support G at the rear end, is such that the mould-board turns freely, and can be used on either side as desired. *h* represents a flat spring attached to the under side of the plough-beam, and extending an equal distance on each side. Each end terminates in a hook, which fits into the holes *f'* in the mould-board. *i* also represents a spring, attached in the same manner as *h*, and before it, the ends of which terminate in a curve in a downward direction, against which the mould-board presses when hooked by the spring *h*, the function of which is to assist in turning the ploughshare and mould-board when desired.

The operation of my invention is as follows: The ploughman having reached the end of the furrow, and desiring to change sides, raises the spring *h* with his foot, and the spring *i* being thus allowed to act, throws the mould-board with considerable force, effecting a partial revolution. The handles being at the same time raised, and lifted to the proper side, the desired change is made quickly and easily. The mould-board in changing comes into its place with sufficient force to press in the spring *i*, and raise the spring *h* far enough to permit the latter to hook into the hole *f*, without effort on the part of the operator. The edge of the mould-board at this point is made slightly inclined to facilitate this operation.

The share and mould-board are so attached to each other by means of nuts that the former can be readily removed when desired, and its place filled by a duplicate. The share, when in position, fits snugly against the standard E, this arrangement giving strength and firmness where most needed. The share also is arranged in such manner that it acts as a coulter, its position being such that the wear will always have a tendency to keep it sharp. The mould-board F is of peculiar shape, it being such that there is no opportunity for the earth to cling to its surface. The angle between the lines of the mould-board and the plough-beam being less than ordinary, the force is exerted in a more direct line, and the mould-board kept always clean. The swell at the point *o* is sufficient to turn the earth properly.

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

1. The mould-board F, of shape described, and share M, when combined as set forth.
2. The springs *h* and *i*, when combined and operated as described.
3. The plough-foot D, mould-board F, share M, support G, standard E, and springs *h* and *i*, when combined and arranged substantially as described.

FRANKLIN WATSON.

Witnesses:

H. G. CLARK,
JOHN EARLY.