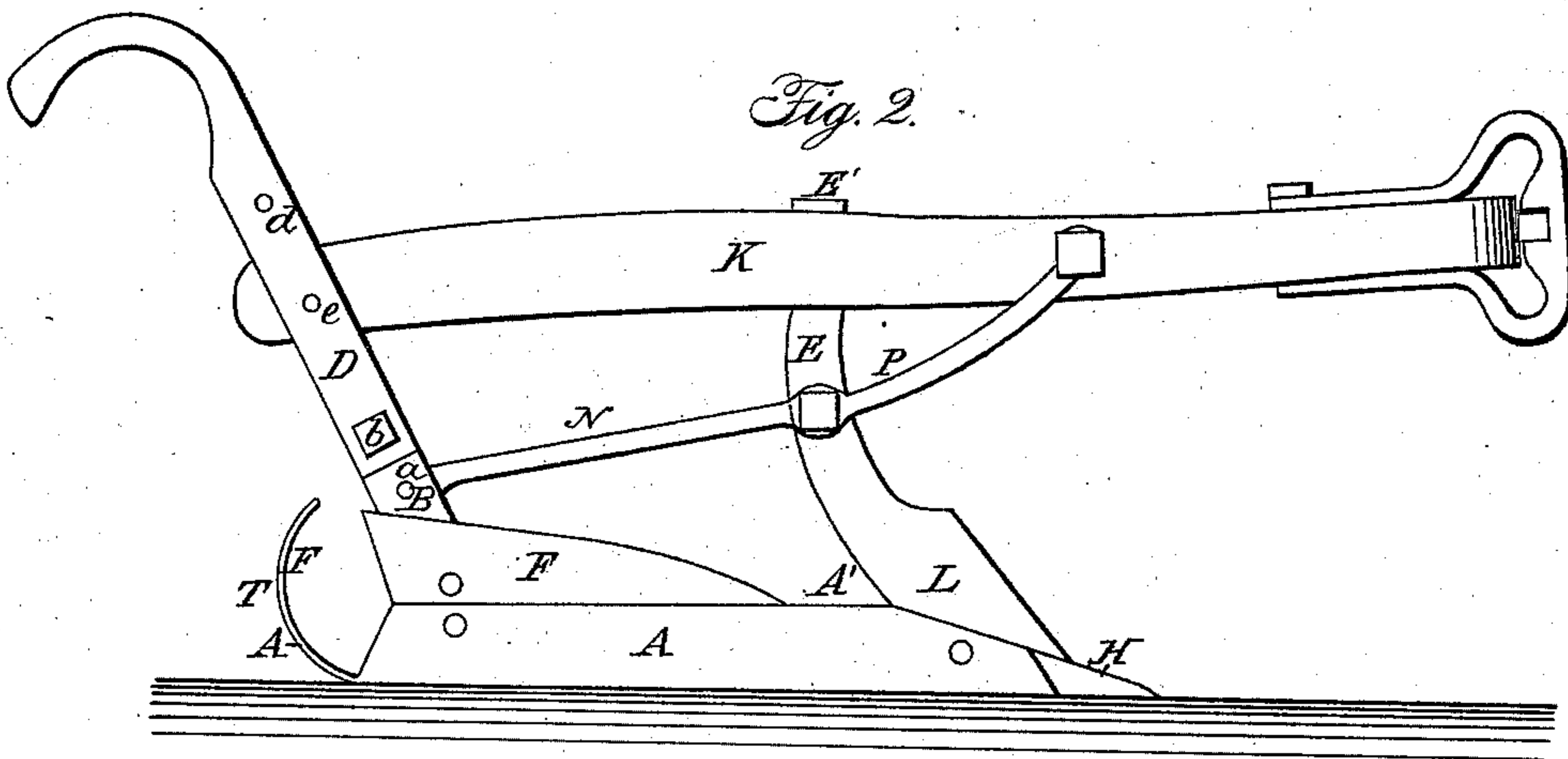
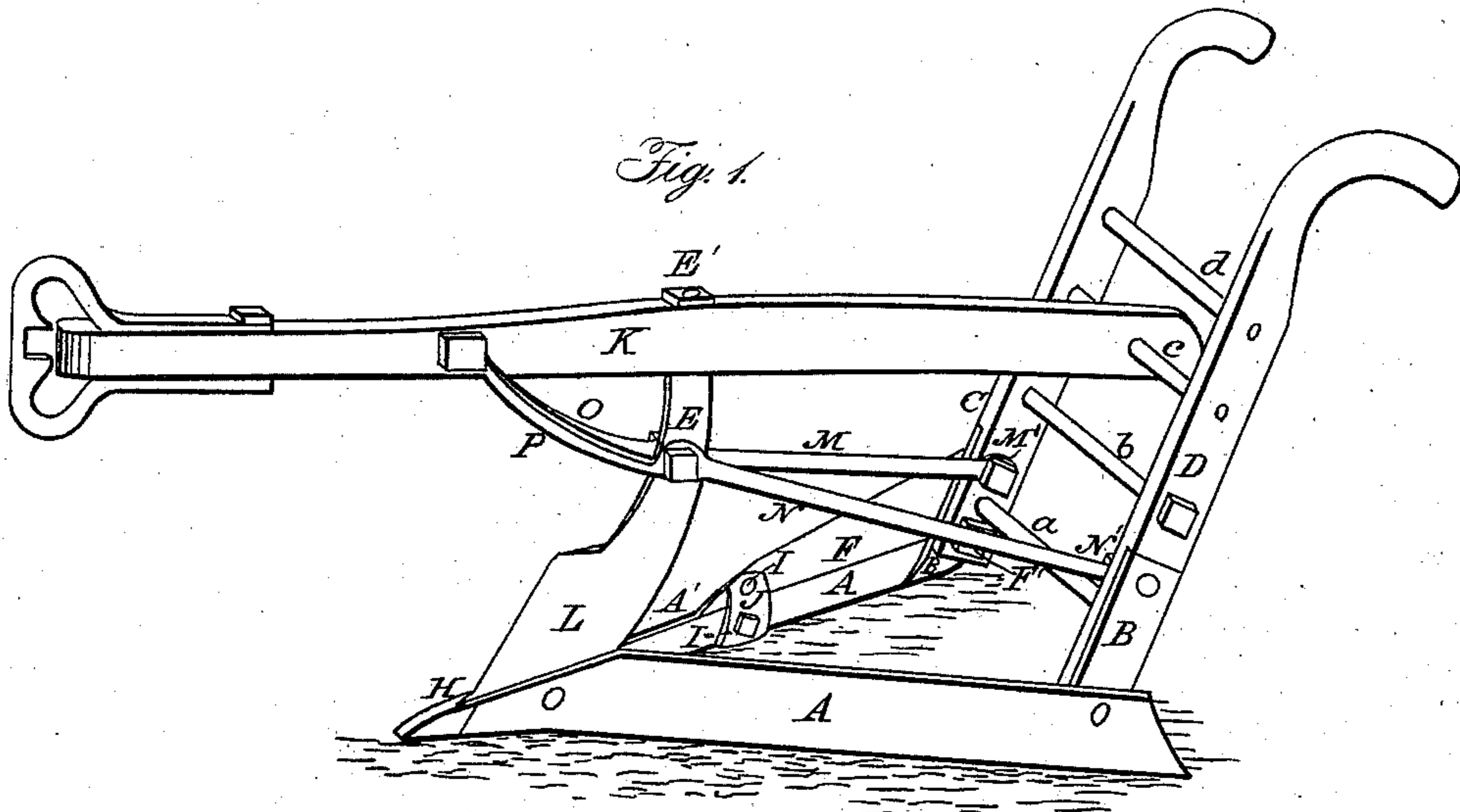


I. COOPER.

Shovel-Plow.

No. { 1.272, }
 { 32,276. }

Patented May 14, 1861.



Witnesses:

W. H. Burridge
Robert Brayton

Inventor.

Ira Cooper

UNITED STATES PATENT OFFICE.

IRA COOPER, OF SAYBROOK, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 32,276, dated May 14, 1861.

To all whom it may concern:

Be it known that I, IRA COOPER, of Saybrook, in the county of Ashtabula and State of Ohio, have invented new and useful Improvements in Cultivators; 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 drawings, making a part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a side elevation.

Like letters denote like parts in the two views.

The nature of my improvement relates to the herein described arrangement and construction of a cultivator operating as specified.

In Fig. 1, A A represent the lower mold-board, secured at the back to the lugs B B, and joined in front to the point H. The lugs B B are screwed to the outside of the handles C D.

E is the standard passing up through the beam K, and is kept firmly in place by the screw E'.

L is the colter, that terminates in the point H.

On one side, just above the lower mold-board, A, is represented an upper and adjustable mold-board, F, that is fastened to the lug B by the screw F', and is secured to the mold-board A by the metal piece J and screws I I.

M N are braces, extending from the standard E to the inside of the handles C D, where they are secured by screws M' N'.

O P are a continuation of the braces M N,

secured to the standard E and beam K by screws. *a b c d* are rods extending between the handles C D to keep them in place, one of them passing through the beam K.

There can be a mold-board on the other side of the cultivator, similar to F, if desired, or both of them can be removed if it is only required to cut down the weeds and not throw the earth so much on the hills.

T, Fig. 2, is an end view of the two mold-boards A and F, showing how they are curved, both of them being curved outward from the center.

The lower edges of the mold-boards A A are quite sharp, for the purpose of cutting off the weeds. Owing to the shape and position of the mold-boards A A and F, it is found in practice that the weeds are removed first and pass up over the mold-board A at A' between the mold-board F and standard E, while the earth collects on the mold-boards A F and is thrown onto the hills.

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

The special arrangement of the adjustable mold-board F, in combination with the mold-boards A A, space A', colter L, and braces P O M N, when arranged in the manner and for the purpose set forth.

IRA COOPER.

Witnesses:

W. H. BURRIDGE,
ROBERT BRAGTON.