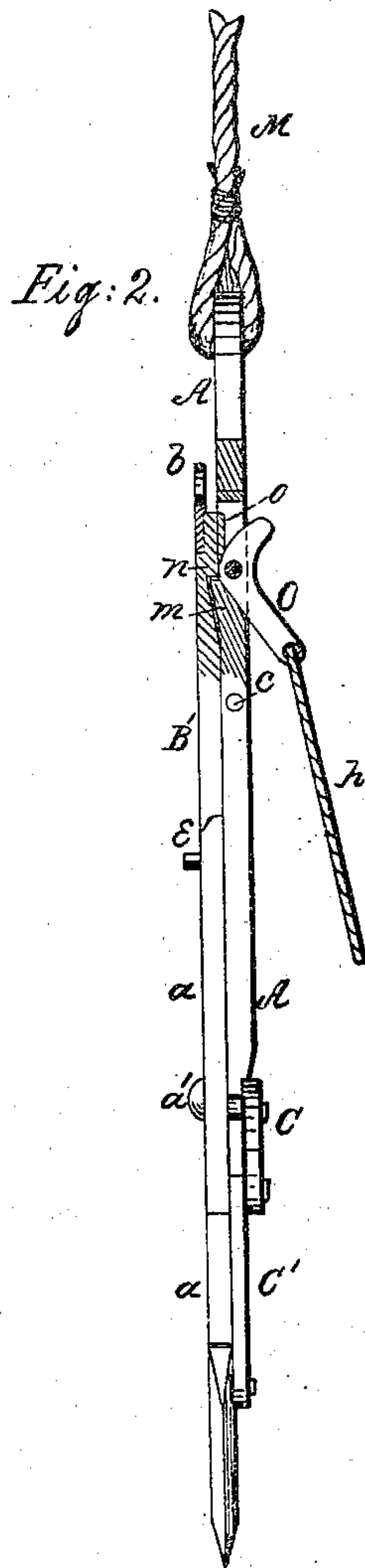
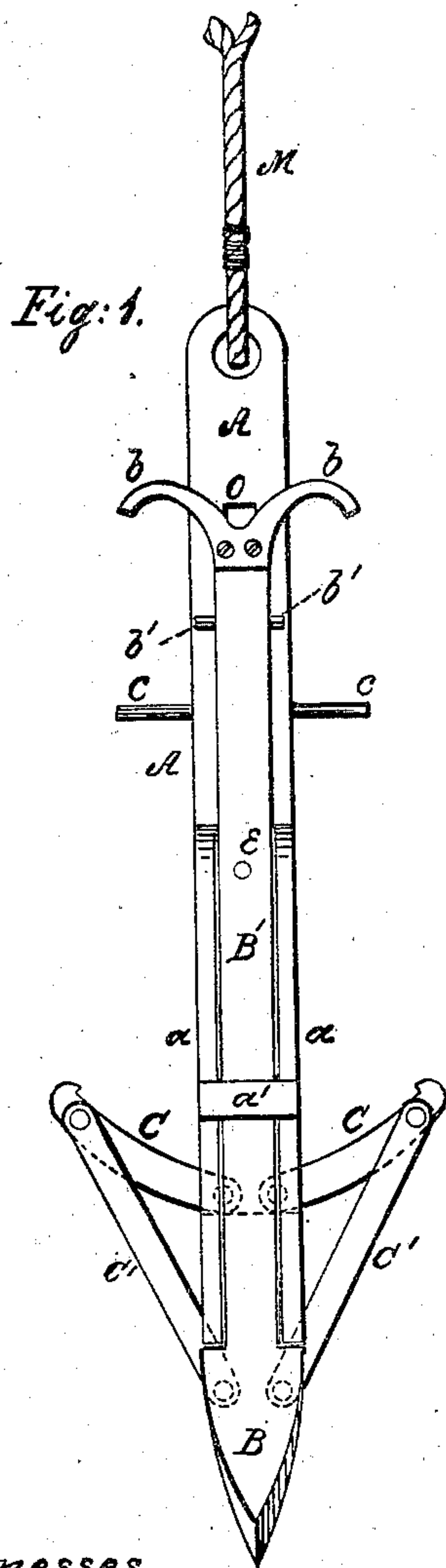


B. F. ALEXANDER.

Horse Hay-Fork.

No. 91,998.

Patented June 29, 1869.



Witnesses.
C. A. Pettit
S. Channon.

Inventor.
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United States Patent Office.

BENJAMIN F. ALEXANDER, OF GLEN HOPE, PENNSYLVANIA.

Letters Patent No. 91,998, dated June 29, 1869.

IMPROVEMENT IN HORSE HAY-FORKS.

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, BENJAMIN F. ALEXANDER, of Glen Hope, in the county of Clearfield, and State of Pennsylvania, have invented a new and improved Horse Hay-Fork; and I do hereby declare that the following is a full, clear, and exact 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 rear elevation, and

Figure 2, an edge view, the blue portion being shown in section.

This invention relates to that class of forks in which is employed a piercing-instrument that slides upon a stock, and operates in connection with a locking-device, and with arms that are thrown out and drawn in by its movement.

My improvement consists in the peculiar construction and arrangement of the operating-parts, whereby the instrument is made stronger, less costly, and more convenient of operation than heretofore.

In the drawings—

A represents the stock, B, the point, and B', the shank of the spear, the latter part sliding between guides *a a a'*, attached to the stock.

C C, two curved arms jointed to the stock.

C' C', two straight arms, jointed at their lower end to the spear-head B, and articulated at their upper end to the outer end of the arms C C, as shown in fig. 1.

b b b', the handles of the spear, by which it can be slid upon the stock.

c c, similar handles attached to the part A, for convenience in moving it, and thrusting the instrument into the hay.

e, a stop, to limit the sliding movement of the part B B'.

m, fig. 2, a shoulder projecting outward from the stock.

n, a hook or shoulder on the shank B', which, when the shank is slid up to its full extent, locks over the shoulder *m*, and confines it in that position; and

O, an eccentric-lever, operating through a slot, *o*, against the upper end of the shank B', as seen in fig. 2, for the purpose of unlocking the parts *m n*, and dropping the hay, the natural "spring" of the shank B' keeping said parts firmly locked when they are not forced apart by the lever.

The arms C C are intended not only to throw out and draw in the arms C' C', but also to support and strengthen them under the heavy load of hay which they are required to lift.

The operation of this hay-fork is very simple and convenient.

The fork is extended to its full length. It is then thrust into the hay as far as possible by hand, and, if necessary, the workman can step on the pins *c c*, and thereby force it down still further. The handles *b b* are then drawn up to "set" it.

The whole instrument, with its load of hay, is then raised, by means of the rope M, to the required position, when the lock *m n* is operated by a slight pull on the cord *r*, and the hay is dropped.

The device is simple in construction, and so strong and durable that it will last a long time, and operate perfectly.

Having thus described my invention,

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

The slide B', provided with the pointed head B, handles *b b*, and shoulder *n*, in combination with the fixed part A, having the arms *c c* and shoulder *m*, the arms *c' c'*, articulated to the head B, the arms *c c*, articulated to the parts A and *c' c'*, and the eccentric-lever *o*, pivoted in a slot in the part A, and operating against the inner face of the part B', all constructed, arranged, and operating together, substantially in the manner and for the purpose set forth.

BENJN. F. ALEXANDER.

Witnesses:

T. B. METZ,

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