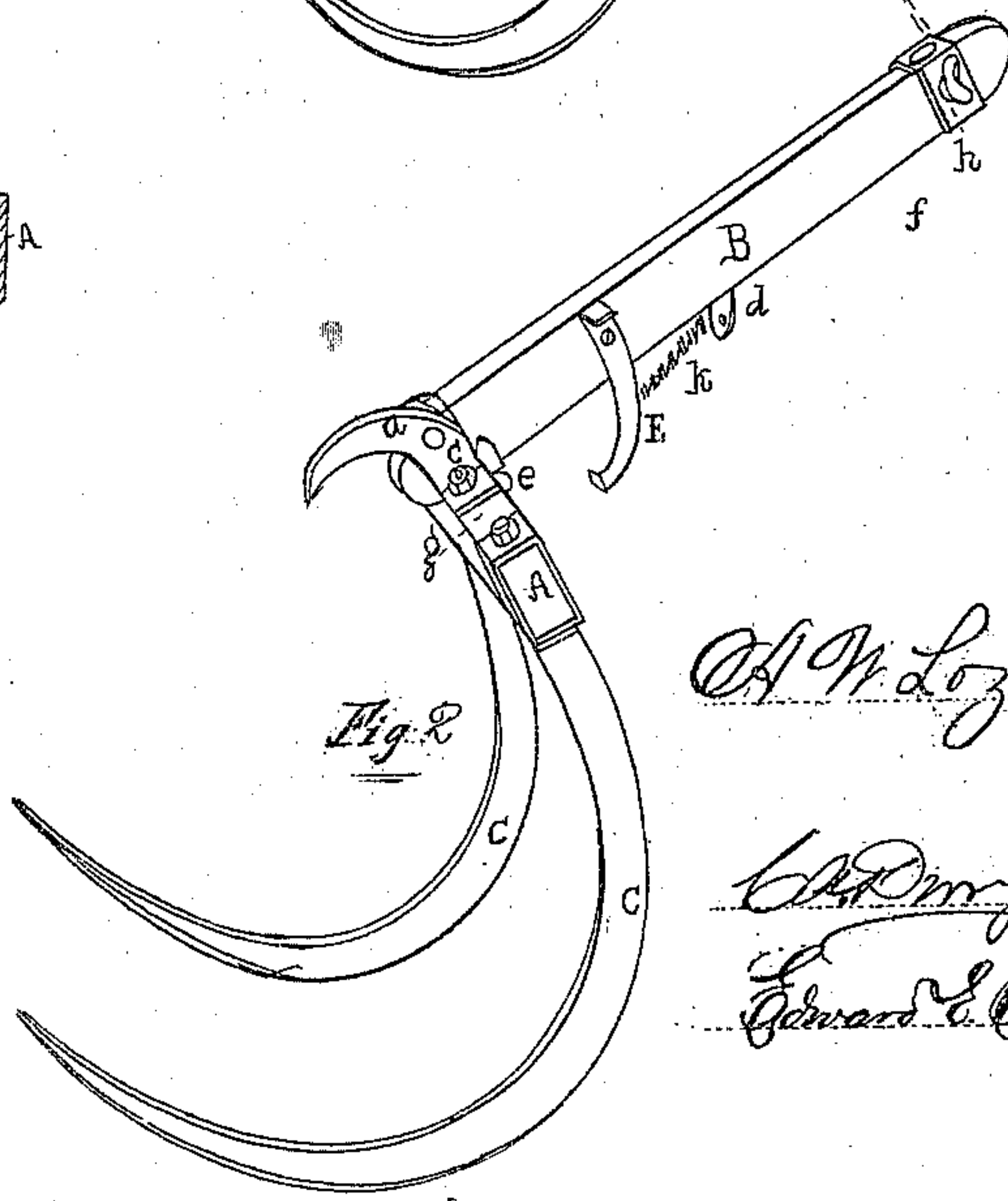
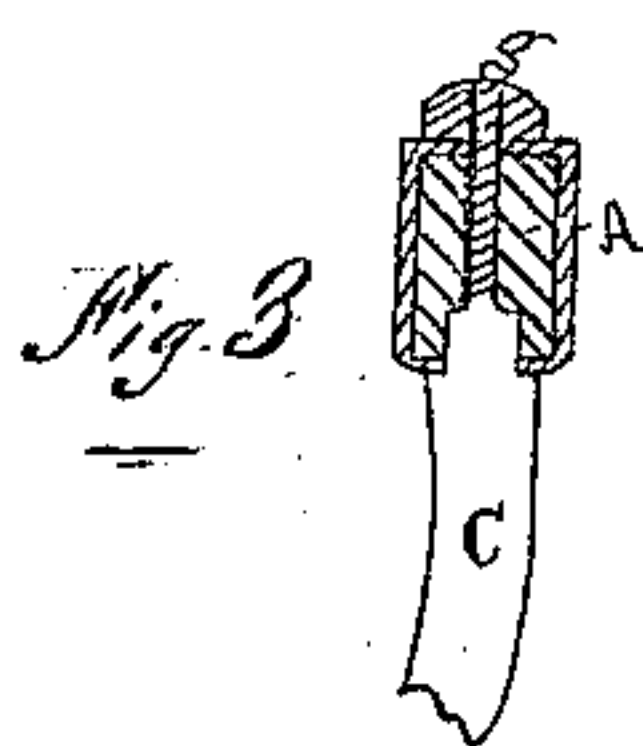
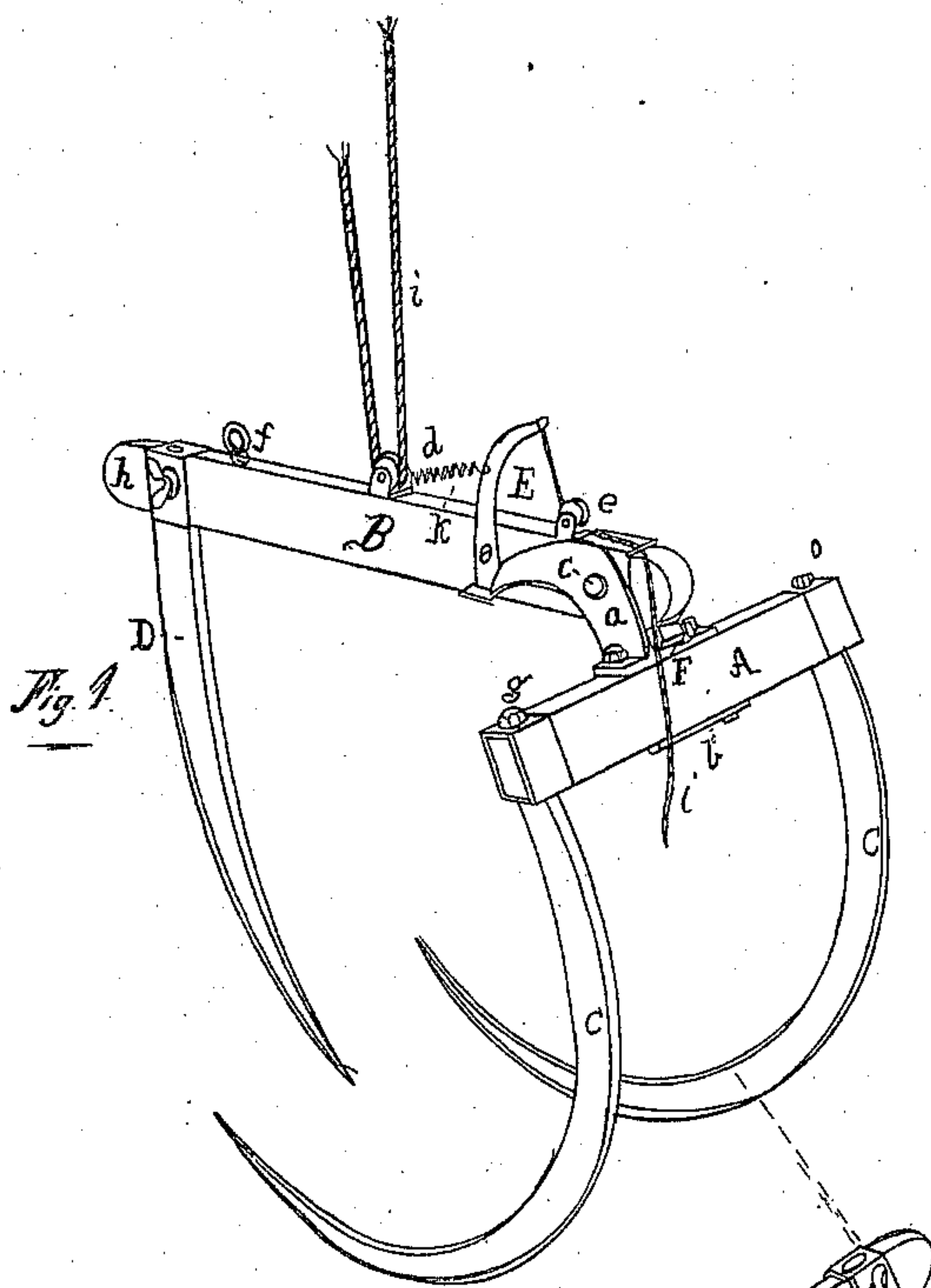


A. W. Lozier.
Hay Fork.

No. 88,397.

Patented Mar. 30. 1869.



A. W. Lozier } *Inventor.*
Wm. D. M. Jones } *Witnesses.*
Edward C. Gibson

United States Patent Office.

ABRAHAM W. LOZIER, OF NEW YORK, N. Y.

Letters Patent No. 88,397, dated March 30, 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, ABRAHAM W. LOZIER, of the city, county, and State of New York, have invented certain new and useful Improvements in Hay-Elevating Forks; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a view of my fork when closed, to grasp the load to be elevated.

Figure 2 is a view of the same when opened, to be thrust into the hay.

Figure 3 is a sectional detail view.

Similar letters of reference indicate like parts in the several drawings.

This invention is an improvement upon the hay-elevating fork for which Letters Patent were granted to me, December 1, 1868, No. 84,559, and consists in a novel arrangement and combination of the fork with the head, so that the latter may be readily used as the handle by which to manipulate the fork, as well as to hoist the load.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

A represents the head, in which the tines C C are firmly secured, in the manner represented in fig. 3.

A plate, F, formed of one piece of metal, is bolted to this head, and constitutes a hinge for the bar B, which is pivoted to it by the bolt c.

The third tine, D, fits in a socket in one end of the bar B, and is held in place by a set-screw, h.

On the bar B are secured the pulleys d e f, and to it is pivoted the tripping-lever E, held in position by the coil-spring k, and operated by the rope j.

The curved end a of the plate F rests on a ledge on the end of the tripping-lever, and holds the grasping-tines C in proper position to retain the load.

The pulley e is secured to the bar B in such position as to form a stop when the bar is turned back, whereby

it is held in a rigid position with respect to the head A, and forms a handle in operating the fork.

The fork being attached to the hoist-rope i, it is operated as follows:

The operator, having turned the bar B back until the stop e strikes against the head, grasps it with one hand, and seizing one of the tines, C, with the other, thrusts the two tines into or under the hay; then, by throwing the bar B over the tine D, cuts into the hay, and the ledge on the end of the tripping-lever E springs into place, beneath the catch a, so that when power is applied to the hoist-rope, the several parts of the fork are held in their proper positions to grasp and retain the load.

When the load has been raised to the desired height, it is released from the fork by pulling the tripping-rope j, and withdrawing the lever E from beneath the catch a. The weight of the hay opens the fork, and causes the load to discharge itself.

The fork is designed to be used also with two tines, the third one, D, being removed from the bar B when it is desired to work the fork with less power, or where the hay is long, or matted and entangled together, and when so used, the fork is attached to the hoist-rope by means of the pulley f.

It will be evident that a hay-fork as described, though very simple in construction, and composed of few parts, is yet very effectual in operation, not liable to become disarranged, and easily manipulated.

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

The arrangement and combination of the fork-tines C C, fork-head A, pivoted hoist-bar and handle B, plate F, and catch E, the whole constructed and operating substantially as described.

A. W. LOZIER.

Witnesses:

C. A. DURGIN,
EDWARD E. OSBORN.