E. T. STOUGHTON.

HORSE HAY-FORK.

No. 178,810. Patented June 13, 1876.

Fig. 1.

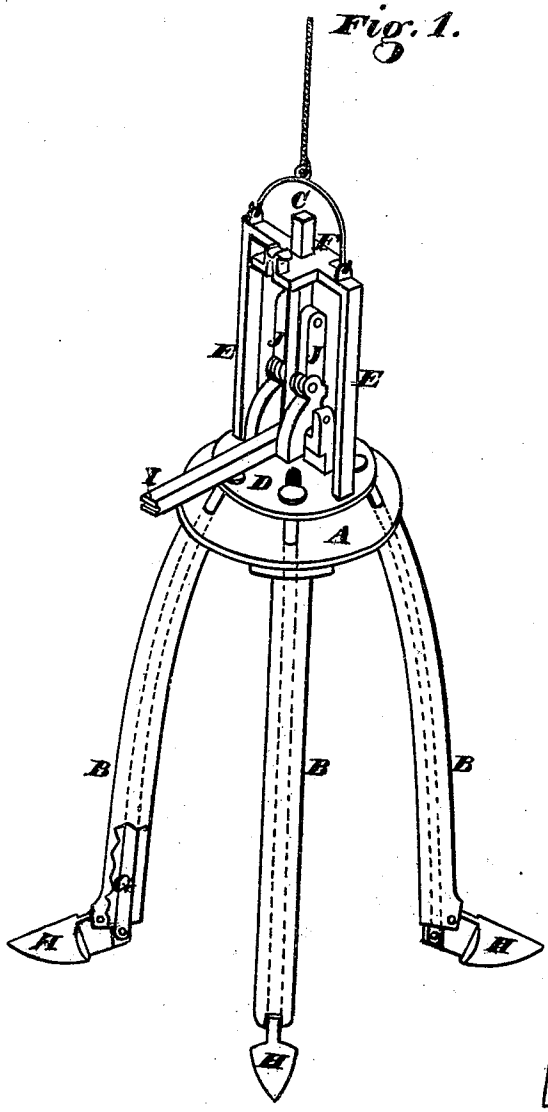
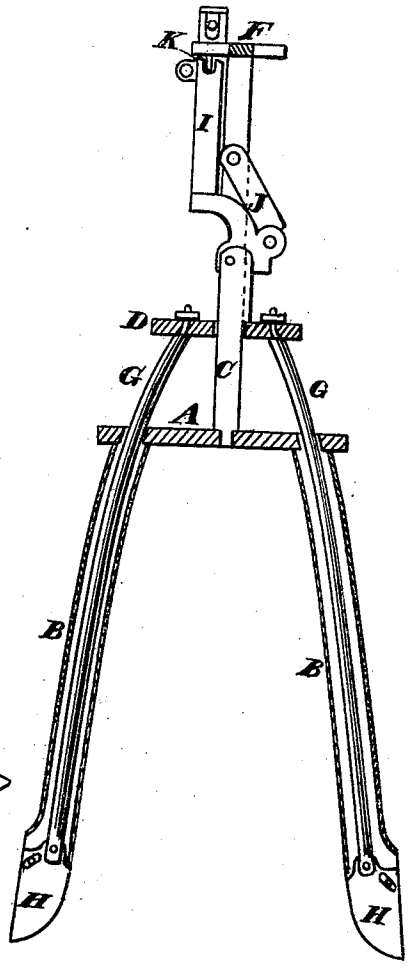


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

ELI T. STOUGHTON, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN HORSE HAY-FORKS.

Specification forming part of Letters Patent No. **178,810**, dated June 13, 1876; application filed October 29, 1875.

To all whom it may concern:

Be it known that I, ELI T. STOUGHTON, of San Francisco city and county, State of California, have invented a Horse Hay-Fork; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to certain improvements in the construction and operation of machines by which large masses of hay are clasped and held until they can be elevated and transferred to the proper point, where they are deposited.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my fork. Fig. 2 is a sectional elevation.

A is a plate, made circular or in other convenient shape, and having the hollow legs B B projecting downward like a tripod. A standard, C, extends upward from this plate, to which it is secured, and another disk or plate, D, somewhat smaller than the first, is fitted to slide upon the standard. Two arms, E, project upward from this plate at opposite sides, and are united by a cross-bar, F, at the top. This bar is also fitted to slide upon the standard, and serves as a guide to the plate D in its movements. The hollow legs B have each a rod, G, passing through them, and these rods are hinged at the bottom to a peculiarly-pointed lug or projection, H. These lugs are made so as to form a continuation of the legs B when they are closed up, and they have their outer sides hinged to the leg, while the inner sides are connected with the rods G, by which they are operated about the outer hinge, so that, when the rods G are forced down, the lugs will be turned outward, so as to stand nearly at right angles with the legs. In order to allow this motion the outer edge is slotted, so that a movement back and forward will be allowed on the outer hinge-pin as the rods G are pushed down or drawn up. A lever, I, is supported by standards upon the plate D, and has one end connected by links J with the standard C, so that, when turned down, it forces the plate D close to the plate A, and by thus pushing the rods G down the lugs H are turned outward.

When the lever I is turned up it separates the plates, and draws the rods G upward, thus turning the lugs H, so that they will stand in a straight line with the legs, of which they then appear to form a part. The lever I is locked in this position by means of a pin, K, which passes through a projection from the cross-bar F, and falls into a slot made in the end of the lever, as shown.

The whole device is suspended by a rope from the top of the cross-bar F, and by this it is lifted and moved about a derrick, in the usual manner.

The operation will then be as follows: The lever I being locked in its position, the legs B and the pointed lugs H will stand in a line. In this position it is plunged into the hay to be moved, and when into the full depth the lever I is unlatched and pulled down, thus moving the plate D and rods G, and turning the points H outward, so as to project into and hold the hay until it has been lifted and moved to its destination, when, by moving the lever back to its vertical position, the points H will be again moved into line with the legs, and thus release the machine, which can be withdrawn from the hay.

As the rods G converge toward the top the plate D must be slotted radially where they pass through it, so that the rods G may move out and in as the plate is raised and lowered.

In the present case I have shown but three of the legs or fork-tines B; but it will be manifest that any number may be used, and they may be of any length or spread desired.

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

The hollow tines B, provided with curved slotted lugs H, in combination with the internal rods G, plate A, movable slotted plate D, standard C, links J, lever I, and yoke E F, all constructed, arranged, and operated as described.

ELI T. STOUGHTON. [L. S.]

Witnesses:
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