

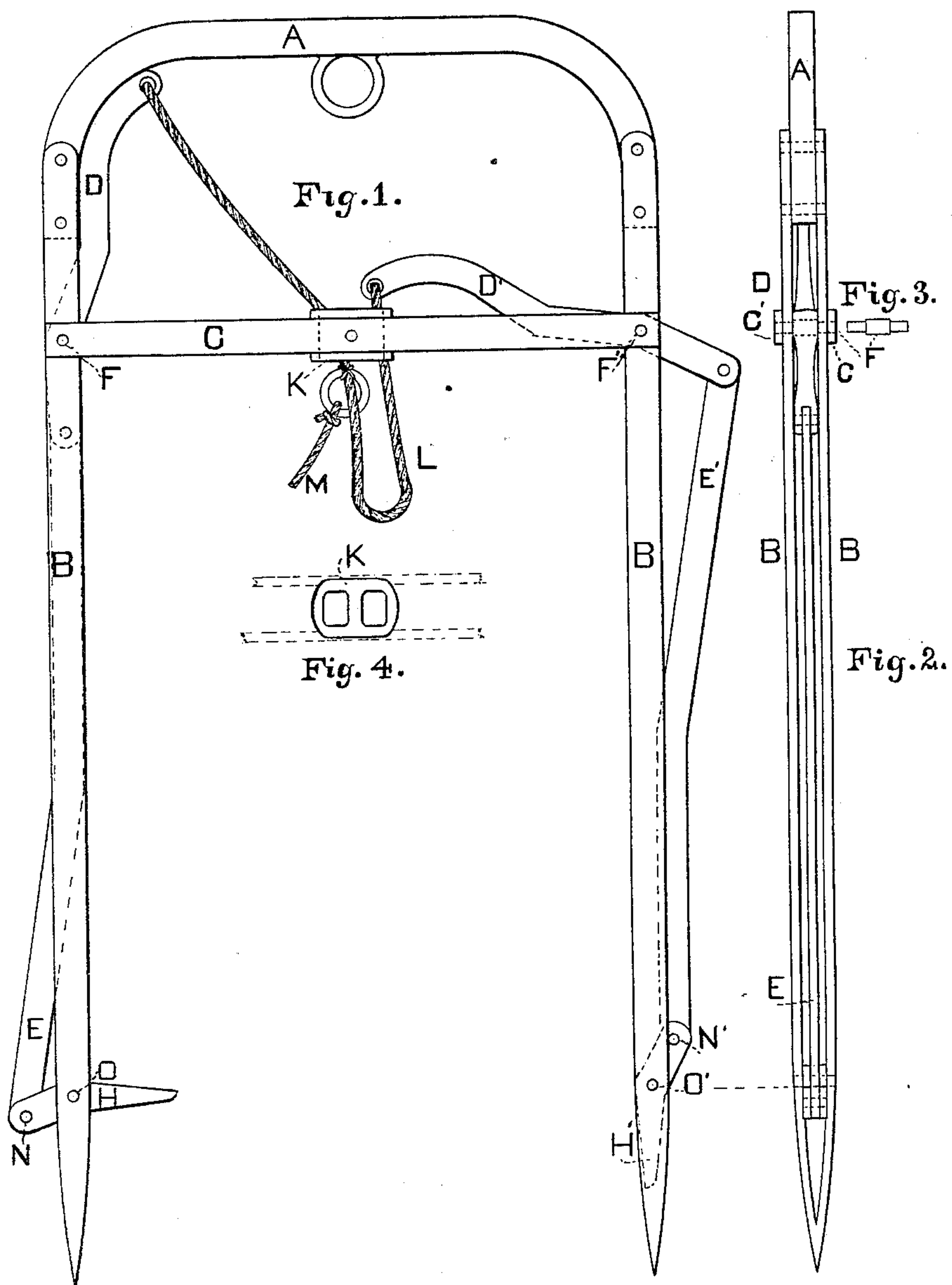
(No Model.)

W. H. BURNHAM & C. H. HALEY.

HAY FORK.

No. 318,416.

Patented May 19, 1885.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. BURNHAM AND CHARLES H. HALEY, OF BATAVIA, ILLINOIS,
ASSIGNORS TO THE UNITED STATES WIND ENGINE AND PUMP COM-
PANY, OF SAME PLACE.

HAY-FORK.

SPECIFICATION forming part of Letters Patent No. 318,416, dated May 19, 1885.

Application filed January 2, 1885. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. BURNHAM and CHARLES H. HALEY, citizens of the United States, residing at Batavia, county of Kane, and State of Illinois, have jointly invented a new and useful Improvement in Hay-Forks, of which the following is a specification.

Our improvements relate to what is commonly termed "double-harpoon hay-fork." The object of our improvements is to overcome certain defects inherent therein, and to enable us to make an easy-working fork with a minimum amount of material and labor.

In the annexed drawings, which form a part of this specification, Figure 1 is a complete side view of our fork with one arm in position to be thrust into the hay, and the other in position to secure the load thereon. Fig. 2 consists of a complete edge view of same. Fig. 3 is the milled stud-rivet and fulcrum, which will be more fully explained hereinafter. Fig. 4 is our double-eyed rope-guide, which constitutes one of the features of our invention.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents the top or yoke of the frame, formed from flat bar-iron with curved ends, to which the legs or prongs are secured.

B and B' are the prongs, formed by welding two flat bars of iron together at one end and drawn out to form the points or thrust-ends of the prongs. The remainder of the prongs throughout are constructed with a space between them to admit of other parts of the mechanism, as hereinafter described.

C and C' are the tie-bars, also used to sustain the eye hereinafter described.

D and D' are the levers to trip or lock the fork, the upper ends formed to fit the under side of the curved yoke to be protected thereby, and also to bring them more centrally over the eyes.

E and E' are the links that connect the levers with the barbs.

F and F' are the stud-rivets, milled down on each end the proper distance to pass through the prongs and the tie-bars on each end. Thus we are enabled to rivet the two sides of the prongs rigidly to the tie-bars, and allowing

sufficient space between the shoulders to admit of the free use of this space for a fulcrum for the levers D and D'.

H and H' are the barbs, designed, with the aid of the links E and E' and the levers D and D', to secure the load to the fork when thrust into the hay, and to release it when carried to the desired location.

K is the double-eyed rope-guide, constructed with separate eyes, to prevent the ropes leading to the two levers D and D' from becoming twisted and entangled with each other, as they frequently do when the single-eyed guide is used. Where new rope is employed, this difficulty detracts materially from the effective working of the fork, as in the entanglement of the two ropes it invariably happens that one rope will be shorter than the other and trip one side and leave the other side without tripping, as the shorter rope will receive all of the exertion communicated to the tripping-rope by the operator.

L is the trip-rope, communicating with the levers D and D'.

M is the manipulating-rope, communicating between the operator and the trip-rope on the fork.

N and N' are the rivets connecting the links E and E' with the barbs H and H'.

O and O' are the rivets used as the fulcrums for the barbs H and H'.

Having described the different parts of the fork, as indicated by letters, we will give you the mode of operating the same. Press the levers D and D' down into the position as shown at D' in Fig. 1. This action causes the barbs H and H', through the agency of the links E and E', to close within the space between the sides of the prongs B and B', thus leaving the points free of obstruction. Then thrust the prongs into the hay to the desired depth, and raise the levers D and D' into the position as shown at D in Fig. 1. This action of the levers D and D' is communicated by the links E and E' to the barbs H and H', causing them to turn into the position as shown at H in Fig. 1. In this position the fork retains the load until it is lifted into the mow or other desired place. By drawing the rope M the levers D and D' are drawn down into the posi-

tion as shown at D' in Fig. 1. When the load is released, the fork may be drawn back to the operator by the rope M.

Having thus described our invention, what we claim as new, and wish to secure by Letters Patent, is—

1. In a hay-fork, the double-eyed rope-guide K, in combination with the rope L, and levers D and D', substantially as shown and described.
- 10 2. In a hay-fork, the stud-rivet F, milled on the end when used as a fulcrum and rivet, in combination with the levers D and D' and rope L, for the purpose specified.

3. In a hay-fork, the levers D and D', curved to fit the internal curve of the yoke A, in combination with the rope L, rope-guide K, links E and E', and fulcrum F and F', substantially as shown and described.

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