

(No Model.)

J. W. PROVAN.

HAY FORK.

No. 360,783.

Patented Apr. 5, 1887.

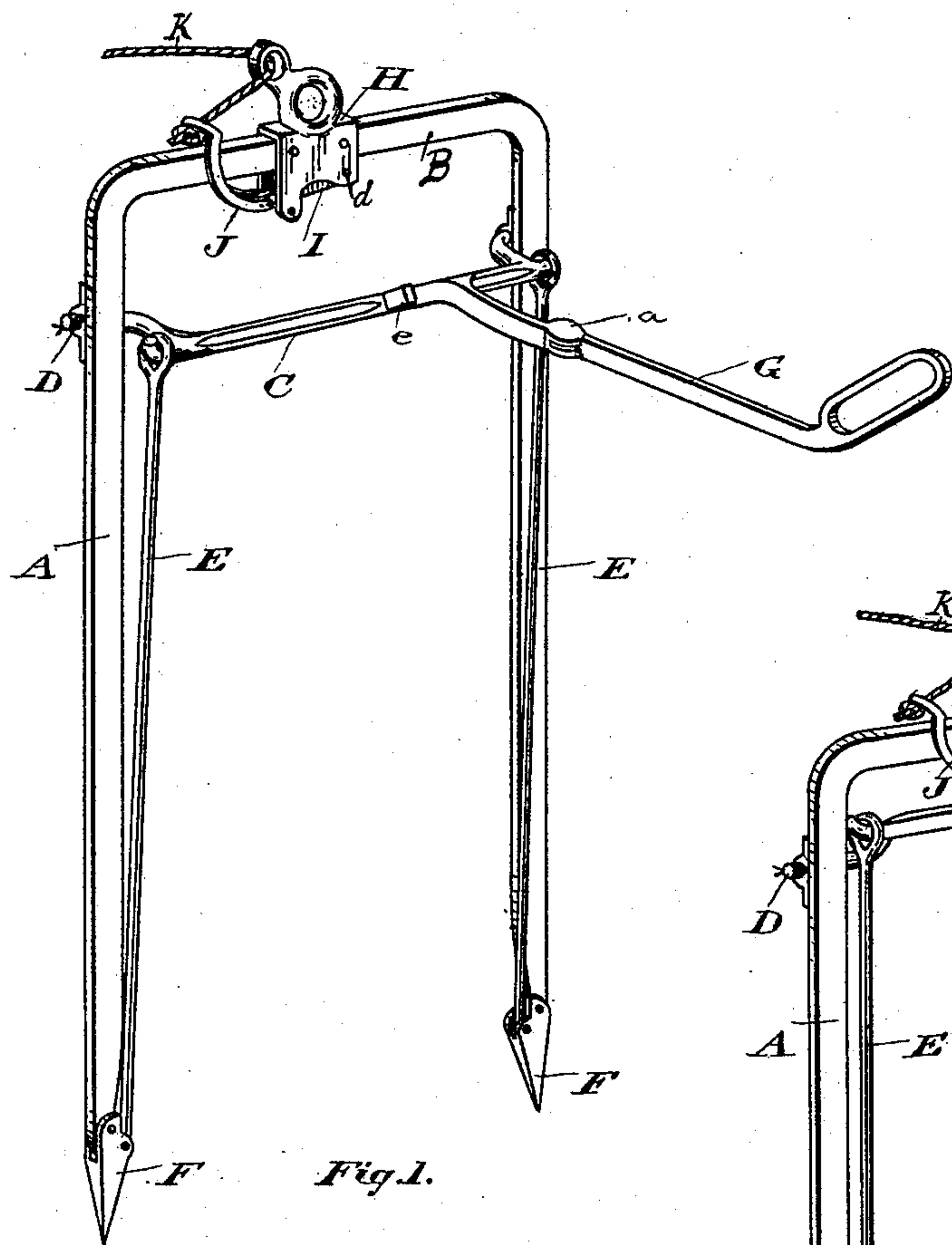


Fig. 1.

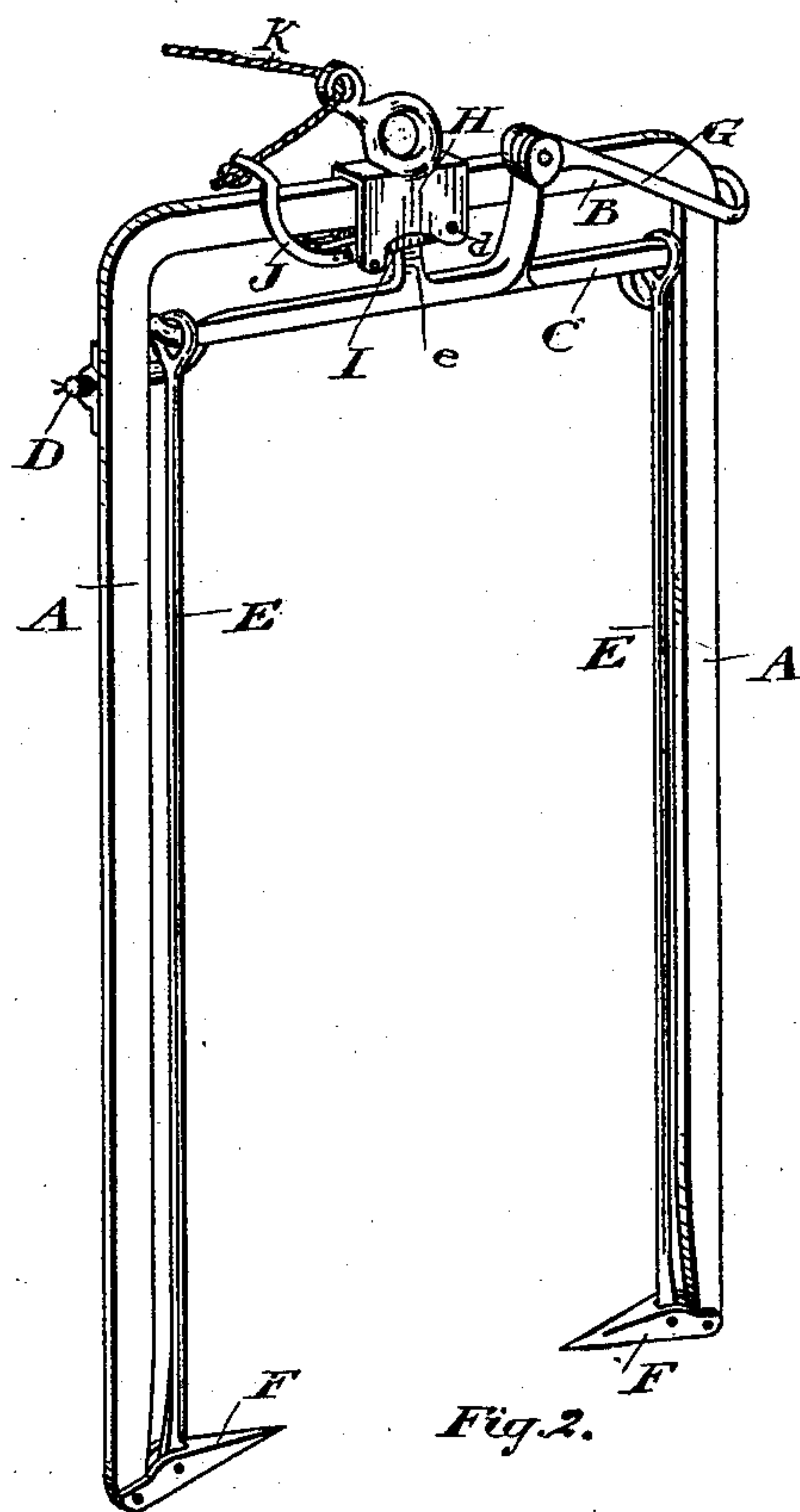


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES W. PROVAN, OF OSHAWA, ONTARIO, CANADA.

HAY-FORK.

SPECIFICATION forming part of Letters Patent No. 360,783, dated April 5, 1887.

Application filed September 2, 1886. Serial No. 212,500. (No model.)

To all whom it may concern:

Be it known that I, JAMES WHITE PROVAN, of the town of Oshawa, in the county of Ontario, in the Province of Ontario, Canada, manufacturer, have invented certain new and useful Improvements in Hay-Forks, of which the following is a specification.

The object of the invention is to design a double harpoon horse hay-fork which will carry the hay close to the lifting ring or bracket and yet be provided with a lever, by which it may be operated with the least possible exertion; and it consists, essentially, first, in jointing the lever for lifting the harpoon-points, so that it may be folded down out of the way of the car after the harpoon-points have been set; secondly, in connecting the harpoon-points to a crank-bar offset from the journals, which carry and connect it to the prongs of the fork, the whole being arranged substantially as and for the purpose hereinafter more particularly explained.

Figure 1 is a view of the fork set to enter the hay. Fig. 2 is a view of the harpoon-points set to lift the hay.

In hay-forks as now generally made either the lever for operating the harpoon-points is made so short as to require considerable exertion to set the points, or the crank-bar for operating the points is set so low down on the prongs that a considerable space which should be occupied by the hay is lost. By my peculiar construction I am able to place the crank-bar for operating the points close to the top or cross bar of the fork and am yet able to have a long lever, by which the harpoon-points may be operated with ease.

In the drawings, A represents the prongs of the fork connected together by the cross-bar B, the prongs and cross-bar being made out of one piece of metal.

C is a crank-bar offset from its journals, D, which support and connect it to the prongs A, as shown.

E are rods, connected at their upper ends to the crank-bar C, as indicated, their other ends being connected to the harpoon-points F.

G is a lever, connected to the crank-bar C, and jointed at *a*.

H is a bracket, rigidly secured to the cross-bar B, and projecting below the said cross-bar.

The latch I is pivoted at *d* to the bracket H, between the sides of the said bracket.

J is a trip-lever having an eye formed on its upper end to engage with the trip-rope K. From this eye the trip-lever J extends on either side of the cross-bar D, and at its lower end is rigidly fastened to the latch I.

e is a tongue formed on the crank-bars C, and is designed to engage with the latch I when the fork is set, as shown in Fig. 2.

Among the advantages of my invention which will be appreciated is the fact that in pressing my improved fork into the hay to secure a load an upward pressure is exerted on the crank-bar C, and that when the lever G is pulled upon, in order to throw the harpoon-points F into the position they are shown in Fig. 2, the upper pressure of the hay on the said crank-bar C assists in forcing it up.

What I claim as my invention is—

1. The combination, with the mechanism for operating the harpoon-points of a hay-fork, of a jointed lever attached to the crank-bar C and adapted to fold at right angles to the length of the prongs, substantially as and for the purpose specified.

2. The offset crank-bar C, journaled on the prongs A, and provided with the jointed lever G, in combination with the rods E and harpoon-points F, substantially as and for the purpose specified.

3. The combination, with the harpoon-points, the prongs, and means for operating said points, of the bracket H, secured to the cross-bar B, and the latch I, pivoted to said bracket and provided with a lever, J, substantially as and for the purpose specified.

4. The offset crank-bar C, journaled on the prongs A, and connected to the harpoon-points F by the rods E, a tongue, *e*, formed on the crank-bar C, in combination with the latch I, pivoted at *d* between the sides of the bracket H, and connected to the trip-rope K by the trip-lever J, substantially as and for the purpose specified.

Toronto, August 25, 1886.

JAS. W. PROVAN.

In presence of—

CHARLES C. BALDWIN,
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