

(No Model.)

J. G. KANOUSE & R. MILLER.

HAY FORK.

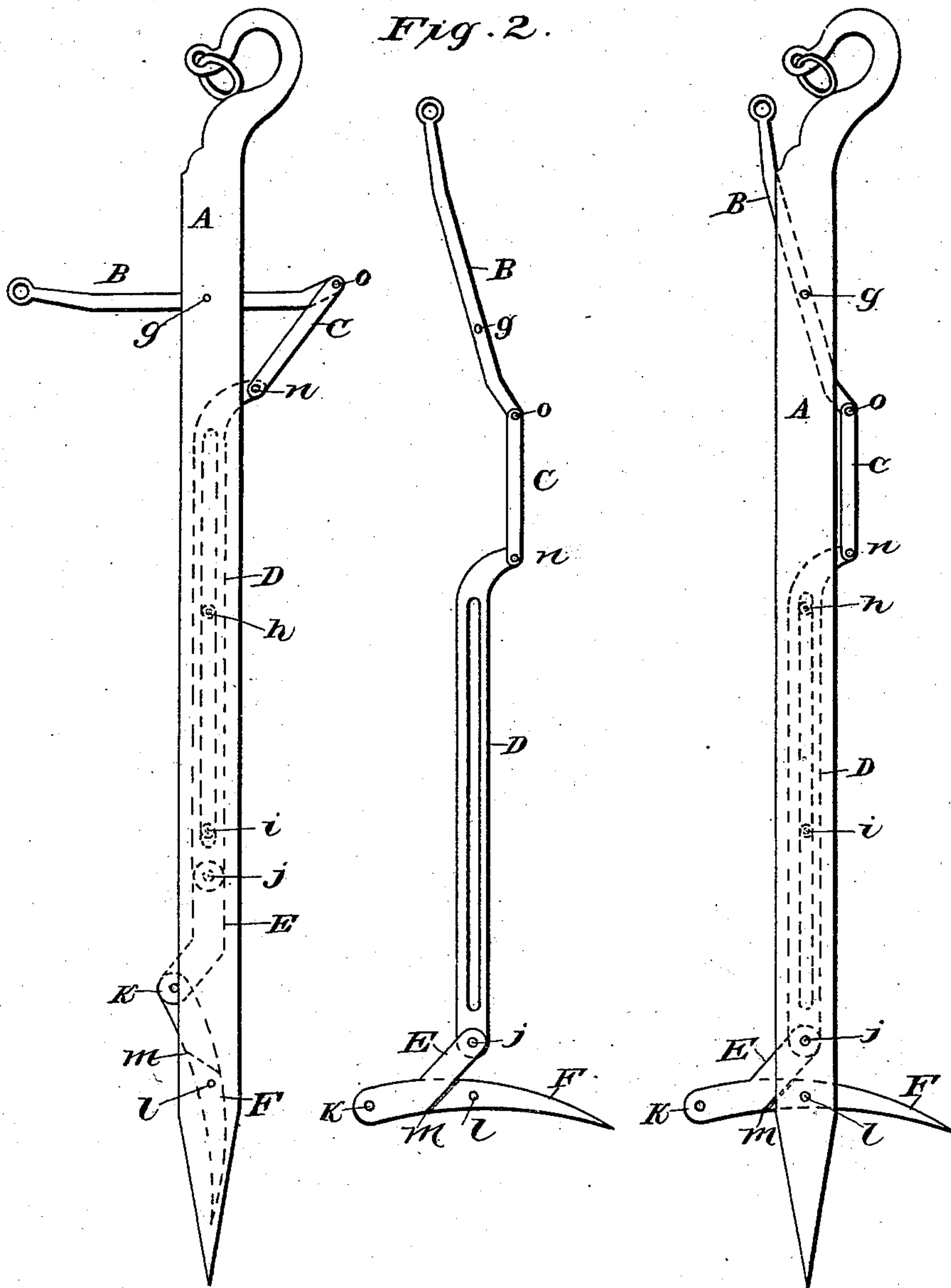
No. 294,050.

Patented Feb. 26, 1884.

*Fig. 1.*

*Fig. 3.*

*Fig. 2.*



Witnesses:

*G. G. Fellows*

*A. W. Kanouse*

Inventor:

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# UNITED STATES PATENT OFFICE.

JOHN GEORGE KANOUSE AND RICHARD MILLER, OF APPLETON, WISCONSIN.

## HAY-FORK.

SPECIFICATION forming part of Letters Patent No. 294,050, dated February 26, 1884.

Application filed March 15, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN GEORGE KANOUSE and RICHARD MILLER, citizens of the United States, residing at Appleton, in the  
5 county of Outagamie and State of Wisconsin, have invented a new and useful Hay-Fork, of which the following is a specification.

Our invention relates to improvements in hay-forks in which a slotted sliding bar moves  
10 parallel with a slotted vertical shaft, and, in conjunction with short supplemental bars, causes a curved metal bar to move from a vertical to a horizontal position, and from the horizontal back again to the vertical, thereby af-  
15 fording a resisting-surface on either end of said curved metal bar.

The objects of our improvements are, first, to provide a resisting-surface on either end of one metal bar; second, to afford a simpler  
20 and stronger device than is afforded where two prongs are required to do the same work; third, to produce a resisting-surface on either side of a shaft by use of one metal bar, thereby utilizing all the material in said bar; and,  
25 fourth, to introduce a plan whereby a lighter shaft may be used to effect the same work, having a resisting-surface on either side, and the pressure being equal. The shaft will not spring or bend, as is the case where a resisting-  
30 surface is presented only on one side of said shaft. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical view showing position  
35 for entering the hay. Fig. 2 is a vertical view of lever and bars pivoted as they appear when working in slotted vertical shaft, as in Fig. 1. Fig. 3 is a vertical view showing position of fork in the hay.

40 Similar letters refer to similar parts throughout the several views, small letters referring to rivets and pivots.

A is a slotted vertical shaft, provided with a hook at top end, to which the rope is at-  
45 tached for operating the fork, and furnished with a point at lower end, with which to penetrate the hay.

B is a lever pivoted to shaft A at *g* and to bar C at *e*.

50 C is a supplemental bar, pivoted at one end to lever B and at the other end to slotted sliding bar D.

D is a slotted sliding bar, pivoted at its upper end to supplemental bar C, and moving  
55 on rivets *h* and *i*, and pivoted to supplemental

angle-bar E at lower end. Bar D is made to move vertically and parallel with shaft A by means of lever B and bar C, being held in position by said rivets *h* and *i*.

E is a supplemental angle-bar, pivoted to  
60 slotted bar D at *j* and to curved bar F at *k*.

F is a curved bar, furnished with a shoulder at M, and pivoted to supplemental angle-bar E at *k* and to shaft A at *l*. The position of curved bar F is regulated by the movement of  
65 angle-bar E, working conjointly with bars D and C and lever B.

The operation of our invention is as follows: The lever B being pressed downward until at right angles with shaft A, the supplemental  
70 bar C, the slotted sliding bar D, and the supplemental angle bar E will be raised, and the curved bar F will be moved from a horizontal to a vertical position. The shaft will now be allowed to descend upon the hay. The point  
75 will penetrate and may be forced into the hay the desired depth by pressure on lever B. Said lever B must now be raised to its former position, and, by its conjoint action with bars C, D, and E, the curved bar F will again be forced  
80 into a horizontal position, and all the hay caught by the projecting ends of said curved bar F on either side of shaft A may now be raised by the rope attached to hook of said shaft A. The hay will be discharged by lower-  
85 ing the lever B again to its first position. The angle-bar E will force the hay from the flattened resisting end of curved bar F upon being raised by lever B and bars C and D, and the pointed resisting end of bar F will be forced  
90 down by the same movement of said lever B and bars C, D, and E, and assisted by the weight of hay sustained on said pointed resisting end.

To facilitate the work in fine or loose hay,  
95 two or more of our forks may be attached by metal bars and operated at once.

What we claim as our invention, and desire to secure by Letters Patent, is—

In combination with the slotted vertical  
10 shaft A, provided with the pins *h* and *i*, the lever B, pivoted to said shaft, the link C, the slotted sliding bar D, the angle-bar E, and the curved bar F, pivoted to said shaft A, substantially as and for the purpose set forth.

JOHN GEORGE KANOUSE.

RICHARD MILLER.

Witnesses:

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