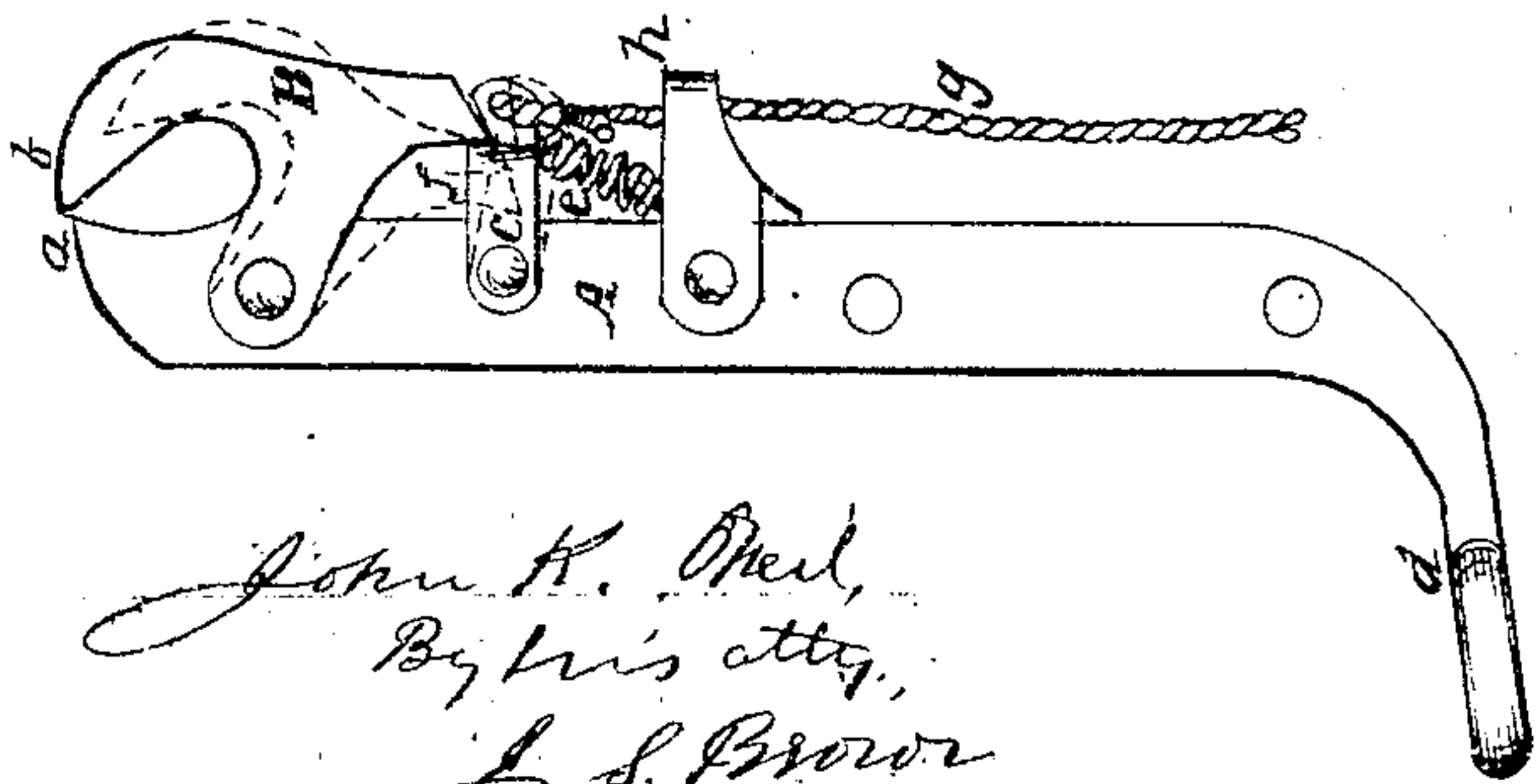


*J. K. O'Neil*  
*Hay Fork.*

*No. 82979.*

*Patented Oct. 13. 1868.*

*Fig. 2.*

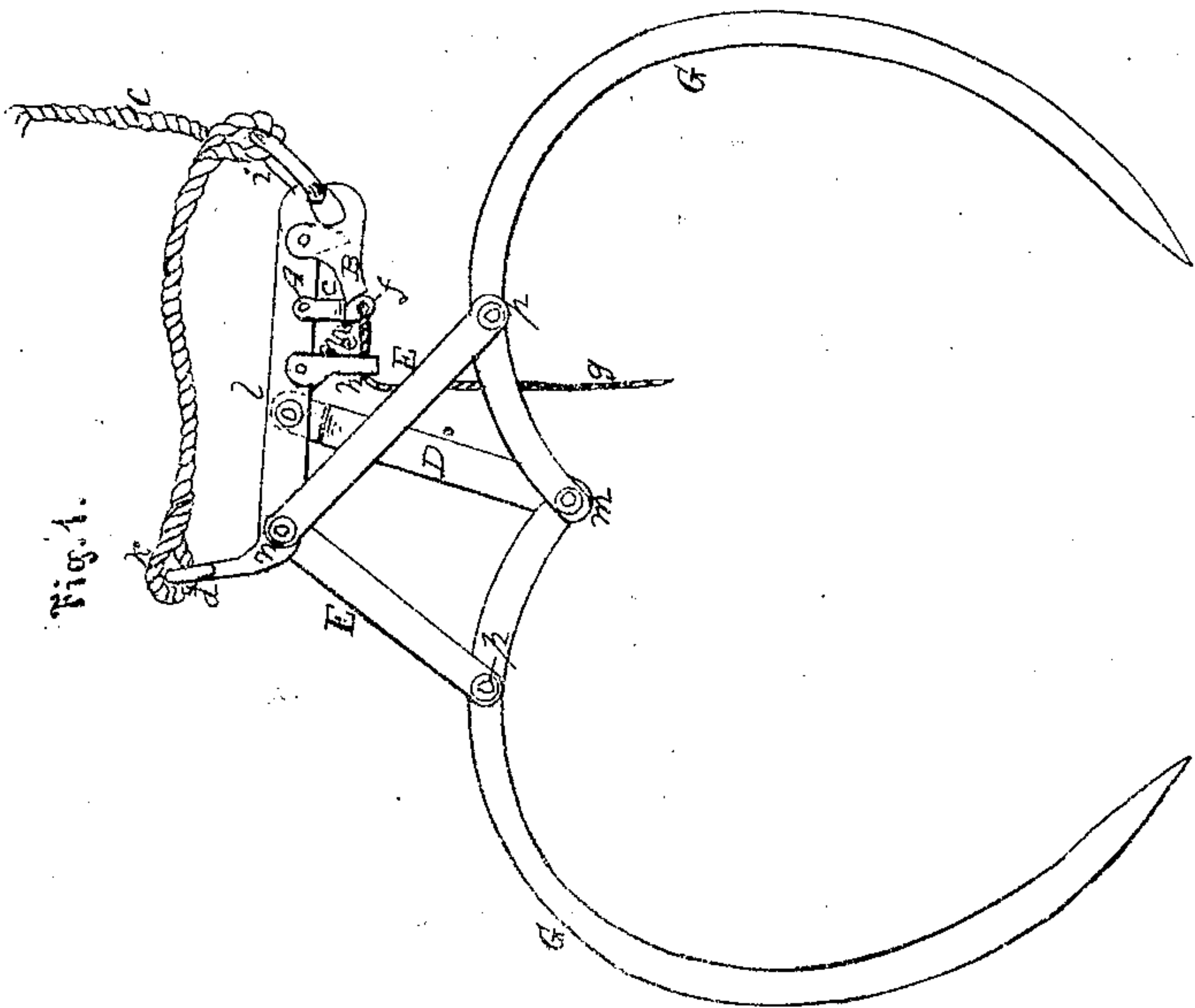


*John K. O'Neil,*  
*By his atty.,*  
*J. S. Brown.*

Witnesses.

*Henry Connet*  
*W. S. Turner*

*Fig. 1.*



# United States Patent Office.

JOHN K. O'NEIL, OF KINGSTON, NEW YORK.

Letters Patent No. 82,979, dated October 13, 1868.

## 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, JOHN K. O'NEIL, of Kingston, in the county of Ulster, and State of New York, have invented an Improved Trip-Lever for Horse Hay-Forks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a side view of a fork, with the trip-lever attached thereto.

Figure 2, a side view of the trip-lever.

Like letters designate corresponding parts in both figures.

The instrument consists of a strong iron lever, A, having a half-hook beak, *a*, at one end, and short lever, B, with a half-hook beak, *b*, at one end, pivoted thereto.

The two beaks, *a b*, when brought together, hold a ring or eye, *i*, of the hoisting-rope C. The beaks are held together by means of a detent, *c*, which is hinged to the lever A, and has a catch-notch, *f*, in the end thereof, to receive the heel of the lever B, being forced and retained against the same by a spring, *e*.

At the heel-end of the lever A, there is an eye, *d*, or its equivalent, in which a continuation, *k*, of the hoisting-rope C is secured.

Near this end of the said lever, two connecting-rods, E E, are hinged, and extend thence obliquely, in different directions, to the two prongs G G of the fork, and are pivoted thereon at *p p*, equidistant from the point *m* where the said prongs are hinged together.

From the point *m*, also, another connecting-arm, D, extends to the lever A, and is pivoted thereto at *l*,

between the point *n*, where the other arms are hinged, and the beak-end of the lever.

A tripping-cord, *g*, is attached to the detent *c*, and extends thence through the loop *h* on the lower edge or side of the lever A, and thence down to the operator.

When the fork is set in the hay, the ring *i* of the hoisting-rope is inserted between the beaks *a b* of the two levers A B, and the heel of the lever B is inserted in the notch *f* in the detent *c*, thereby firmly holding the rope between the said beaks, and the fork with its load is hoisted thereby. When the fork has reached the proper position for tripping, the cord *g* is pulled, releasing the detent *c*, and, consequently, the rope C is set free from the beaks *a b*, thereby throwing the weight upon the heel-end *d*. The effect of this is to reverse the position of the lever A, to spread the arms E E, and consequently the prongs G G, and thereby to release the hay therefrom.

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

The two levers A B, with their beaks *a b*, and spring-detent *c*, connected and operating in combination with the prongs G G of the fork, substantially as and for the purpose herein specified.

The above specification of my improved trip-lever or horse hay-fork signed by me, this 1st day of May, 1868.

JOHN K. O'NEIL.

Witnesses:

EDM. F. BROWN,  
WM. F. BROWNE.