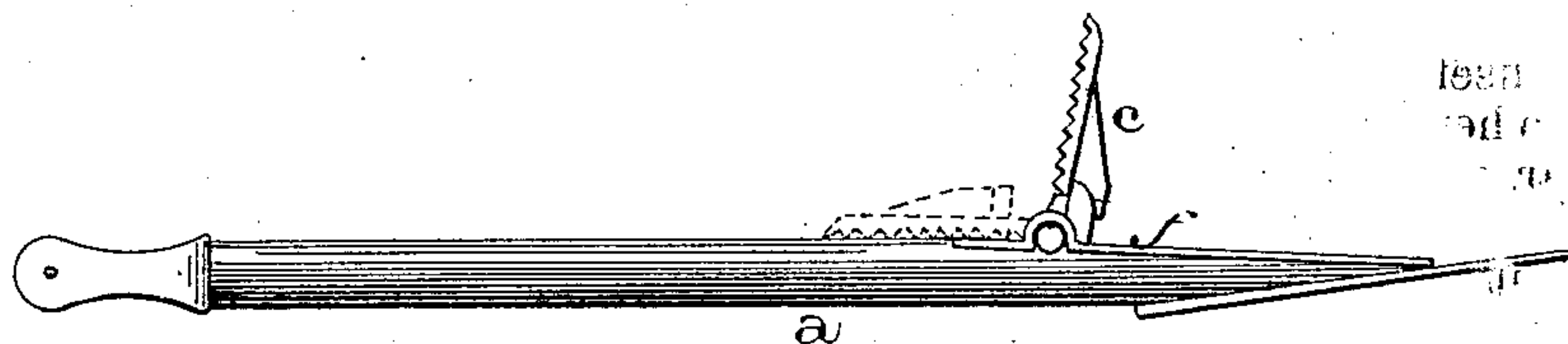


D. E. HASKELL.  
Hay-Knife.

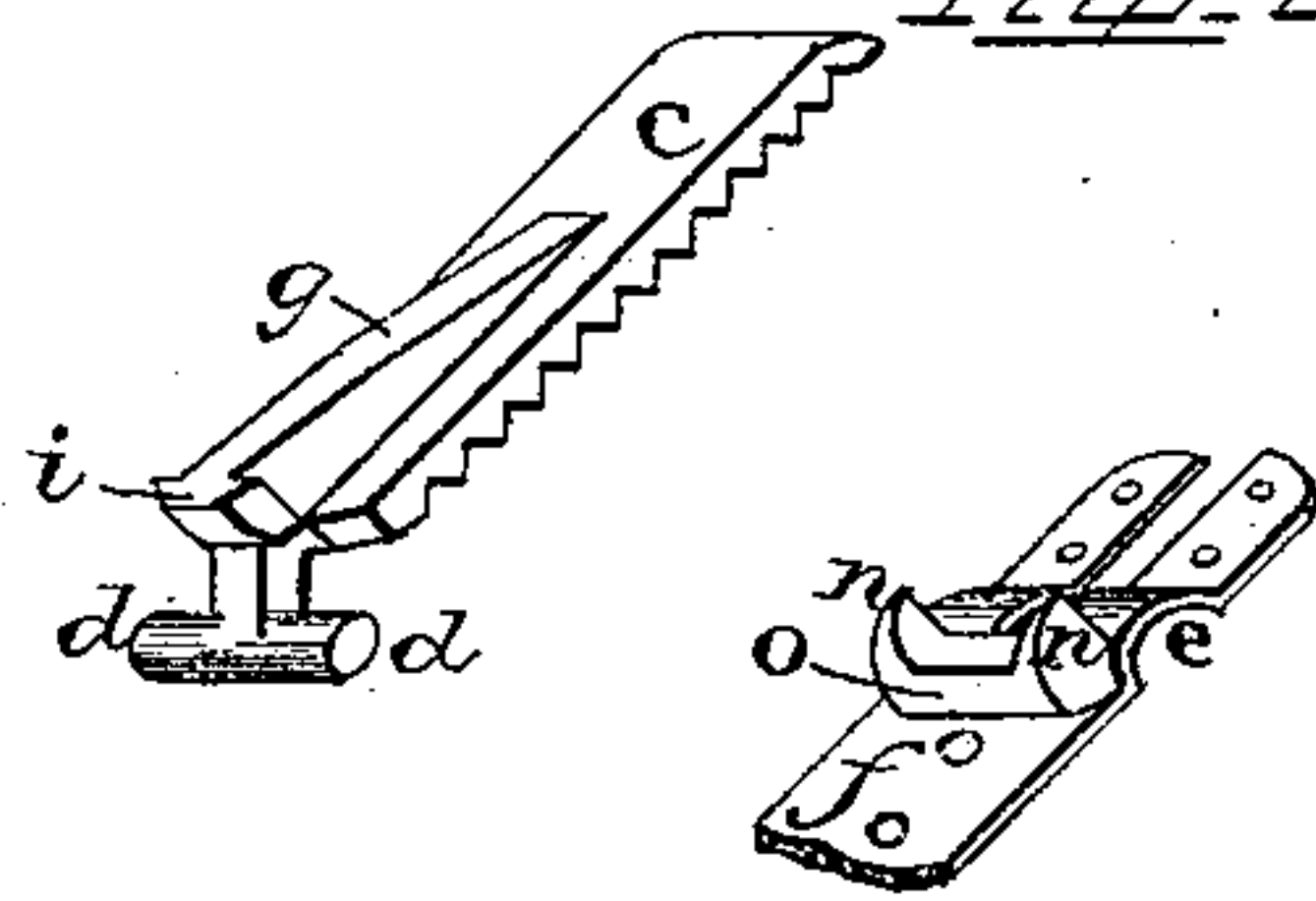
No. 226,746.

Patented April 20, 1880.

*Fig. 1.*



*Fig. 2.*



Witnesses=  
W. W. Mortimer.

Inventor=  
D. E. Haskell  
per  
F. A. Lehmann,  
att'y.

# UNITED STATES PATENT OFFICE.

DAISON E. HASKELL, OF CAZENOVIA, NEW YORK.

## HAY-KNIFE.

SPECIFICATION forming part of Letters Patent No. 226,746, dated April 20, 1880.

Application filed February 18, 1880.

To all whom it may concern:

Be it known that I, DAISON E. HASKELL, of Cazenovia, in the county of Madison and State of New York, have invented certain new and useful Improvements in Hay-Knives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in hay-knives; and it consists in pivoting or hinging the step to the handle, so that the step can be folded up, whereby the hay can be cut to a greater depth than to where the step is attached, and one-half more of the knives can be packed in a single case, as will be more fully described hereinafter.

Figure 1 is a side elevation of my invention, showing the step down in solid lines and closed in dotted lines. Fig. 2 shows the two parts of the hinge in perspective, ready to be fastened together.

*a* represents a hay-knife of any desired construction, and *c* is the step upon which the foot is placed for the purpose of forcing the knife down through the hay. Heretofore these steps have been made as a rigid and unyielding part of the knife, and hence in cutting the hay the knife could only be forced down into the hay as far as this step.

Another great and serious trouble is, where the step is made rigid it projects out in such a manner that when packing the knives for transportation the steps take up so much room that but few knives can be packed in a case.

To overcome these very serious defects, I provide the step *c* with the two journals or pivots *d*, which have their bearings in the bends or loops *e*, formed in the plate *f*, which is secured to the front of the lower part of the handle.

On the under side of the step is made the

flange *g*, which is widened out on the inner end of the step, so as to form the bearing or brace *i*, and which bears against the thickened part *o* of the plate *f* just below the loops *e*. This part *o* has tapered prongs *n* projecting out from its two upper and outer corners, and it is between these two prongs that the bearing part *i* of the step fits. As these prongs are thickest at their inner ends, they not only prevent the step from being twisted, but also support it and hold it perfectly firm and rigid under all circumstances.

By means of the construction above described the knife can be forced down through the hay until its top reaches the under side of the step, and then, by its closing up the step, the knife can be forced on down; and in packing the knives just one-half more can be placed in a case, as by folding up the steps they no longer take up any extra room.

The blade may be made in one solid piece of metal having two or more V-shaped cutting-points on its lower edge, or in any other well-known form.

Having thus described my invention, I claim—

1. A hay-knife provided with a folding step, *c*, in combination with a plate, *f*, which is secured to the side of the handle *a*, the said plate being provided with the loops *e*, to catch over the journals *d* of the step, substantially as shown.

2. In a hay-knife, the combination of the plate *f*, having the loops *e*, thickened part *o*, and prongs *n*, with the step having the journals or pivots *d* and bearing *i*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 20th day of January, 1880.

DAISON E. HASKELL. [L. S.]

Witnesses:

J. C. TILLOTSON,  
BURR WENDELL.