

O. J. HETHERINGTON & T. F. BINGHAM.  
Honey-Knife.

No. 215,616.

Patented May 20, 1879.

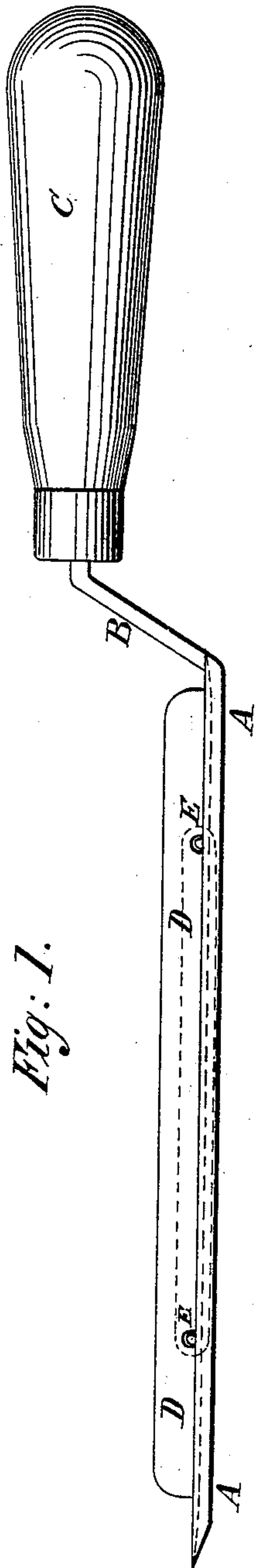


Fig: 1.

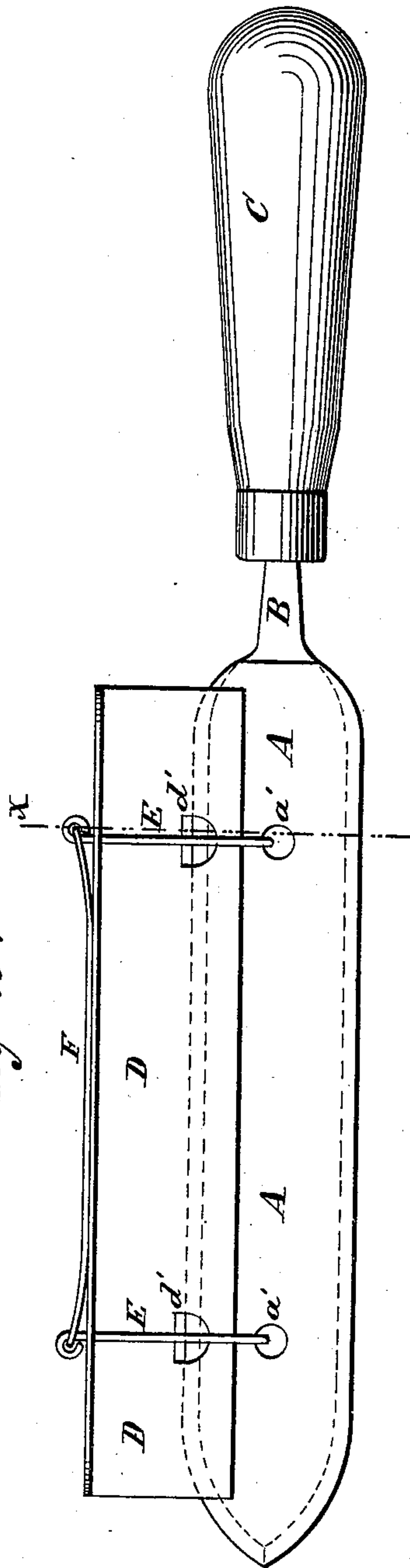


Fig: 2.



Fig: 3.

WITNESSES:

*Achilles Schehl.*  
*C. Sedgwick*

INVENTOR:

*O. J. Hetherington*  
*T. F. Bingham*  
BY *Mum & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

OLIVER J. HETHERINGTON, OF EAST SAGINAW, AND TRACY F. BINGHAM,  
OF ABRONIA, MICHIGAN.

## IMPROVEMENT IN HONEY-KNIVES.

Specification forming part of Letters Patent No. **215,616**, dated May 20, 1879; application filed  
August 24, 1878.

*To all whom it may concern:*

Be it known that we, OLIVER J. HETHERINGTON, of East Saginaw, Saginaw county, State of Michigan, and TRACY F. BINGHAM, of Abronia, Allegan county, State of Michigan, have invented a new and Improved Honey-Knife, of which the following is a specification.

Figure 1 is a side view of one of our improved knives. Fig. 2 is a top view of the same. Fig. 3 is a detail cross-section of the same, taken through the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish improved honey-knives, which shall be so constructed that their use will enable the comb-cells to be uncapped in much less time and with much less labor than when ordinary knives are used, and without injury to the combs.

The invention consists in a honey-knife provided with a flange or cap-arrester, whether permanent or detachable, upon its rear edge; in the combination of the detachable plate, provided with a flange upon its rear edge, with the blade of a honey-knife; and in the combination of the detachable plate, provided with a flange upon its rear edge and with lips upon its lower side, the wire hooks, and the spring, with the blade, provided with holes in its middle part, as hereinafter fully described.

A represents the blade, B the shank, and C the handle, of the knife. The blade A is made wide and thick, and with an angular point. The blade A is slightly concaved upon its upper side, or has its side edges slightly turned upward. The edges of the blade A are beveled upon their lower side at an angle of about twenty-two degrees.

The shank B is made with an offset, as shown in Fig. 1, to keep the hand of the operator away from the comb while using the knife.

D is a plate, having a flange formed upon its outer edge, and which is attached to the blade A, to arrest the comb-caps as they slide up the said blade A, so that they may be kept upon the blade and removed with and by it. The plate D has lips *d'* formed upon its under side to receive the rear edge of the blade A, and has holes formed through its flange to receive the wires E.

The wires E have hooks formed upon their inner ends, which hook into holes *a'*, formed in the middle part of the blade A. The outer ends of the wire hooks E are attached to a spring, F, which rests against the outer side of the flange of the cap-arrester D, and by its elasticity holds the said cap-arrester in place upon the blade A.

If desired, the cap-arrester may be formed upon the blade A; but we prefer to make it detachable, as first described, as it allows the said cap-arrester to be detached for convenience in cleaning it and the knife, and for convenience in sharpening said knife. This construction also allows the cap-arrester to be placed upon either edge of the knife, as may be required.

In using the knife the blade A is held at an angle of about twenty-two degrees, with the wide bevel resting upon the comb, and the said blade and cap-arrester gather the caps as they are cut off, and carry them forward, so that they are removed by simply removing the knife, and do not have to be picked off. The oblong beveled point of the blade enables depressions in the comb to be readily uncapped as well as the smooth parts.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A honey-knife provided with a plate, D, having flange at upper end to arrest the comb-caps, as described.

2. The combination of the detachable plate D, provided with a flange upon its rear edge and with lips *d'* upon its lower side, the wire hooks E, and the spring F, with the blade A, provided with the holes *a'*, substantially as herein shown and described.

OLIVER J. HETHERINGTON.  
TRACY F. BINGHAM.

Witnesses to the signature of Oliver J. Hetherington:

CONRAD FEY,  
EMERAN GRABMEIR.

Witnesses to the signature of Tracy F. Bingham:

O. H. FENN,  
W. H. BILLS.