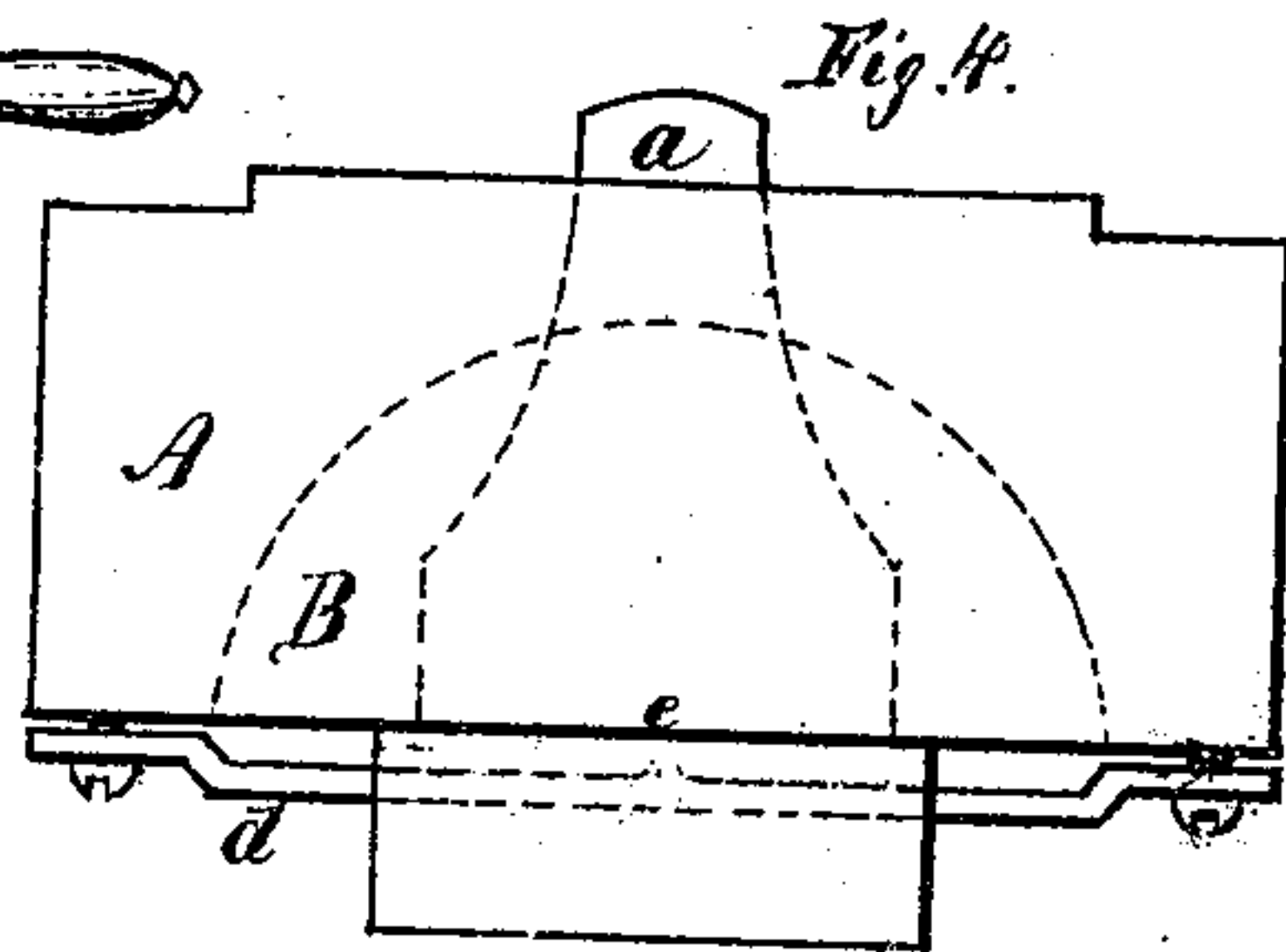
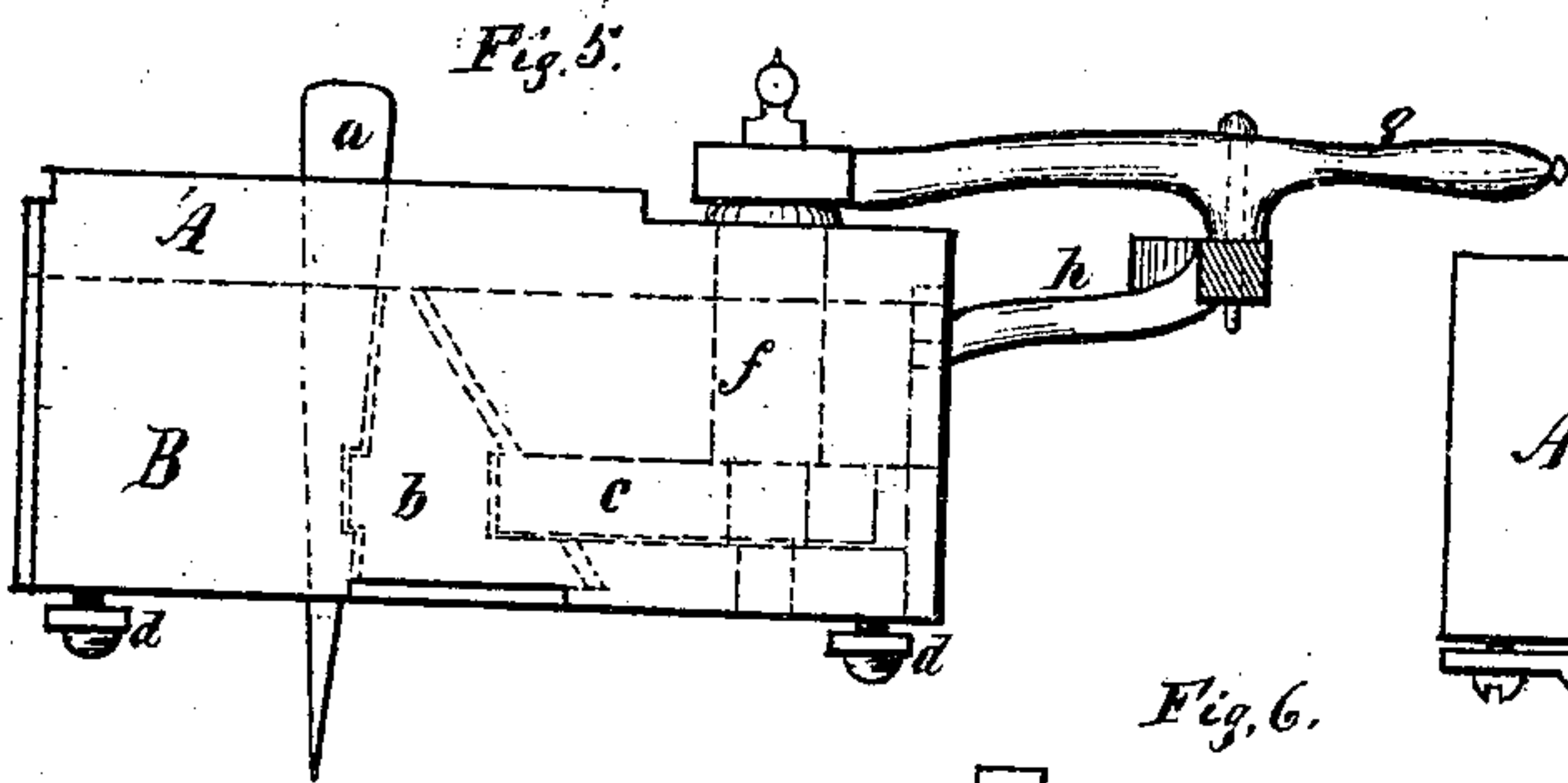
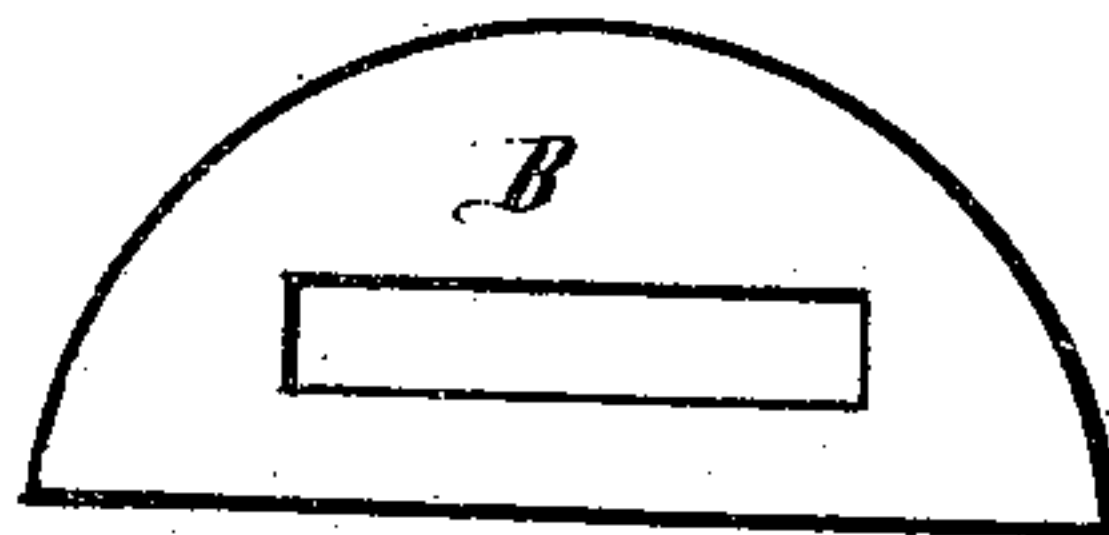
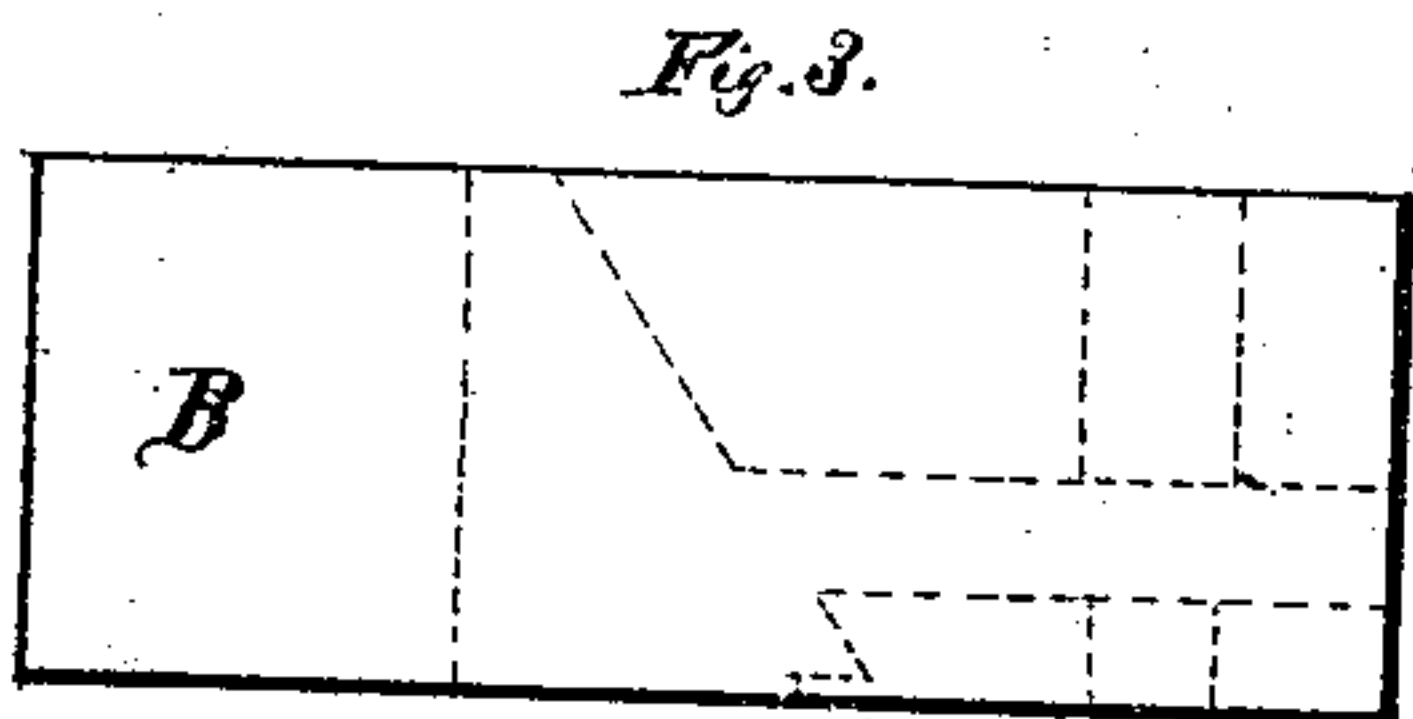
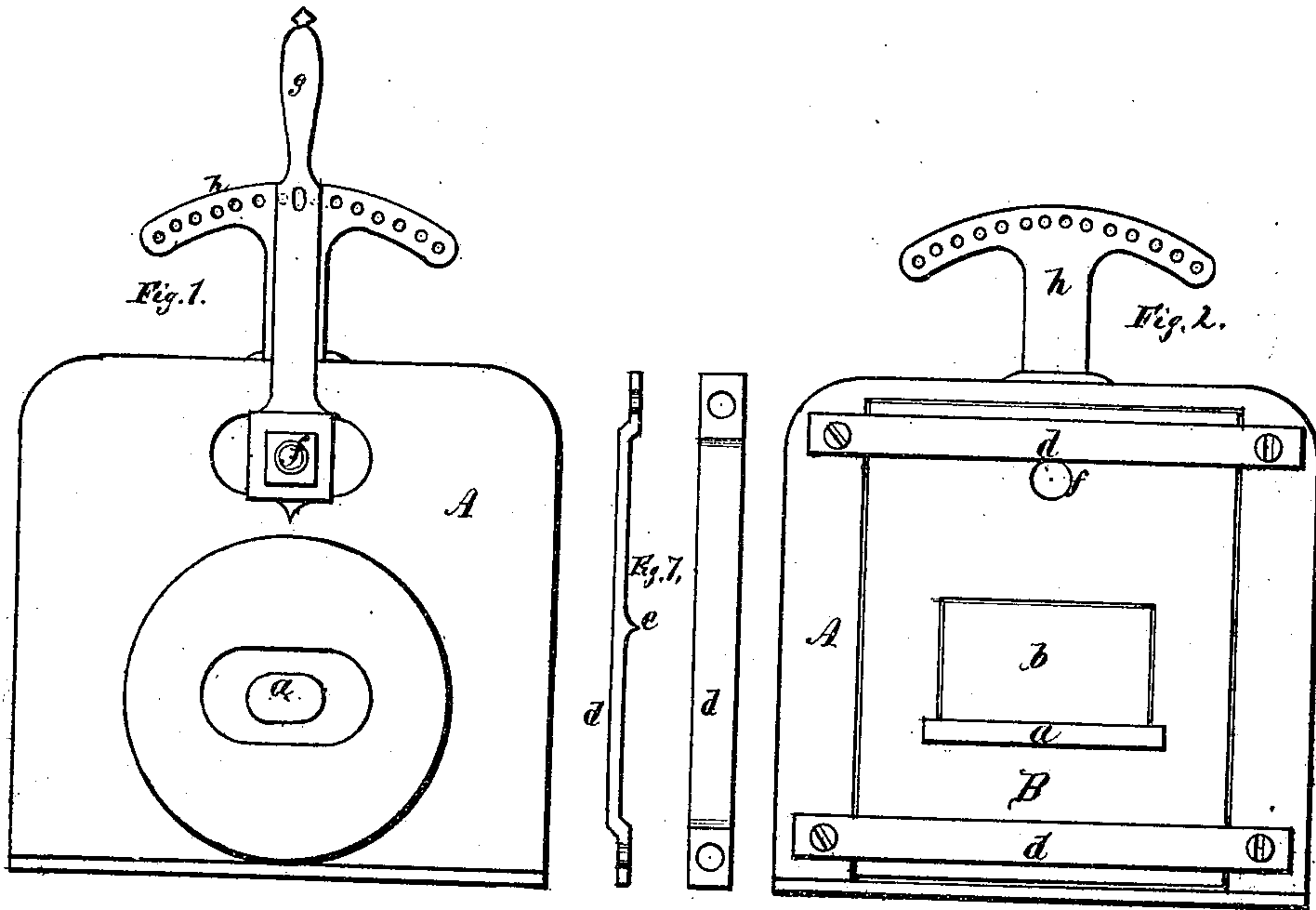


W. J. Birdsall,

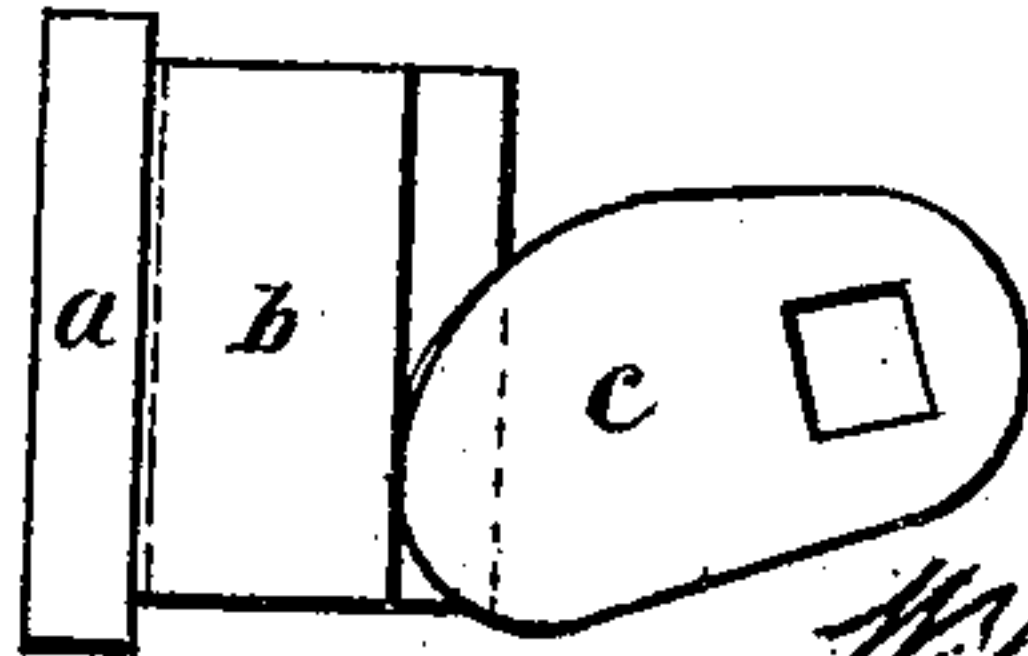
File Cutting.

No. 97,030.

Patented Nov. 23, 1869.



Witnesses.  
Wm Gooding  
Edward Collier



Inventor:  
William J. Birdsall

# United States Patent Office.

WILLIAM J. BIRDSALL, OF NEWARK, NEW JERSEY.

*Letters Patent No. 97,030, dated November 23, 1869.*

## IMPROVED CHISEL-HOLDER FOR FILE-CUTTING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM J. BIRDSALL, of the city of Newark, in the county of Essex, and State of New Jersey, have invented certain Improvements in Holders for Chisels in Machines for Cutting Files, of which the following is a specification.

My invention relates to the manner of securing the chisel in the holder, and to the manner of keeping certain parts of the holder together, so as to prevent their being liable to be jarred loose by their work.

In the drawings—

The top of the holder is shown, in full size, in Figure 1, and the under side in Figure 2.

Figure 3 is a side and an end view of a semicircular block, that is movable in the interior of the holder.

Figure 4 is an end view of the holder, showing the place and position of the semicircular block and the chisel.

Figure 5 is a side view, showing each separate piece of the entire holder in its relative position.

Figure 6 is a horizontal view of the eccentric, the intermediate, and a section of the chisel.

Figure 7 is a flat and edge view of the springs that secure the semicircular to the other part of the holder.

The outer case A encloses the semicircular block B, the two fitting nicely together, so that the block can turn freely in the case, the springs *d* pressing on the centre line of the semicircular block B, by the edges *e*.

The chisel *a* passes through the semicircular block, and is held firmly therein by the intermediate *b*, which is held tight thereto by the eccentric *c*.

The upright shaft *f*, turning in bearings in the block

B, has the eccentric *c* on its lower end, and a lever-handle, *g*, on its top.

Attached to the semicircular block, with room to move where it passes through the end of the case A, is a segment, *h*, that is shown as having holes, but which can be a ratch, its object being the retention of the pressure which the eccentric gives to the chisel.

By reference to the patent, No. 79,878, July 14, 1868, issued to Messrs. Thurston and Kearney, in which the present applicant has become a partner, it will be seen that the semicircular block was held to the case by screws, the under side of the heads of the screws resting on a curve, to allow the turning of the semicircle in the case, and that the chisel was held to the block by a screw or screws. The severe labor of the machine made it needful to frequently renew or repair the loosened screws. That annoyance I obviate by the above devices.

What I therefore claim, and desire to secure by Letters Patent, is—

1. The combination of the eccentric *c*, shaft *f*, intermediate *b*, lever-handle *g*, segment *h*, chisel *a*, and frame A, all constructed and arranged substantially as specified and shown.

2. The combination of the springs *d*, semicircular block B, and frame A, in a file-cutting machine, in the manner and for the purpose shown.

WILLIAM J. BIRDSALL.

Witnesses:

W. M. GOODING,  
EDWARD COLLVER.