

F. J. Plummer,
Clutch Shipper.
N^o 68,108. Patented Aug. 27, 1867.

Fig: 2

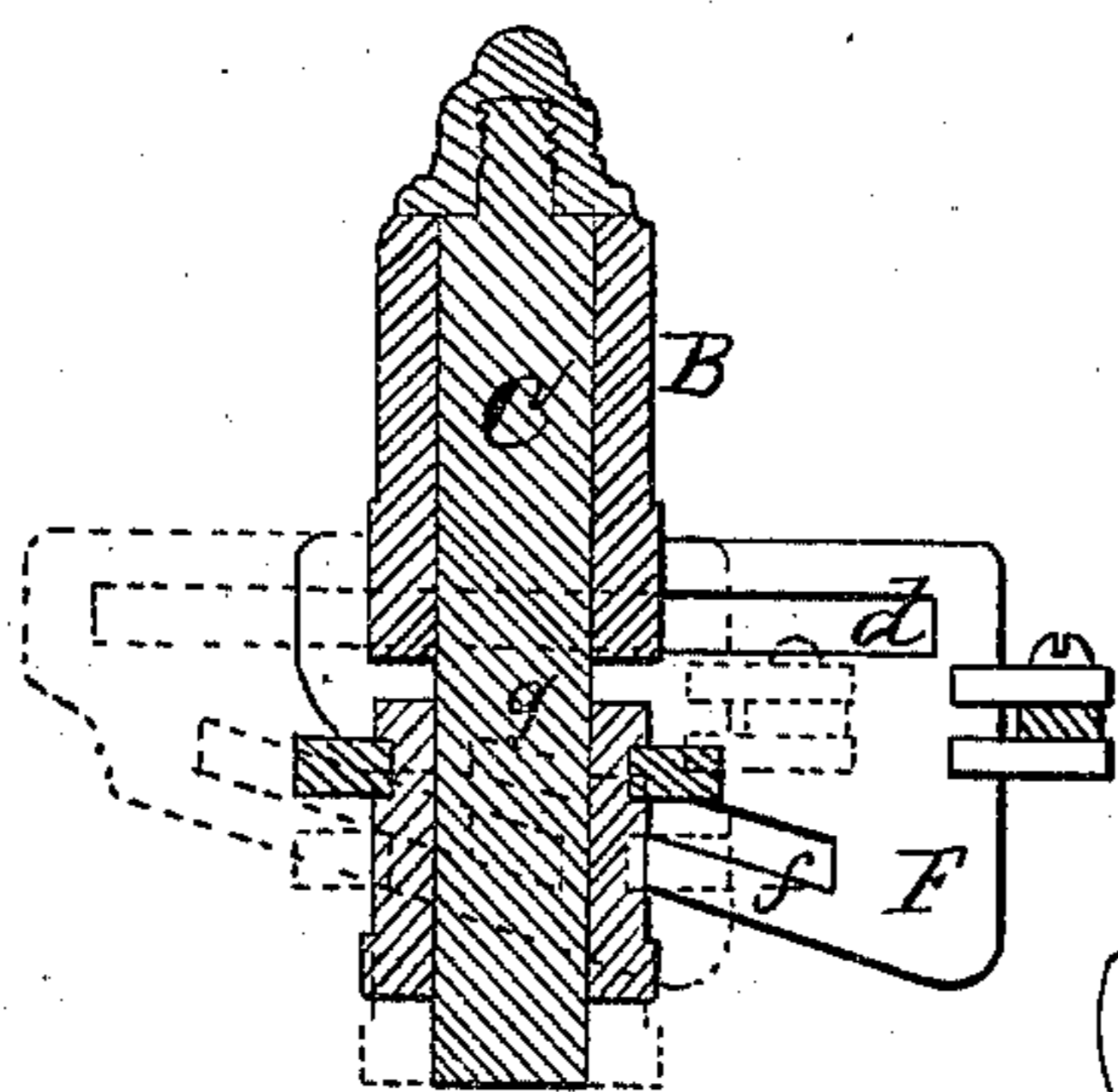


Fig: 3

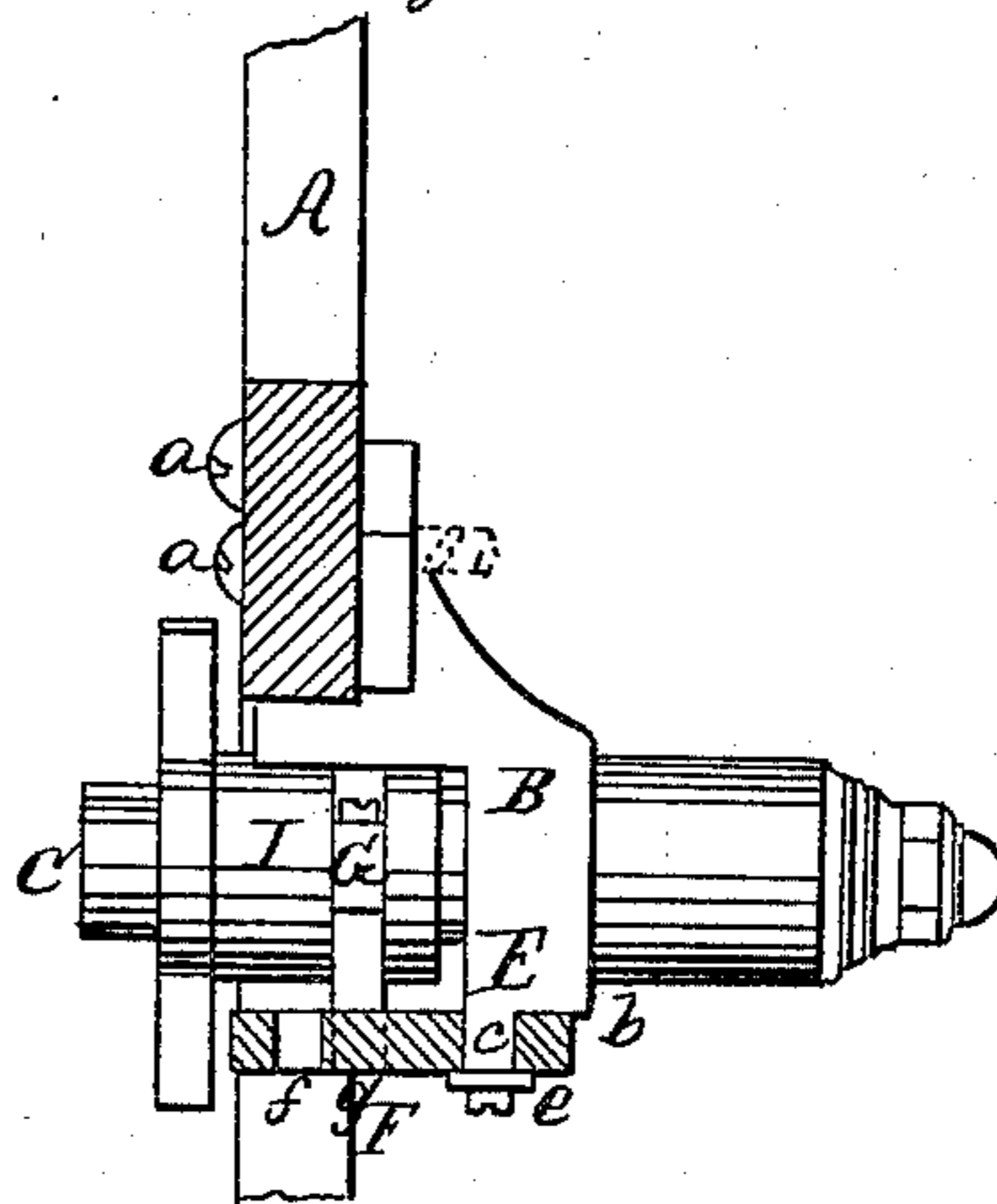
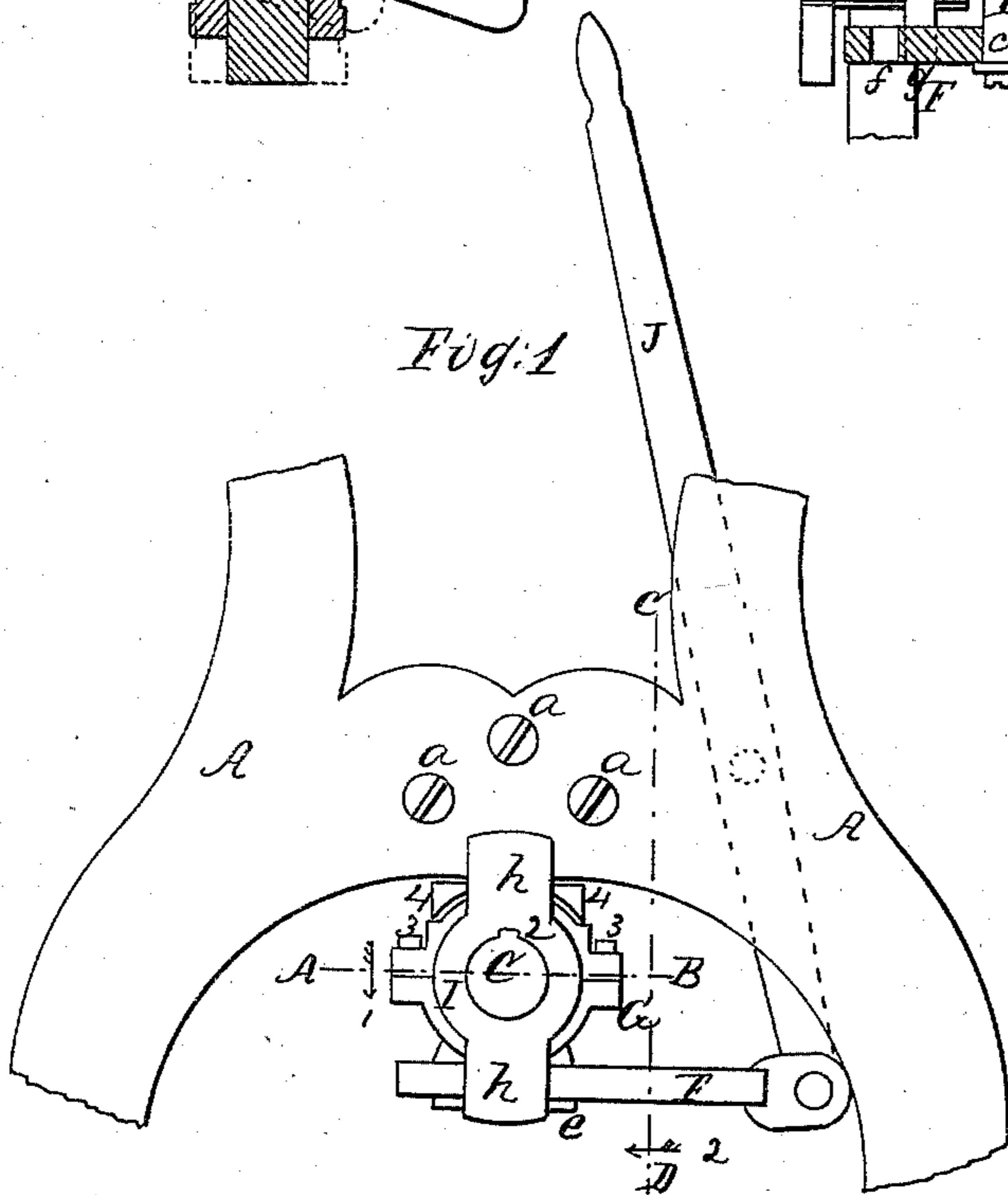


Fig: 1



Witnesses
Thos H. Dodge
D L Miller

Inventor
Frank J. Plummer

United States Patent Office.

FRANK J. PLUMMER, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO
R. BALL & CO., OF SAME PLACE.

Letters Patent No. 68,108, dated August 27, 1867.

IMPROVEMENT IN CLUTCH-SHIPPERS.

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

KNOW ALL MEN BY THESE PRESENTS:

That I, FRANK J. PLUMMER, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful improvements in Clutch-Shippers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents an end view of my improved clutch.

Figure 2 represents a longitudinal central section on line A B, fig. 1, looking in the direction indicated by arrow 1, and

Figure 3 represents a vertical section on line C D, fig. 1, looking in the direction indicated by arrow 2.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it.

In the drawings, the part marked A represents so much of the main frame of a planing machine as is necessary to illustrate my invention. The part B is the box or bearing, in which shaft C is supported, the upper part being cast with a flange, D, to fit the inside of the frame A, and to which it is fastened by bolts *a*. From the lower part of the box projects the slide-supporting piece E, having a shoulder, *b*, and a tongue, *c*, which enters the slot *d* in the slide piece F. The latter is held in place by the plate or cap *e* screwed or bolted to the lower edge or face of tongue *c*, as indicated in the drawings. The slide piece F is provided with an angular or inclined slot, *f*, into which a tongue, *g*, upon the lower side of the clasp G enters. Tongue *g* is shown in dotted lines figs. 2 and 3. Clasp G is composed of two pieces held together and clasped in the groove 1 in the clutch-hub I, which is provided with wing-plates *h h*, into which clutch-dogs may be inserted in the ordinary manner. In lieu of clutch-dogs and wing-plates *h* the end of the hub, I, may be made with a series of clutch-teeth to take into clutch-teeth on the hub of a loose pulley placed or running upon the round part of an extension of shaft C in the usual manner. Clutch-hub I is grooved or slotted out, so as to slide on the spline 2 in shaft C, while the clasp G is kept from turning by means of its shoulders 3 3 bearing or fitting against the projections 4 4 of the box B. These projections 4 4 are made with narrow bearing edges, so that there is but little friction on the clasp G as the latter is moved back and forth.

The operation is as follows: The operator, by means of lever J or in some other proper manner, forces slide piece F forward, as shown in red lines, fig. 2, thereby causing the clasp G, clutch-hub I, and the parts fastened thereto, to move out, as indicated in red lines, same figure. It will be seen that if the wing-plates *h h* had ordinary clutch-dogs, and the shaft C were extended and had a running pulley on the end provided with clutch-teeth, every time the hub I and the parts connected therewith were forced out, as indicated in red lines, fig. 2, motion would be communicated to shaft C to drive the machine in the ordinary manner, only so much of shaft C being shown in this instance as is necessary to illustrate my invention. In lieu of the pipe-box B a divided box may be used, and fastened together by bolts or screws. Although my invention is shown applied to the frame of a planing machine, it might be used in some cases with good effect when applied to other machines.

Having described my improved clutch, what I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination with the projection E of box B, and tongue *c* of the slotted slide F and cap *e*, substantially as and for the purposes set forth.

2. The combination with frame A, double slotted or grooved slide piece F, clasp G, and clutch-hub I, of the box B, having a flange, D, and projections E and 4 4 arranged and combined together for use substantially as set forth.

FRANK J. PLUMMER.

Witnesses:

THOS. H. DODGE,
D. L. MILLER.