

(No Model.)

C. WUNDERLICH.

WASHER CUTTER.

No. 376,974.

Patented Jan. 24, 1888.

Fig: 1.

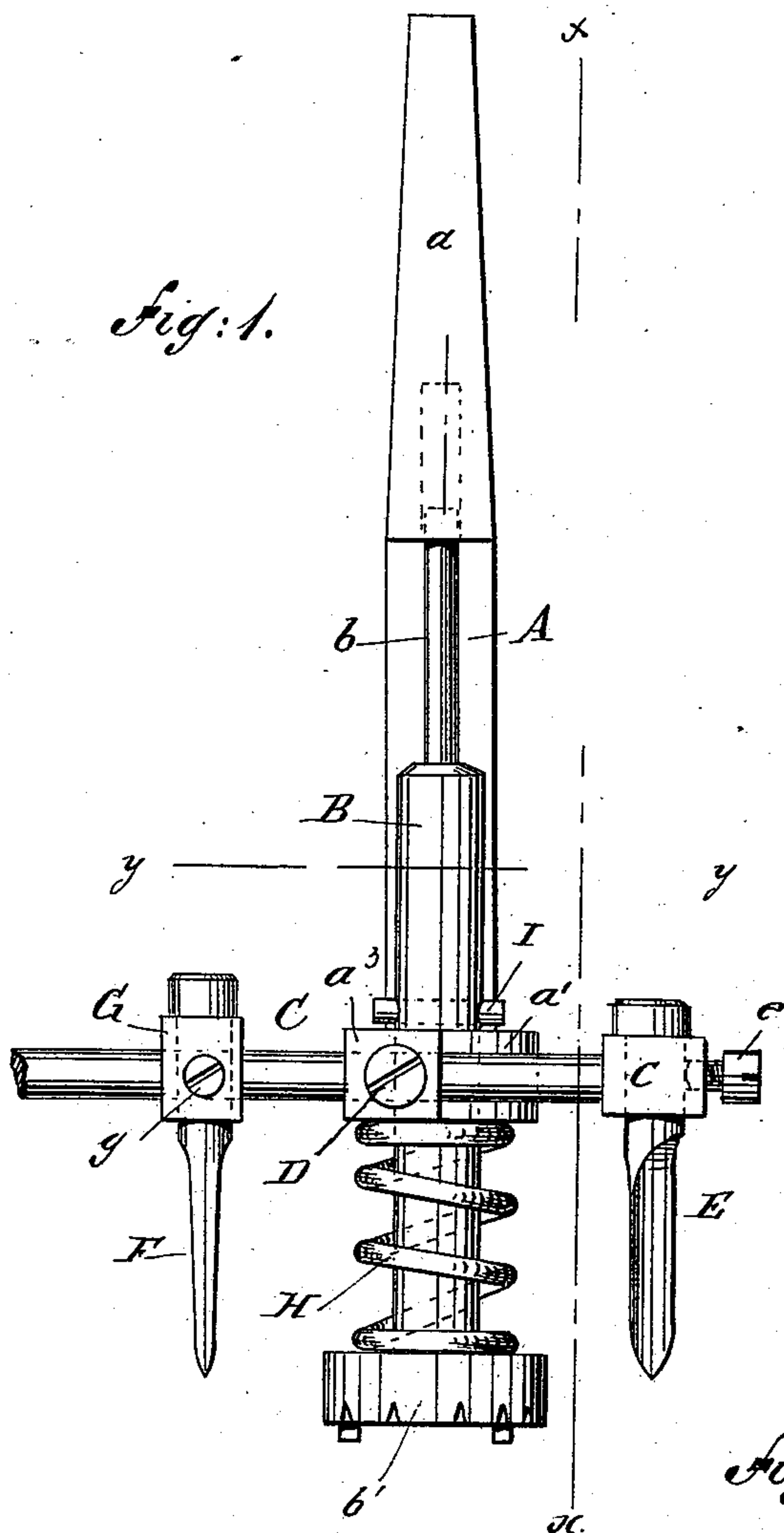


Fig: 2.

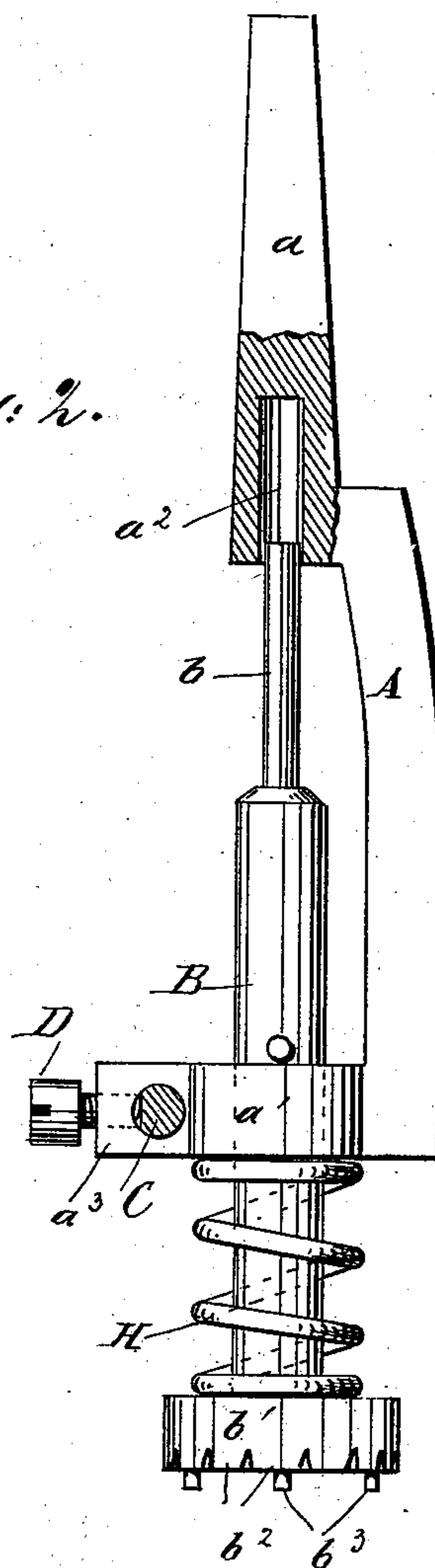
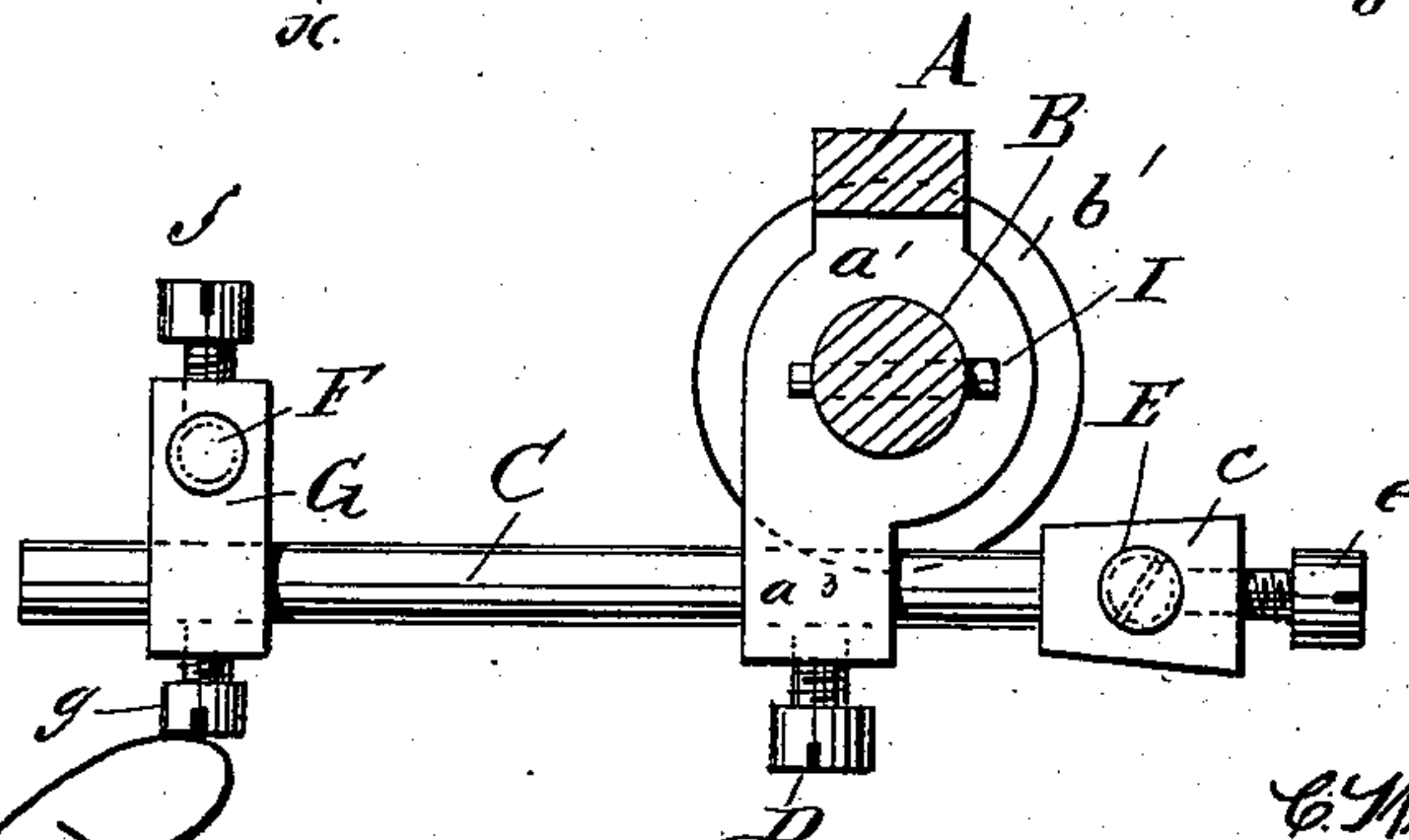


Fig: 3.



WITNESSES:

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CHARLES WUNDERLICH, OF WASHINGTON, MISSOURI.

WASHER-CUTTER.

SPECIFICATION forming part of Letters Patent No. 376,974, dated January 24, 1888.

Application filed June 21, 1887. Serial No. 241,989. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WUNDERLICH, of Washington, in the county of Franklin and State of Missouri, have invented a new and Improved Washer-Cutter, of which the following is a full, clear, and exact description.

The object of the invention is to provide a cutter for washers and disks which may be quickly adjusted to cut washers and disks of varying sizes, and to otherwise improve the construction of devices of this character.

The invention consists in the construction and combination of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of a washer-cutter constructed in accordance with my invention. Fig. 2 is a side view at right angles to Fig. 1, and partly in section; and Fig. 3 is a section on line *y y*, Fig. 1.

The stock A is formed at the top with a shank or tang, *a*, to adapt it to an ordinary brace, and is made in crank form below the shank *a*. Fitted in the crank portion of the stock A is a center, B, which passes through the lower end or foot, *a'*, of the stock A, the reduced upper end, *b*, of the said center fitting loosely in the recess or pocket *a''* of the shank *a*. On the face of the head *b'* of the center B are formed teeth *b''* and projecting pins *b'''*, by means of which the center is held from turning in operating the device.

The knife-carrying cross-bar C is laterally adjustable in a toe, *a'''*, formed on the foot *a'* of the stock A, and a set-screw, D, working in said toe, binds the cross-bar in the set position.

In the head *c*, formed on one end of the cross-bar C, is fitted a knife, E, which is vertically adjustable therein, a set-screw, *e*, working in the head *c*, serving to bind the knife E in the set position. Another knife, F, is fitted in a sliding block, G, on the end of the cross-bar opposite its head *c*. A set-screw, *f*, binds the knife F in the block G, and the set-screw

g binds the block G on the cross-bar C at any point along the said bar.

The knives E and F are removable from the cross-bar C for the purpose of sharpening them or replacing them with others, and each is vertically adjustable to regulate the depth of cut, according to the thickness of the leather, rubber, or other material from which the disk or washer is to be cut.

It will be seen that the knives are adjustable relatively to the center and to each other, which enables them to be quickly adjusted to cut varying sizes of disks and washers.

A spiral spring, H, surrounds the center B between the head *b'* and the foot *a'* of the stock A, and serves to raise the knives clear of the material after the cuts have been made.

A pin, I, passed through the center B above the foot *a'* of the stock A, holds the center in the stock.

I am aware that a spring has been employed in washer-cutters to raise the knives clear of the cut; but the spring was placed in a pocket or recess in the stock, and as the recess had to be quite large to receive a spring of sufficient strength the stock was materially weakened.

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

1. The combination, with the stock A, of the center B, formed with the head *b'* and with teeth and pins *b'' b'''*, the cross-bar C, laterally adjustable in the stock A and carrying knives E, F, and the spring H, surrounding the center B between the head *b'* thereof and the lower end of the stock A, substantially as shown and described.

2. The stock A, made in crank form and formed with the foot *a'* and toe *a'''*, the cross-bar C, adjustable in said toe and formed with a head, *c*, the knife E, vertically adjustable in the head *c*, the block G, adjustable along the cross-bar C, and the knife F, vertically adjustable in the block G, in combination with the center B and spiral spring H, substantially as shown and described.

3. The stock A, made in crank form and

formed with a tang or shank, a , and the center B, placed in the crank portion of the stock, the upper end of the center B fitting loosely in a recess, a^2 , of the stock, and its lower end
5 passing through the stock at the lower end and formed with a head, b' , upon the face of which head teeth b^2 and pins b^3 are formed, in combination with the cross-bar C and

knives E F, carried thereon, and a spiral spring, H, surrounding the lower end of the center B, substantially as shown and described.

CHARLES WUNDERLICH.

Witnesses:

FREDERICK H. THIAS,
JOHN G. GROTHAUS.