

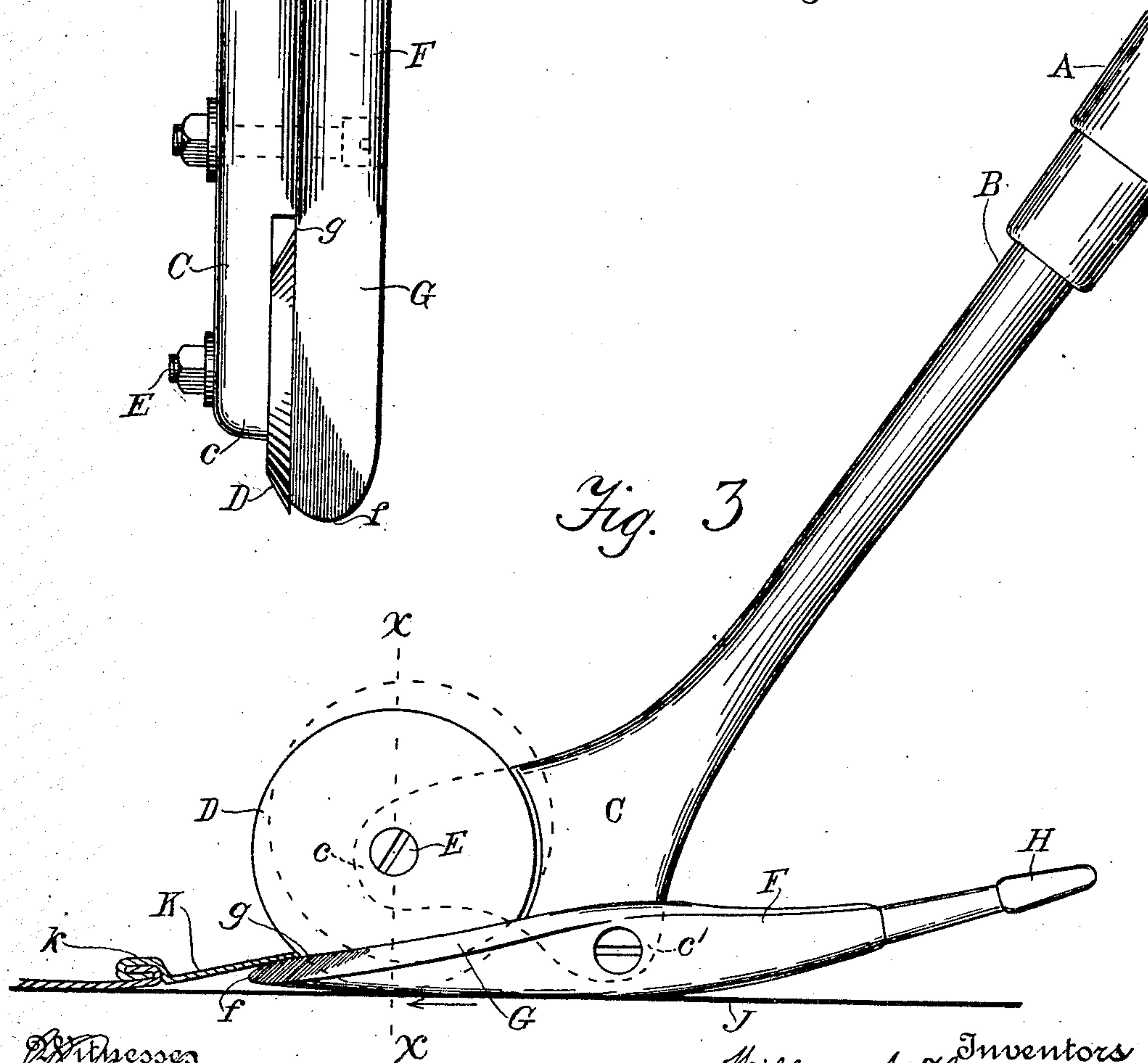
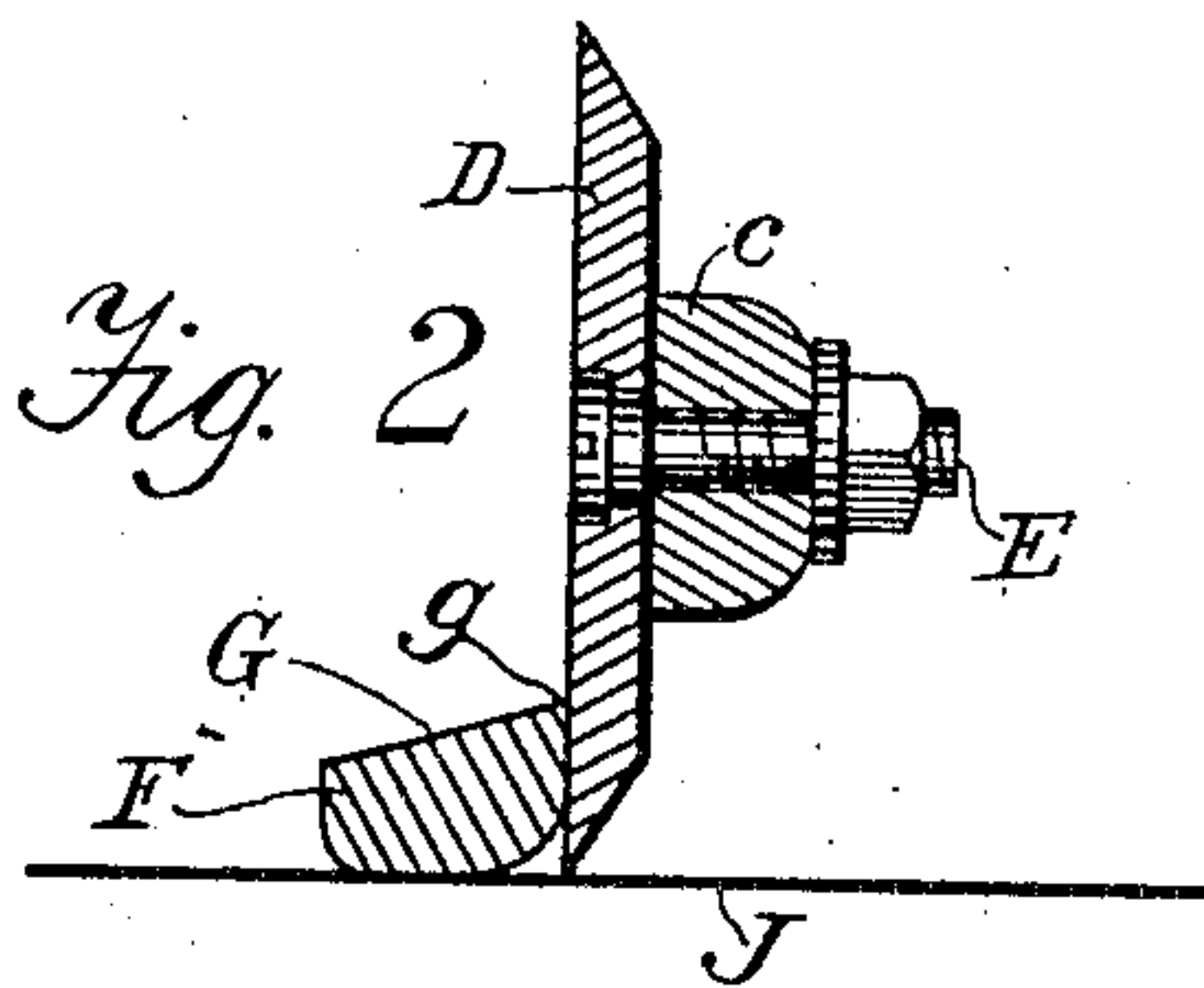
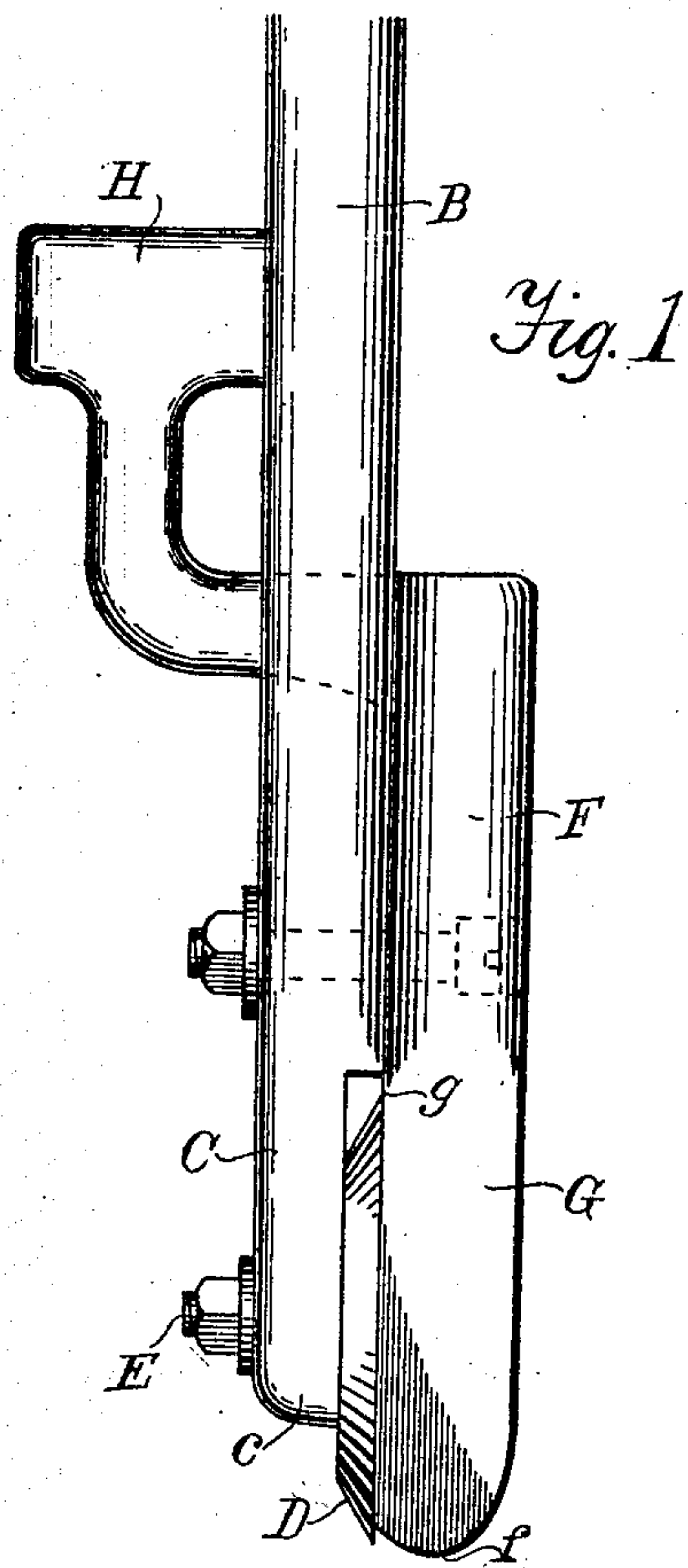
No. 860,503.

PATENTED JULY 16, 1907.

W. A. THOMPSON & G. E. BOYER.

METAL SHEARS.

APPLICATION FILED MAR. 29, 1907.



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UNITED STATES PATENT OFFICE.

WILLIAM A. THOMPSON AND GEORGE E. BOYER, OF CAMDEN, NEW JERSEY.

METAL-SHEARS.

No. 860,503.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed March 29, 1907. Serial No. 365,329.

To all whom it may concern:

Be it known that we, WILLIAM A. THOMPSON and GEORGE E. BOYER, citizens of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Metal-Shears, of which the following is a specification.

Our invention relates to metal shears, and has for its object the production of a contrivance for cutting sheet metal, such, for example, as the ordinary tin roofing, while it is in position upon the roof, the person operating our invention maintaining an erect attitude while cutting the metal.

It is likewise an object of our invention to provide means for applying the foot as well as the hand to the purpose of cutting through a seam or like thickened part of the sheet of metal acted upon.

Our invention consists of a suitable shank and handle, to which are pivotally connected in shearing relation to each other, a rotating cutter, and a foot lever cutter, constructed as substantially illustrated in the accompanying drawings, of which

Figure 1 represents a top plan view. Fig. 2 is a vertical sectional view taken upon line *x-x* of Fig. 3, which is a side view of our invention.

Like letters are employed to refer to the same parts in the description and drawings.

The letter A marks a handle of any convenient length such as will enable the user to maintain practically an erect position. From the handle the shank B projects, and the lower portion of the shank is flattened and widened into the head C which is formed with two curved terminations *c* and *c'*, as best shown in Fig. 3. To the upper one, *c*, of those terminations of the head, a rotating cutter D is pivotally secured by means of the shouldered bolt E, which permits the cutter to turn freely. It will be noted in Fig. 2 that the head of the bolt is flush with the surface of the cutter.

To the lower curved termination *c'* of the head C, there is pivotally secured the foot lever cutter F. The left hand end of the lever cutter F designated by the letter *f* in the drawings, and best shown in Fig. 3, is brought to a curved edge as shown, and from that edge a flat surface G, which is also transversely inclined as shown in Fig. 2, extends for a distance towards the pivoted or body portion of the lever. One edge *g* of the flat surface G is a cutting edge, and it lies against the rotary cutter as shown, and coacts with the edge of the rotary cutter as hereinafter explained. At the right hand end, the lever F is provided with an offset pedal H.

Usually, the lower surface of the lever F is somewhat rounded as shown, and such rounded surface rests and slides upon the flat surface J of the roof during the operation of our invention, and is pushed

along until the end *f* of the lever passes beneath the sheet of metal K. Thus, the sheet of metal is forced against the edge of the rotary cutter, and, by the rotation of the cutter thus produced, the sheet metal is pressed against the cutting edge *g* of the lever cutter. Under ordinary circumstances and with relatively sheet metal of the usual thickness of roofing tin, our invention may be moved easily along by a workman standing erect, and the metal will be smoothly cut upon any line desired. When a seam *k* is encountered, the handle is slightly lowered bringing the rotary cutter into the position indicated by the broken lines. The seam is in that way brought between the edge of the rotary cutter and the edge *g* mentioned, whereupon the workman presses upon the pedal H with his foot, at the same time moving the handle slightly forward, and by reason of the great leverage afforded the seam is severed with a minimum of effort.

Having thus described my invention and explained the mode of its operation, what I claim is—

1. In a metal shears, the combination with the shank having a head, of a rotary cutter secured to one portion of the head, and a cutter lever having a cutting edge arranged against the said rotary cutter whereby the said cutting edge of the lever and the edge of the rotary cutter meet at an angle adapted to receive sheet metal to be cut, substantially as described.

2. In a metal shears, the combination with the shank having a head, of a rotary cutter secured to one portion of the head, and a cutter lever having a cutting edge arranged against the said rotary cutter whereby the said cutting edge of the lever and the edge of the rotary cutter meet at an angle adapted to receive sheet metal to be cut, the surface adjacent to the cutting edge of said lever being inclined downwardly away from the said cutting edge, substantially as described.

3. In a metal shears, the combination with the shank having the head, of a rotary cutter secured to one portion of the head, and a cutter foot lever having one end brought relatively to an edge and a cutting edge extending from the said end, the said cutting edge being arranged against the said rotary cutter whereby the said cutting edge of the lever and the edge of the rotary cutter meet at an angle adapted to receive sheet metal to be cut, and one end of the said lever being provided with a pedal, substantially as described.

4. In a metal shears, the combination with a shank having the head, of a rotary cutter secured to one portion of the head, and a cutter foot lever having one end brought relatively to an edge and a cutting edge extending from the said end, the surface adjacent to the cutting edge of said lever being inclined downwardly away from the said cutting edge, the said cutting edge being arranged against the said rotary cutter whereby the said cutting edge of the lever and the edge of the rotary cutter meet at an angle adapted to receive sheet metal to be cut, and one end of the said lever being provided with a pedal, substantially as described.

In testimony whereof we affix our signature in presence of two witnesses.

WILLIAM A. THOMPSON.
GEORGE E. BOYER.

Witnesses:

BENJAMIN F. BUCHANAN,
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