

No. 617,440.

Patented Jan. 10, 1899.

A. JONES.  
SCROLL SAW.

(Application filed Mar. 7, 1898.)

(No Model.)

Fig. 6.

Fig. 1.

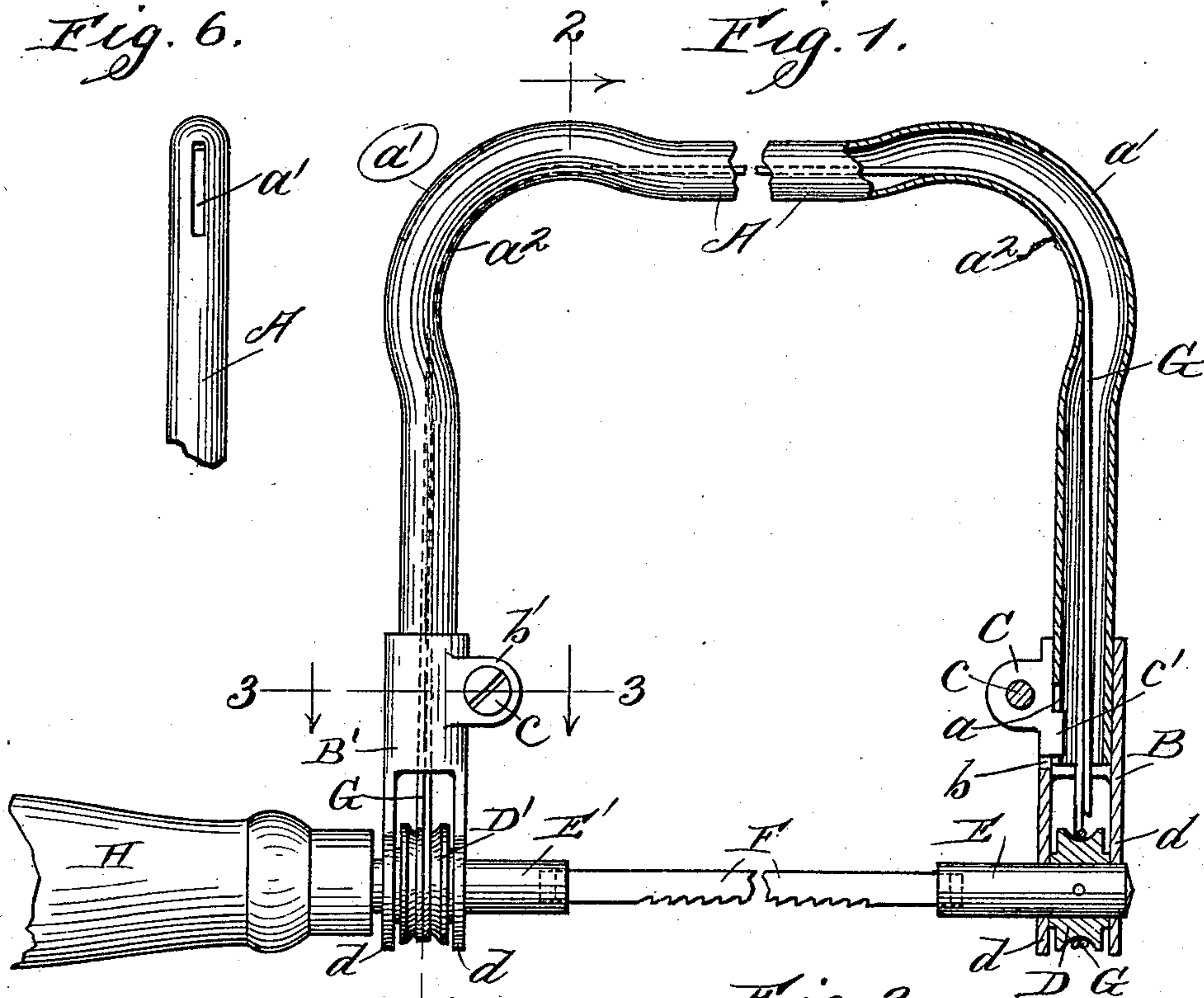


Fig. 3.

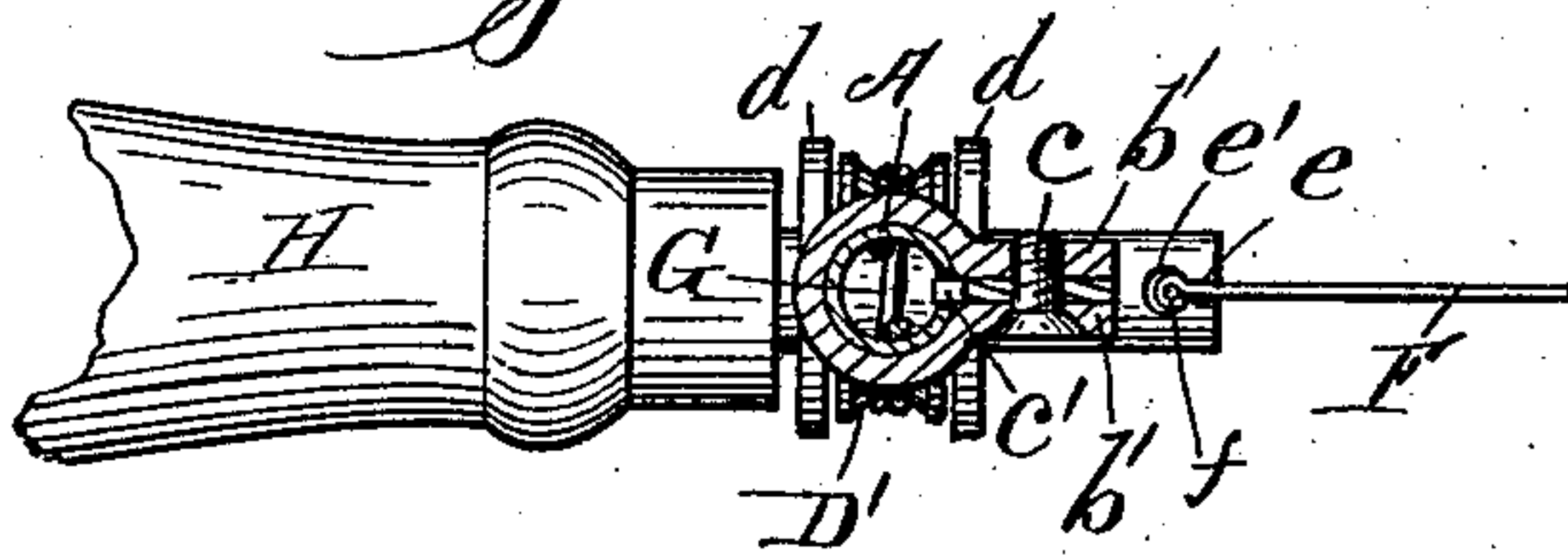


Fig. 2.

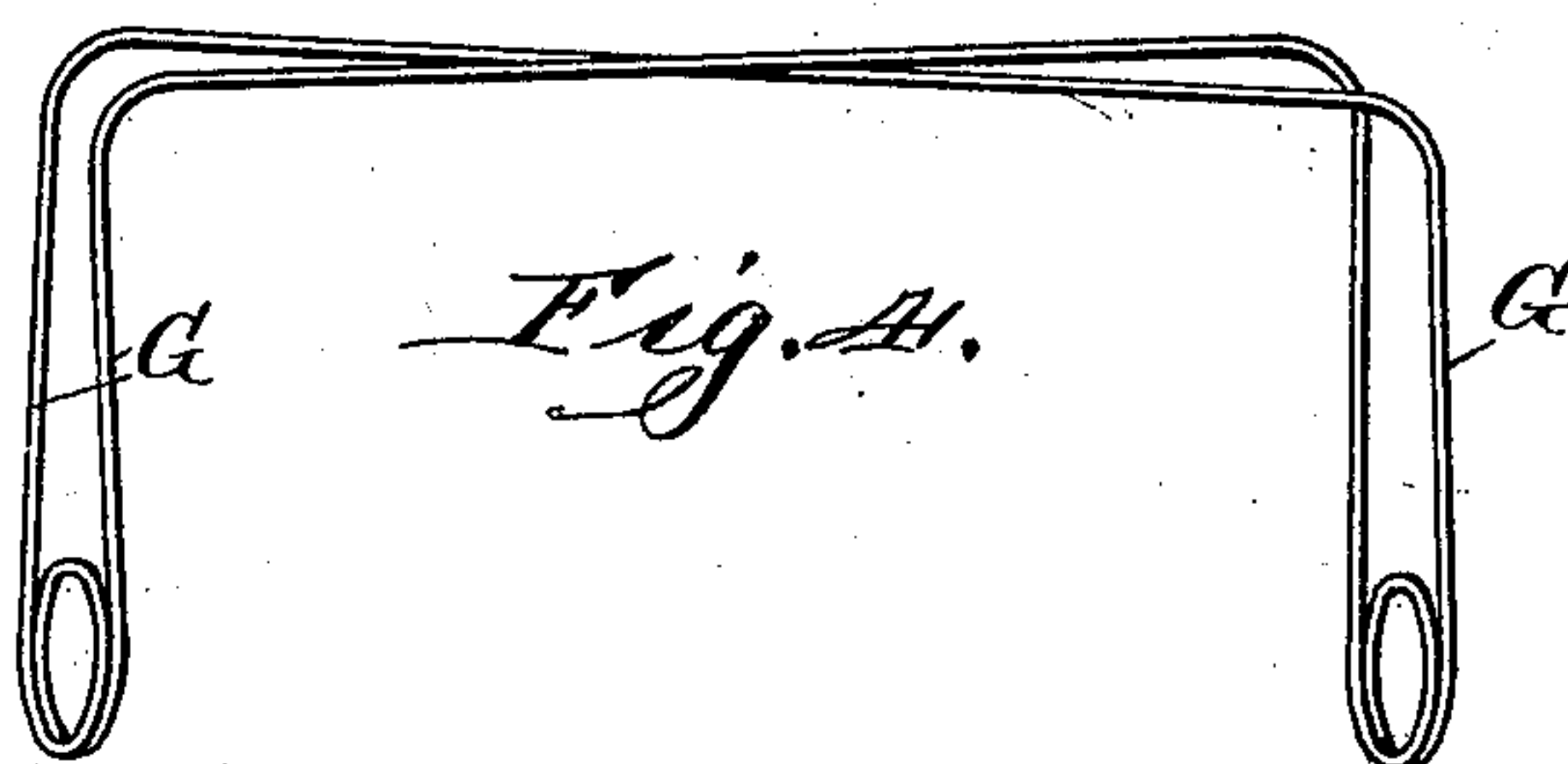
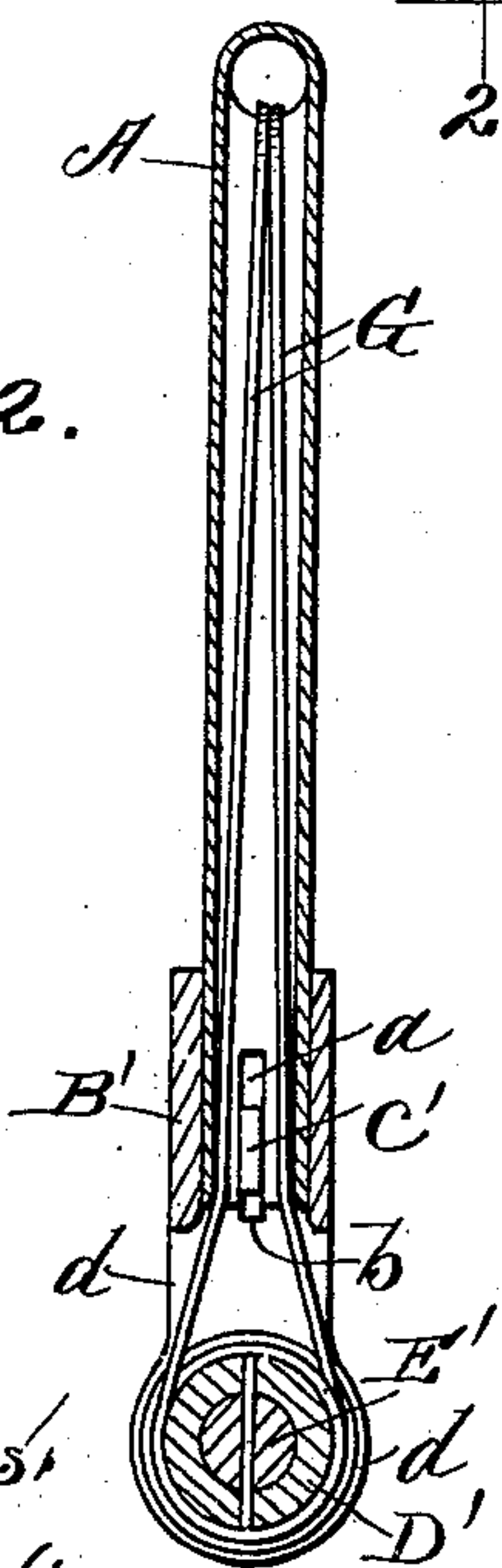


Fig. 4.

Fig. 5.



Inventor:

Arthur Jones.

By Chas. Chittenden, Atty.

Witnesses:  
W. J. Jaeger,  
C. A. Duggan.



# UNITED STATES PATENT OFFICE.

ARTHUR JONES, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOHN P. DOMMERSNAS, OF SAME PLACE.

## SCROLL-SAW.

SPECIFICATION forming part of Letters Patent No. 617,440, dated January 10, 1899.

Application filed March 7, 1898. Serial No. 672,862. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR JONES, a subject of the Queen of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Scroll-Saws, of which the following is a specification, and for which applications for Letters Patent in Great Britain, France, and Germany were filed on or about the 28th day of January, 1898.

This invention relates to improvements in that class of scroll-saws designed to be operated by hand and to be used for cutting out intricate patterns in pieces of various kinds of material for ornaments, coping, and the like and for doing other curved or irregular work; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of my invention is to afford a hand-operated scroll-saw of the above-named character in which the saw-blade may be readily turned in its bearings to any desired angle, thus enabling the cut or incision to be made in any direction from the operator.

Another object of my present invention is to provide a simple and efficient means of tightening the cable or cord through the medium of which the stub-shafts to which the saw-blade is secured may be turned, and also to provide a construction of the saw-frame through which the cable or cord may be readily inserted and will have suitable curved resting portions near the corner of the frame.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in elevation, partly in section, of my invention, showing the saw and its frame shortened for the convenience of illustration. Fig. 2 is a sectional view, taken on line 2 2 of Fig. 1, showing the frame and the endless cord or cable for operating or changing the position of the saw. Fig. 3 is an enlarged view, partly in section, taken on line 3 3 of Fig. 1, looking in the direction of

the arrows, showing a portion of the handle and a part of the saw-blade. Fig. 4 is a perspective view of the endless cable or cord detached. Fig. 5 is a similar view, detached, of a key used for securing parts of the frame together; and Fig. 6 is a view in elevation of a portion of the frame, showing one of the slots therein to be used for facilitating the passage of the cable through the frame.

Similar letters refer to like parts throughout the different views of the drawings.

A represents the frame, which may be made of any suitable size, form, and material, but preferably tubular, as shown in the present instance, and bent to form three sides of a substantially rectangular figure. The ends of the frame are secured in suitable socket-pieces B and B', each of which is provided in its upper portion with a slot *b* to receive a key C, secured in position between the lugs *b'* on the socket-pieces by means of a screw *c*, used for tightening or clamping the socket-pieces on the ends of the frame. The keys are provided at their inner portions with projections *c'* to enter slots *a* in the ends of the frame A to prevent the socket-pieces turning thereon. The lower portions of the socket-pieces B and B' are formed or provided with prongs *d*, between which are located sheaves or grooved pulleys D and D', which are mounted on stub-shafts E and E', journaled in the forks or prongs *d* of the socket-pieces. The shafts E and E' are each provided in their free and inner ends with slots *e*, which terminate in enlargements *e'* to receive the saw-blade F and enlargements *f* on the ends thereof. The cable or cord G, as shown in Figs. 1, 2, and 4 of the drawings, is passed once and a half around each of the sheaves or pulleys D and D' and then passes up and through the frame A and has its strands crossed, as shown in Fig. 4 of the drawings, on the upper portion of the frame. For the convenience of passing this cable through the frame A said frame is provided in its curved portions or corners with slots *a'* on its outer surface, as shown, the inner surfaces of the curved portions of the frame affording bearings for the cord or cable G, as is apparent. Secured to one of the stub-shafts, and



usually that one E', located in the socket-piece B', is a handle H, which is used for forcing the saw back and forth through the material to be sawed and is also employed for  
5 turning the blade to the desired position.

The inner portions  $a^2$  of the curved parts of the frame form bearing-surfaces for the cable G, and the openings  $a'$  in the outer surface of the said curved parts may be used for the  
10 insertion of an instrument employed for pushing the cable or cord through the tube.

The operation of my saw is simple and as follows: The enlargements  $f$  on the ends of the blade F may be inserted into the enlarged  
15 openings  $e'$  near the ends of the stub-shafts, in which position the said blade will be held by reason of the slight tendency of the ends of the frame to spring apart. After the blade  
20 it may be turned to any desired position by turning the handle, which will cause the pulleys to rotate by reason of the cable or cord which connects them. In the event of the cable or cord becoming slack through stretch-

ing or otherwise the ends of the frame extending into the socket-pieces may be moved outwardly until the cable is made taut and held in such a position by clamping the socket-pieces thereon.

Having thus fully described my invention, 30 what I claim as new, and desire to secure by Letters Patent, is—

The combination with the frame, having a slot in each of its ends, of a slotted socket-piece secured on each end thereof, a key se- 35 cured in the slot of each of the socket-pieces, the pulleys journaled in the said socket-pieces, a saw-blade secured to the pulley-shafts, a handle secured to one of the pulley-shafts, and a cable connecting and encircling 40 the pulleys and being supported by the frame, substantially as described.

Chicago, Illinois, March 3, 1898.

ARTHUR JONES.

Witnesses:

CHAS. C. TILLMAN,  
E. A. DUGGAN.