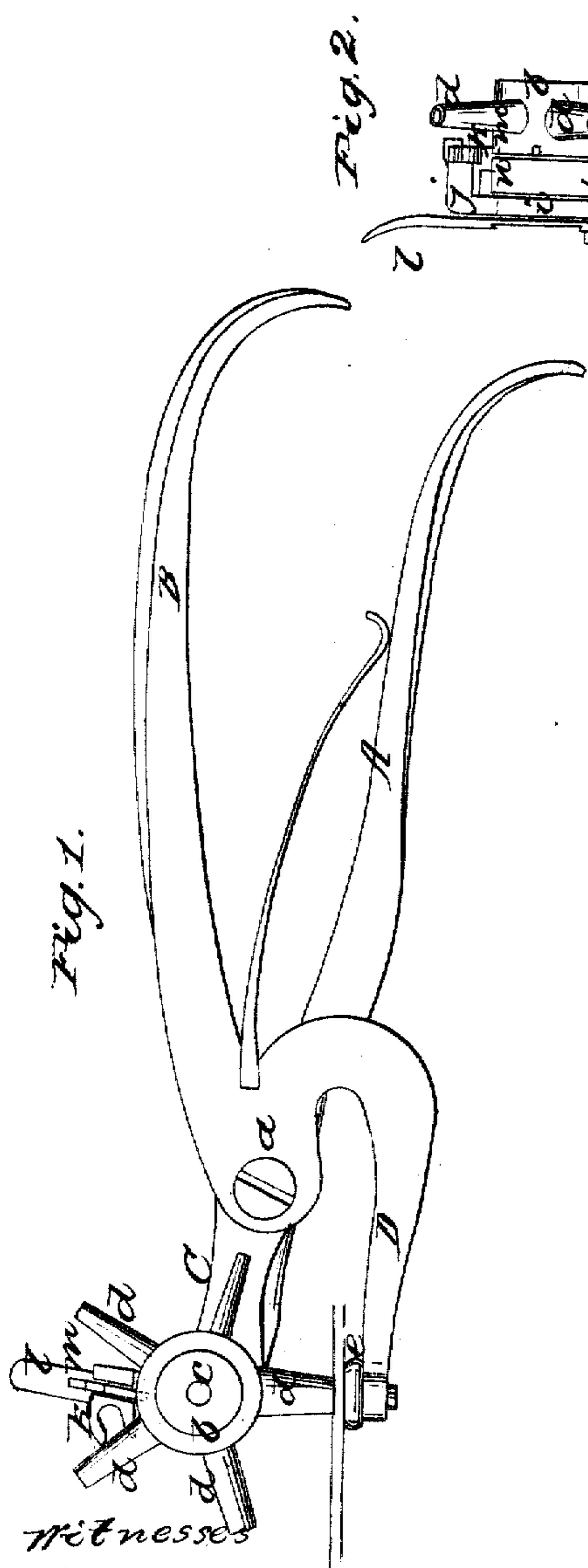
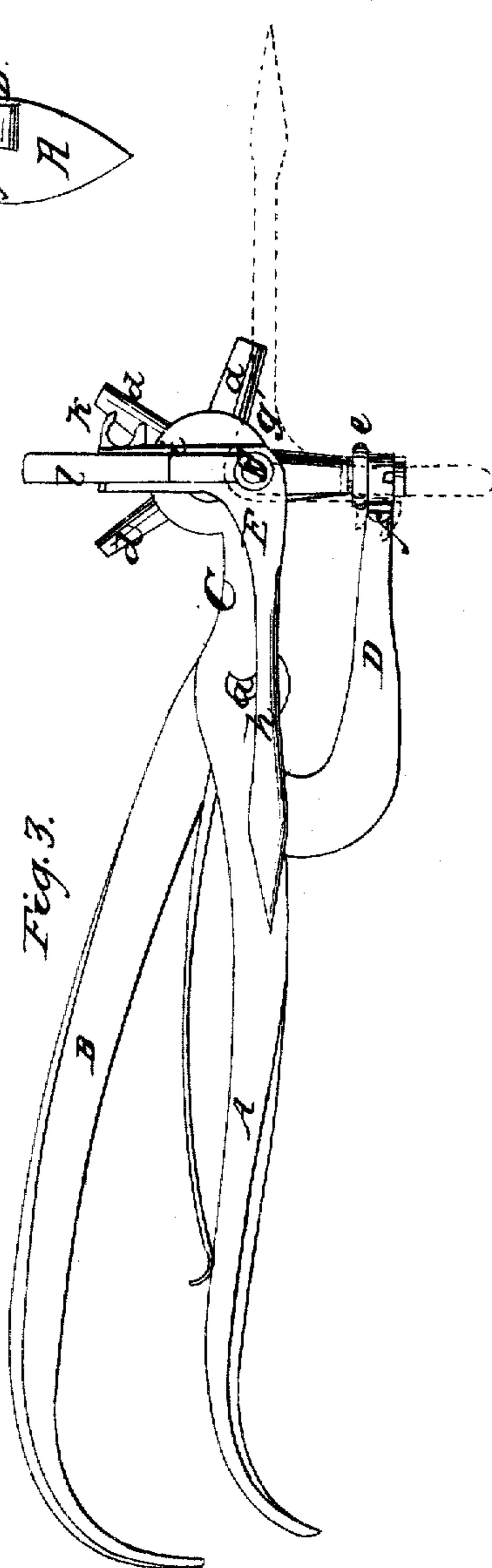
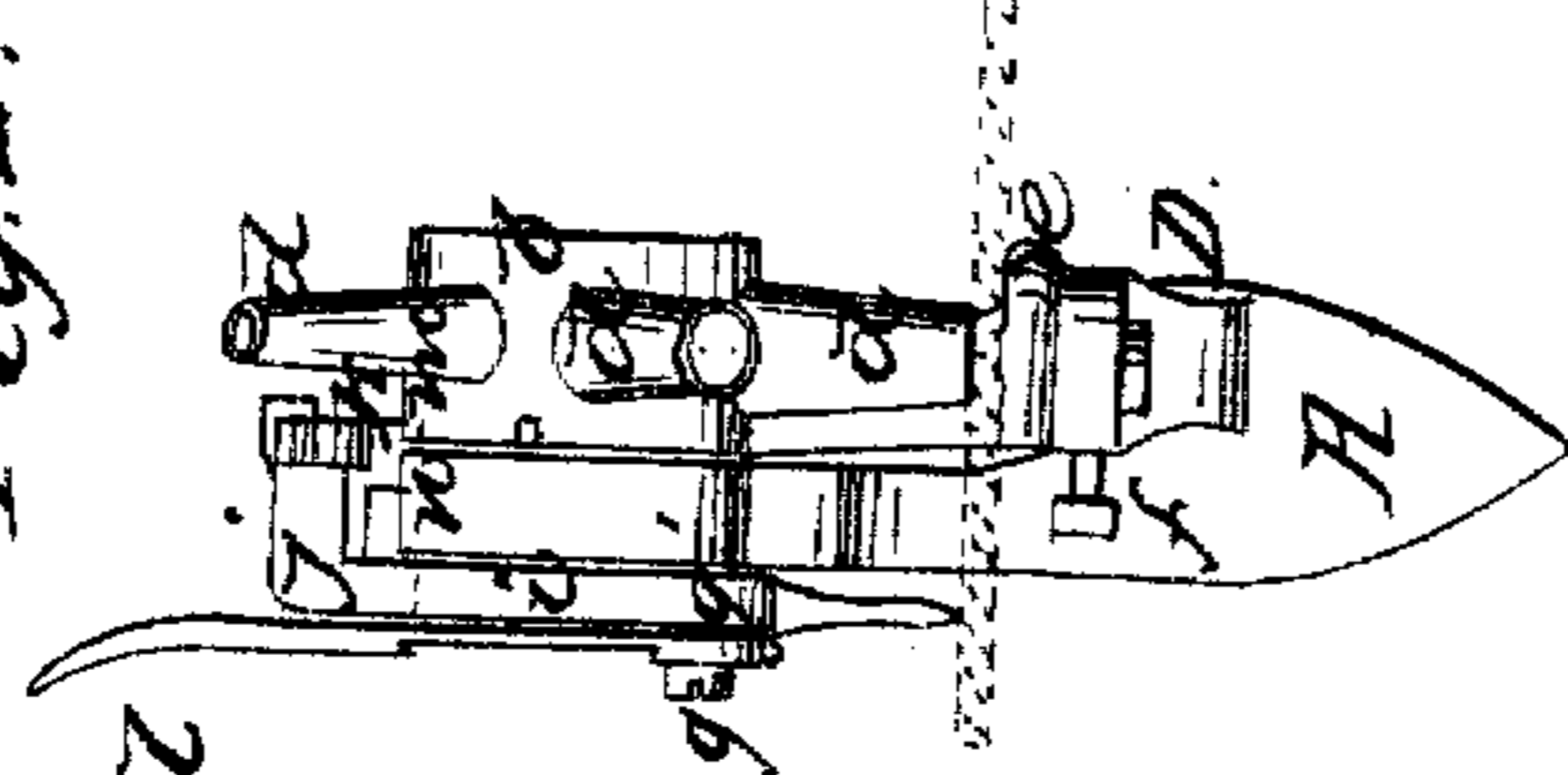


*F. P. Pfliegbar,*  
*Punch and Awl,*  
*No 22,744, Patented Jan 25, 1859.*



*Witnesses*  
*William Schollhorn*  
*John Adams*



*Inventor*  
*Frank P. Pfliegbar*

# UNITED STATES PATENT OFFICE.

F. P. PFLEGHAR, OF WHITNEYVILLE, CONNECTICUT.

## COMBINED PUNCH AND AWL.

Specification of Letters Patent No. 22,744, dated January 25, 1859.

*To all whom it may concern:*

Be it known that I, F. P. PFLEGHAR, of Whitneyville, in the county of New Haven and State of Connecticut, have invented a new and useful implement or tool designed to be used in sewing machine-belts and for analogous purposes, said implement or tool being a combined punch and awl; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my invention, showing the position of the parts when used as a punch. Fig. 2, is a front end view of do. Fig. 3, is a side view of do., showing the position of the parts when used as an awl.

Similar letters of reference indicate corresponding parts in the several figures.

This invention is designed to facilitate the sewing together of the ends of machine belts, work which is required to be done frequently in machine shops and in places where belts are used to drive machinery. The invention is also applicable for other purposes where leather or any fabric is punched and laces passed through the holes, for the purpose of connecting the ends together, or for analogous purposes.

The invention consists in combining a rotating punch stock with an awl in a manner, as hereinafter fully shown and described, whereby the desired end is attained by a very simple means.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, B, represent two shanks or handles which cross each other and are connected by a fulcrum pin *a*, as shown clearly in Figs. 1, and 2. The outer ends of the handles beyond the fulcrum pin *a*, are the jaws, and to the jaw C, of the handle A, a cylindrical head *b*, is attached by a pin or bolt *c*, the head being allowed to turn freely on said pin or bolt. The head *b*, is hollow, or of cup-form, and a series of steel tubes *d*, are screwed radially into the head. These tubes *d*, are of different sizes or diameters, and their outer ends are brought to a cutting edge, precisely similar to the cutting edge

of the tube of an ordinary leather or shoemaker's punch. The tubes *d*, communicate with the interior of the head *b*.

The jaw D, of the handle B, is curved or bent so as to extend below the tubes *d*, as shown clearly in Figs. 1, and 3, and a bed *e*, of copper or other soft metal is attached to the outer end of the jaw D, to serve as a bearing for the tubes *d*. To the outer end of the jaw D, at one side, a pin *f*, is attached, shown in Figs. 2 and 3.

E, is a bent bar or rod which is secured by a pin *g*, at its angle *g'*, to the jaw C, at the side opposite to that where the head *b*, is attached. This bar or rod is so bent that one part *h*, is at right angles to the other part *i*. The part *h*, has its end terminating in a point, forming an awl, as shown clearly in Fig. 3. The end *j*, of the arm *i*, of the bar or rod extends out at right angles to its main portion *i*, and a fork *k*, is attached to the part *j*. To the part *i*, there is attached a spring *l*, and this spring has a plate *m*, secured to it, the plate fitting in a slot in the end *j*, of the part *i*, and extending a short distance below it, as shown clearly in Figs. 1 and 2.

The end of the jaw C, is made of cylindrical form and has a recess *n*, made in it to receive the end of the plate *m*, when the part *i*, of the bar or rod E, is in a vertical position, as shown in Fig. 3. When the part *i*, is in such position, the implement is used as a punch, the plate *m*, fitting in either of a series of recesses *o*, in the periphery of the head *b*, so as to secure the proper sized tube *d*, directly over the bearing *e*, the plate *m*, in consequence of being acted upon by the spring *l*, retaining both the bar or rod E, and head *b*, in the desired position. The leather or other article or substance, shown in red, is punched by passing it between the tube *d*, and bearing *e*, and the handles A, B, pressed together, as usual. When the leather or other article is punched, the spring *l*, is shoved outward from the head *b*, and the plate *m*, will be allowed to pass out of the recesses in the head and jaw, and the bar or rod E, is turned on the pin *g*, until the awl *h*, projects outward from the head *b*, as shown in red, Fig. 3, and the fork *k*, on the end *j*, of the part *i*, of the rod E, catches over or on the pin *f*, and secures the

awl in this position. The awl is used for assisting the passing of the lacing or thongs through the perforations made in the leather or fabric. Thus it will be seen that the implement is a combination of a punch and awl, and that either may be used as required.

The implement is quite simple and efficient and will prove a valuable acquisition for machine shops and factories where much belting is used for driving machinery, for belts are constantly stretching by use and require to be "taken up," or shortened from time to time.

I do not claim a plurality of cutter tubes *d*, of different sizes, attached to a rotating head *b*, for the purpose of punching holes of

different sizes, for such device, or its equivalent, has been previously used, but

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

The rotating hollow head *b*, provided with a series of cutter tubes *d*, of different sizes, in combination with the awl *h*, attached to or forming a part of the bent bar or rod *E*, which, as well as the head *b*, is attached to the jaw *C*, and provided with a spring plate or stop *m*, the whole being arranged substantially as and for the purpose set forth.

FRANK P. PFLEGHAR.

Witnesses:

WILLIAM SCHÖLLHORN,  
JOHN ADAMS.