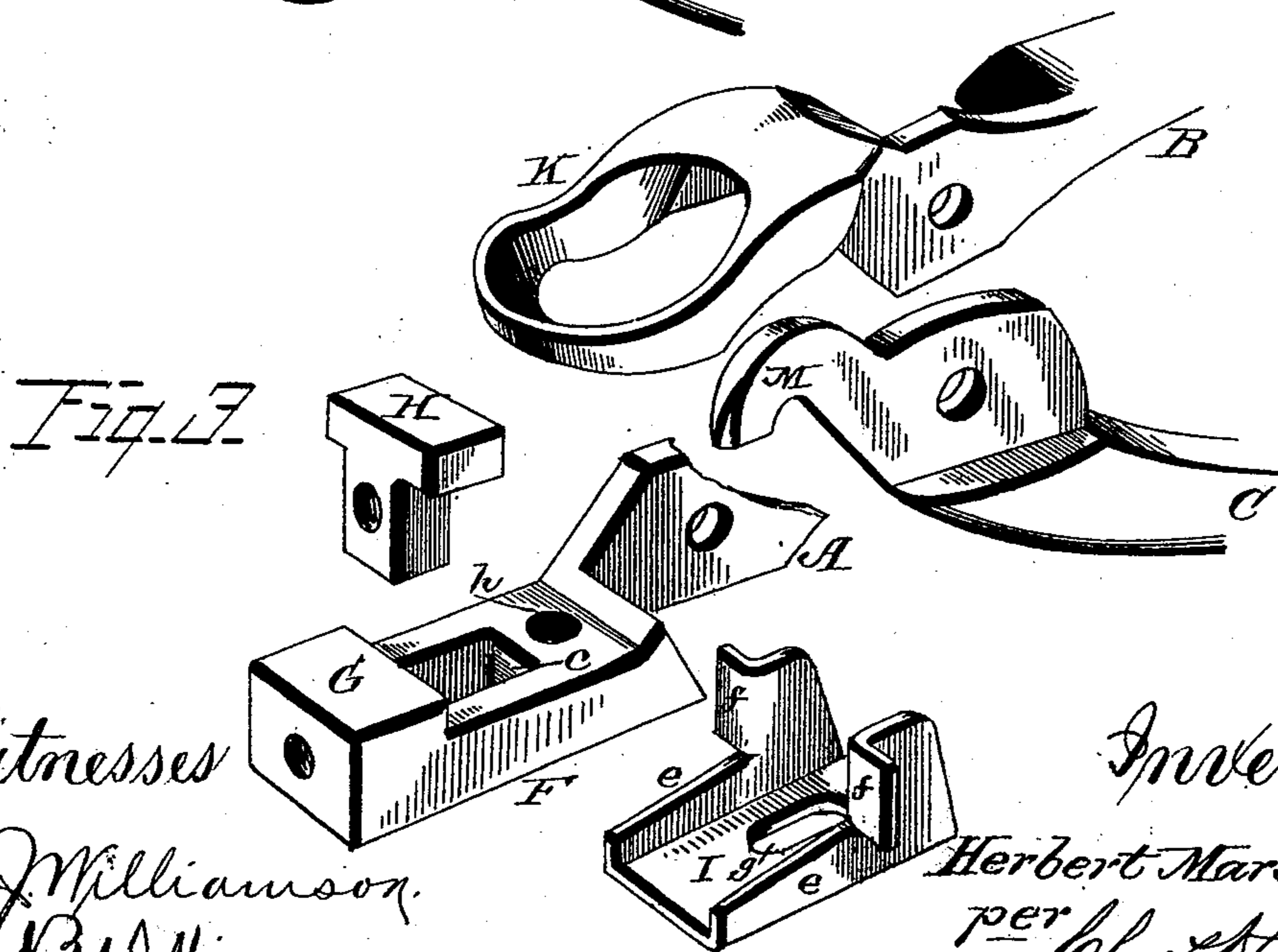
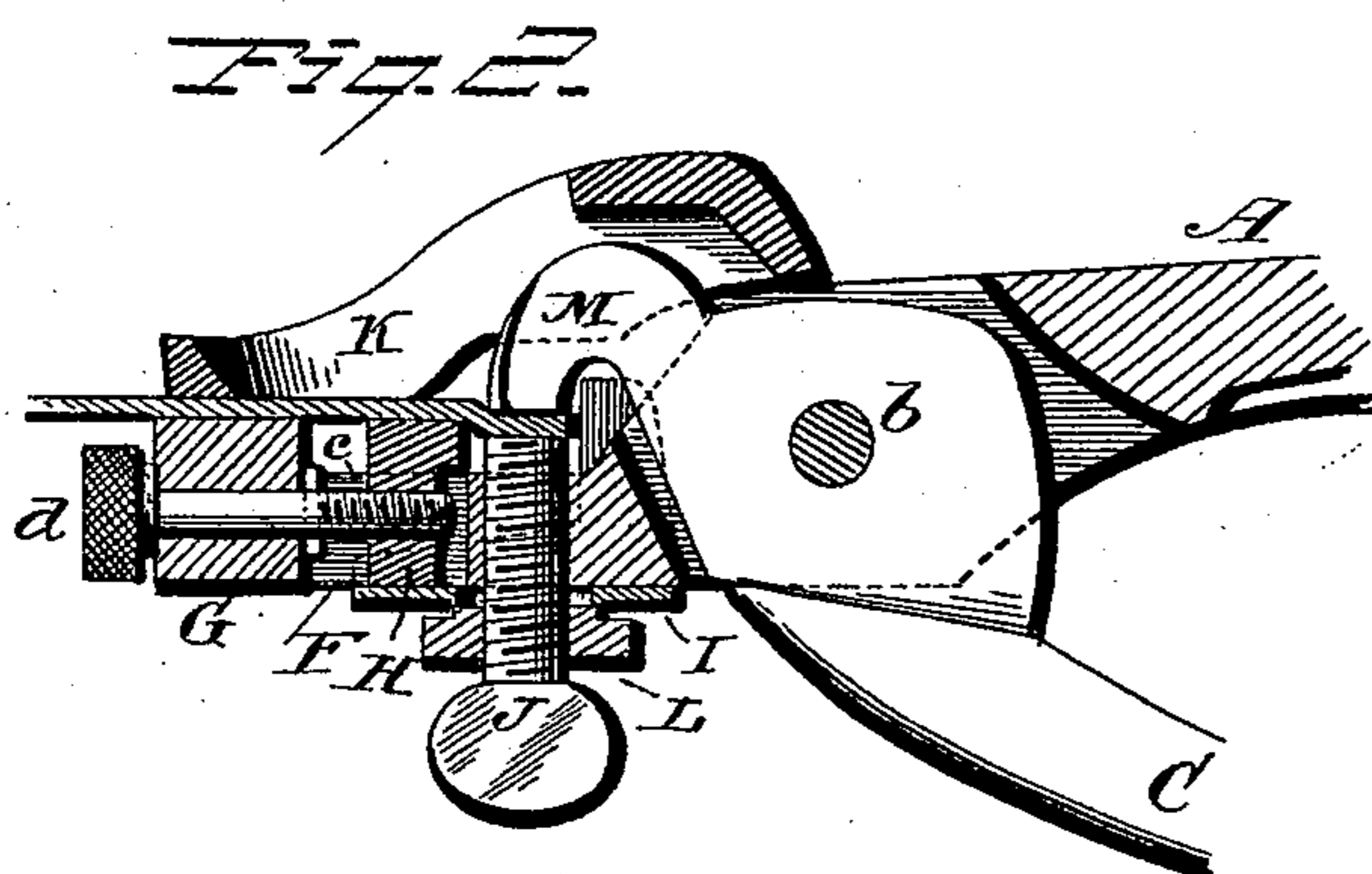
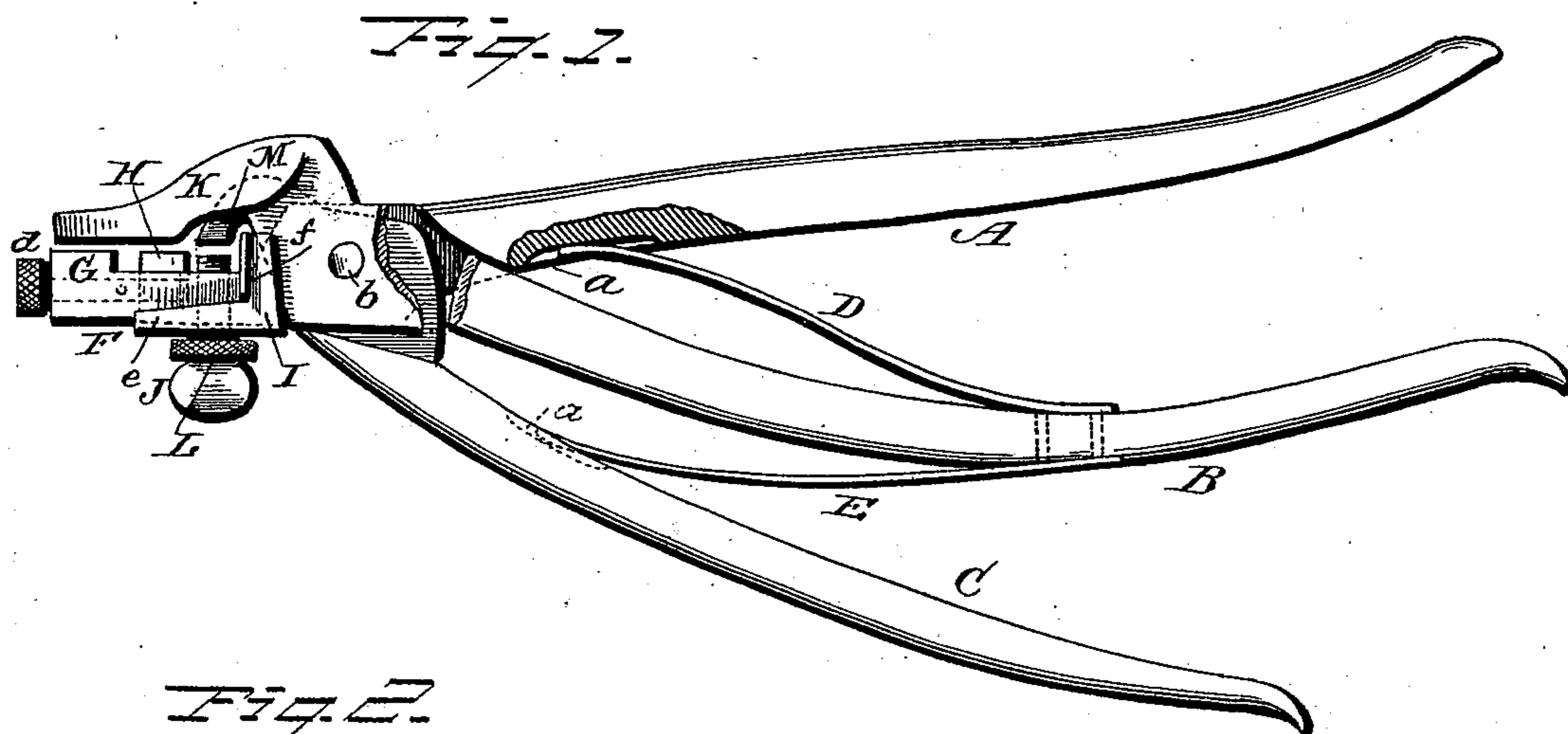


(No Model.)

H. MARSHALL.  
SAW SET.

No. 518,260.

Patented Apr. 17, 1894.



Witnesses

W. Williamson.  
C. B. Wellinger.

Inventor

Herbert Marshall.  
per Cha. N. Fowler  
Attorney.

# UNITED STATES PATENT OFFICE.

HERBERT MARSHALL, OF LOS ANGELES, CALIFORNIA.

## SAW-SET.

SPECIFICATION forming part of Letters Patent No. 518,260, dated April 17, 1894.

Application filed December 28, 1893. Serial No. 494,944. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT MARSHALL, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Saw-Sets; 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, and to the letters of reference marked thereon.

The present invention has relation to that class of saw-sets provided with three independent operating levers, and the object thereof is to improve the construction of the saw-sets of this character whereby its efficiency is materially enhanced, its operation is rendered more successful upon the saw-tooth in bringing it to the desired angle, and the general construction of the saw set rendering it comparatively inexpensive to manufacture while it will possess the required strength and durability necessary in this class of devices. These several objects I attain by a saw-set constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a side elevation partly in section of my improved saw-set; Fig. 2 a sectional elevation on an enlarged scale showing the operating jaws and their connections. Fig. 3 represents detail views in perspective of the several parts of the saw-sets.

In the accompanying drawings A—B—C represent the three levers of the saw-set, the central lever thereof having connected to its respective sides suitable springs D E, the inner or free ends of the springs engaging grooved bearings *a* upon the inner side of the two outer levers as shown in Fig. 1. These springs are of flat steel of suitable thickness and their inner ends are curved inwardly to a slight degree which enter the grooved bearings, the same forming guides for the ends of the springs. The several levers are connected together in any preferred manner by mortise and pivot *b* or by any other well known means found best adapted to the purpose. The lever A is cast or otherwise provided with a jaw F having at its outer end a support for

the saw-blade, as shown at G, and is cast with a longitudinal slot *c* for a movable anvil H. This anvil which also forms a support for the saw-blade fits within the slot and is adjusted longitudinally therein by means of an adjusting screw *d* engaging with a screw threaded hole in said anvil. The jaw F is provided with an adjustable gage I which is formed with side flanges *e* to embrace the sides of the jaw and steady the gage in its adjustment and prevent any lateral movement thereof. This gage is preferably formed of sheet metal and has the laterally extending stops *f* and the longitudinal slot *g* through which extends the screw J for supporting the tooth of the saw-blade and is provided with a jam-nut L which engages with the threads upon the screw and presses upon the under side of the gage with sufficient friction to hold the gage in its adjusted position. The screw J engages with a screw threaded hole *h* in the jaw F, so that its height can be regulated as circumstances require. The lever B is formed with a clamping-jaw K to act in connection with the support G to hold the saw-blade between them while the teeth thereof are being set. The clamping-jaw K may be of any suitable construction, but the form shown is considered most preferable as it allows the free movement of the punch M upon the end of the lever C, which punch forms the angle or set in the tooth, and which is regulated by the screw J. The saw-blade is firmly held while the tooth is being set by pressure upon the lever C, the punch M thereof forcing the tooth down upon the end of the screw J which gives a set to the tooth that will be uniform and perfect.

Many changes or modifications could be made in the several details of construction without departing from the principle of my invention, and any such changes or modifications as would come within ordinary mechanical skill I reserve the right to make.

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

1. A saw-set consisting of three independently operating levers, the lever A having jaw F with support G for the saw-blade, the longitudinal adjustable anvil H, and the ad-

justable gage I connected to the jaw, and the levers B C having respectively a clamping jaw K and a punch M, substantially as and for the purpose set forth.

- 5 2. A saw-set consisting of the lever A having slotted jaw F and support G, an anvil H adjustable within the slot, the adjustable gage I, the screw J and jam-nut L for holding the gage in its adjusted position, and the levers  
10 B C having respectively the clamping-jaw K

and the punch M, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HERBERT MARSHALL.

Witnesses:

E. J. LEVY,

GEO. D. BETTS.