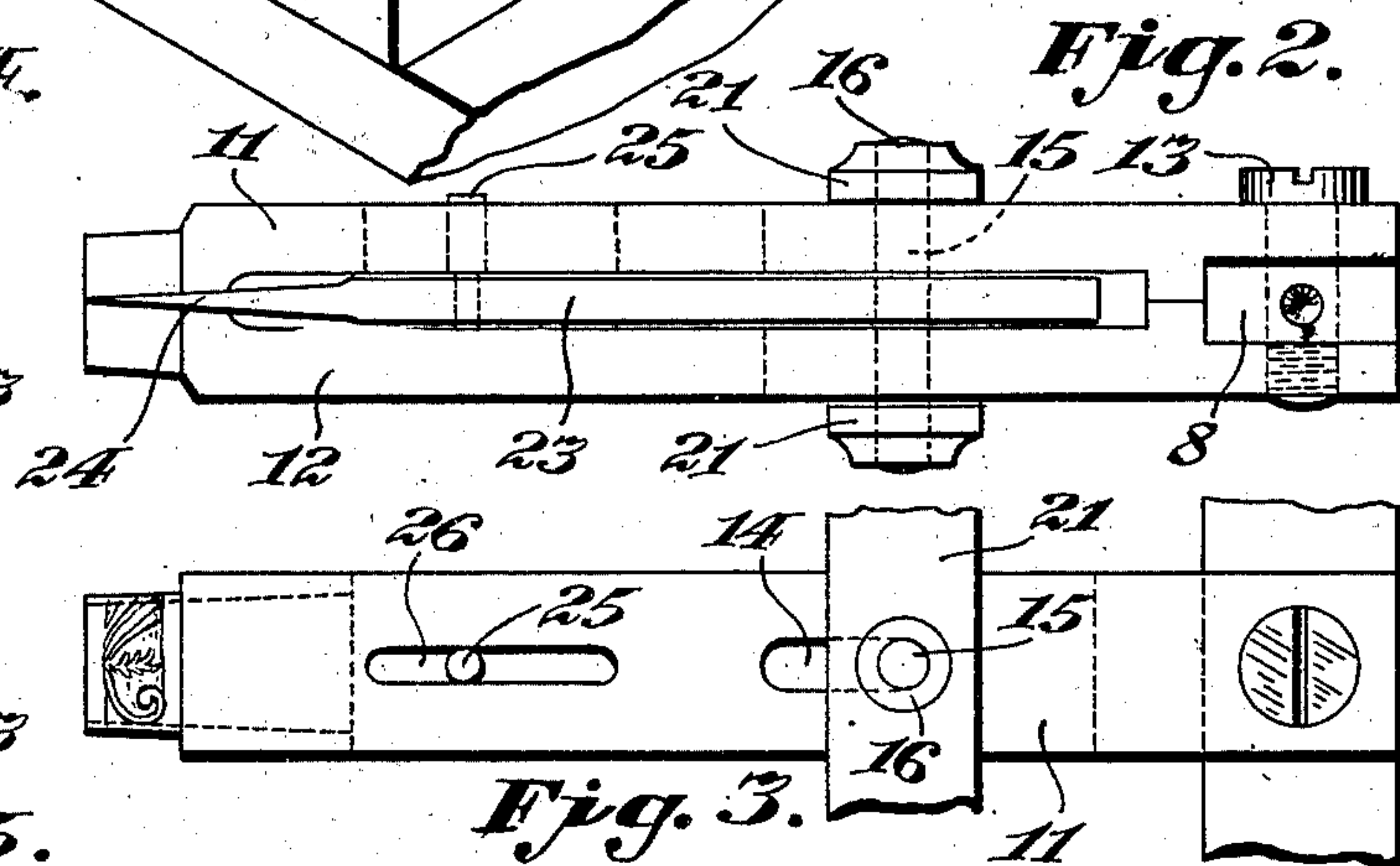
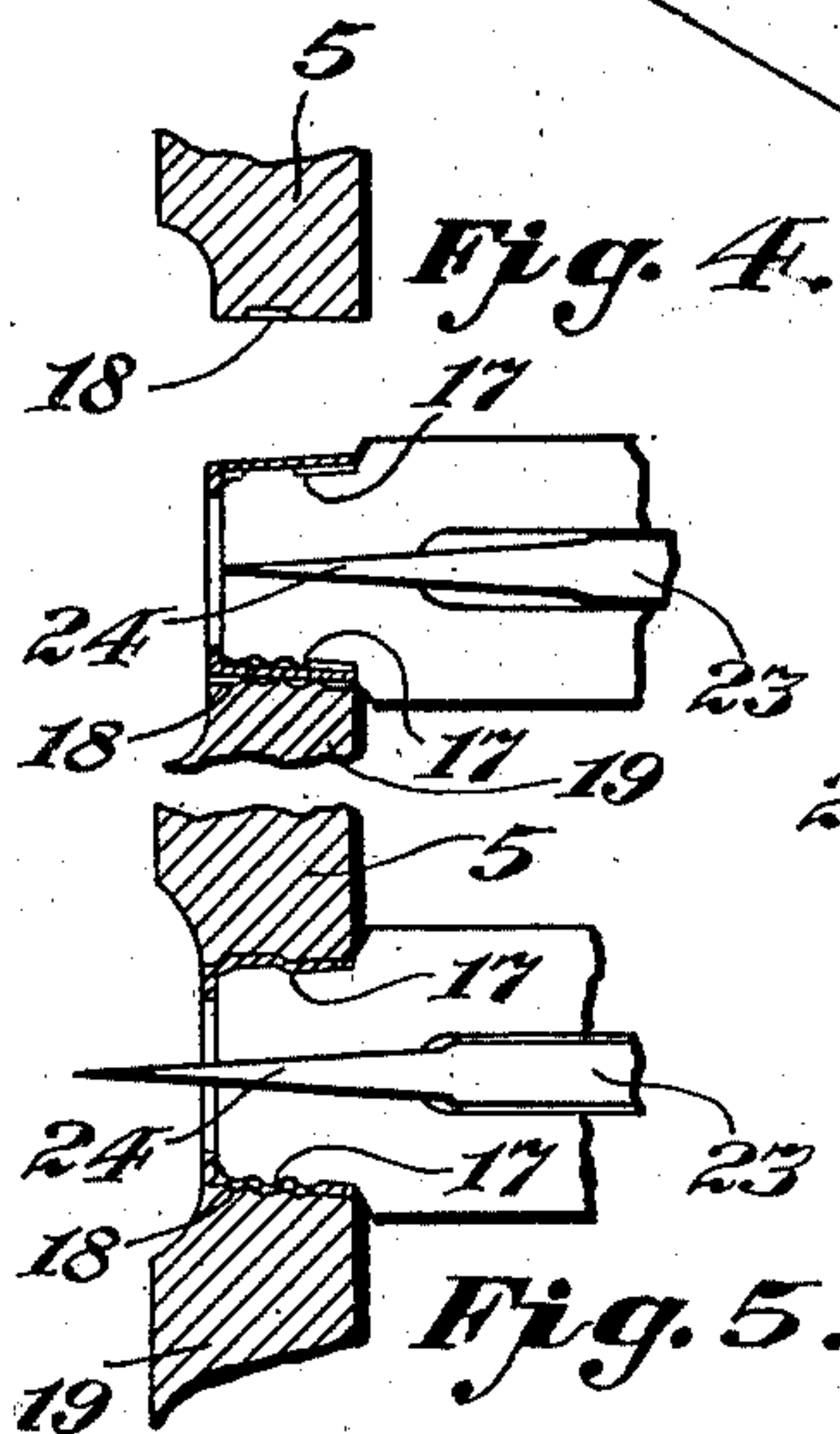
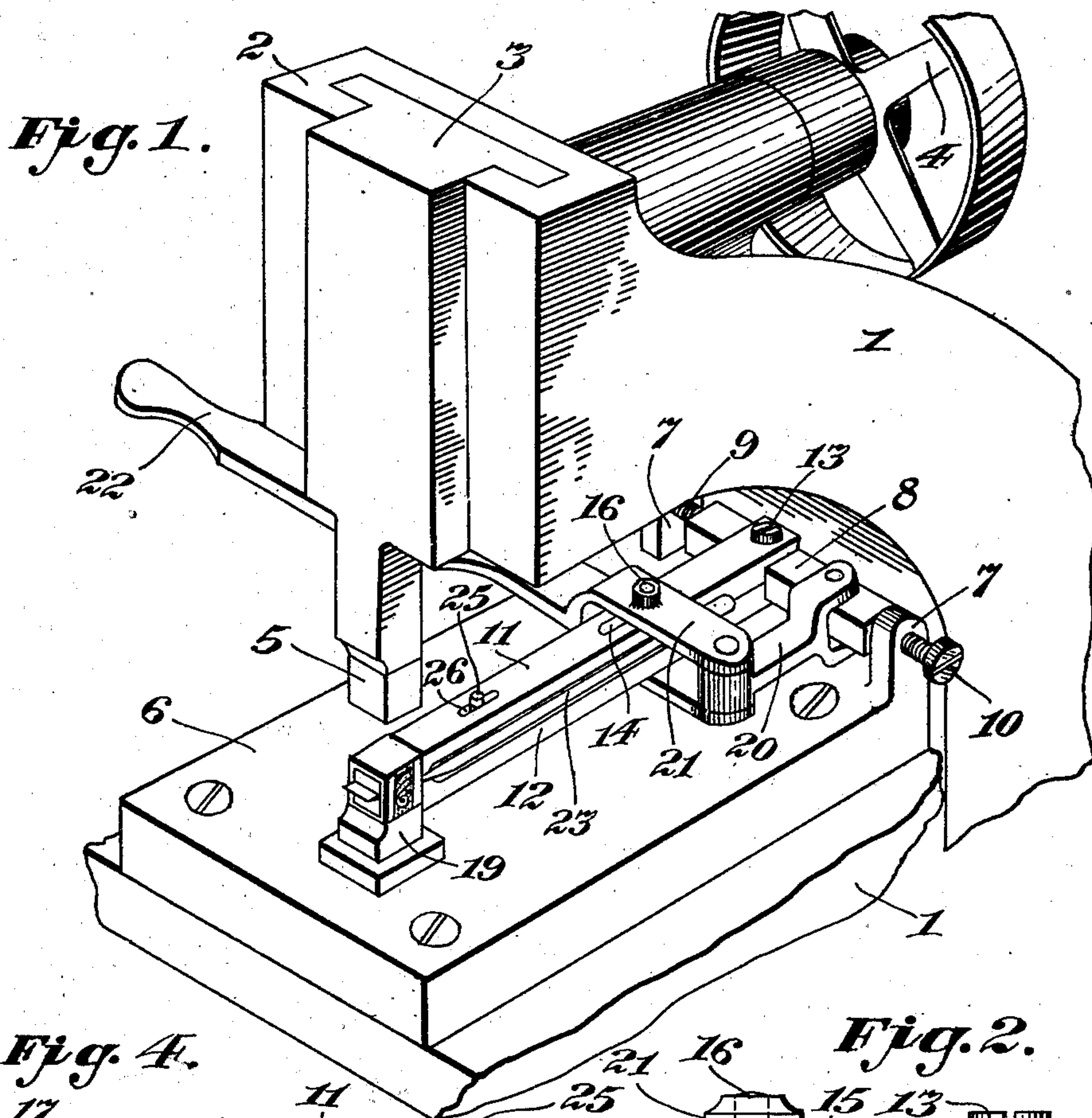


J. KIRSCHBAUM.  
 DEVICE FOR ORNAMENTING ARTICLES.

APPLICATION FILED AUG. 7, 1902

NO MODEL.

*Fig. 6.***Witnesses:***C. H. Kelsey.**Er. Ralph Julian Sachers*

**Inventor:**  
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 By his Attorney,

*F. H. Richards,*



# UNITED STATES PATENT OFFICE.

JOHN KIRSCHBAUM, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE NOVELTY MFG. CO., OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## DEVICE FOR ORNAMENTING ARTICLES.

SPECIFICATION forming part of Letters Patent No. 741,915, dated October 20, 1903.

Application filed August 7, 1902. Serial No. 118,788. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN KIRSCHBAUM, a citizen of the United States, residing in Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Devices for Ornamenting Articles, of which the following is a specification.

The present invention relates to a device adapted for use in machines for imparting raised surface ornamentation upon articles of thin compressible material.

The object of the invention is to provide simple and efficient means for inserting into and holding thereon a preshaped article, made of, for instance, sheet metal, in an embossing-machine, so that the finished article may readily be removed even in that case, when the ornamentation is of considerable depth. In machines for this purpose it has been found most difficult to remove the finished article from the counter-die when the ornamentation exceeded a certain depth. By the process of ornamentation the compressible material was forced into the grooves of the counter-die and tightly held therein, causing great difficulty in removing it therefrom, which difficulty could be overcome only by either making the ornamentation very flat or arranging the design in such a way that the ornamented article could be taken off the counter-die by slipping it along its ornaments, in which case ornaments forming grooves and depressions at right angles to the direction of removing the article had to be omitted. The underlying invention obviates these defects by dividing the counter-die and by providing a means for forcing apart the divided parts during the operation of ornamentation, but by allowing them to come together during the placing on or taking off of the metal article.

The drawings, which illustrate the device adapted to a throat or overhanging press, show in Figure 1 a perspective view of such a press; in Fig. 2, a side view of the improved device; in Fig. 3, a top view of the same; in Figs. 4 and 5, side views, partially in section, of the die end of the device; and in Fig.

6 a perspective view of an article manufactured on a machine as illustrated.

1 in Fig. 1 is the frame of an embossing-machine, having an overhanging guideway 2 and the usual means, as block 3, pulley 4, &c., for imparting stroke motion to one of the forming members 5.

A base-plate 6 carries the device forming the subject-matter of the present application. A bar 8 is held between the lugs 7 of the plate 6 by means of the screws 9 and 10. The holding device proper for the article to be ornamented consists of substantially parallel members 11 and 12, the ends of which at one side are fastened to bar 8 by means of a screw 13, whereas the other ends, acting as a counter-die, are provided on their faces 17 with raised ornamentation. Slots 14 are provided in each of the members for a purpose hereinafter to be described. Corresponding to the movable forming member 5 is a stationary forming member 19, between which the die ends of the holding members 11 and 12 are located. Each of the forming members or dies 5 and 19 is provided on its face 18 with intaglio ornamentations forming the counterpart to the raised ornamentation of the faces 17 of the die ends of holding members 11 and 12, acting as a counter-die. Between these holding members is arranged a separating member 23, having a wedge 24, and by means of a bolt 15 and hubs 16 fastened to a fork 21 of a hand-lever 22. This fork 21 is connected by a link 20 to the bar 8, held by the screws 9 and 10 between the lugs 7 of the base 6. The wedge 23 is furthermore provided with a guide-pin 25, sliding in the slot 26 of one of the holding members 11, while bolt 15 slides in the corresponding slot 14 of the said members.

The operation of the device takes place as follows: The holding members are raised and a preshaped article of, for instance, sheet metal, fiber, hard rubber, celluloid, &c., is placed onto the die ends of the holding members and positioned with regard to the forming members. The wedge is inserted between the parts of the counter-dies, so as to separate the same in conformity to the size of the



preshaped article. The movable forming member is caused to strike against the counter-die, whereby raised ornamentation is imparted to the article on its upper and lower sides according to the configuration of the faces of the dies. The wedge is withdrawn from the counter-die, the article removed, replaced thereon with its remaining blank sides toward the forming members, the wedge inserted again, and the ornamentation finished by a second stroke of the movable forming member.

It is to be understood that the device is not limited to the form as illustrated, and all modifications are intended to be included within the scope of the invention and desired to be secured by the following claims.

I claim—

1. In a device for ornamenting articles, the combination of an anvil, a die reciprocable in line with said anvil, a bifurcated mandrel hinged to swing in the plane of mounting of said anvil and said die into and out of operative position between said anvil and said die, one arm of said mandrel lying toward said anvil, and the other arm toward said die, said latter arm of said mandrel provided with a counter-die face toward said die, and a wedge mounted between said arms of said mandrel and slidable to expand the same at said counter-die face.

2. In a device for ornamenting articles, the combination of an anvil, a die reciprocable in line with said anvil, a bifurcated mandrel hinged to swing in the plane of mounting of said anvil and said die into and out of operative position between said anvil and said die, one arm of said mandrel lying toward said anvil and the other arm toward said die, said latter arm of said mandrel provided with a counter-die face toward said die, a wedge mounted between said arms of said mandrel and slidable to expand the same at said counter-die face, guides for controlling the direction of movement of said wedge between said arms, and a lever connected to said wedge and fulcrumed upon said mandrel structure

for moving said wedge relatively of said mandrel to expand or allow of the contraction of said mandrel.

3. In a device for ornamenting articles, the combination of an anvil, a die reciprocable in line with said anvil, a bifurcated mandrel hinged to swing into and out of operative position between said anvil and said die, one arm of said mandrel lying toward said anvil, and the other arm toward said die, said latter arm of said mandrel provided with a counter-die face adapted to cooperate with said die when said mandrel is in operative position, a wedge member slidably mounted between said arms of said mandrel, and slidable to expand the same, guides for controlling the direction of movement of said wedge, a lever pivoted to said wedge member, and a link pivoted to said mandrel structure upon which link said lever is fulcrumed.

4. In a device for ornamenting articles, the combination of an anvil, a die reciprocable in line with said anvil, a die-face upon that side of said anvil toward said die, a bifurcated mandrel hinged to swing in the plane of mounting of said anvil and said die into and out of operative position between said anvil and said die, one arm of said mandrel lying toward said anvil and the other arm toward said die, counter-die faces upon the said arms of said mandrel respectively adapted to cooperate with the said die-face on said anvil and the said reciprocable die, a wedge mounted between said arms of said mandrel and slidable to expand the same at said counter-die faces, guides for controlling the direction of movement of said wedge between said arms, a lever pivoted to said wedge, and a link pivoted to said mandrel structure and upon which link said lever is fulcrumed, said lever providing means for moving said wedge to expand or allow of the contraction of said mandrel.

JOHN KIRSCHBAUM.

Witnesses:

RALPH JULIAN SACHERS,  
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