

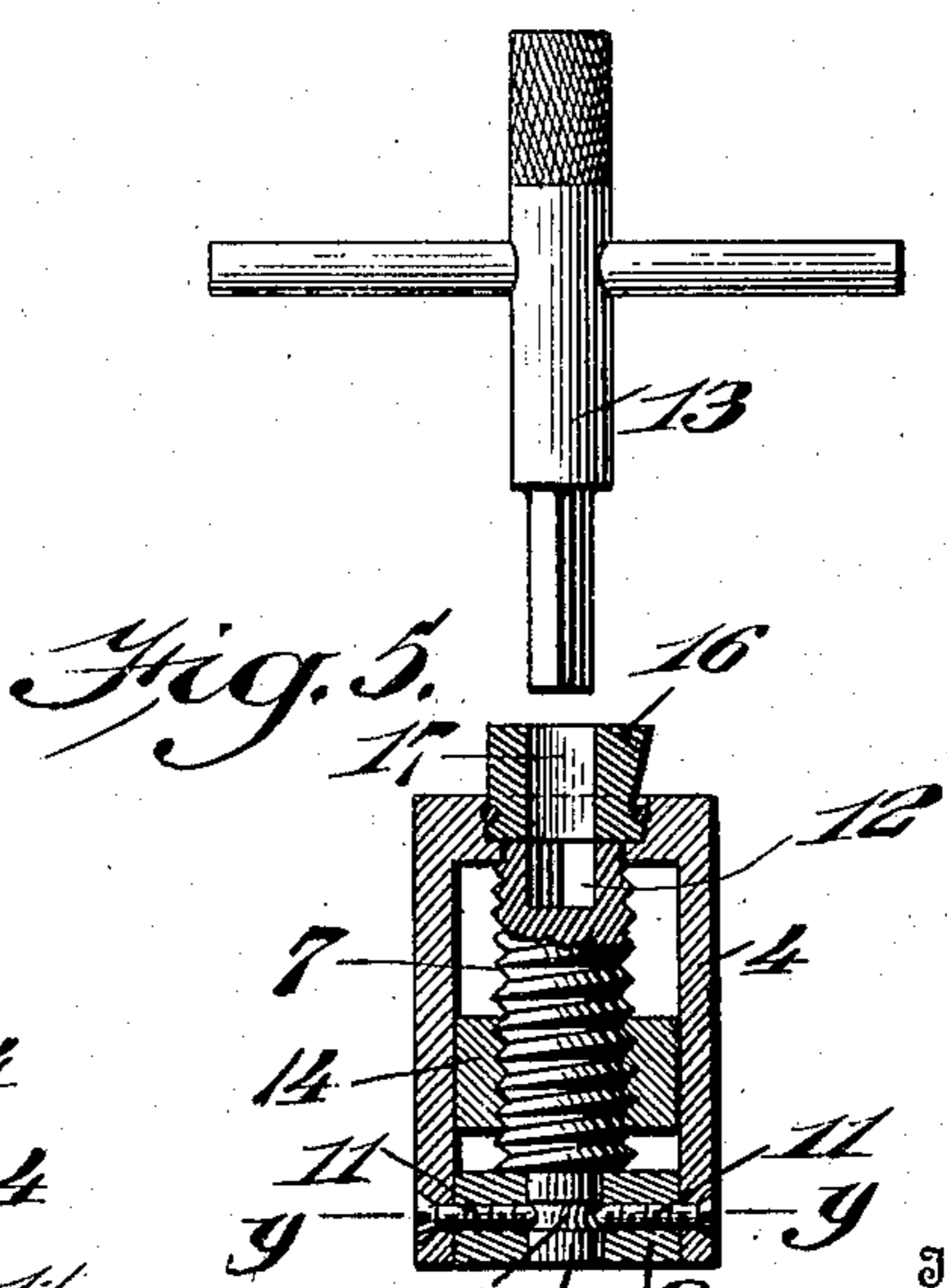
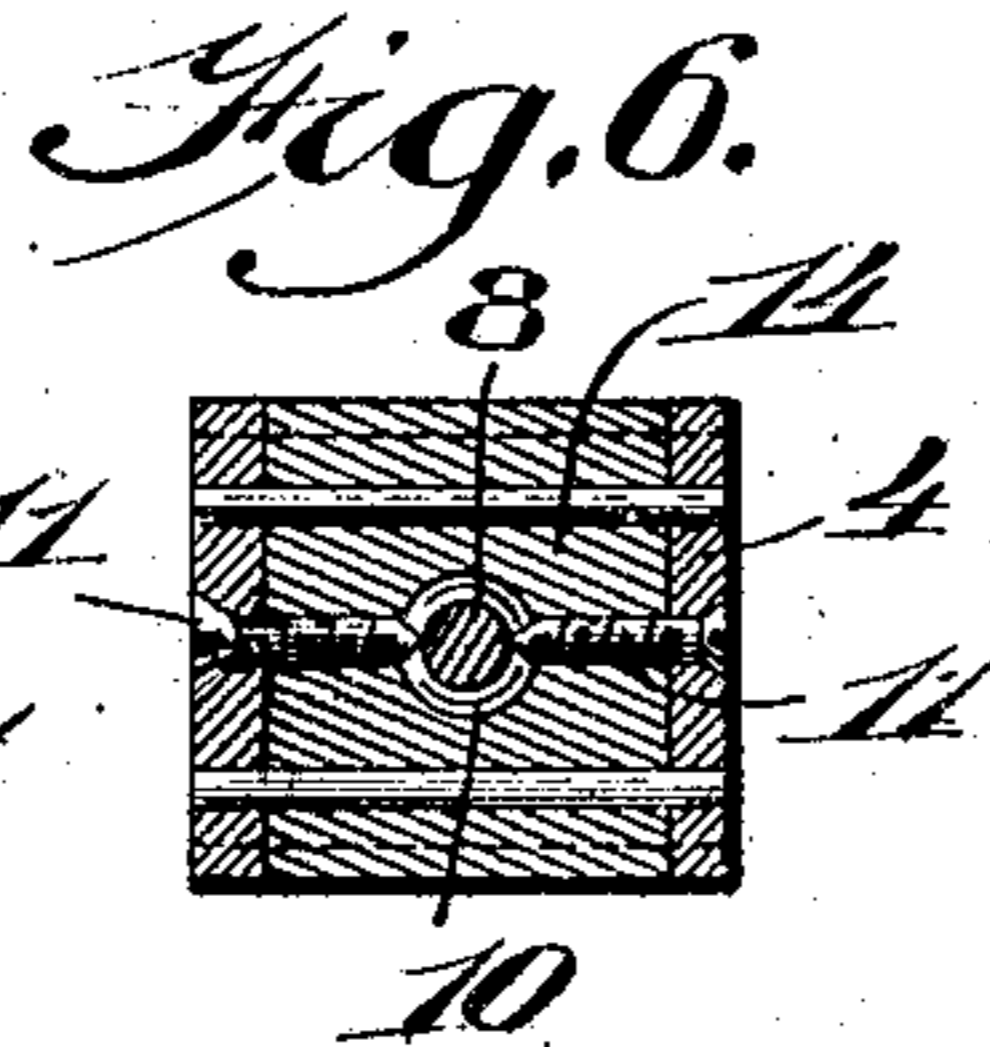
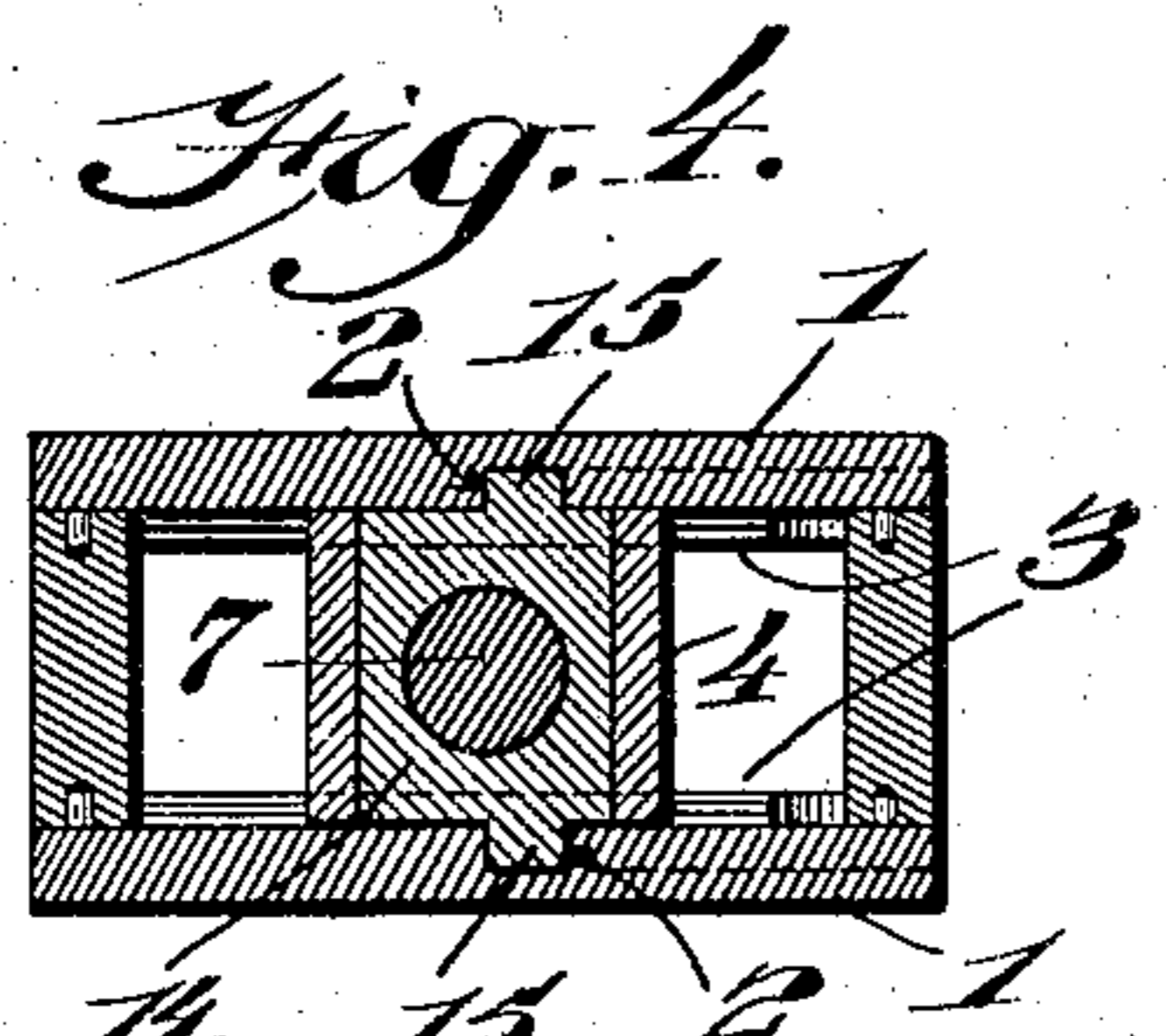
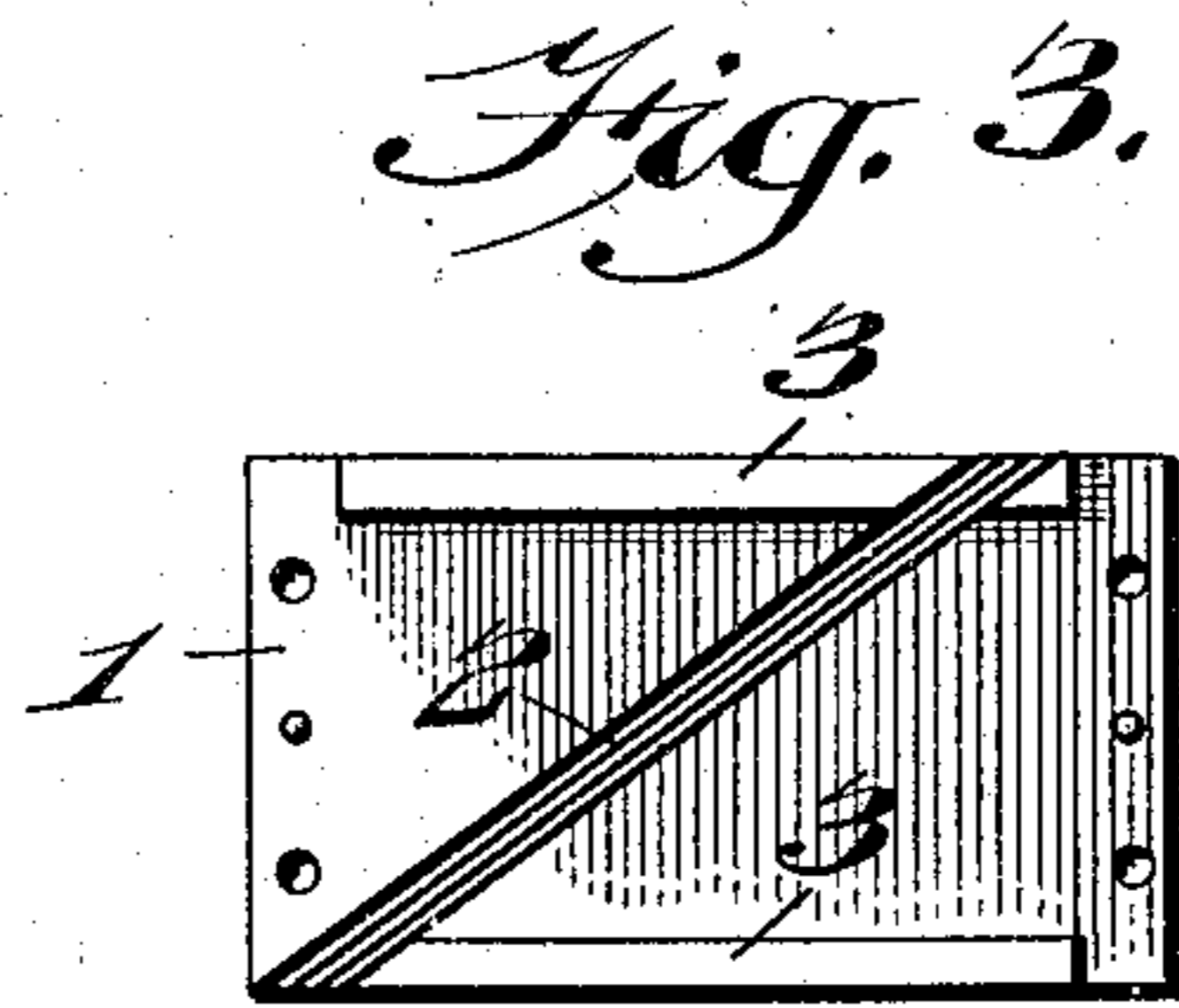
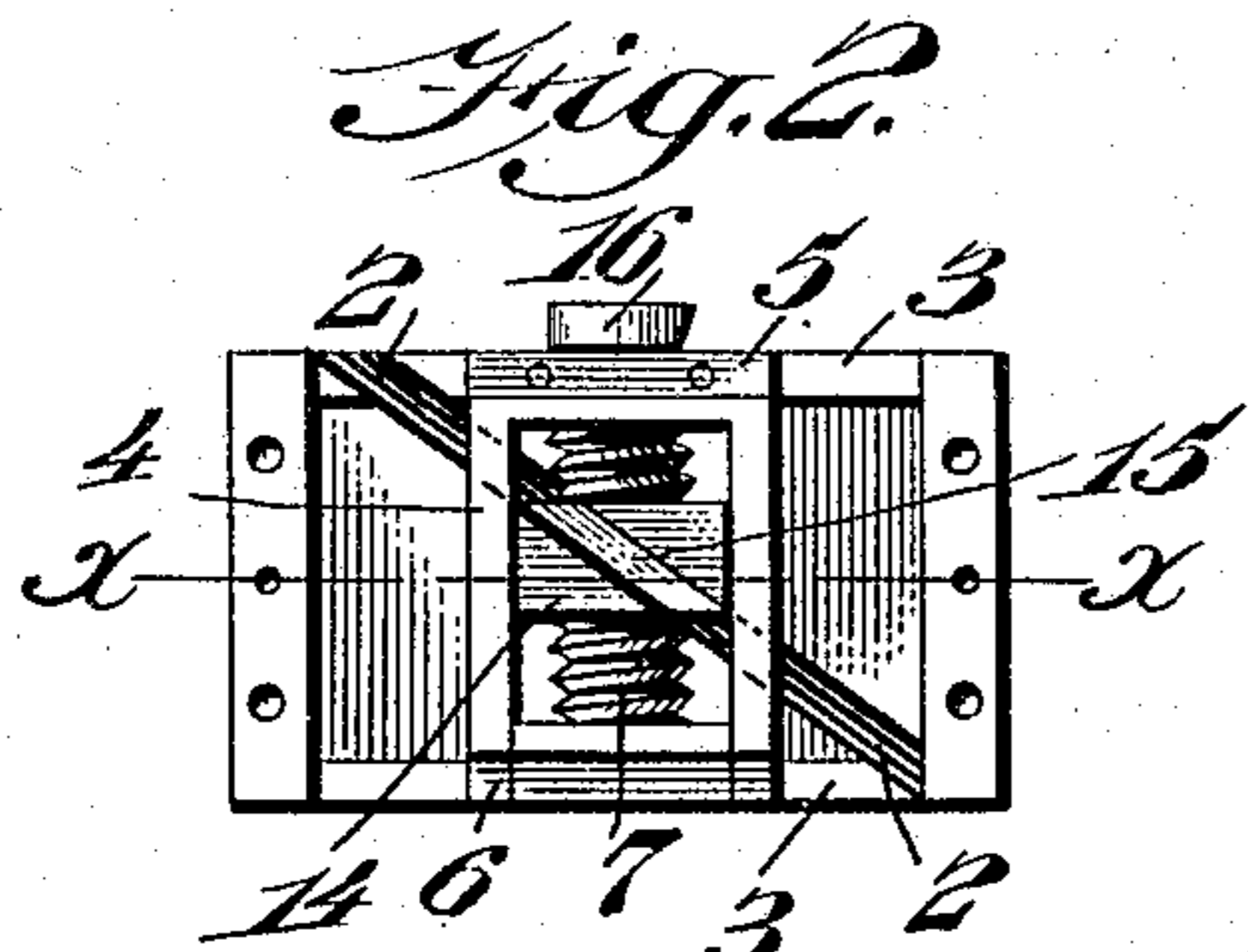
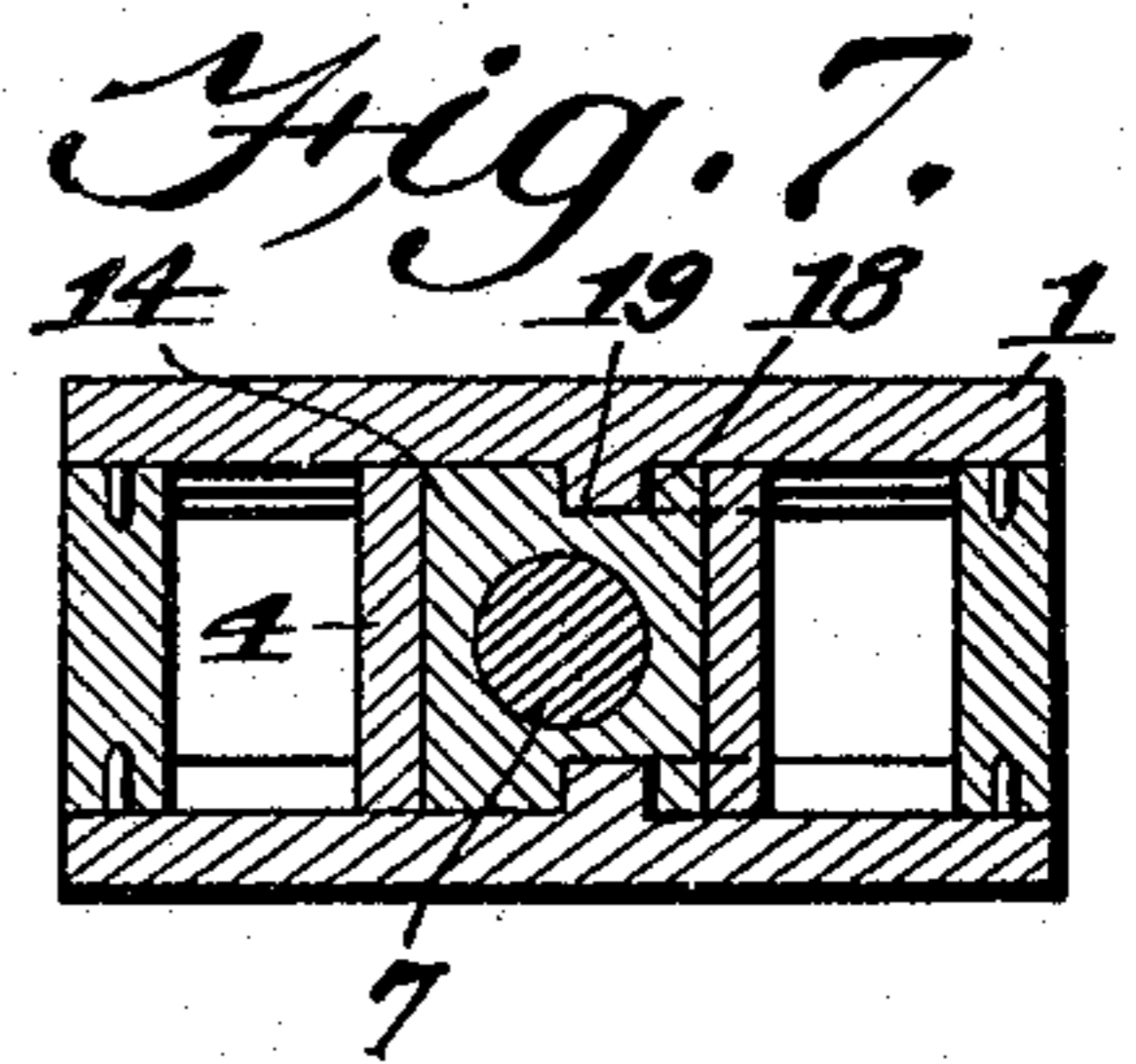
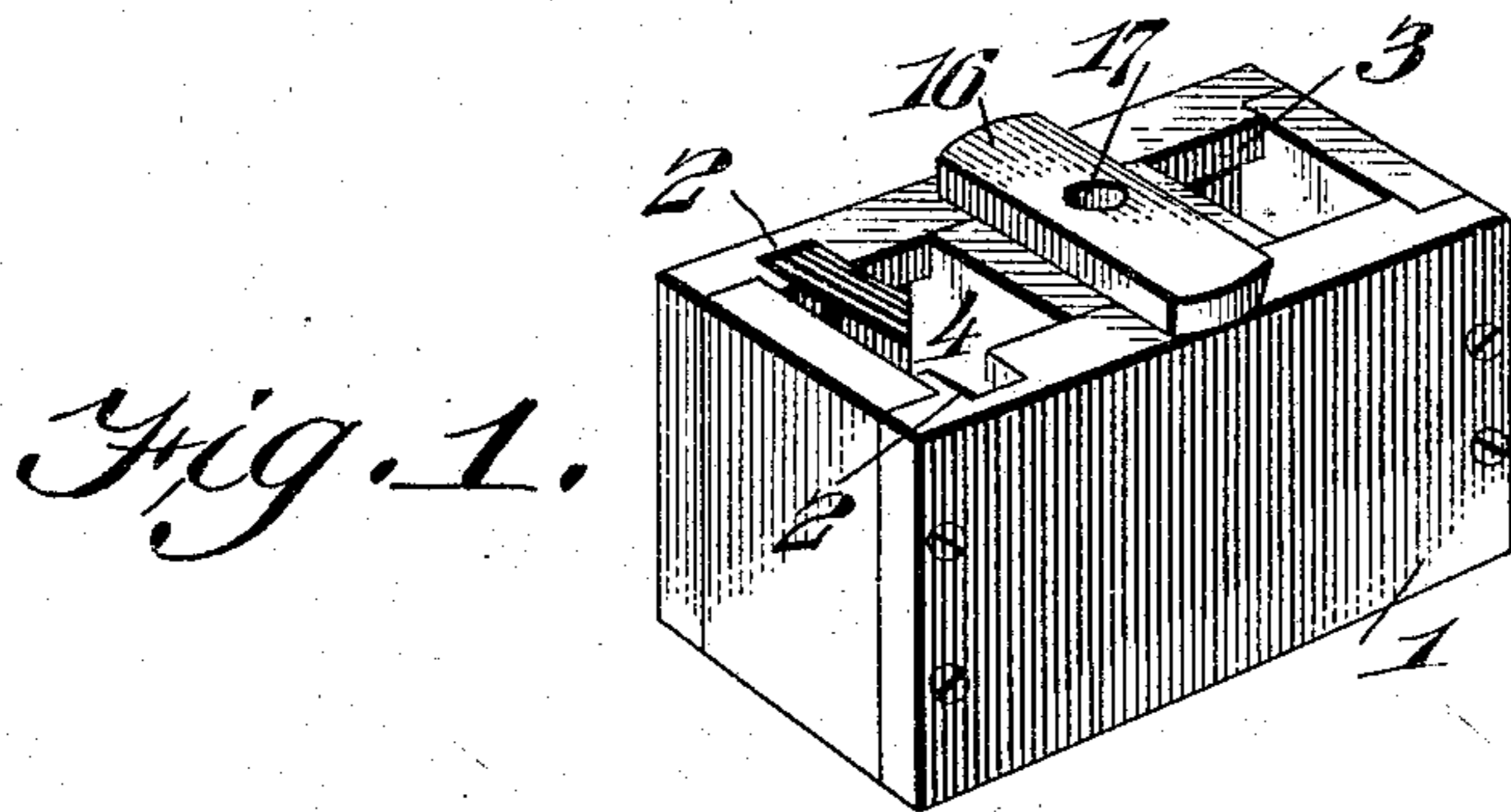
A. KYLE.

REGISTER HOOK.

APPLICATION FILED FEB. 15, 1908.

901,110.

Patented Oct. 13, 1908.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## REGISTER-HOOK.

No. 901,110.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed February 15, 1908. Serial No. 416,026.

*To all whom it may concern:*

Be it known that I, ANDREW KYLE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Register-Hook, of which the following is a specification.

My invention relates to a printer's register-hook and consists in providing new and novel means for adjusting the said hook.

It further consists of new and novel details of construction, all as will be hereinafter fully set forth.

Figure 1 represents a perspective view of a printer's register-hook embodying my invention. Fig. 2 represents a side elevation with one side plate of the body portion removed. Fig. 3 represents a side elevation of the inner wall of the removed plate. Fig. 4 represents a sectional view on line  $x-x$ , Fig. 2. Fig. 5 represents a vertical sectional view of the slide or carriage for the hook showing the operating key to be used. Fig. 6 represents a sectional view on line  $y-y$ , Fig. 5. Fig. 7 represents a sectional view showing a form which may be employed.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings: I have found in practice that it is not only essential in register-hooks to provide a hook which occupies a small space between the plates so that they are enabled to be placed close together and which hooks, however, are so situated as to be easily accessible in order to operate the same but it is also necessary to provide a quick and positive movement for the hook when adjustment is desired. My invention is designed to accomplish this purpose and in the drawings I have shown a construction which I have found in practice operates successfully but it will be evident that arrangement of the parts may be varied and other instrumentalities may be employed which will come within the scope of my invention and I do not, therefore, desire to be limited in every instance to the exact construction as herein shown and described, but desire to make such changes as may be necessary.

1 designates the body portion or support of the register-hook which consists of end and side plates suitably secured together in the present instance by means of screws and upon the inner face of each of the side plates

I provide in the present instance, a groove or recess 2, it being understood that said groove may be placed at any desired angle in the said wall depending upon conditions. Upon the upper and lower edges of the said side plates I provide the tracks or guides 3.

4 designates the slide or carriage which supports the hook proper and which in the present instance consists of a casing having the recesses 5 and 6 at its upper and lower edges in order to receive and guide the tracks or guides 3 on the side walls, it being understood that by this means I positively provide for a proper movement of the slide or carriage, binding of the parts is prevented and the alinement of the hook is positively maintained. Rotatably supported, within the slide 4, is a screw 7 which is secured, in said slide or carriage, in any desired manner in the present instance by having an end portion 8 passing into a suitable opening in the lower wall 9 of said carriage, said end portion being provided with a recess or neck 10 adapted to receive the ends of screws 11 which pass through the walls of the casing, whereby it will be seen that the screw 7 is held from lateral or vertical movement while free rotation of the same is permitted, it being noted that the upper end of said screw 7 is rotatably mounted within the upper wall of the slide 4 and is provided with a suitably squared recess or opening 12 for the reception of a suitable tool 13 for operating the same. Mounted upon said screw 7 is a follower 14 which is provided with the pin 15 adapted to be seated and moved in said grooves or recesses 2 said pin in the present instance being elongated and extending the width of the follower 14 although it will be evident that any desired style of pin or track may be employed or that if necessary or desirable the pin may be placed upon the side walls of the body portion or casing 1 in the form of a track and a groove may be formed in the follower 14, from this it being understood that in order to provide the means for moving the follower 14 I provide a cam groove and pin common to said body portion and said follower.

16 designates the register-hook which is rotatably supported on the slide or carriage 4 in order that the same can be rotated thereon, the side walls of said hook, one or both, being inclined in order to properly receive and abut the edges of the plates to be held,

it being noted that the hook is provided with a suitable opening 17 through which passes the end of the tool 13 to rotate the screw 7.

The operation of the parts just described will be apparent. The slide or carriage 4 is held between the side walls of the body portion 1 and by inserting the tool 13 through the opening 17 into the recess 12 of the screw 7 the latter can be rotated, which rotation, depending upon the direction thereof, raises or lowers the follower 14 and by reason of the engagement of the cam groove and pin 2 and 15 the carriage or slide 4 is moved towards or away from one end or the other of the body portion as described, thus causing a quick and positive action. In addition, it will be noted that the operating parts are entirely inclosed within the slide or carriage 4, the sides of which are closed by the side walls of the casing or body portion 1, the effects of which will be evident. While I have shown the guide recess or groove 2 as before stated, at a certain angle, I may, if desired, run the same from corner to corner or in fact in any other desired manner in order to accomplish the necessary results.

From the above it will be understood that by reason of the arrangement of the operative parts of the device being within the slide and thus practically concealed, it is nearly impossible for the parts to get out of order, with the consequent ill results, since if any one of the hooks in a form get out of order or become inoperative, it is necessary to remove the same therefrom, which requires unlocking of the parts in the frame, thus disturbing the register thereof and it is necessary to re-adjust all of the parts when the hook is placed in position, which consumes a very considerable amount of time and is consequently expensive.

In Fig. 7 I have shown a reversal of some of the parts of that already explained, and in place of having the cam groove in the wall of the body portion and the pins on the follower, I have made a groove 18 and the follower 14 and have provided the pins, in the form of a track 19, upon the side walls of the body portion, the effect of which is the same as previously described.

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

1. In a device of the character described,

a body portion, a slide, a hook rotatably mounted thereon, a follower movably mounted in said slide and guided on opposite sides by the walls of said slide, a cam groove and pin common to said body portion and said follower for moving said follower laterally and with it, said slide.

2. In a device of the character described, a body portion, the slide suitably guided in said body portion, a hook rotatably mounted on said slide, a follower adapted to be raised and lowered in said slide and guided on opposite sides by the walls of said slide, cam grooves and pins common to said follower and said body portion, for moving the said follower and slide laterally, and means for raising and lowering said follower.

3. In a device of the character described, a body portion, a slide suitably guided in said body portion, a hook rotatably mounted on said slide, a follower adapted to be raised and lowered in said slide and guided on opposite sides by the walls of said slide, cam grooves and pins common to said body and said follower, and a screw for raising and lowering said follower whereby the slide and follower are moved forward and backward.

4. In a device of the character described, a body portion having grooves on its inner walls, a slide movably mounted on said body portion, a hook rotatably mounted on said slide, a screw carried by said slide, a follower mounted on said screw and guided on opposite sides by the walls of said slide, and pins carried by said follower and seated in said grooves, whereby the slide and follower are moved laterally when said follower is raised or lowered.

5. In a device of the character described, a body portion, grooves in the side walls thereof, a track carried by said side walls, a slide guided by said track, a hook rotatably mounted on said slide, a screw carried by said slide, a follower movably mounted on said screw and suitably actuated thereby and guided on opposite sides by the walls of said slide, and pins carried by said follower and movable in said grooves, whereby the slide and follower are moved laterally when said follower is raised and lowered.

ANDREW KYLE.

Witnesses:

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