

F. SHAPOWALOW.

TOOL HOLDER.

APPLICATION FILED APR. 13, 1909.

952,470.

Patented Mar. 22, 1910.

Fig. 1,

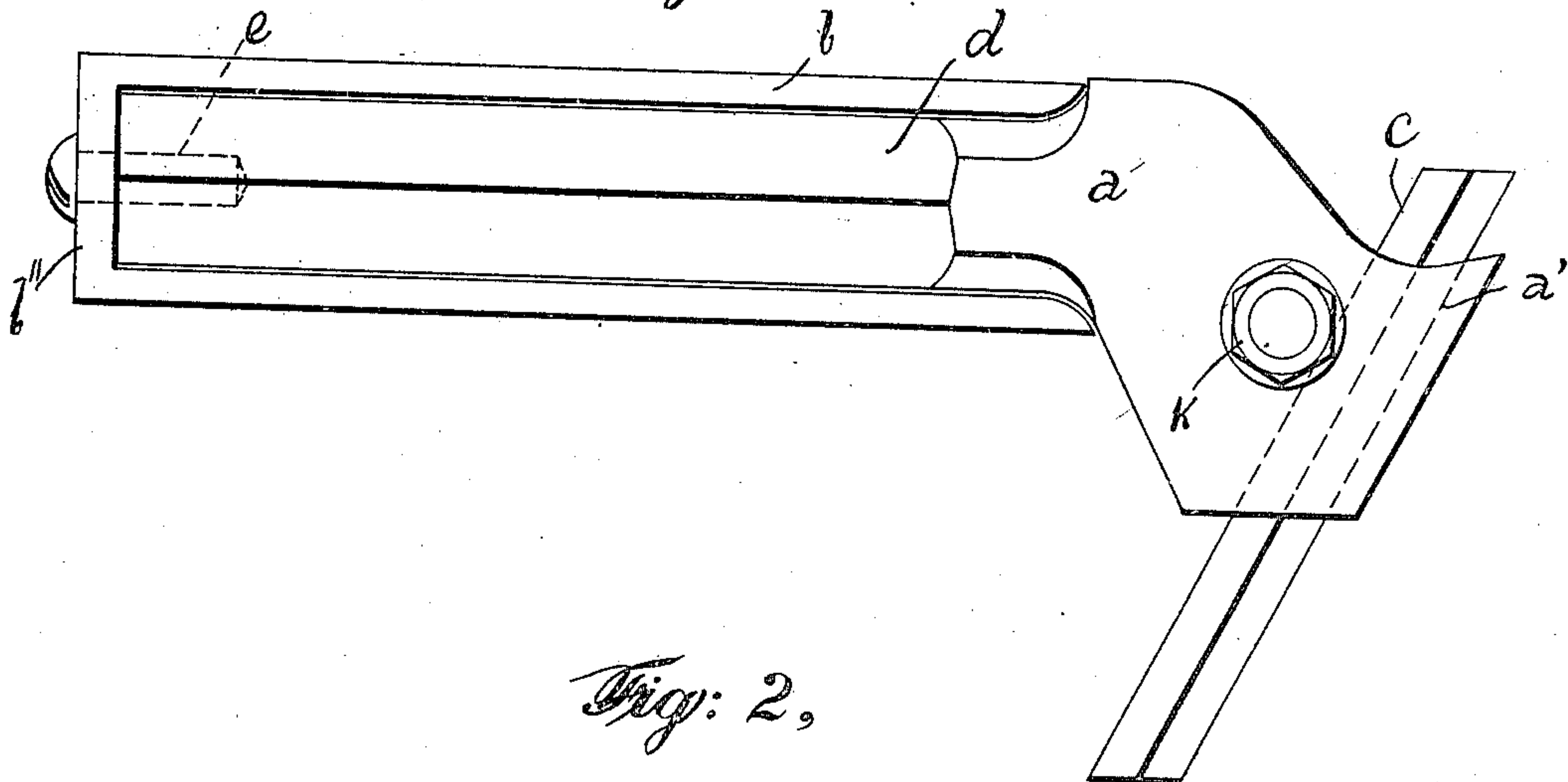


Fig. 2,

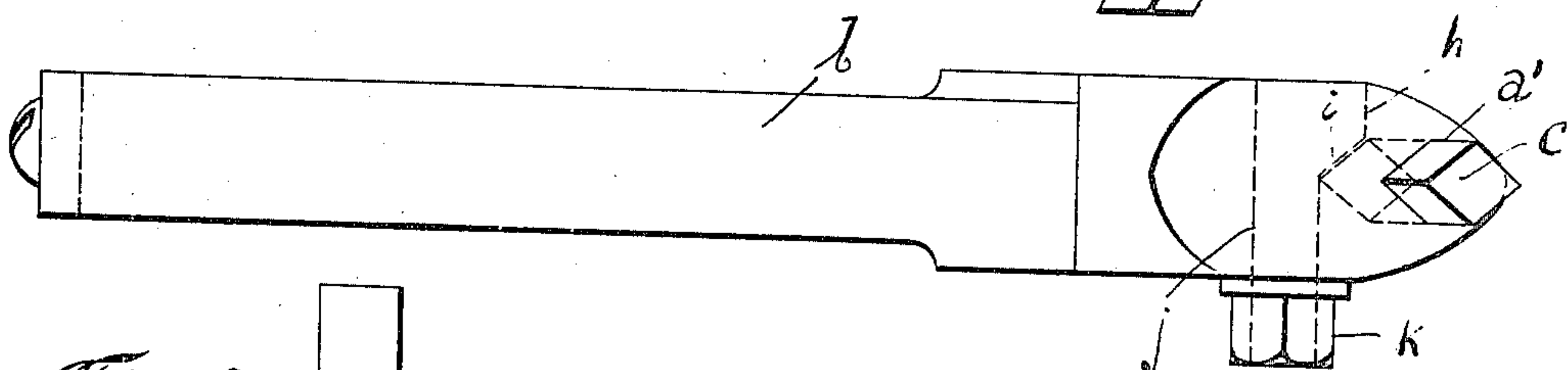


Fig. 3,

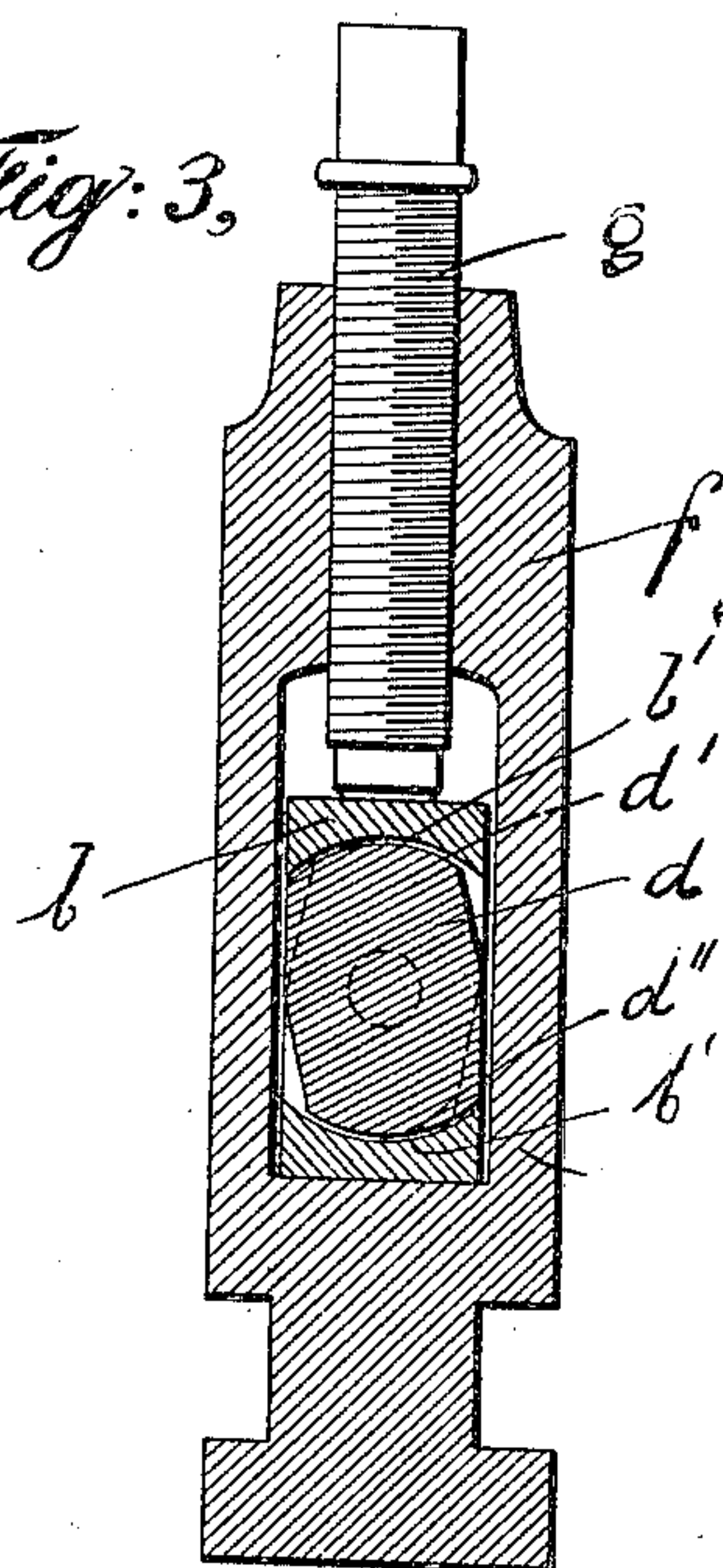


Fig. 4,

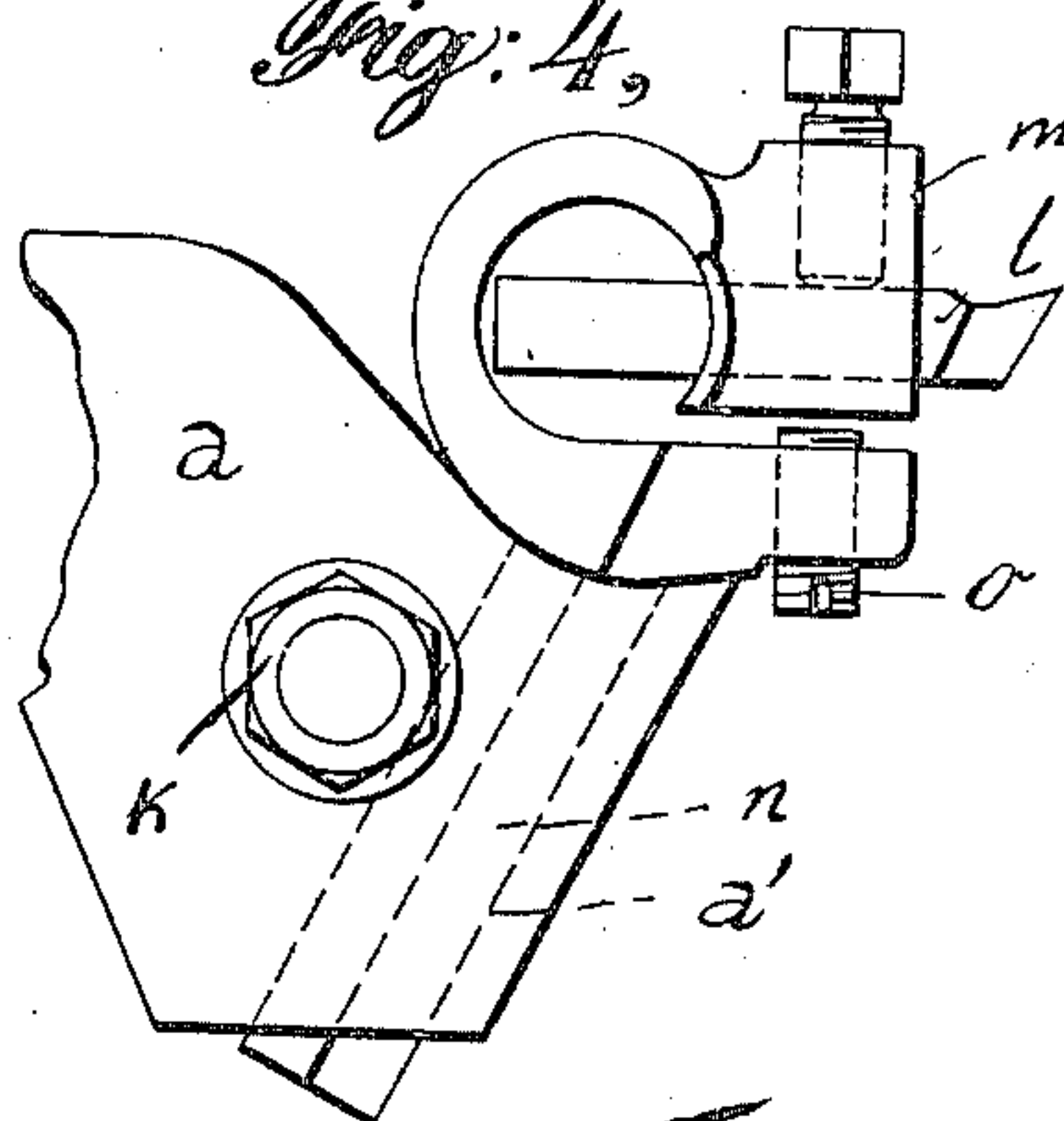
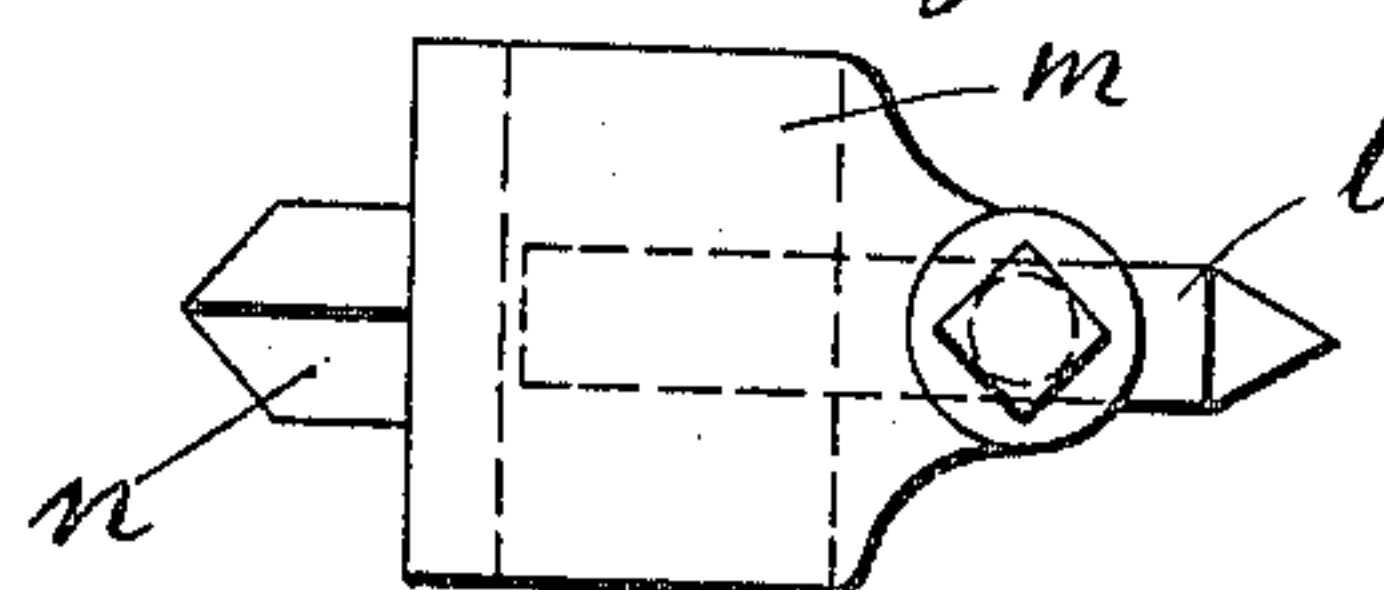


Fig. 5,



Witnesses:

M. Gaertner.
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UNITED STATES PATENT OFFICE.

FEDOR SHAPOWALOW, OF BROOKLYN, NEW YORK.

TOOL-HOLDER.

952,470.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed April 13, 1909. Serial No. 489,684.

To all whom it may concern:

Be it known that I, FEDOR SHAPOWALOW, a subject of the Russian Emperor, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification.

The present invention relates to tool holders and has for its object to provide a construction which will allow of the tool holder being turned in its support to the right or left to make the sharpening of the tool from the side unnecessary, whereby the latter will be made to last for a much longer time than it would otherwise.

It also has the object to construct the tool holder in such a manner that long tools can be used instead of having them cut up in small pieces.

In order to make my invention more clear the same is illustrated in the accompanying drawing, in which similar reference letters denote corresponding parts and in which—
Figure 1 is a side elevation of the tool holder; Fig. 2 a top plan view thereof; Fig. 3 a cross section of the tool holder shown in connection with the support in which it is held; Fig. 4 shows a side view of the end of the tool holder in connection with an auxiliary resilient tool holder for fine cut tools, and Fig. 5 is a plan view of the resilient tool holder.

a is the tool holder proper and b a U-shaped frame therefor. The tool holder proper consists of the head portion substantially of the shape shown, the front surface of which is rounded and slanting downward and rearward and the upper surface of which is slanting forward and at its end is somewhat curved and raised upward. This head is provided with a square bore a' which extends somewhat parallel to the front edge of the head, so that the square tool c will be held therein in an inclined position, the upper end thereof being directed forward and the lower end rearward. The cross section of the extension d of the tool holder proper is substantially of rhomboid shape, the upper and lower surfaces d' , d'' of which, however, are cylindrically curved and are adapted to bear against the correspondingly shaped inner surfaces b' of the U-shaped frame b , in which the tool holder is rotatively borne. The latter is secured in the

frame by means of a pin e which is screwed in the cross piece b'' of the frame b and engages a central bore made in the end of the extension d of the tool holder.

The U-shaped frame b is somewhat resilient, so that when the tool holder is put into the support f , that may be of ordinary construction, and is secured therein by the tightening of the screw bolt g the longitudinal parts of the frame b will be pressed against the extension of the tool holder and thereby render the latter immovable. The tool c is secured in its position in the square hole of the tool holder by means of an adjustable block h which on its inside has a slanting surface i that is adapted upon tightening of the block to bear against the tool (Fig. 2). The block is integral with a bolt j that projects outward through the opposite side of the tool holder and which on its outer end is threaded to receive a nut k . By the tightening of this nut against the tool holder, the block will be pressed against the tool to secure it in position. When the tool is thus inserted and it has after some use become somewhat blunt it is not necessary for sharpening it to cut the tool at its sides. In order to be able to use the tool with the same effect all that is necessary is to sharpen its end and upon slackening of the bolt g of the support f , whereby the tool holder is rendered loose in its frame b , to turn it in its bearings to the right or left, as the case may be, around the pin e . Upon this being done the bolt g may be again tightened and the tool holder thus secured in its tilted position, as illustrated in Fig. 3.

The tool being secured in the tool holder in an inclined position renders it possible to use longer tools than with the hitherto used tool holders and makes it unnecessary to cut up the tools in short pieces.

In Figs. 4 and 5 the tool l for fine cuts, instead of being directly inserted in the main tool holder a , is secured in an auxiliary resilient tool holder m , which by means of a bolt n of square cross section is held in the square bore a' of the main tool holder a . The lower part of this auxiliary holder m contains an adjustable stop o , whereby the elasticity of the resilient upper part carrying the tool can be limited. Such auxiliary tool holder may be advantageously used for cutting fine and smooth thread and also for finishing up smooth surfaces.

What I claim and desire to secure by Letters Patent is:—

The combination with a support, of a resilient U-shaped frame having cylindrically curved inner surfaces, a tool holder pivoted in said holder and having correspondingly curved bearing surfaces and angular side surfaces, said angular side surfaces being adapted to act against the walls

of the support so as to limit the movability 10 of the holder, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

FEDOR SHAPOWALOW.

Witnesses:

ELLIS V. LEVY,
MAX D. ORDMANN.