

No. 757,830.

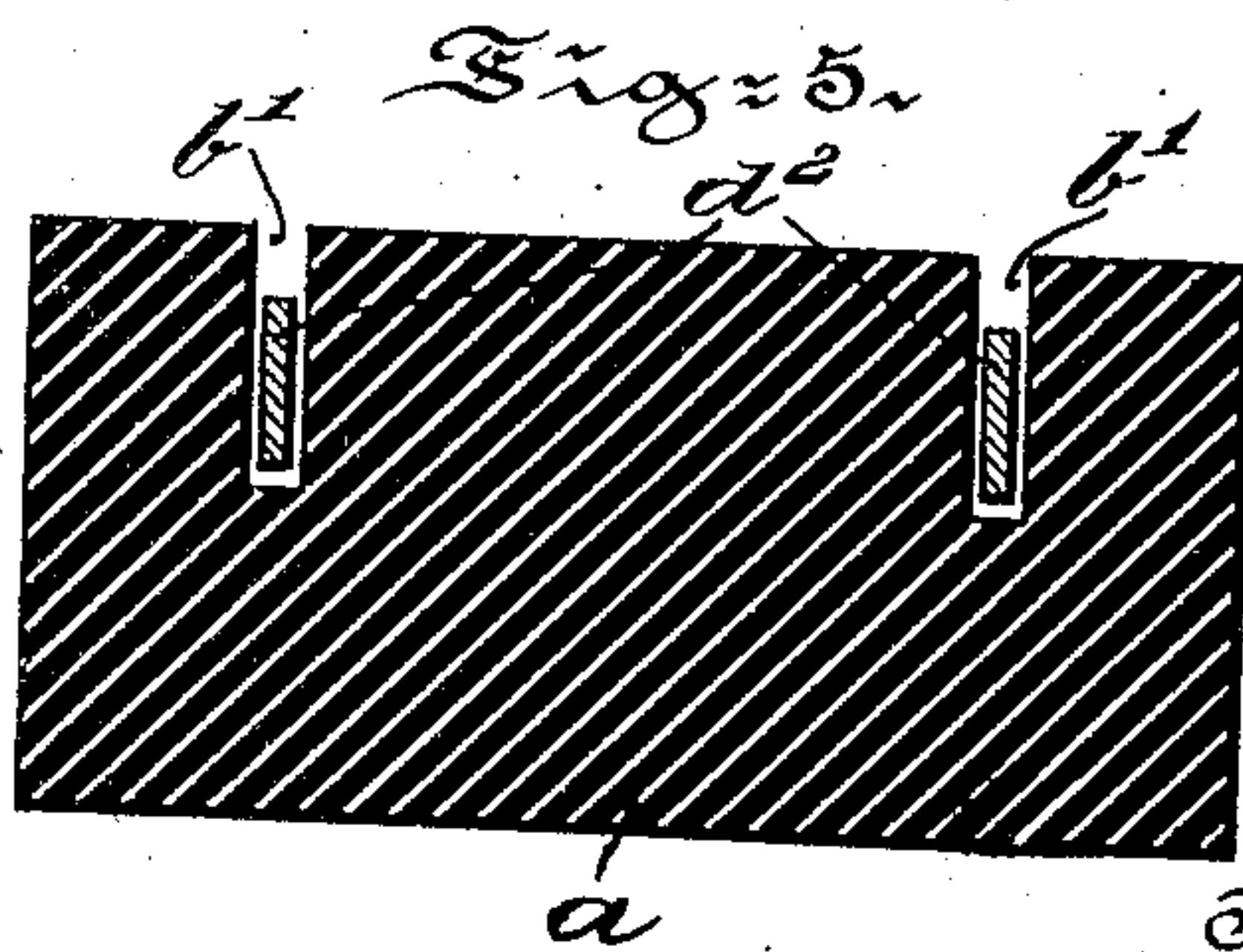
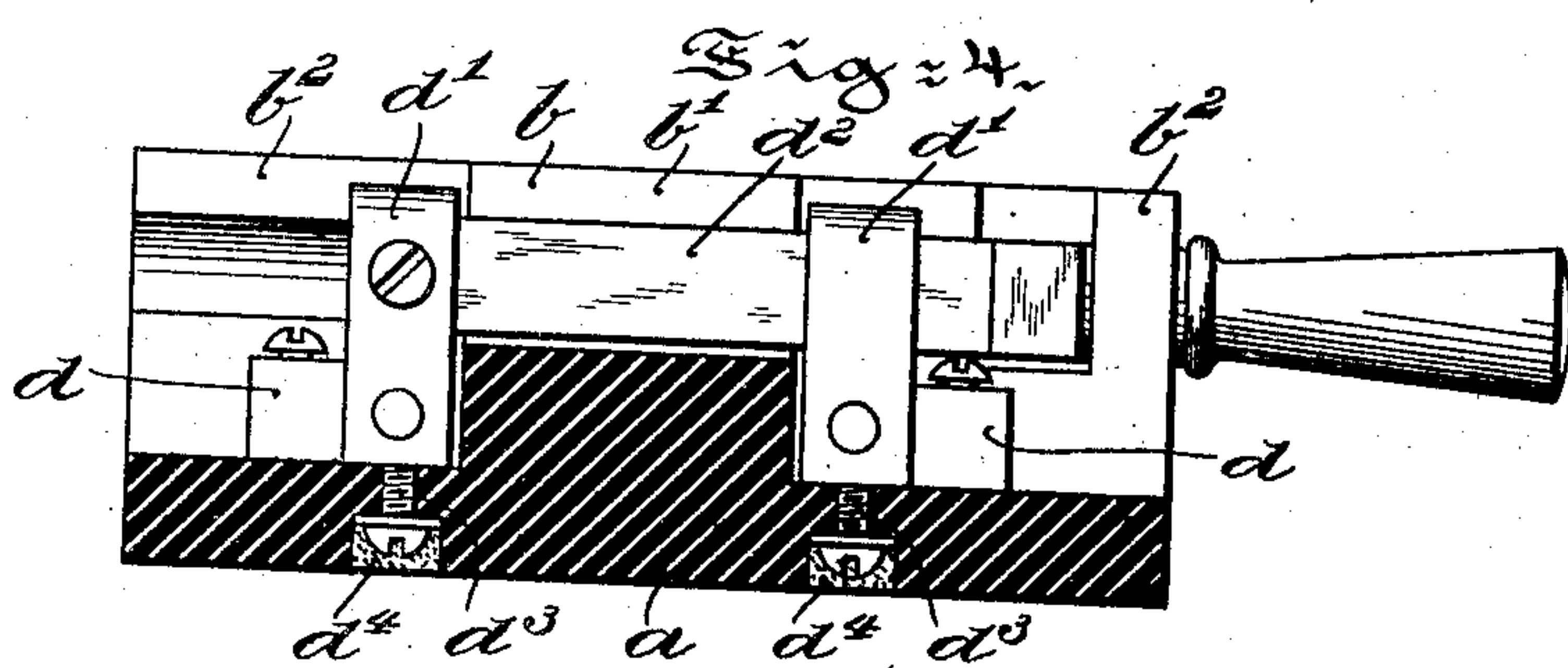
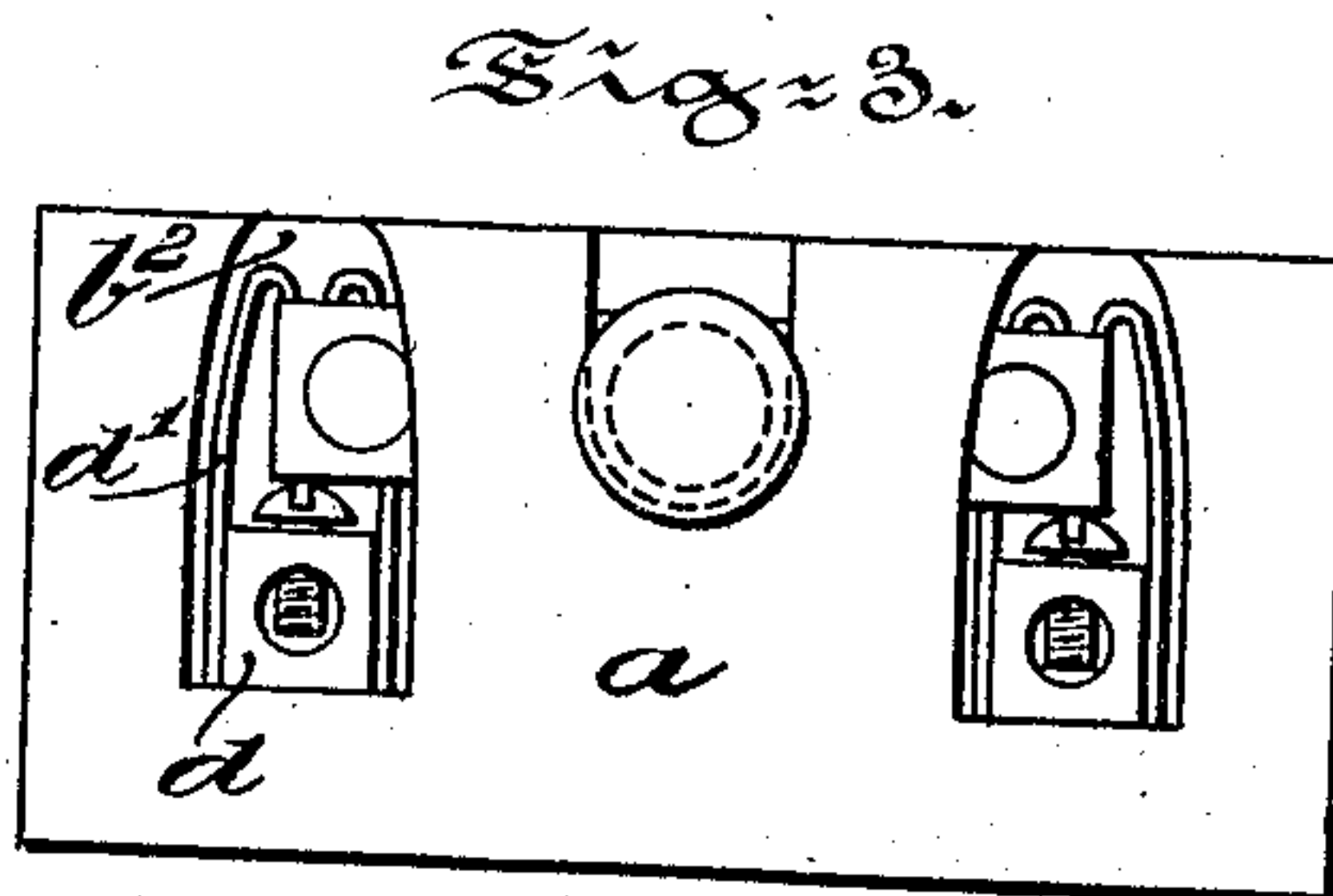
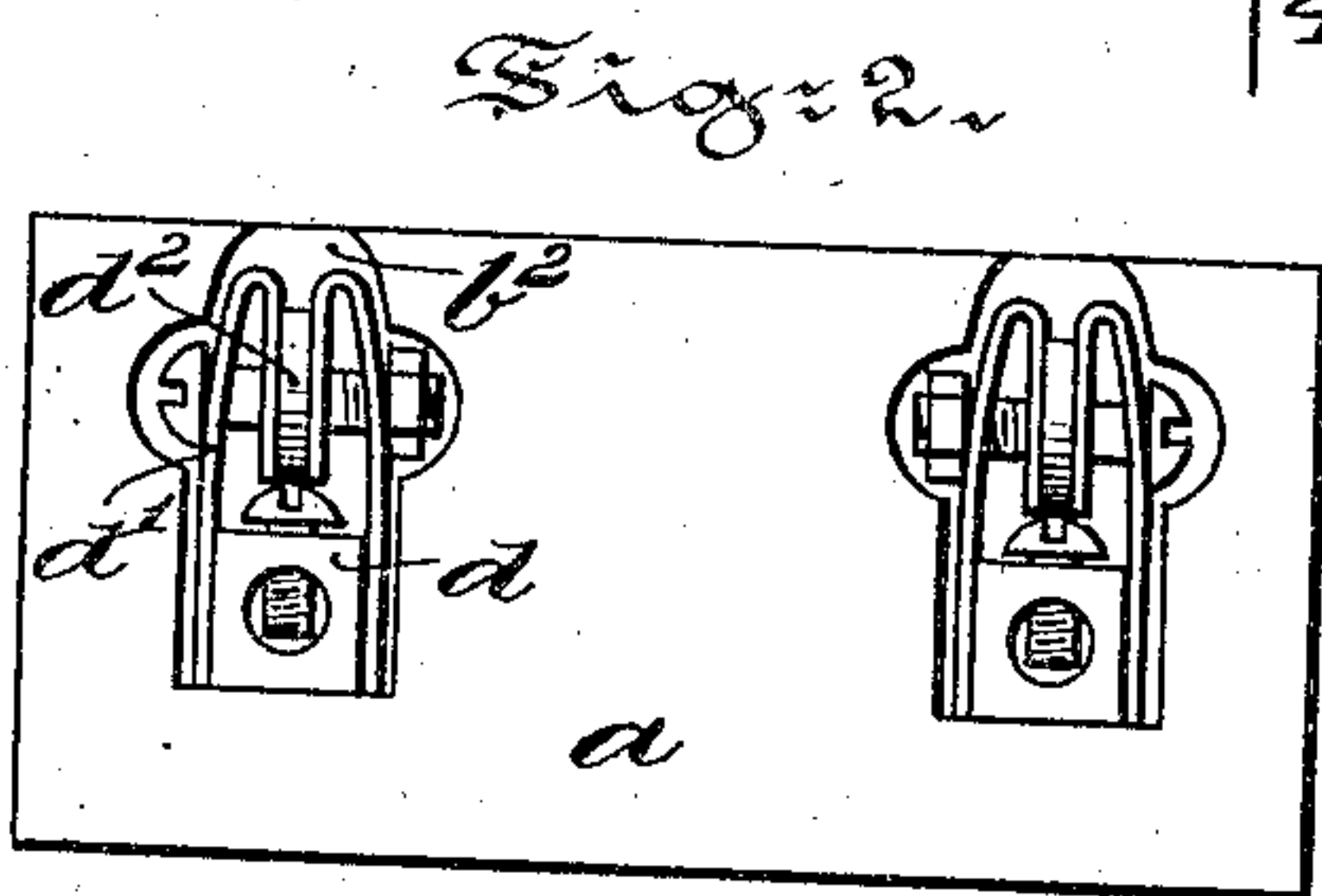
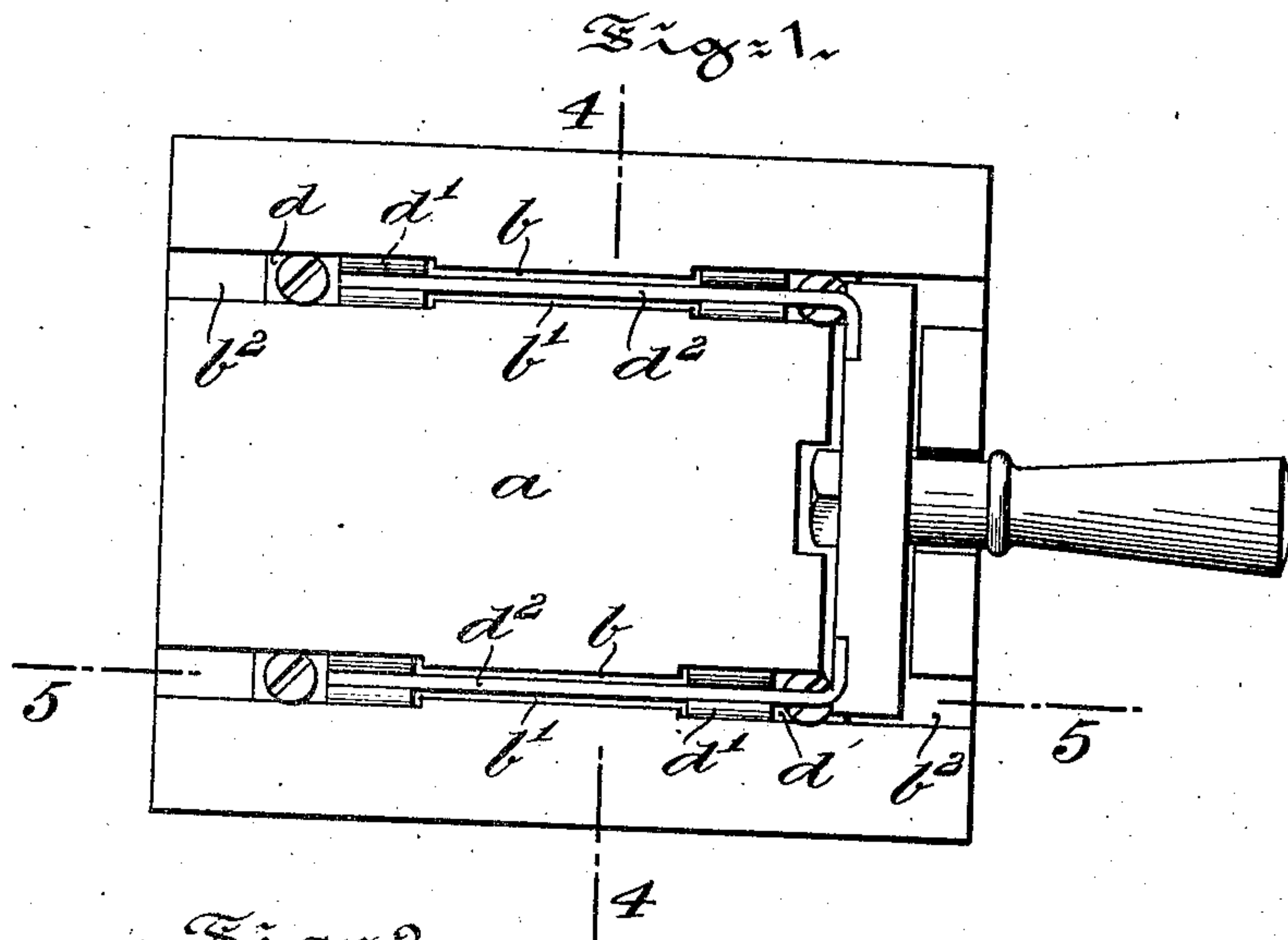
PATENTED APR. 19, 1904.

W. McDEVITT.

MEANS FOR PROTECTING LIVE PARTS OF ELECTRIC SWITCHES OR THE LIKE.

APPLICATION FILED SEPT. 26, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

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MEANS FOR PROTECTING LIVE PARTS OF ELECTRIC SWITCHES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 757,830, dated April 19, 1904.

Application filed September 26, 1903. Serial No. 174,699. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McDEVITT, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Means for Protecting Live Parts of Electric Switches or the Like, of which the following is a specification.

In a former patent, No. 733,502, granted to me under date of July 14, 1903, there is illustrated, described, and claimed a means for protecting live parts of switches and similar electric devices, consisting of a block of insulating material divided into a plurality of members so grooved, recessed, and arranged that when the device is in operative position in the block the members of said block conceal and surround all exposed live parts of the electric device.

In some forms of electric devices—such, for instance, as a knife-switch—it may be advisable or desirable to surround or conceal and protect the exposed live parts of the device in a solid or one-piece block of insulating material, such as porcelain or similar dielectric material, and in this application for a patent there is described a modification of the block of my former patent, No. 733,502, in which a solid or one-piece block is used as the protecting means.

The nature and scope of my present invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a view in plan illustrating a solid or one-piece block of insulating material complementally grooved, recessed, channeled, and shouldered to receive, hold, and conceal or protect the live parts of a knife-blade switch. Fig. 2 is an end elevational view looking from the left in Fig. 1. Fig. 3 is an elevational view of the right-hand end of the block of Fig. 1. Fig. 4 is a longitudinal sectional view taken on the line 5 5 of Fig. 1, and Fig.

5 is a cross-sectional view taken on the line 4 4 of Fig. 1.

Referring to the drawings, *a* represents a block of suitable insulating material—such, for instance, as porcelain or other dielectric material. In the upper portion of this block *a* are formed the grooves or channels *b*, arranged, preferably, parallel to each other and traversing the block longitudinally. In cross-section at approximately a point midway between the ends of the block these grooves or channels are formed into narrow slots or recesses *b'*, as illustrated in Fig. 5. At either end of the block, as illustrated in Figs. 2 and 3, these grooves *b* are widened and shaped into somewhat elliptical form, as at *b''*. The grooves *b* are so shaped or formed as to snugly receive or conceal and protect the active or live parts of the switch and are of such a depth that these parts are below the top edge or face of the block. Thus the end enlargements *b''* of the grooves *b* receive the terminals *d* and spring-contacts *d'*, in which the knife-blades *d''* of the switch engage, while the narrow slots *b'* of the grooves *b* are so formed as to snugly fit the knife-blades *d''* without, however, interfering with the operation of said blades. The screws *d'''*, which secure the contacts *d'* to the block *a*, are preferably passed through countersunk portions in the lower face of the block, and when once in position the spaces surrounding the heads of the screws *d'''* are filled in with an insulating paste, cement, or a block *d''''*.

By forming the insulating block of one solid piece instead of a plurality of members, as described in my former patent, No. 733,502, it is impossible to accidentally or negligently disarrange or separate the insulation from the live parts of the switch, and by forming the grooves *b* into end enlargements *b''* and narrow slits *b'* sufficient space is allowed for the assemblage of the parts of the switch, and yet the knife-blades *d''* are so closely surrounded by insulating material as to effectually prevent arcing in the closing or opening of the switch.

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

1. The combination with an electric switch
5 or equivalent device, of an insulating-block surrounding and protecting the live parts of the switch, the block having in its upper portion longitudinal grooves extending from end to end through the block and terminating at
10 either end of the block in enlarged recesses to receive and surround the terminals and contacts of the switch, and the grooves being narrowed intermediate of the end enlargements to snugly fit the blades of the switch.
- 15 2. The combination with an electric switch or equivalent device, of an insulating-block, within which the live parts of the switch are concealed, the block having in its upper por-

tion longitudinal grooves extending from end to end through the block and terminating at
20 either end of the block in enlarged recesses to receive and inclose the terminals and contacts of the switch, the grooves being narrowed intermediate of the end enlargements to snugly fit the blades of the switch and the grooved
25 portions of the block being of a depth sufficient to permit the switch parts to enter the block below the upper face thereof, when the switch is closed.

In testimony whereof I have hereunto set
30 my signature in the presence of two subscribing witnesses.

WM. McDEVITT.

Witnesses:

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THOMAS M. SMITH.