

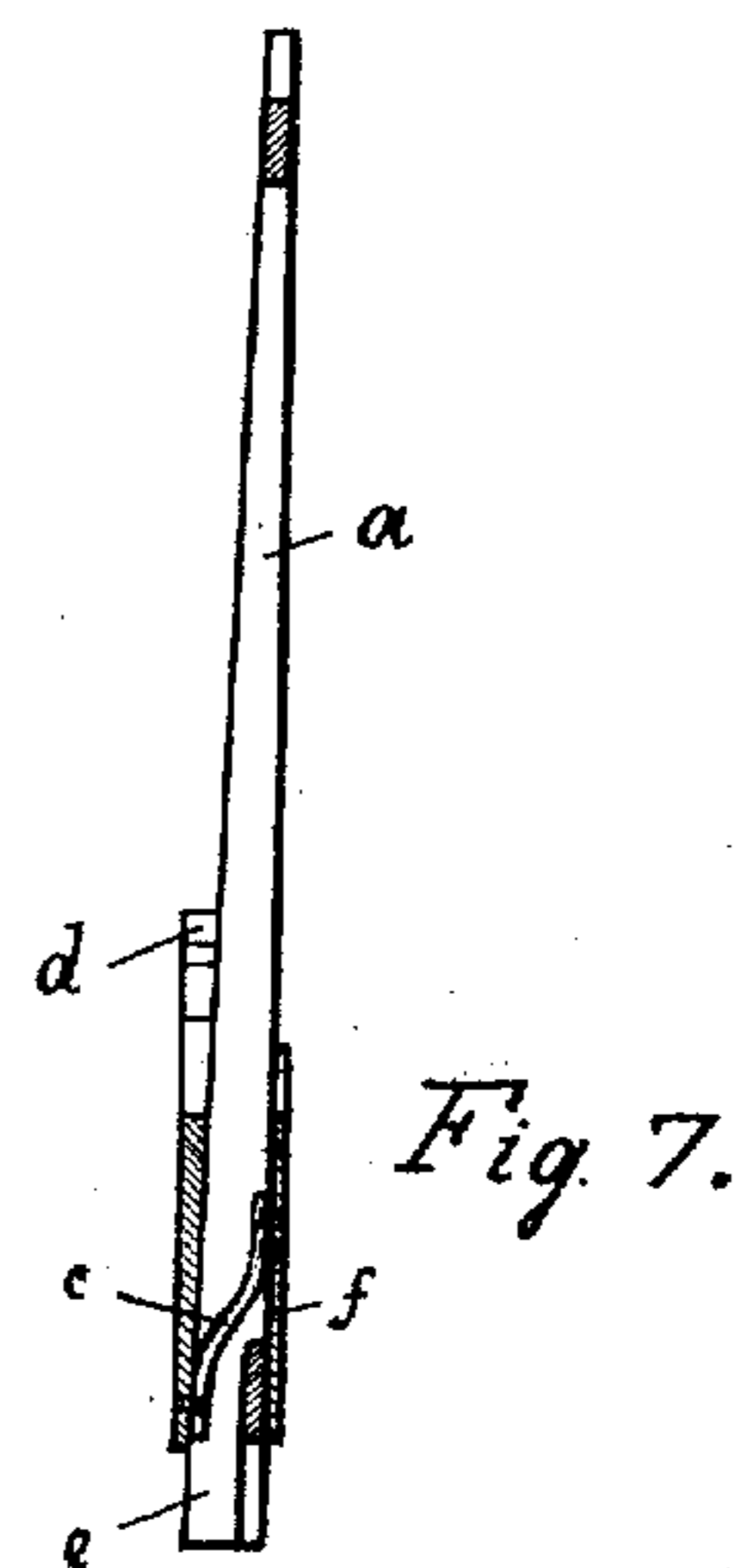
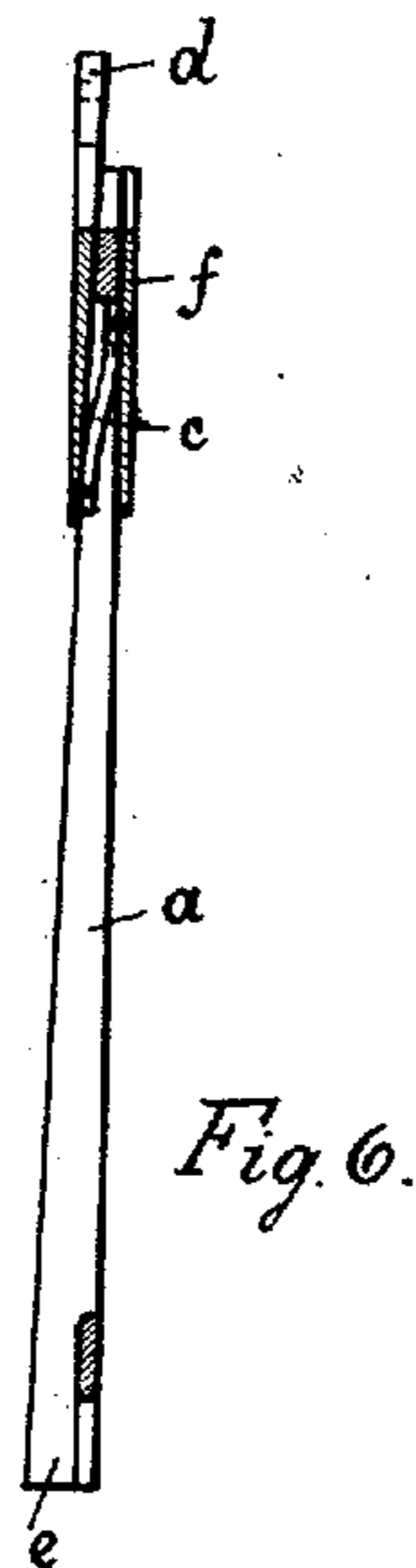
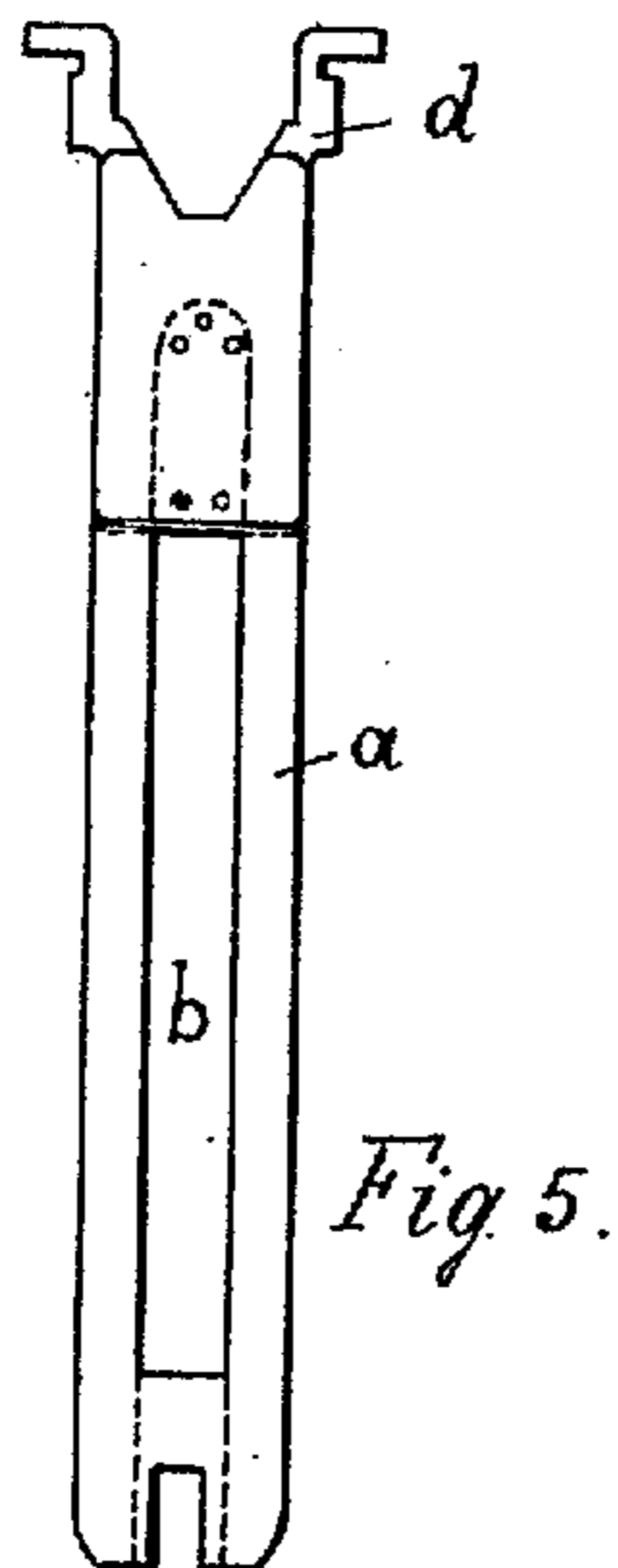
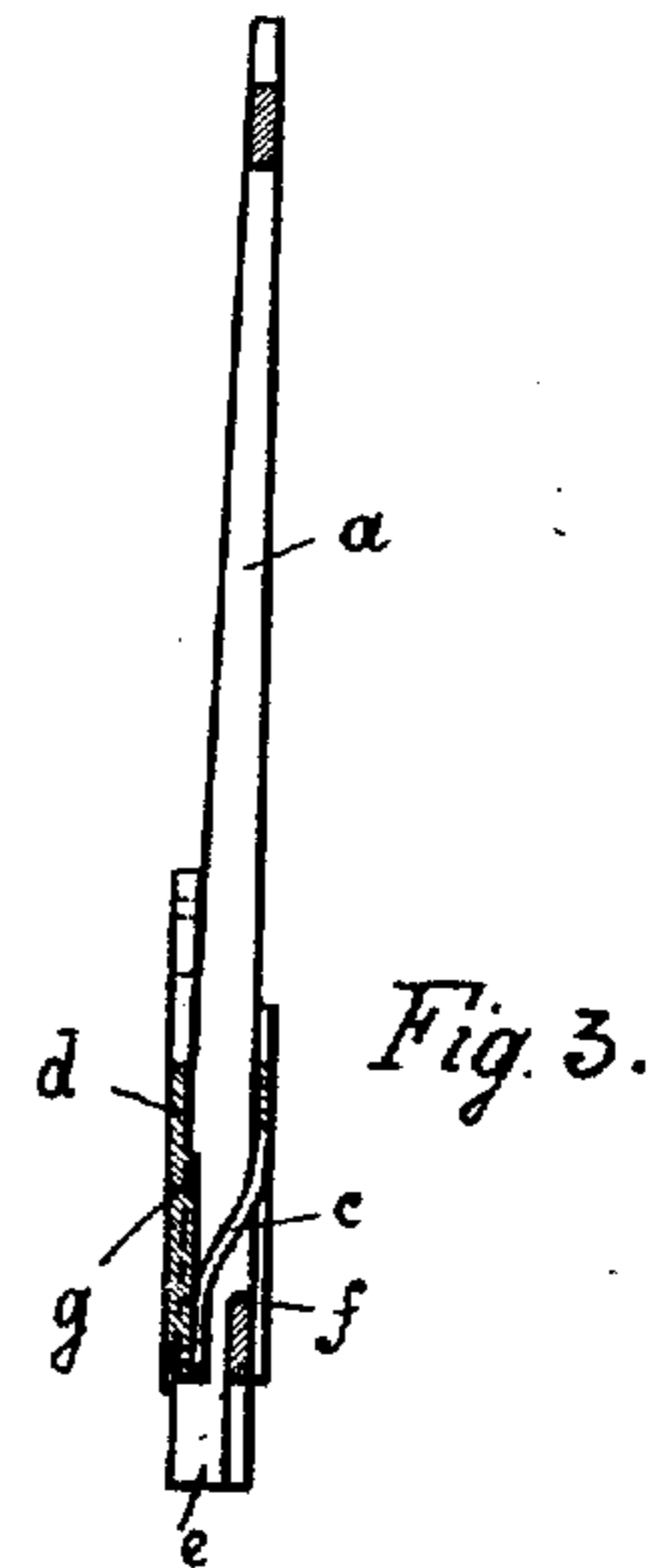
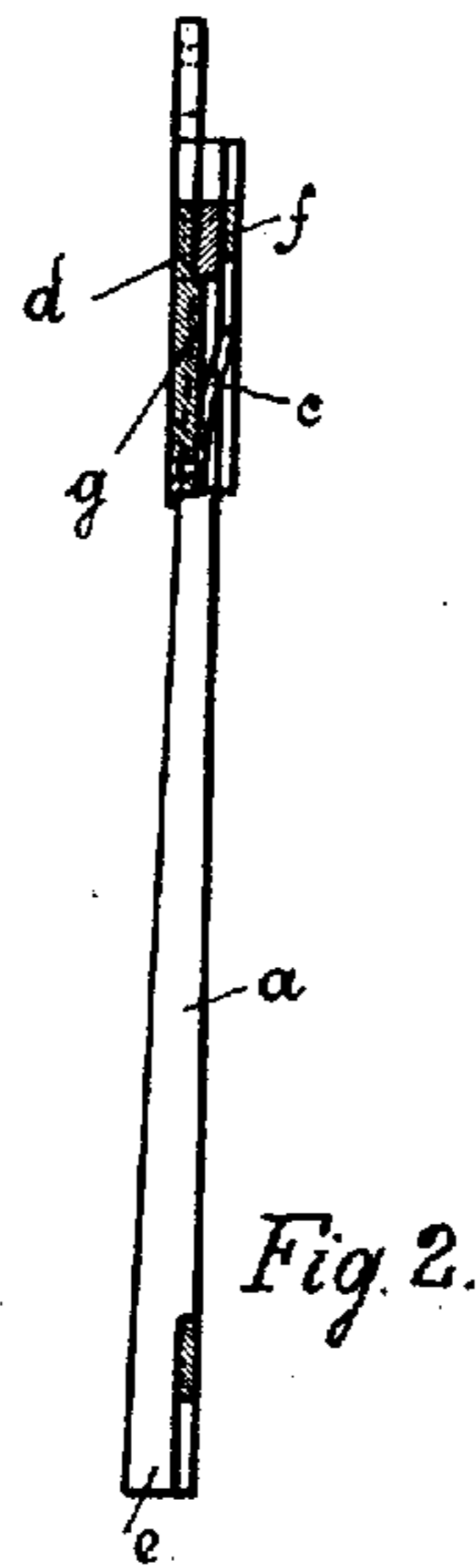
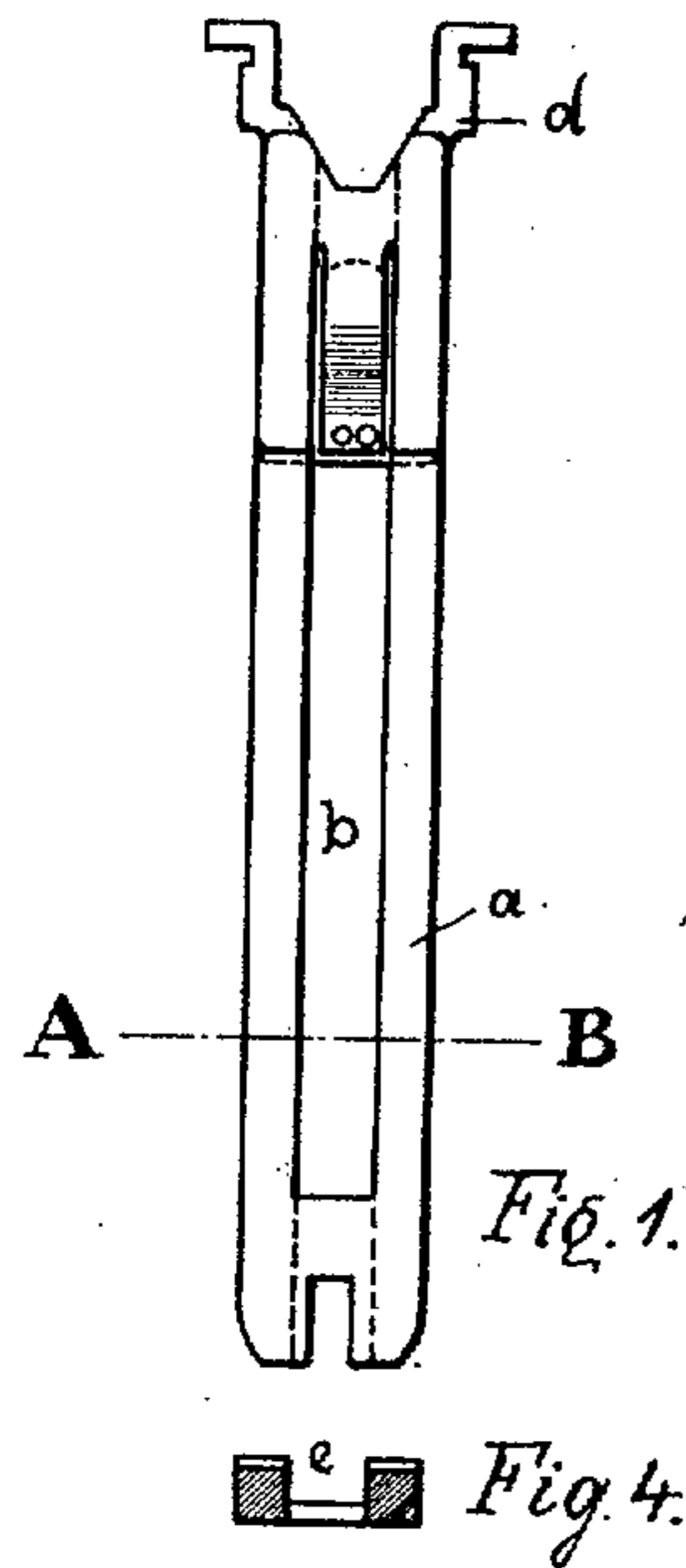
No. 886,583.

PATENTED MAY 5, 1908.

H. DEGENER.

SPACER FOR TYPE SETTING AND LINE CASTING MACHINES.

APPLICATION FILED NOV. 11, 1907.



Witnesses:

Karl J. J. J.
Prof. J. J.

Inventor:

James J. J.

UNITED STATES PATENT OFFICE.

HEINRICH DEGENER, OF BERLIN, GERMANY.

SPACER FOR TYPE-SETTING AND LINE-CASTING MACHINES.

No. 886,583.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed November 11, 1907. Serial No. 401,701.

To all whom it may concern:

Be it known that I, HEINRICH DEGENER, of 26 Hollmannstrasse, Berlin, German Empire, manager, have invented certain new and useful Improvements in and Relating to Spacers for Type-Setting and Line-Casting Machines; and I do hereby declare that the following is an exact specification of the same.

My invention relates to spacers used in linotype and like machines for the justifying of the lines. Such spacers have been formed of two relatively sliding wedges of which one is provided with shoulders, by which it is held firmly in the line, while the other is mounted movably and effects the adjustment. Such a spacer has the objection that it injures the matrix by the sliding movement of the wedge. To avoid this objection spacers consisting of an expanding wedge working between two side springs suitably held top and bottom have been proposed, but in this case the springs were liable to bend and thus to disturb the parallelism of the spacer. To prevent such a disturbance of the parallelism the side pieces were made stronger and in this way the objection was introduced that the spacing arrangements were not sufficiently fine and the proper relation between the thickness of the separated and the closed spacer could not be obtained.

The object of the present invention is to overcome all those difficulties associated with linotype spacers, and to this end the invention comprises a spacer having in combination a wedge and an expanding part comprising two side bearing parts with a spring cross connection.

In the accompanying drawing two constructional forms of the subject of the invention are shown, in which:

Figure 1 represents the first constructional form in a side view, whereas Fig. 2 is a section through the center of Fig. 1. Fig. 3 shows the same construction when closed, also in a section through the center and Fig. 4 is a section on line A—B of Fig. 1. The Figs. 5—7 represent the second constructional form of which: Fig. 5 shows it in a side view, Fig. 6 in a section through the center of Fig. 5 when open, and Fig. 7 a section through the center when closed.

In carrying the invention into effect according to the first form as shown in Figs. 1—4 a movable wedge *a* is provided with a long through going slot *b* in the center. In

this slot there works a band spring *c*, which forms the connecting piece between the two side parts *d* and *f* of the expander. The part *d* is provided with a wedge-shaped inner surface, while its upper surface is in contact with the matrix. To the wedge shaped inner surface there is fixed one end of the spring tongue *e*. The other side part is formed of a plain plate and the joining spring *c* stamped out of it. The lower end of the wedge *a* is provided with a grooved part having a cross-binding rib *e*. In this groove the end of the spring *c*, which is fixed to the wedge part *d* passes, when the wedge is in the position shown in Fig. 3. In this way the entire length of the wedge *a* is available. For assisting in the guidance of the wedge *a* there is provided a guiding projection *g* on the part *d*. This guiding projection is a working fit in the slot *b* of the wedge *a*. According to the form of this invention shown in the Figs. 5—7 the spring *c* is made separately from the side part *f* and is fixed at both its ends to both side parts.

Having thus described the nature of my invention what I desire to secure by patent is:

1. A spacer for justifying lines of type in linotype machines and the like having in combination a one sided slotted wedge, an expanding part comprising a side part provided with a wedge surface, a flat side part, a cross band spring, joining said side parts and working in the slot of the one sided wedge.

2. A spacer for justifying lines of type in linotype machines and the like having in combination a one sided wedge having a through slot over the greater part of its length and a groove at one end, an expanding part comprising a side part provided with a wedge surface, a flat side part, a cross band spring joining said side parts and working in the slot of the one sided wedge.

3. A spacer for justifying lines of type in linotype machines and the like having in combination a wedge formed of two side parts, and joining distance pieces at each end, an expanding part, comprising a side part provided with a wedge surface, a flat side part, a cross band spring joining said side parts and working in the slot of the one sided wedge.

4. A spacer for justifying lines of type in linotype machines and the like having a slotted wedge, an expanding part, comprised of a side piece with a wedge surface, a projecting guiding portion on said wedge surface and

fitting in the slot on said wedge, a further side part and a spring joining said side parts and passing through the slot of the wedge.

5 5. A spacer for justifying lines of type in linotype machines and the like having a slotted wedge, an expanding part formed of a wedge part and a plain part, a tongue spring formed integral with said plain part and fixed to the wedge part.

10 6. A spacer for justifying lines of type in linotype machines and the like having a slotted one sided wedge, an expanding part, comprised of a side piece with a wedge sur-

face, a projecting guidance portion on said wedge surface and fitting in the slot of said 15 wedge, a further side part formed of a plain plate and carrying integral therewith a tongue spring fixed to the wedge part, said tongue working in the slot of the wedge.

In witness whereof I have hereunder set 20 my hand in presence of two witnesses.

HEINRICH DEGENER.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.