

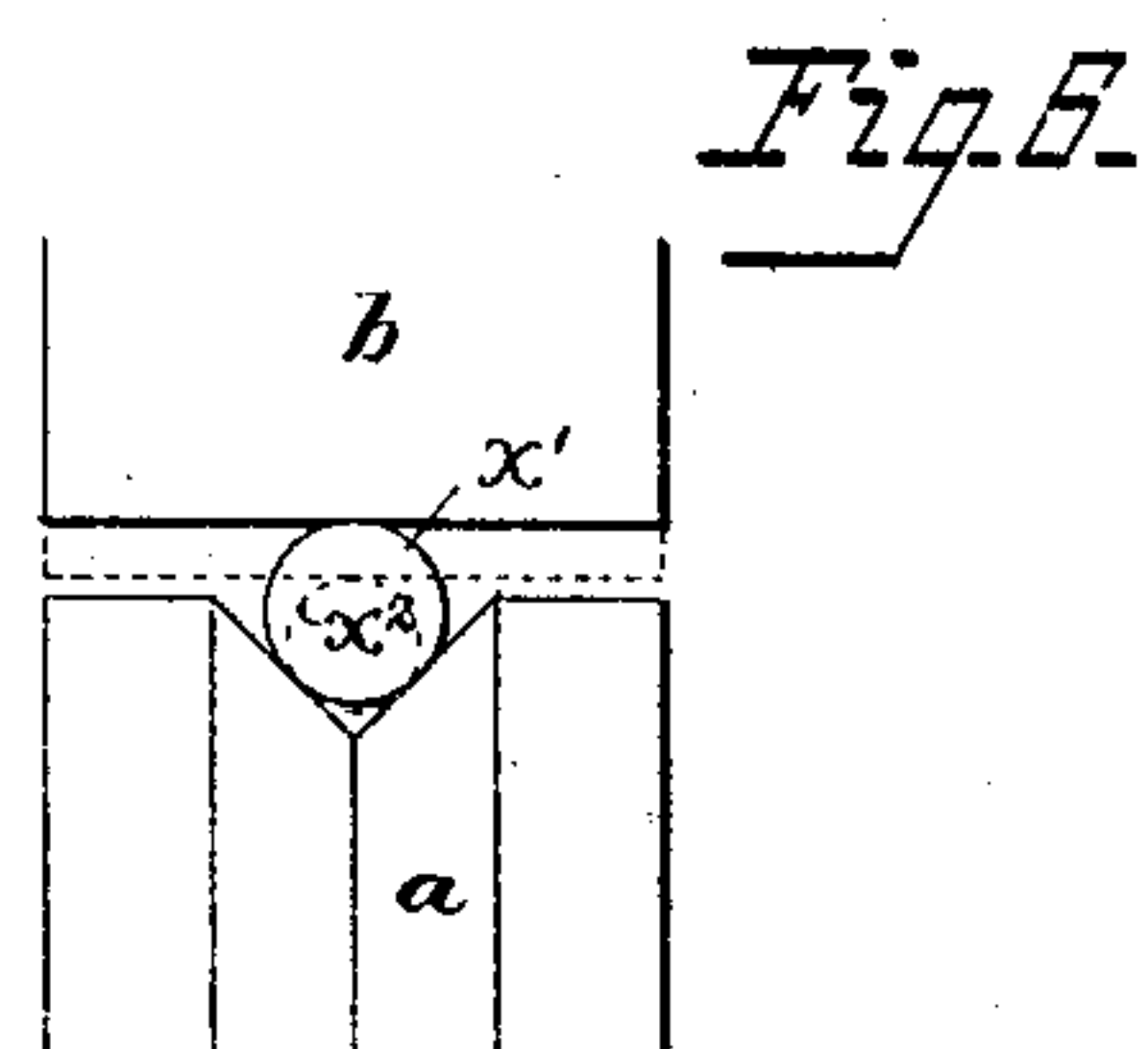
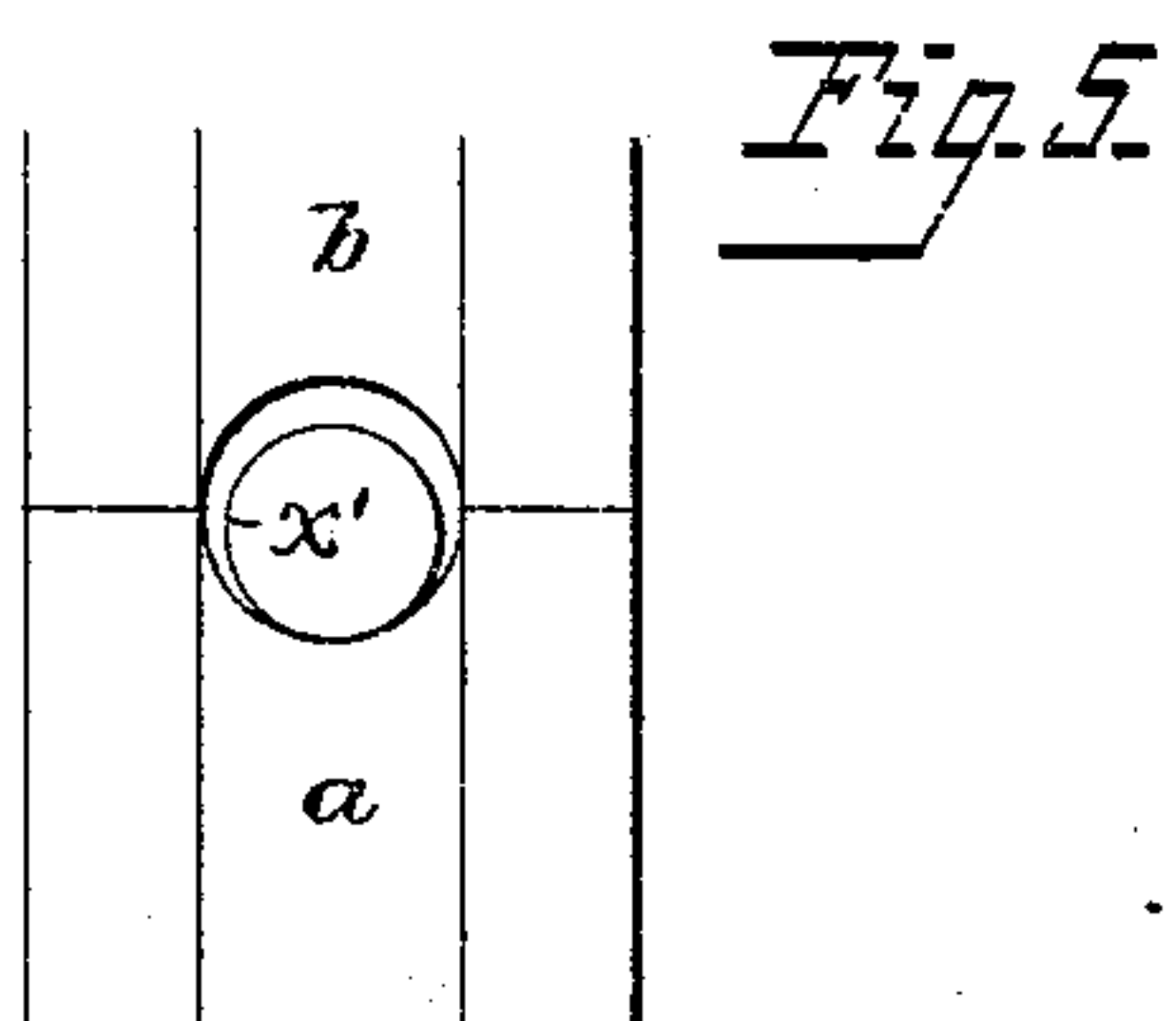
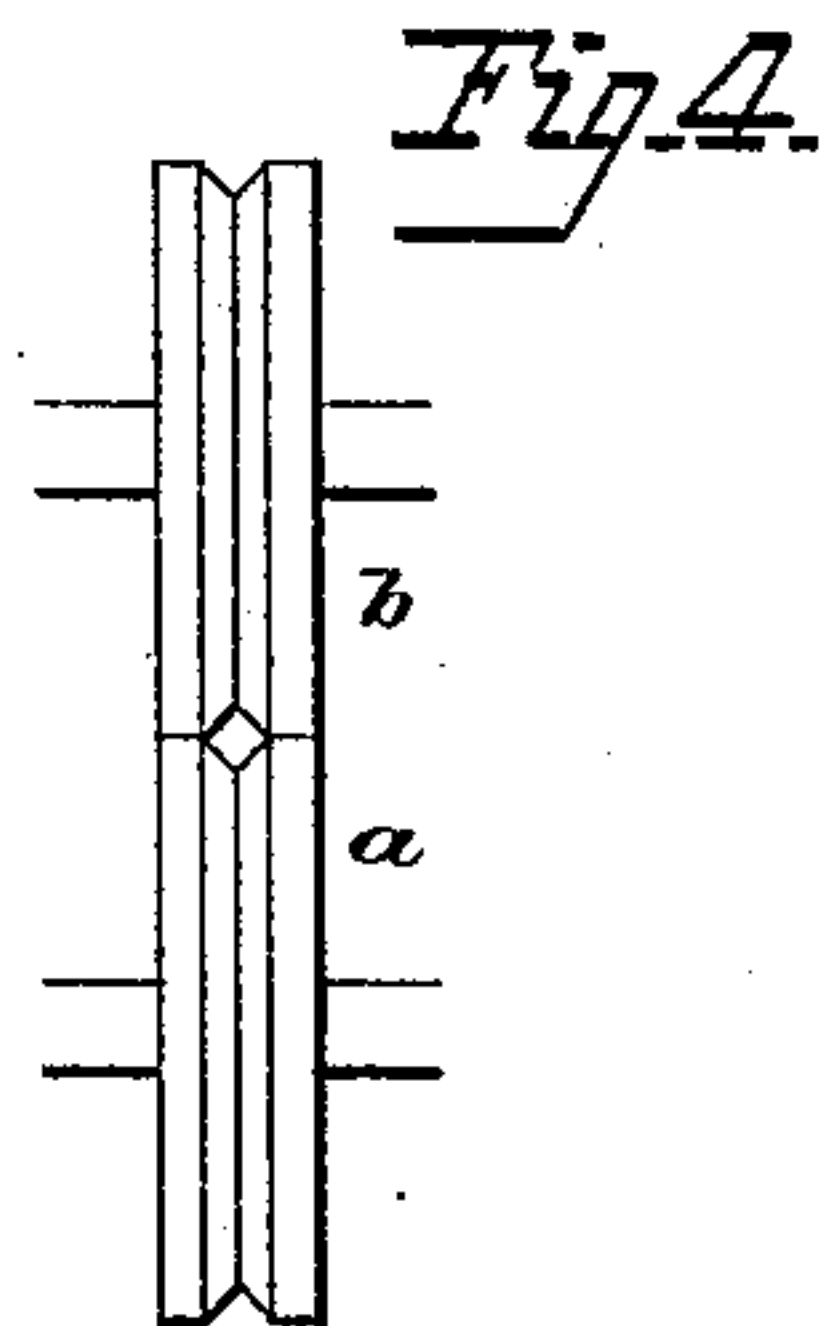
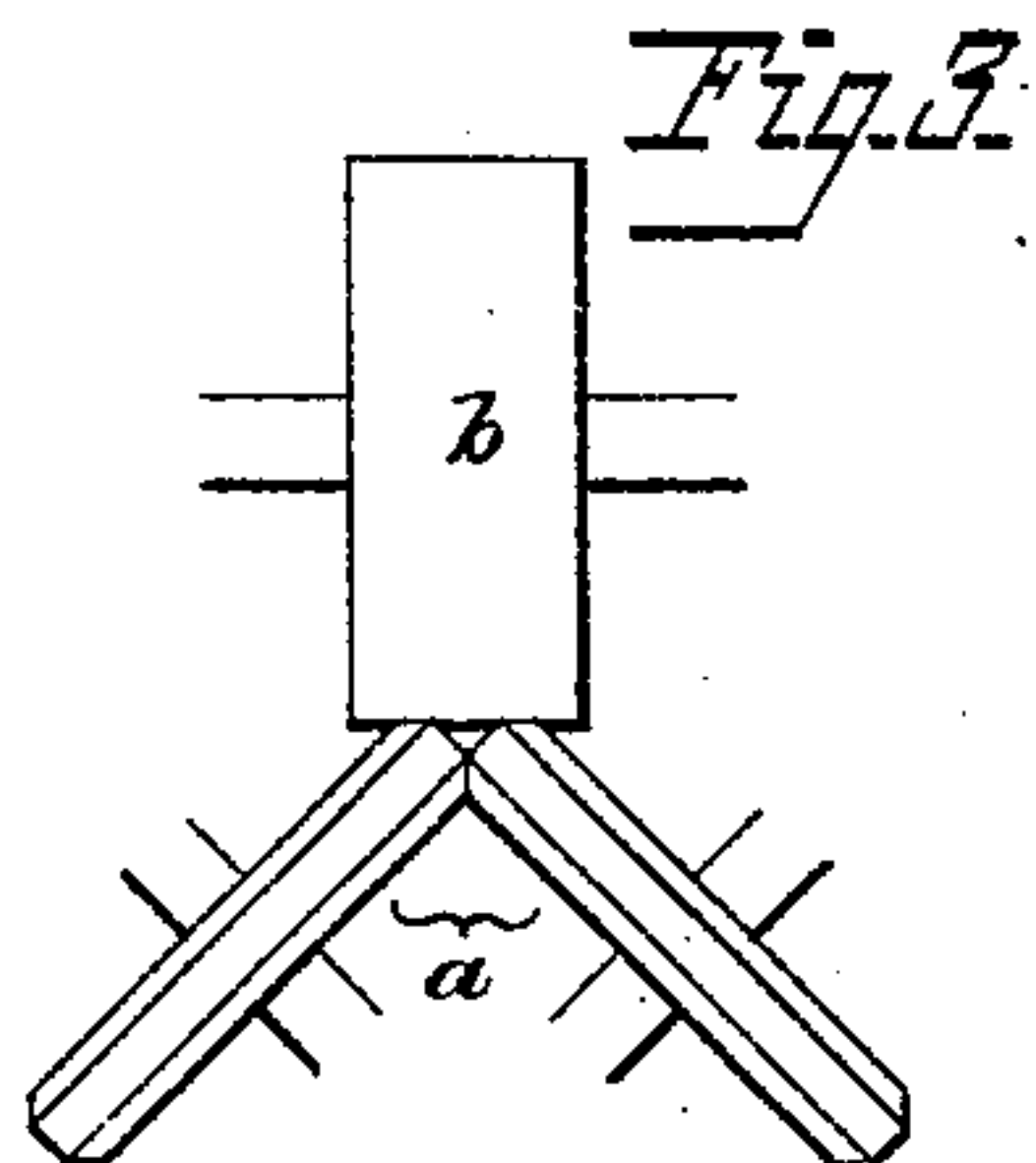
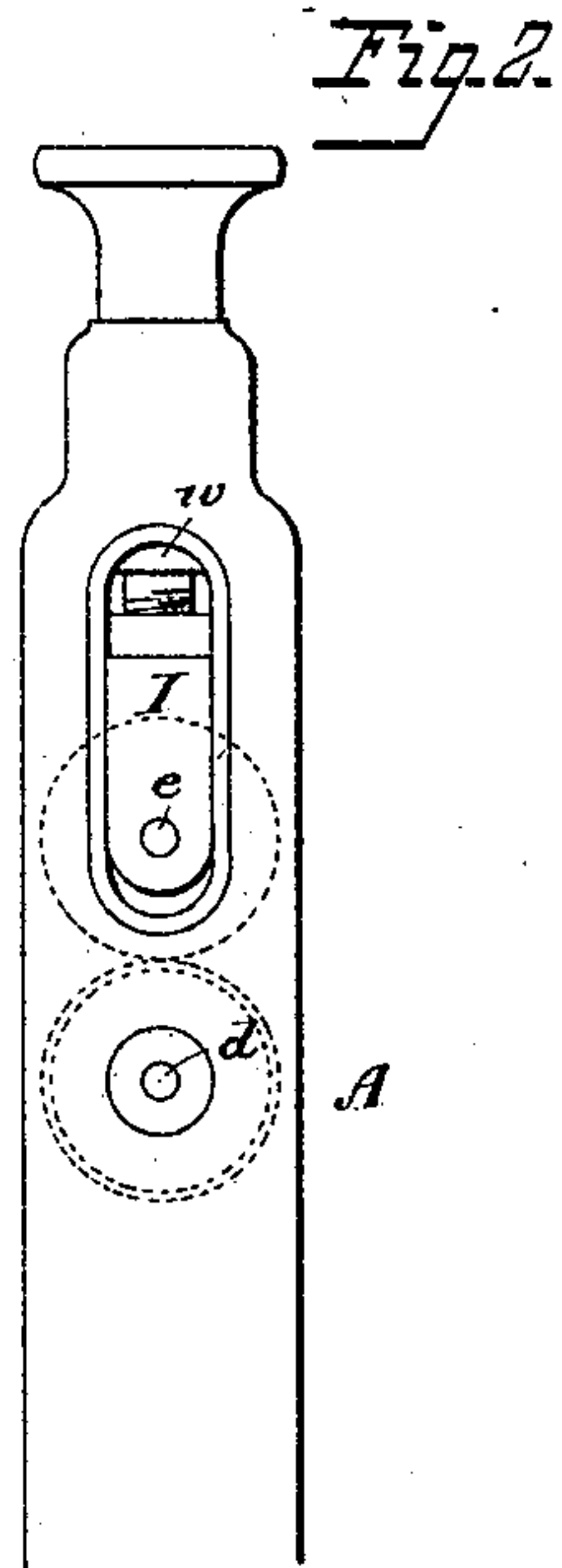
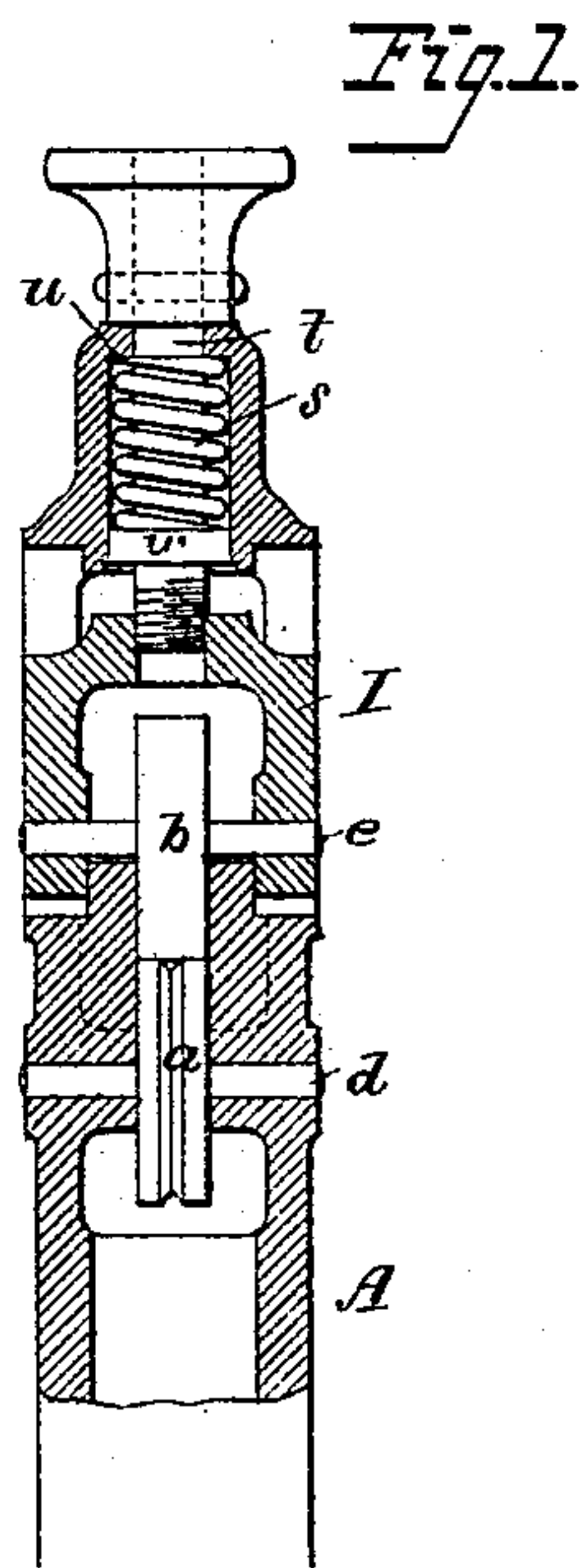
(No Model.)

S. W. WARDWELL, Jr.

STRIPPING DEVICE FOR WAX THREAD SEWING MACHINES.

No. 270,709.

Patented Jan. 16, 1883.



Attest:

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UNITED STATES PATENT OFFICE.

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STRIPPING DEVICE FOR WAX-THREAD SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 270,709, dated January 16, 1883.

Application filed September 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, SIMON W. WARDWELL, Jr., a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Stripping Devices for Wax-Thread Sewing-Machines, of which the following is a specification.

My invention is a stripper for wax-thread sewing-machines, constructed, as fully described hereinafter, so as to effectually remove the surplus wax from threads of different sizes without undue friction, and secure uniformity in the coating and size of the thread.

In the drawings, Figure 1 is a sectional elevation of my improved stripper device. Fig. 2 is a side elevation; Figs. 3 and 4, views showing modified forms of rolls; Figs. 5 and 6, views illustrating the action of the rolls on threads of different sizes.

My improved stripper consists essentially of two or more rolls mounted in suitable bearings, and having faces which form between the rolls a polygonal opening, through which the thread is passed on its way from the pot to the needle. Rolls of different forms may be employed to secure this result. I may use three rolls, as shown in Fig. 3, two rolls, each grooved, as shown in Fig. 4, or two rolls, one, *a*, with a V-groove, and one, *b*, with a flat periphery, as shown in Figs. 1, 2, and 6.

I have found that by the use of rolls constructed to form a polygonal opening, important advantages are obtained. Thus the pressure upon all sides is equal, and there is no tendency to force the thread out of the opening between the flat faces of the rolls, as occurs when round grooved rolls are employed. The difference in effect of the round and polygonal grooves is illustrated in Figs. 5 and 6. With a round groove, as in Fig. 5, a thread, *x*, that is smaller than the groove, will not be properly pressed and stripped, while if the thread is in the least too large, fins will be formed at the sides. With rollers inclosing a V-shaped groove, as in Fig. 6, a large thread,

x', and small thread *x*² will be subjected to the same character of pressure, it only being necessary to vary the pressure of the spring-bearing for the movable roll. A uniform result is thus secured. Moreover, a polygonal opening of a given size will accommodate a wider range of threads than will an oval or round opening of like dimensions.

By mounting one or more of the rolls in spring-bearings a uniform pressure may be secured, while the rolls will yield in case of a knot or thickened portion of the thread being drawn through the opening. A construction which I have found serviceable is shown in Figs. 1 and 2, where *A* is a hollow standard upon the frame of the machine, having bearings for the pin or axle *d* of the grooved roller *a*, and slotted to receive a frame or sliding bearing, *I*, carrying the shaft *e* of the plain-faced roller *b*.

The frame *I* can slide in the slot and is guided thereby, and has its bearing against a spring, *s*, coiled upon a rod, *t*, screwing into the top of the frame *I*, the spring bearing upon a shoulder, *w*, of said rod, and upon a shoulder, *u*, of a standard, *A*. The rod is provided with a head, *f*, by which it may be turned so as to increase or decrease the tension of the spring.

I claim—

1. A stripper for wax-thread sewing-machines, provided with wheels constructed to form a polygonal stripping-opening for the passage of the thread, substantially as set forth.

2. A stripper consisting of two or more converging wheels with faces constructed to form a polygonal stripping-opening, in combination with yielding bearings for one or more of the rolls, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SIMON W. WARDWELL, JR.

Witnesses:

FRED. H. BISHOP,
G. E. BISHOP.