

No Model.)

J. R. SMITH.  
DIE.

No. 562,859.

Patented June 30, 1896.

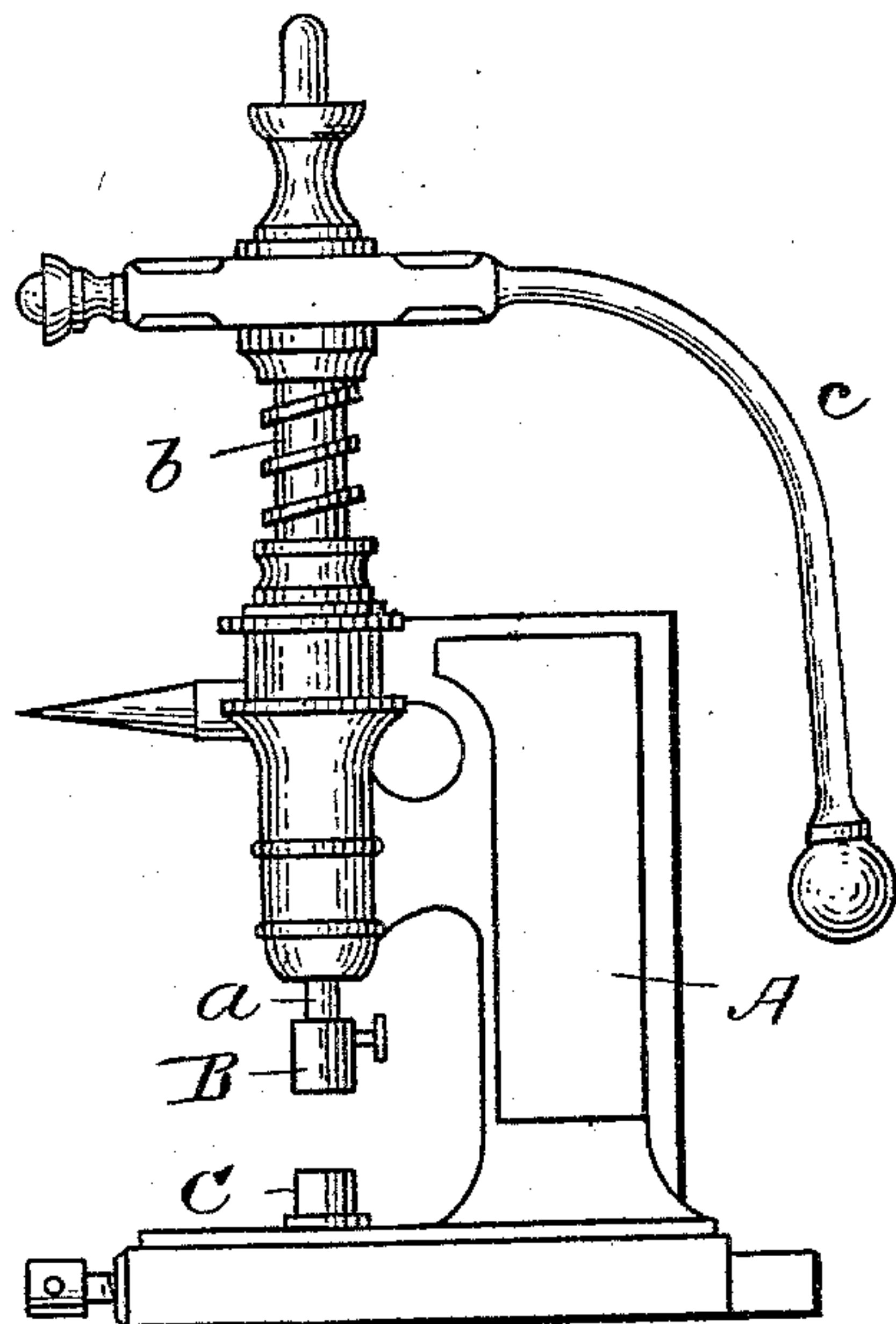
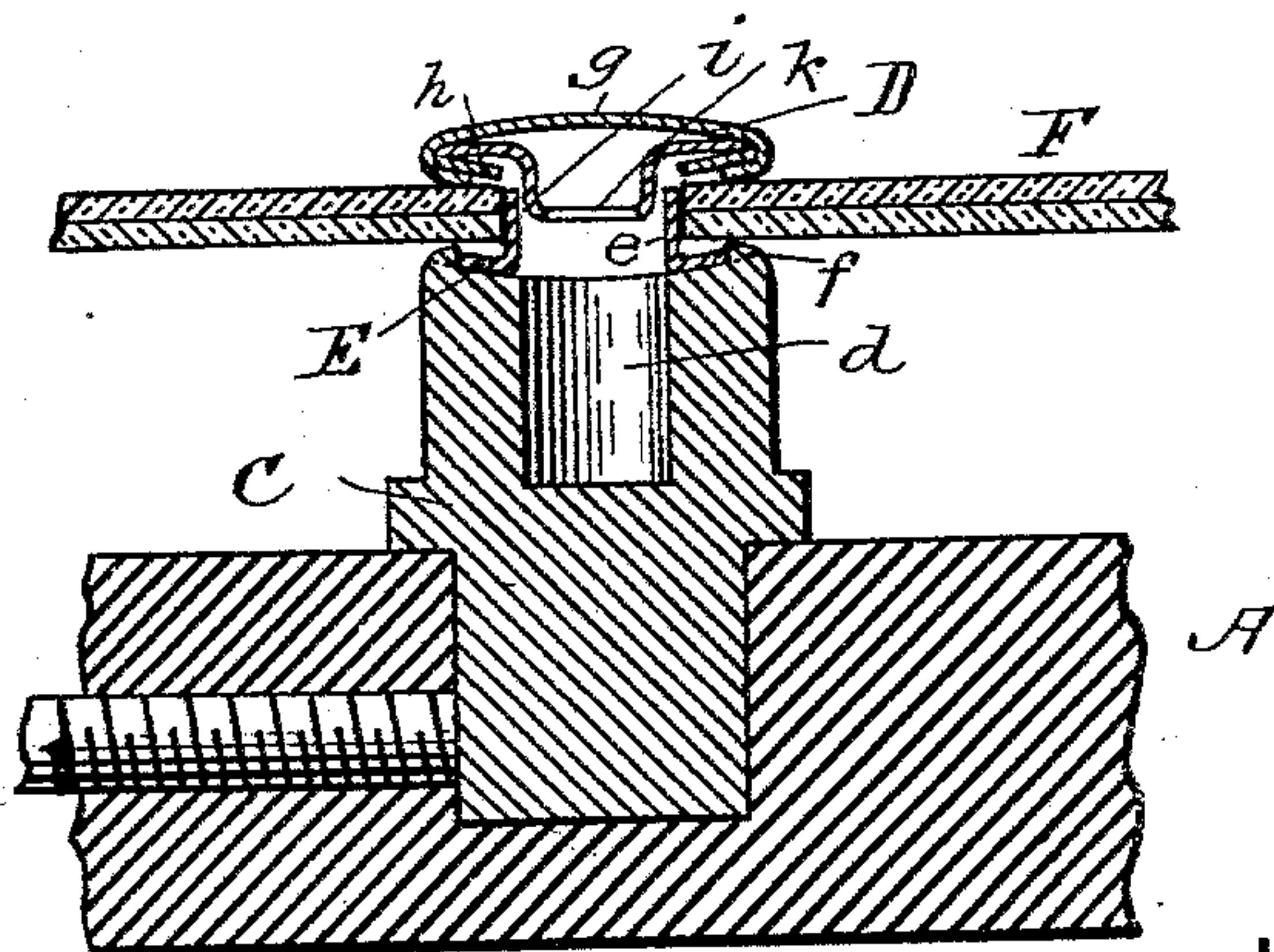
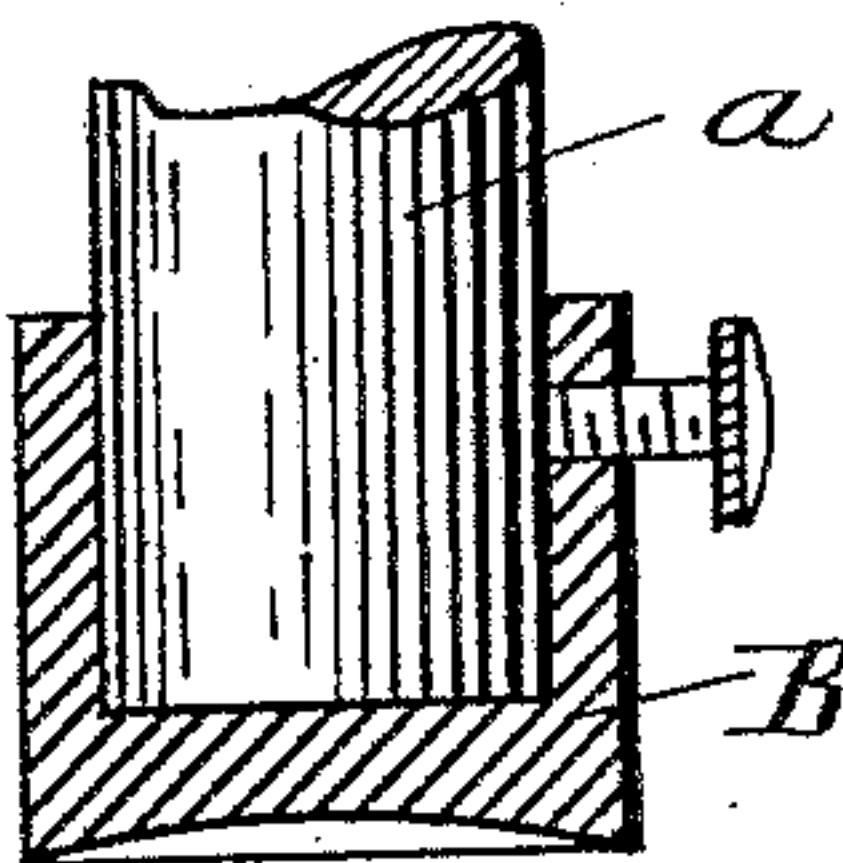


Fig. 1.



WITNESSES

Geo. A. Tolmer  
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Fig. 2.

INVENTOR

Geo. R. Smith  
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att.



# UNITED STATES PATENT OFFICE.

JOSEPH R. SMITH, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE  
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## DIE.

SPECIFICATION forming part of Letters Patent No. 562,859, dated June 30, 1896.

Application filed April 17, 1895. Serial No. 546,009. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH R. SMITH, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Dies, of which the following is a full specification.

Referring to the accompanying drawings, Figure 1 is a side elevation of the machine with the dies held therein. Fig. 2 is an enlarged vertical section of the dies in the machine, and showing also, in section, a fastener placed in the dies previous to being set on any material on which it is to be used.

My invention relates to dies used for riveting together two parts of a fastener for gloves or other articles, where an eyelet which rests on the under side of the material is to be riveted into a cap on the upper side, thus securing firmly the two parts together on the material. The eyelet has preferably a cylindrical, or approximately cylindrical, attaching-shank and a horizontal flange, while the cap consists of a shell, containing a suitably-curved anvil-piece to turn outward the attaching-flange of the eyelet and a washer beneath which the said outwardly-turned flange engages.

In setting the fastener, the die in which the cap rests has simply a surface conforming to the curvature of the cap. For the eyelet-setting die it has been hitherto customary to employ one that has an approximately flat surface, but having projecting upward from its center a teat or boss over which the eyelet may be loosely placed, and thereby centralized and held in position while being riveted up into the cap. In this case, when set, the inner edge of the eyelet serves as a lip to engage with the stud or other member of the fastener, which is forced into the socket formed by the cap and eyelet. In the fastener for which my improved dies are intended, this socket-forming lip is not formed by the edge of the attaching-eyelet, but by drawing down into a central cylinder the piece which forms the anvil in the cap, so that when the two parts are riveted together this cylindrical piece projects down into the opening of the eyelet, and, its lower edge being turned in slightly, forms the lip required. In this case, the old form of die described above cannot

advantageously be used, for the die will come in contact with the downwardly-projecting extended anvil-piece, and the latter will thereby often be crippled or crushed out of shape. To avoid this difficulty, I have devised the die herein shown, which has in the center a holding and protecting concavity or depression, into which the projecting anvil or socket-piece may enter as the parts are pressed together, and thus avoid injury. The eyelet may be centralized by a device as shown in the drawings, by which the outer edge is raised so as to form an upwardly-projecting rim, or by any similar device, as by a projection of the center, forming a retiring or disappearing teat, the essential feature being to have the concavity present when the socket-piece *i* approaches the die.

Referring to the accompanying drawings, A represents a machine by which the dies may be pressed together. The lower die C rests in the machine, and the upper die B is secured to the plunger *a*, which is given a vertical motion or throw by means of the screw *b*, turned by the handle *c*.

In Fig. 2 enlarged sections of the dies are shown, the upper die B being simply a concave die made to fit over the end of the plunger *a* and secured thereto by means of a set-screw, as shown. The lower die, which is stationary, sets into the lower side of the machine, and is suitably held there. Its upper end is a seat for the flange of the eyelet E, and has in its center a concavity *d*, preferably of the same diameter as that of the shank *e* of the eyelet E. The upper end of the die may or may not have its outer edge raised, as shown, in order to form a recess to receive and center the eyelet E.

Fig. 2 shows the eyelet E placed in the die C prior to being set in the material F through which it projects. Resting on the top of the material over the eyelet E, and in readiness to be pressed down upon, and riveted to it by means of the upper die B, is the cap D. This cap consists of three pieces, the shell *g*, washer *h*, and anvil or socket piece *i*, which is shown drawn down and in, as above described, so that when the eyelet E is riveted home into the cap, the lower end *k* of this anvil or socket piece will project down



through the opening in the eyelet E, thus forming within said opening an inwardly-projecting lip, which is the socket of the fastener. It is obvious that an annular depression of suitable depth and diameter to receive the end *k* of the socket-piece *i* could be used as well as the concavity *d*, and with the same result.

I claim—

10 As a new article of manufacture, a die for setting the attaching-eyelet and socket-piece

of a fastener, consisting of an eyelet-supporting seat, a socket-piece concavity, and a peripheral centralizing device substantially as described.

In witness whereof I have hereunto set my hand.

JOSEPH R. SMITH.

Witnesses:

MICHAEL WHEELEHAN,  
NATHL. R. BRONSON.