

No. 803,460.

PATENTED OCT. 31, 1905.

F. ANDERSON & J. S. JARVIS.  
MEANS FOR FIXING TAPPETS TO STAMP STEMS.  
APPLICATION FILED FEB. 21, 1905.

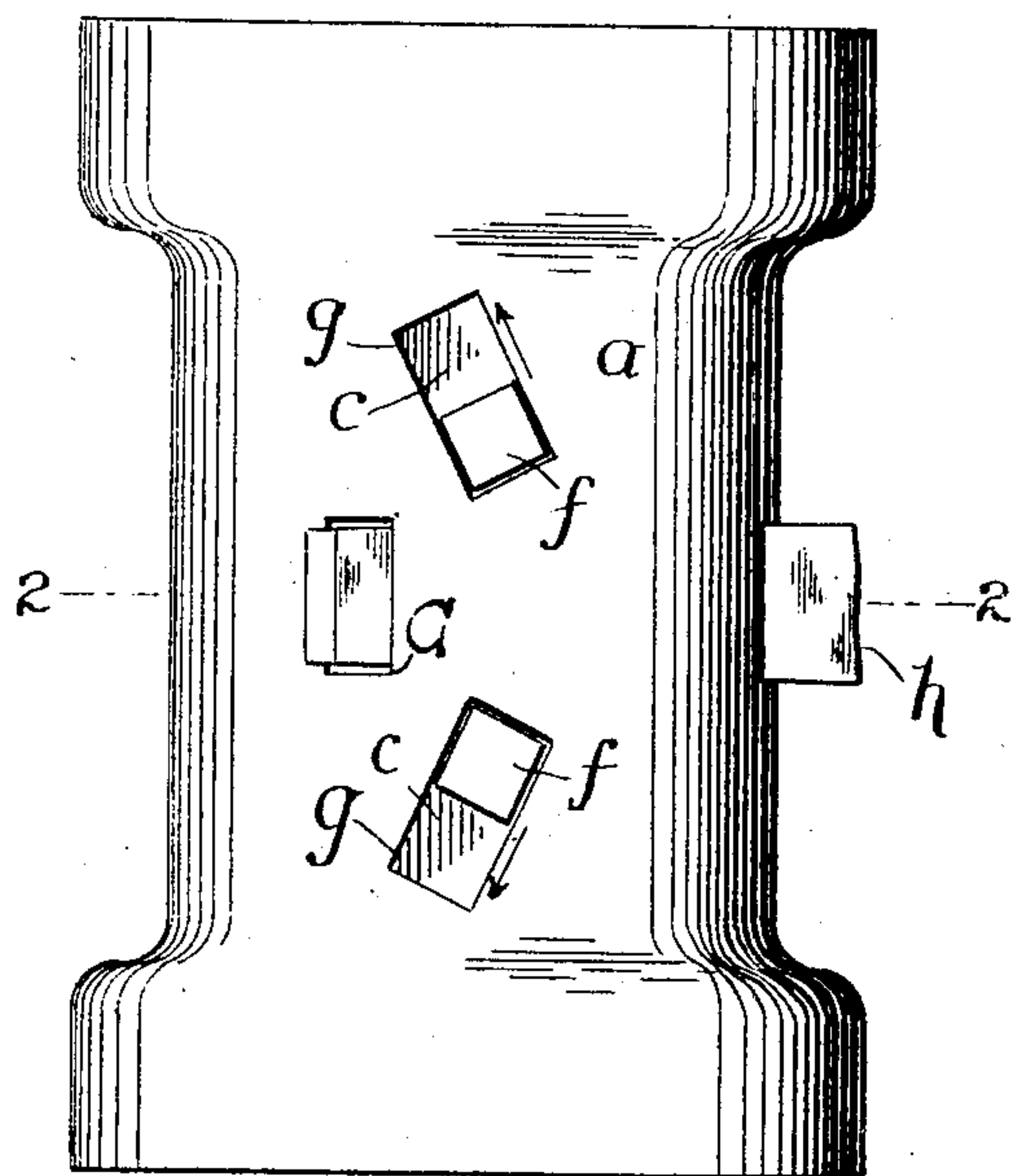


Fig I

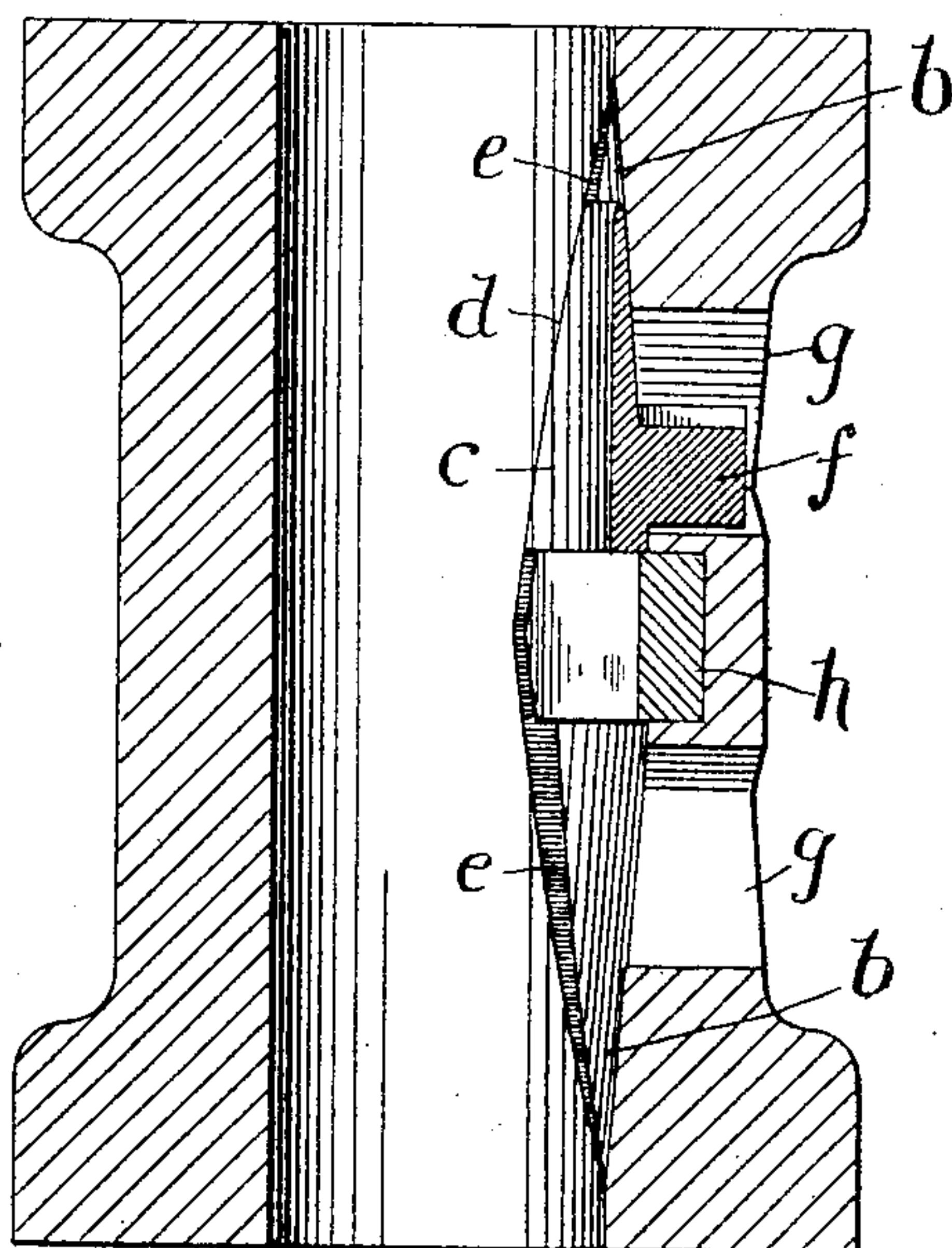


Fig III

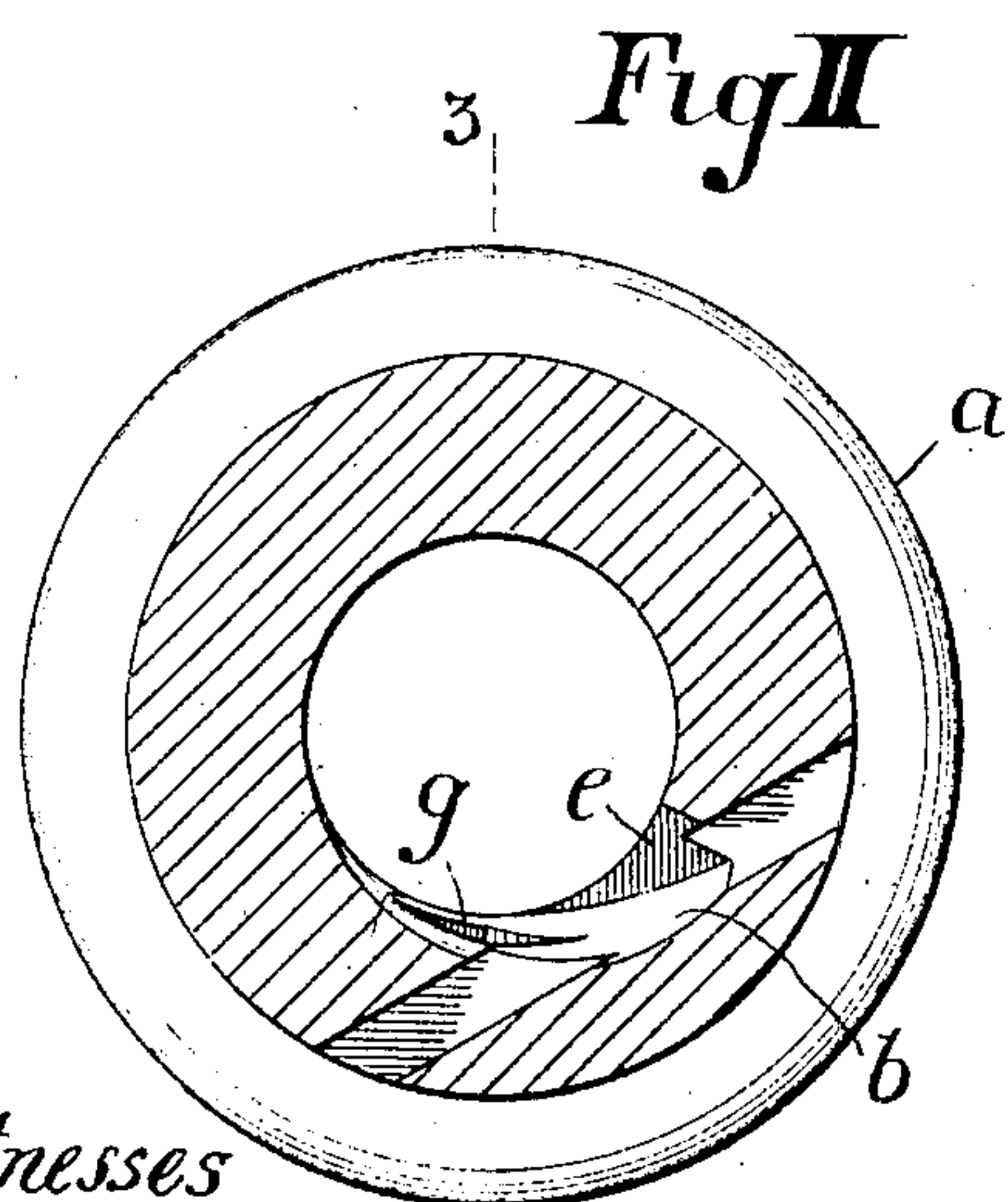
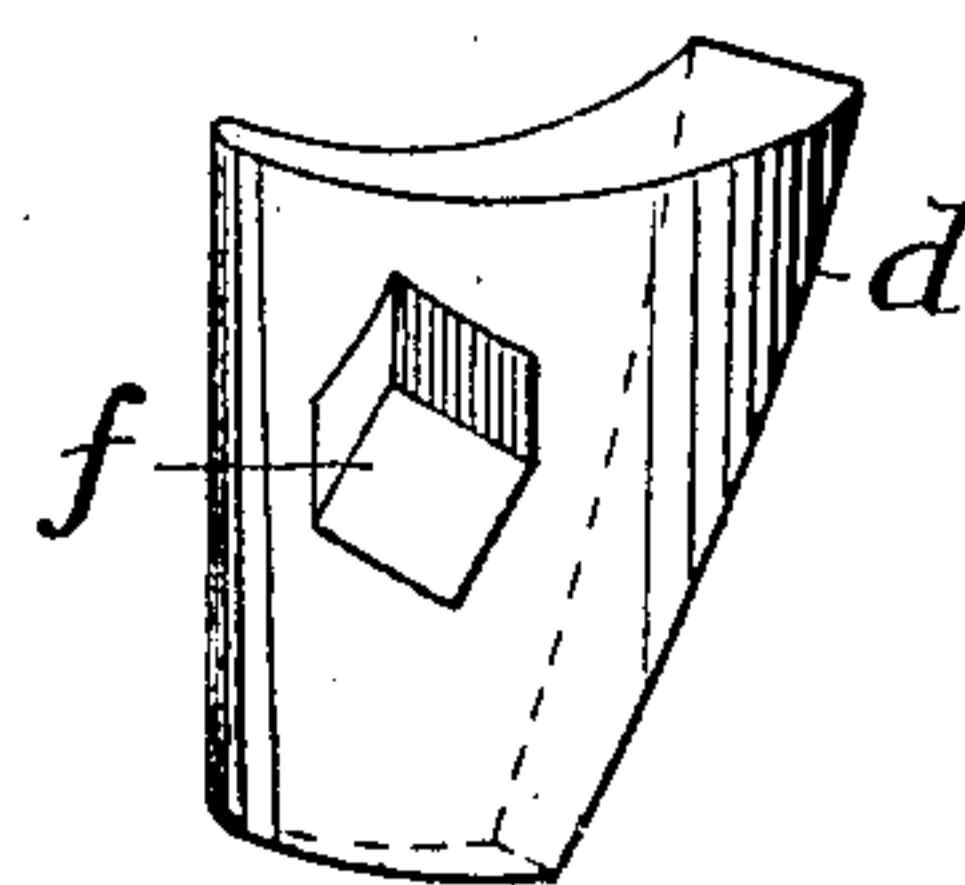


Fig II

Fig IV



Witnesses  
George Kane  
Geo. Downing

Inventors.  
Frederic Anderson  
James Stuart Jarvis  
by Connolly Bros. Attorneys



# UNITED STATES PATENT OFFICE.

FREDERIC ANDERSON AND JAMES STUART JARVIS, OF EAST RAND,  
TRANSVAAL.

## MEANS FOR FIXING TAPPETS TO STAMP-STEMS.

No. 803,460

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed February 21, 1905. Serial No. 246,762.

*To all whom it may concern:*

Be it known that we, FREDERIC ANDERSON and JAMES STUART JARVIS, engineers, British subjects, residing at the East Rand, District of Witwatersrand, in the Colony of the Transvaal, have invented new and useful Improvements in Means for Fixing Tappets to Stamp-Stems, applicable also to analogous purposes, of which the following is a specification.

This invention relates to means for fixing the tappets upon the stems of a stamp-battery; and its object is to provide a tappet which is easily fixed or removed, is cheap, and is not subjected to the excessive bursting stress which occurs in the common type of tappet.

Figure I is an elevation of the improved tappet. Fig. II is a cross-section upon the plane 2 2, Fig. I. Fig. III is a vertical section upon the plane 3 3, Fig. II; and Fig. IV is a perspective view of the lower wedge. In Figs. II and III the lower wedge is supposed to be removed, as is also the cotter in Fig. II.

In carrying out this invention the bore of a solid tappet *a* is suitably recessed at one side, as shown at *b*, to receive a pair of wedges *c c*. Said wedges are located one in the upper half and one in the lower half of the tappet and are curved to fit against the stem. They are doubly tapered, as shown clearly in Figs. III and IV—that is to say, longitudinally away from the center of the tappet and transversely from one side to the other—the result being virtually a single taper in a direction helical with respect to the stamp-stem.

Also the thicker edge of each is cut away obliquely and bears against a correspondingly-oblique side or wall *c* in its recess. The arrangement is such that upon the wedges being thrust apart by a cotter *h* driven in between them or by other proper means each has a double motion, first, longitudinally away from the center of the tappet, which brings the longitudinal taper into play, and, secondly and concurrently, a transverse or rotative movement around the stem, causing its transverse taper to become operative. Again, the oblique edge of one wedge is cut to the opposite hand to that of the other. A mortise or cotter-seat is cut through the wall of the tap-

pet-body, as shown at *G*, so that the tapered cotter *h* will contact at its upper and lower edges with the thicker ends of the wedges.

From the back of each wedge *c* a lug *f* projects into an aperture *g*, formed through the tappet-body, and serves a double purpose, first, to apply an instrument to when knocking back and loosening the wedge, and, secondly, to keep the wedge in place when placing the tappet upon the stem and to guide the wedge in its proper oblique path. The wedges are thrust apart by driving in the cotter *h* between them and then moving it, as indicated by the arrows in Fig. I. It will be evident that any concussion or slip tending to slacken one wedge, whether longitudinally or transversely, will have an exactly opposite effect upon the other wedge, and thus the tappet automatically secures itself against forces tending to dislodge it. An important result is that the wedges do not need to be tightened to the same extent as do the cotters of an ordinary tappet, and in consequence the improved tappet can be made of cheaper material than the present ones.

It will be understood that the invention may be applied to various purposes analogous to that described—such, *e. g.*, as fixing pulleys upon shafts, coupling two lengths of shafting together, or fixing stamp-heads upon their stems.

Sometimes—as, *e. g.*, in fixing stamp-heads to their stems—when the length to which the fixing means can be applied is restricted one only of the improved wedges may be employed; but it is evident that a better effect will be produced by using a pair, as described.

We claim as our invention—

1. In a stamp-tappet or the like, a fixing means consisting of a wedge member fitting the stem on its inner face and tapered longitudinally and transversely relatively to the tappet, a correspondingly-shaped recess in the tappet-body and means for moving the wedge member obliquely whereby both tapers are brought into play.

2. In a stamp-tappet or the like, a pair of wedge members fitting the stamp-stem on their inner faces and tapered longitudinally away

from the center of the tappet and transversely relatively thereto located in correspondingly-shaped recesses in the upper and lower halves respectively of the tappet-body, and having  
5 their thicker edges cut away obliquely to opposite hands and bearing against correspondingly-oblique sides of the recesses, a cotter adapted to be inserted between them to drive them apart, and apertures arranged obliquely

in the tappet-body into which project lugs so formed on the backs of the wedges.

In testimony whereof we affix our signatures in presence of two subscribing witnesses.

FREDERIC ANDERSON.

JAMES STUART JARVIS.

Witnesses:

HAROLD ERNEST KISCH,  
WM. HY. HILLMAN.