

No. 736,174.

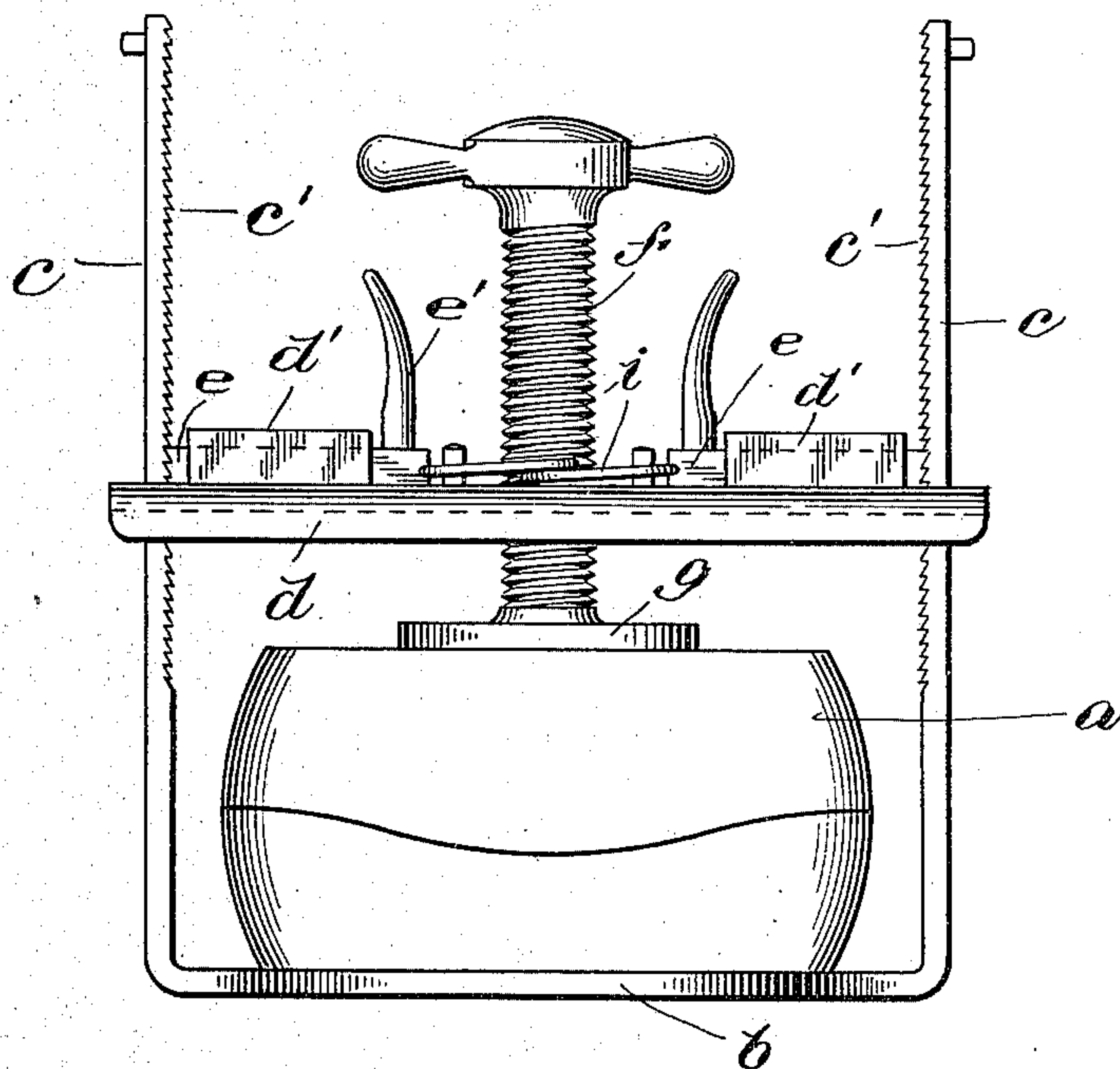
PATENTED AUG. 11, 1903.

J. TURCK.  
CLAMP.

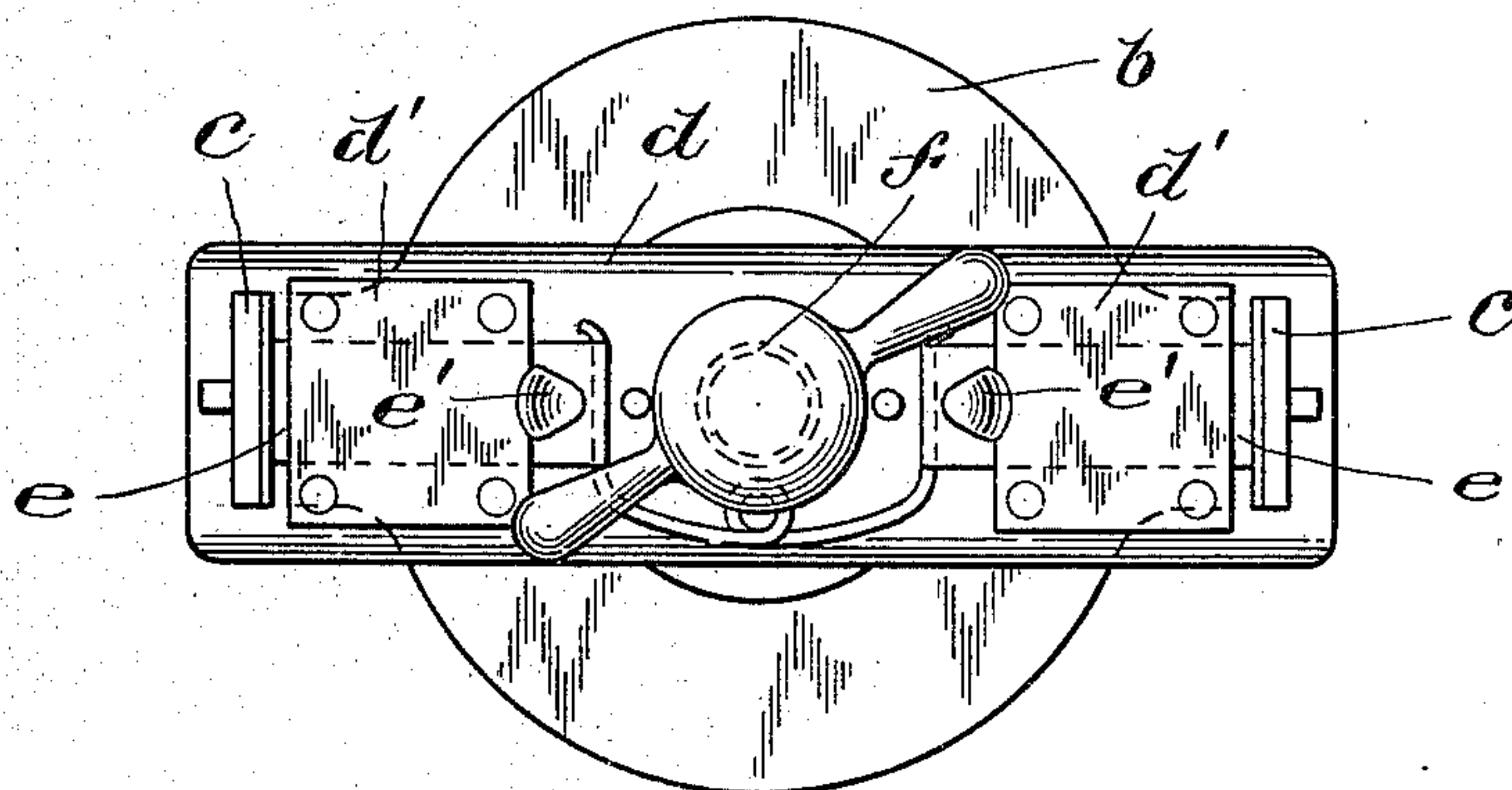
APPLICATION FILED DEC. 17, 1902.

NO MODEL.

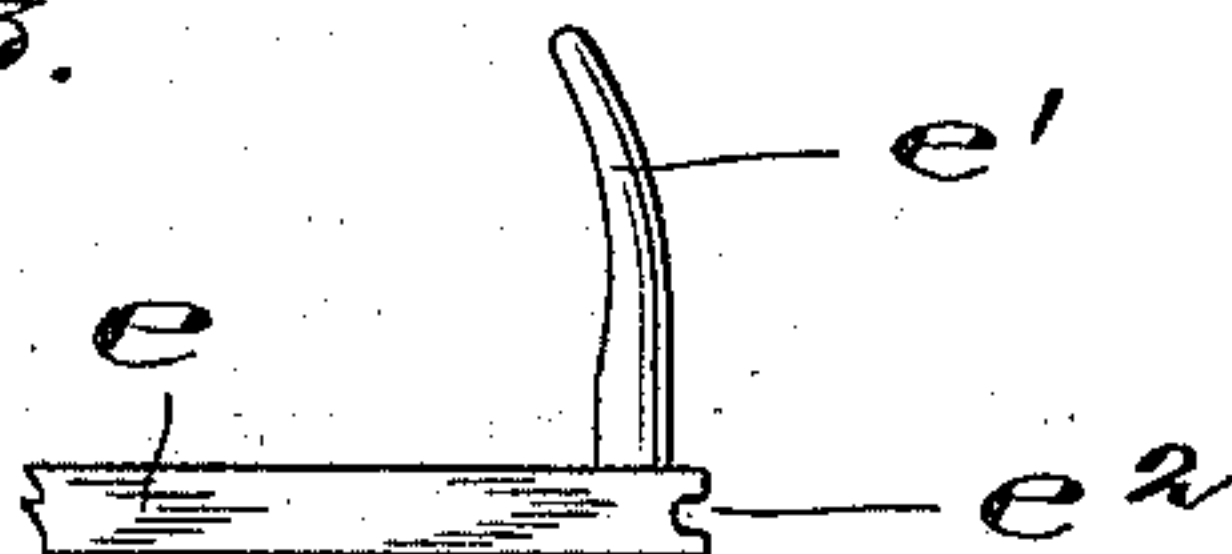
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:  
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## UNITED STATES PATENT OFFICE.

JOHN TURCK, OF AYER, MASSACHUSETTS.

## CLAMP.

SPECIFICATION forming part of Letters Patent No. 736,174, dated August 11, 1903.

Application filed December 17, 1902. Serial No. 135,612. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN TURCK, of Ayer, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Clamps, of which the following is a specification.

This invention has for its object to provide a simple, convenient, and effective clamp particularly adapted for the use of dentists in confining parts of vulcanizing devices or flasks.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a clamp embodying my invention. Fig. 2 represents a top plan view of the same. Fig. 3 represents a view of one of the parts detached.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents a dental flask which is to be operated on by my improved clamp.

*b* represents the lower member of the clamp, the same being formed as a base adapted to rest upon a bench or other support.

*c c* represent vertical standards affixed to and projecting upwardly from the base *b*, said standards having ratchet-teeth *c'* on their inner sides.

*d* represents a cross-head which is movable on the standards *c*, said cross-head having slots in its end portions through which the standards pass.

*d' d'* represent guides fixed to the cross-head *d* near its end portions.

*e e* represent slides formed at their outer ends as ratchets adapted to engage the ratchet-teeth *c'*. The slides *e* are movable in the guides *d'* toward and from the standards *c* and are provided at their inner ends with suitable handles *e'*, whereby they may be simultaneously retracted to disengage them from the teeth of the standards. The slides *e* are provided at their inner ends with grooves *e<sup>2</sup>*, which receive the arms of a substantially U-shaped spring *i*, which is interposed between the slides *e*. Said spring holds the two slides simultaneously in engagement with the ratchet-teeth of the two standards

and permits the withdrawal of the slides from such engagement.

*f* represents a screw which is engaged with a threaded orifice in the central portion of the cross-head *d* between the inner ends of the ratchet-slides *e e*. Said screw has at its lower end a head or enlargement *g*, constituting an upper clamp member.

The ratchet-teeth *c'* and the corresponding ends of the ratchet-slides *e* are formed so that when the cross-head *d* is moved downwardly toward the base *b* the ratchets will slip on the teeth of the standards, thus permitting a simultaneous movement of the cross-head and screw and the upper clamp member toward the lower member or base *b*. This quick movement is effective in bringing the upper member *g* to a bearing on the upper surface of the flask *a*. The screw *f* is then rotated to cause the upper member *g* to apply the desired pressure to the flask, the engagement of the ratchet-slides *e* with the teeth *c'* holding the cross-head *d* rigidly against upward movement, so that the rotation of the screw causes the descent of the upper clamp member *g*.

It will be seen that the described clamp is compact and simple and provides for a quick adjustment of the upper clamp member to bring it to a bearing on the work and for a forcible relatively slow movement of said member to cause it to impart the desired pressure to the work.

I claim—

1. A clamp comprising a lower clamp member formed as a base, vertical standards secured to the base and projecting upwardly therefrom, said standards having ratchet-teeth, a cross-head movable on said standards and having spring-pressed ratchets adapted to engage the teeth, and handles whereby they may be disengaged from the teeth, the teeth and ratchets being formed to permit the slipping of the ratchets on the teeth when the cross-head is moved toward the base and to cause the engagement of the ratchets with the teeth to prevent movement of the cross-head away from the base, a screw having a head or enlargement at its lower end constituting an upper clamp member, said screw being engaged with a threaded orifice in the

cross-head, and adapted to impart a slow adjustment to the upper clamp member, the screw, and cross-head being movable simultaneously to impart a quick adjustment to  
5 the upper clamp member.

2. A clamp comprising a lower clamp member formed as a base, vertical standards rising from the base and having ratchet-teeth on their inner sides, a cross-head movable on  
10 said standards and having guides, ratchet-slides movable in said guides and adapted to engage the ratchet-teeth of the standards, said slides having grooves in their inner ends,

a U-shaped spring between the slides, its arms being engaged with said grooves, and a 15 screw engaged with a threaded orifice in the cross-head between the slides, said screw having a head or enlargement constituting an upper clamp member.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN TURCK.

Witnesses:

HENRY CHRYSTAL,  
RUTH TAFT FENNER.