

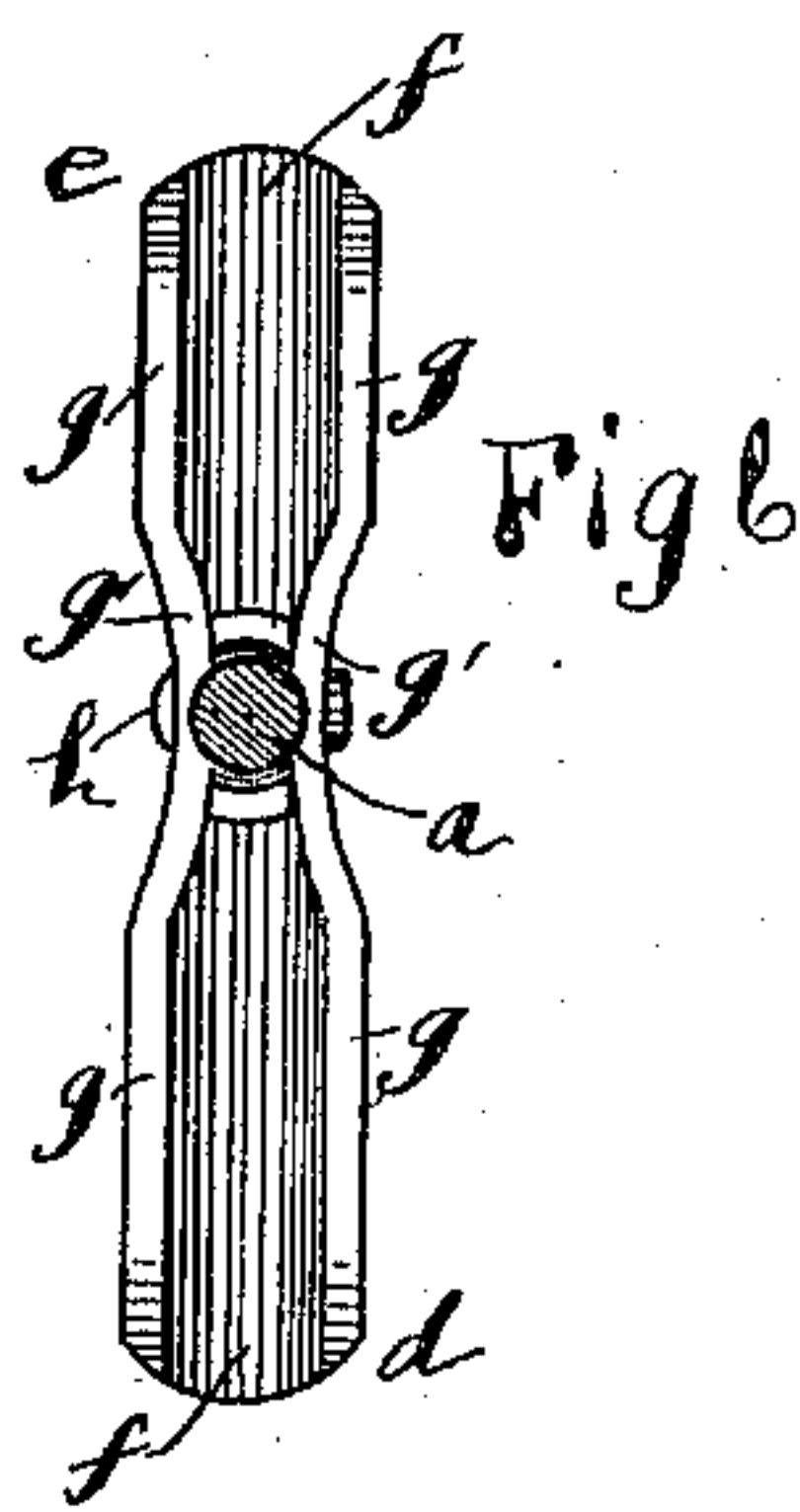
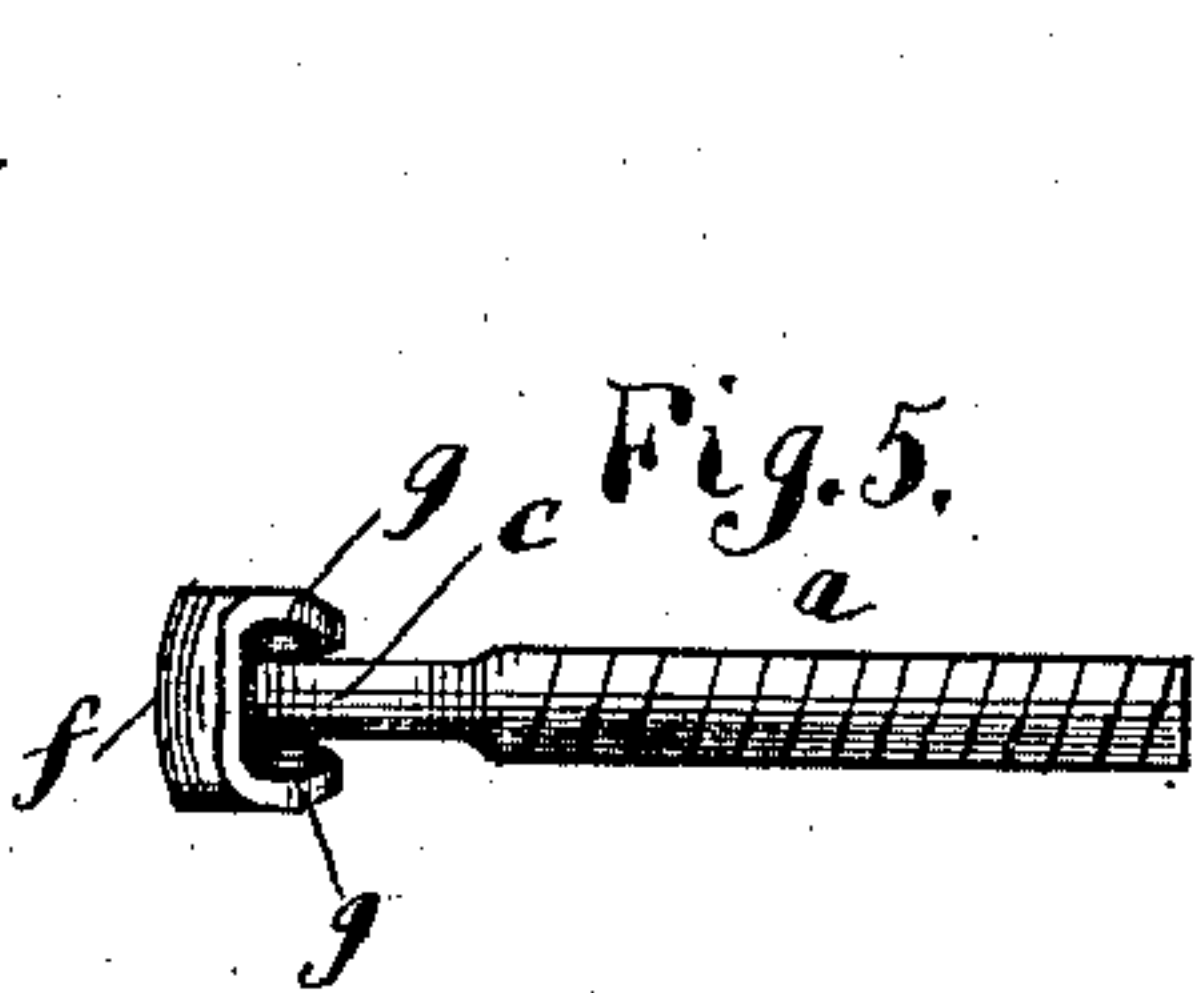
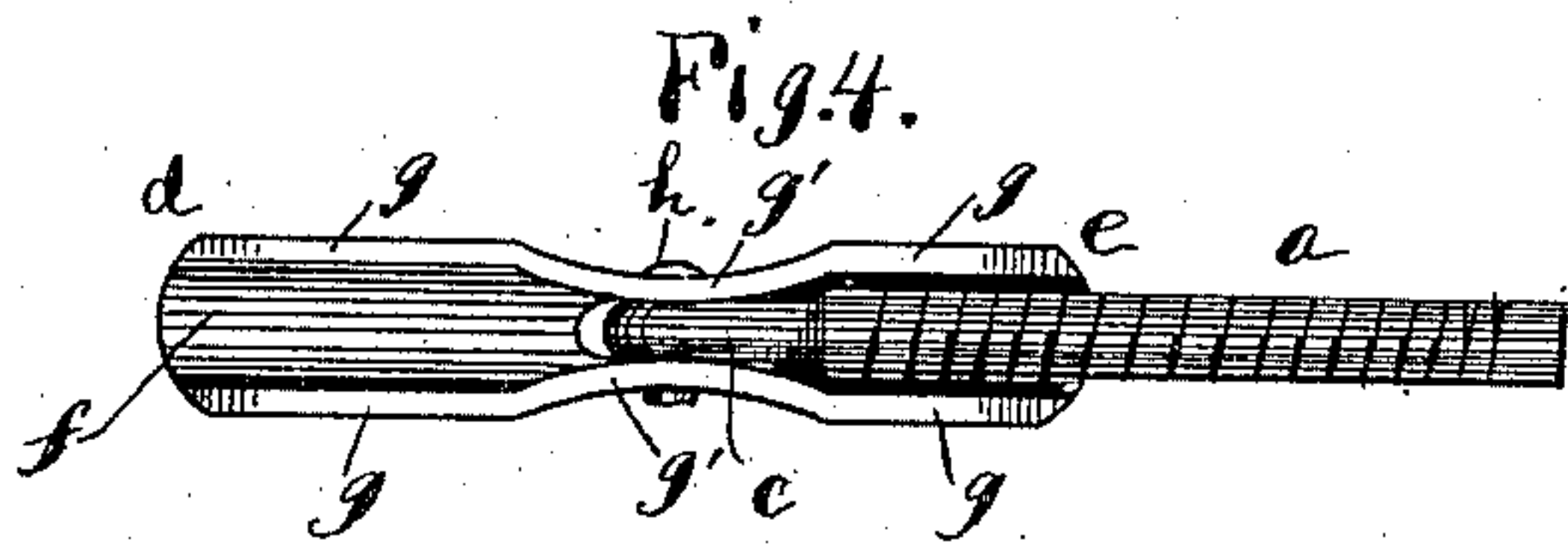
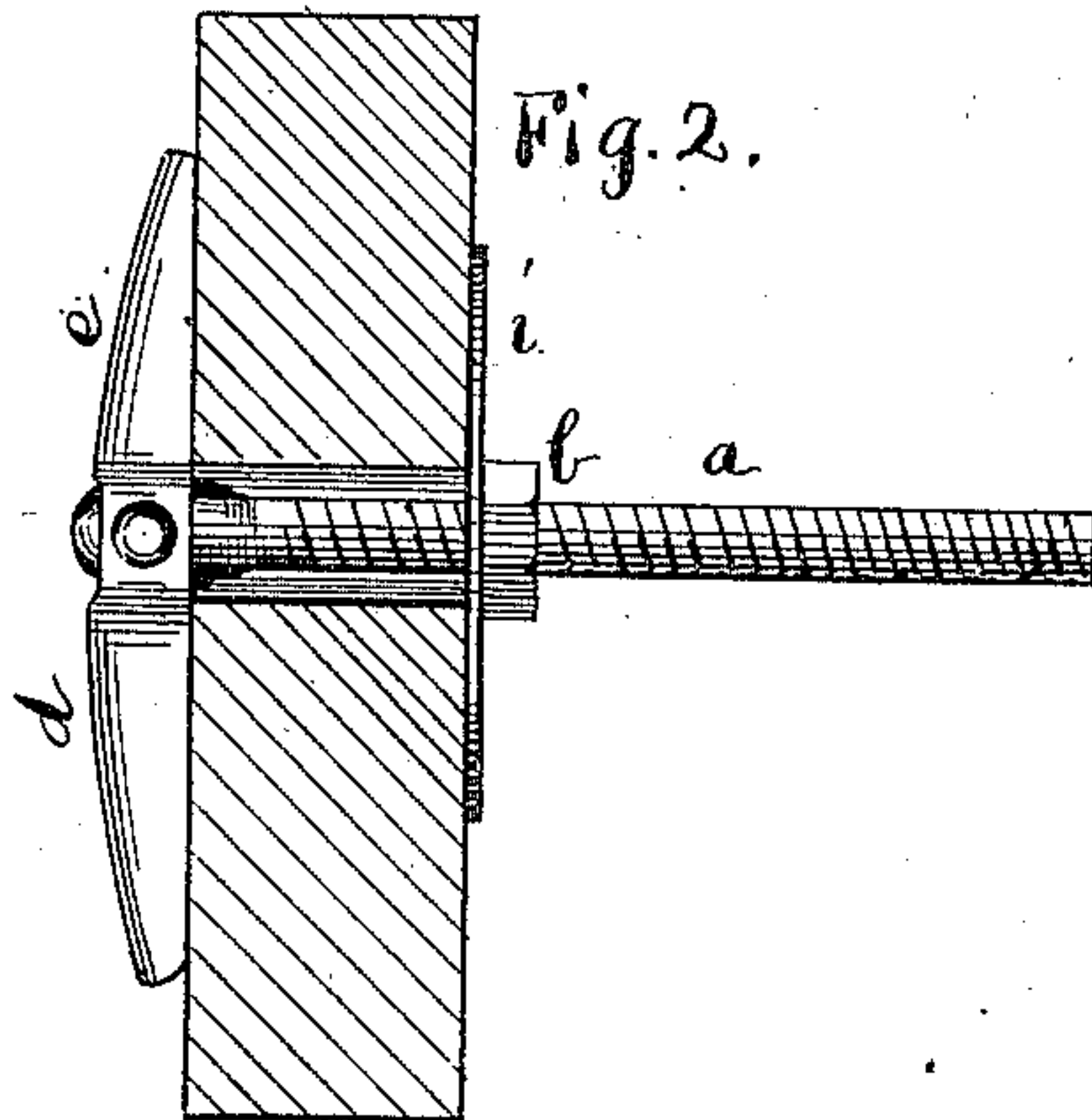
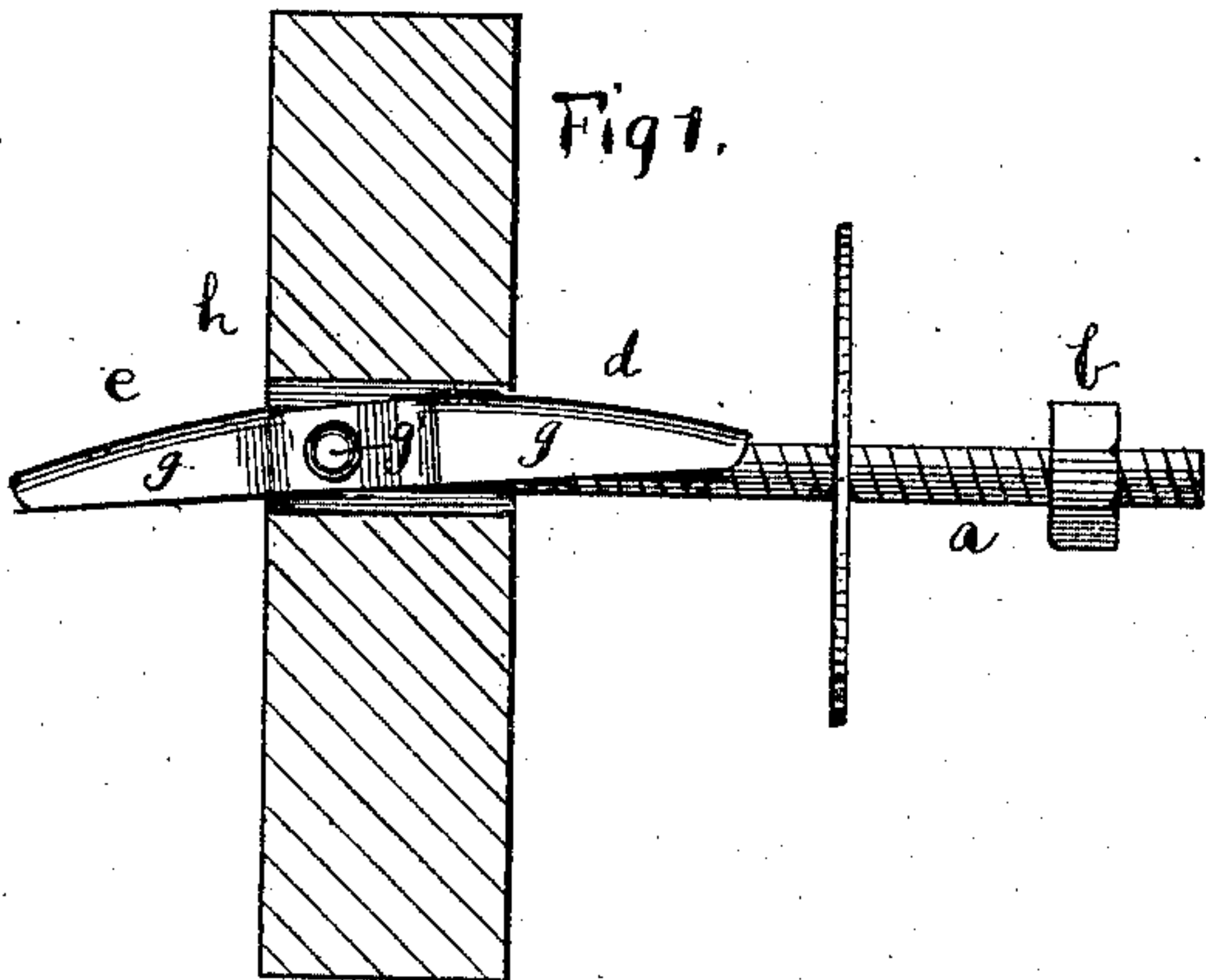
No. 687,809.

Patented Dec. 3, 1901.

T. WRIGLEY.  
CLAMP.

(Application filed Apr. 20, 1901.)

(No Model.)



Witnesses.  
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# UNITED STATES PATENT OFFICE.

THOMAS WRIGLEY, OF OAKPARK, ILLINOIS.

## CLAMP.

SPECIFICATION forming part of Letters Patent No. 687,809, dated December 3, 1901.

Application filed April 20, 1901. Serial No. 56,692. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS WRIGLEY, residing at Oakpark, Cook county, Illinois, have invented a certain new and useful Improvement in Clamps, of which the following is a specification.

The object of this invention is to construct a simple and efficient clamp by the use of which brackets and other similar articles or appliances can be attached to the walls and ceilings of rooms or in other places and have the attachment firm and secure and easily and quickly accomplished; and the invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating the invention, Figure 1 is an elevation showing the manner of entering the clamp through a wall or partition; Fig. 2, a similar view to Fig. 1, showing the clamp after it has been entered and secured in position; Fig. 3, a plan view showing the position of the pivoted lock or key in entering the clamp; Fig. 4, a view showing the pivoted lock or key lying over the rod or stem; Fig. 5, a plan view showing the lock or key in its vertical retaining position; Fig. 6, a cross-section with the lock or key as in Fig. 5, and Fig. 7 a cross-section with the lock or key as in Fig. 3.

The clamp is constructed with a rod or stem *a*, having a screw-thread on its exterior, on which travels a nut *b*, and the stem can be of any desired diameter and length to suit the requirements of the place and purpose for which the clamp is to be used. One end of the rod or stem, as shown, is flattened, so as to form a head *c*, on which is pivoted the lock or key, and the lock or key is so pivoted as to have one half or end *d* of a greater length from the pivotal point than the opposite half or end *e*, so that when the rod or stem is properly turned the end *d* will overbalance the end *e* and cause the lock or key to assume a horizontal position, and when the rod or stem is reversely turned the end *d* will drop, causing the lock or key to assume a vertical position.

The lock or key is preferably made of sheet metal stamped or formed so as to have a back or body *f*, with a wall or flange *g* on each side, forming a trough shape. The side walls or

flanges *g* are depressed or forced inward at the point of pivot for the lock or key, forming on each side a contracted wall or flange section *g'*, between which is located the head *c* and through which and the head a pivot *h* is passed, leaving the lock or key free to turn or swing on the pivot to the limit horizontally of the engagement of the end *d* with the body of the rod or stem and to drop into a vertical position. As shown, a washer or plate *i* is slipped onto the rod or stem in advance of the nut, which plate or washer acts as a counter-resistance to the lock or key when vertical in securing the clamp as a whole in position.

The rod or stem is attached to the wall, ceiling, partition, or other place where used by boring or drilling a hole of the proper size to admit of the passage of the rod or stem and the lock or key when lying in a horizontal position, as shown in Fig. 1, and when inserting the rod or stem the fastening-nut is at the end of the rod or stem or entirely removed therefrom, as may be desired. The rod or stem and the lock or key are entered through the hole therefor until the end of the lock or key which overlies the rod or stem has passed the face of the wall, when by turning the rod or stem over the end *d* falls away from the rod or stem, turning the lock or key into practically a vertical position, so that on pulling in the direction to withdraw the rod or stem the face of the lock or key engages the face of the wall, preventing the withdrawal, and with the parts in this position the washer is brought into engagement with the opposite face of the wall and the attachment completed by forcing the nut into engagement with the washer or plate, drawing the lock or key firmly against the face of the wall and holding the rod or stem fixedly in position.

The trough shape of the lock or key enables a light piece of metal to be used, as the side flanges or walls give additional strength, and the walls or flanges also furnish a bearing and guide for insuring the dropping of the lock or key into either its horizontal or vertical position. The elongation of one end of the lock or key over the other gives an out-of-center attachment, by which the long end will cause the lock or key to assume either a horizontal or vertical position, according as to the



turning of the rod or stem, so as to bring the long end up or down. The turning of the rod or stem to bring the long end up causes the lock or key to swing into a horizontal position, while the turning to bring the long end down causes the lock or key to swing into a vertical position. The side flanges or walls furnish a double bearing or contact for engagement with the face of the wall, so that when drawn to place the lock or key will have a firm support against the wall on both sides of its pivot, thus preventing any side twisting or bending of the lock or key in the operation of inserting and withdrawing the rod or stem. The rod or stem after its insertion can be easily and quickly withdrawn, as all that is required is to loosen the nut sufficiently to advance the rod or stem a distance sufficient for the lock or key to clear the face of the wall, when by turning the rod or stem so that the long end of the lock or key is up the lock or key will drop into a horizontal position, as shown in Fig. 1, ready to be withdrawn, and this facility of both entering and withdrawing the rod or stem is obtained by the construction of lock or key having a body with side flanges or walls forming a channel-plate between the side flanges or walls of which the rod or stem enters when the lock or key is in a horizontal position.

The clamp as a whole is exceedingly simple in construction, can be readily and quickly inserted and withdrawn, is very strong when secured in position, and is well adapted for the attachment of brackets and other appliances to walls and other places and for securing in place marble and other wainscoting, steel, iron, and other ceilings, moldings, and other fixtures.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination, in a clamp, of a rod or stem and a self-oscillating lock or key having a back or body and a wall or flange on each side of the back or body, the walls or flanges having their engaging faces lying in the same straight plane, between which walls or flanges

the lock or key is pivoted on the end of the rod or stem, substantially as described.

2. The combination, in a clamp, of a rod or stem and a self-oscillating lock or key having a back or body and a wall or flange on each side of the back or body, between which walls or flanges the lock or key is pivoted longitudinally off center on the end of the rod or stem, for automatically dropping the lock or key into a longitudinal and into a transverse position by turning the rod or stem, substantially as described.

3. The combination, in a clamp, of a rod or stem having a screw-thread on its exterior, a nut traveling on the screw-thread of the rod or stem, and a self-oscillating lock or key having a back or body and a wall or flange on each side of the back or body, pivoted through the side walls or flanges longitudinally off center on the end of the rod or stem, to automatically drop into a longitudinal and into a transverse position in relation to the rod or stem, and when in a vertical position coöperate with the nut and securely retain the clamp in position, substantially as described.

4. The combination, in a clamp, of a rod or stem flattened at its engaging end and having a screw-thread on its exterior, a plate or washer on the rod or stem, a nut traveling on the screw-thread of the rod or stem back of the plate or washer, and a self-oscillating lock or key having a back or body and a wall or flange on each side of the back or body, pivoted through the side walls or flanges longitudinally off center on the flattened end of the rod or stem, to automatically drop into a longitudinal and into a transverse position in relation to the rod or stem, and when in a transverse position coöperate with the washer or plate and the nut to securely hold the clamp in place, substantially as described.

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Witnesses:

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