

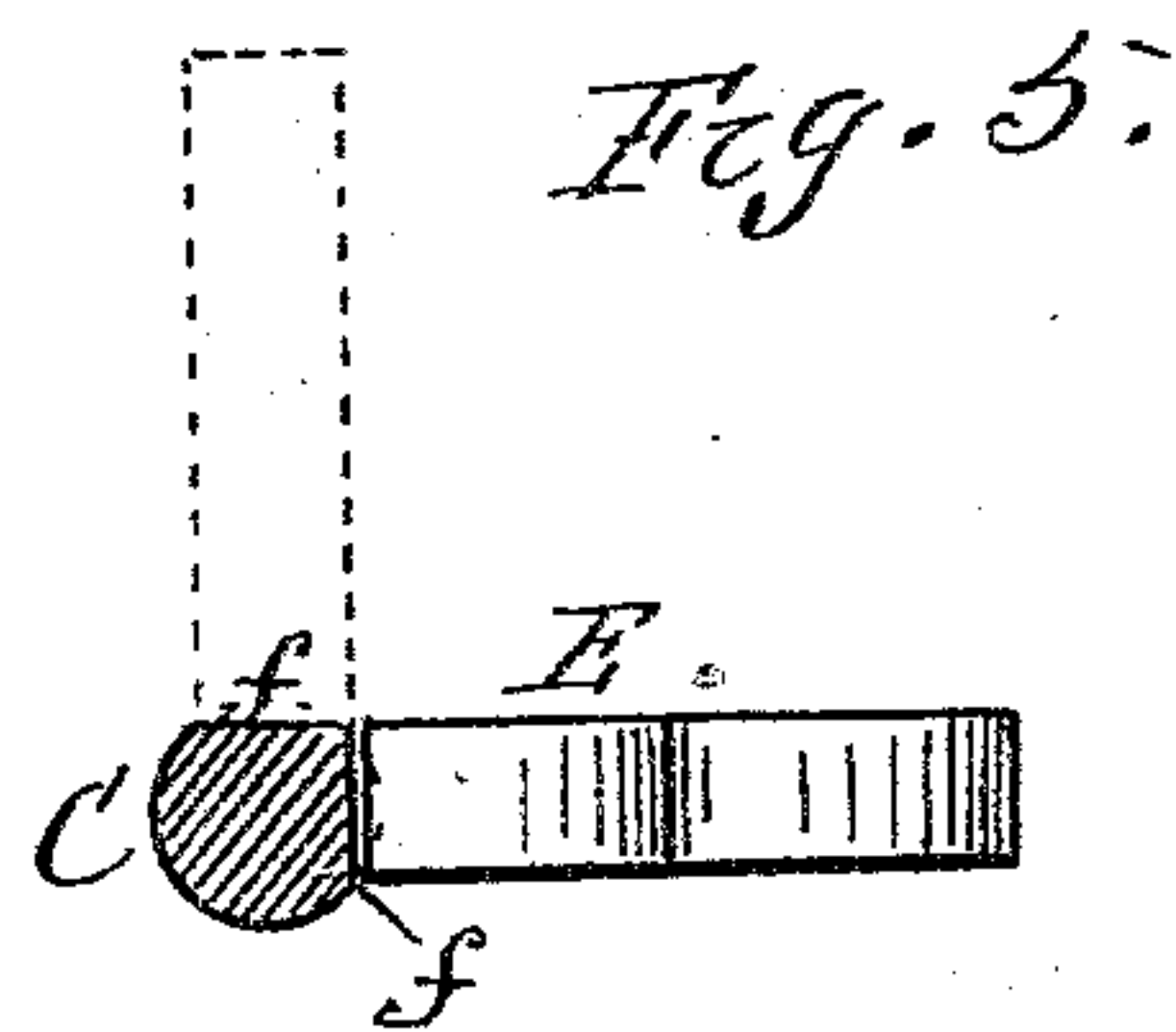
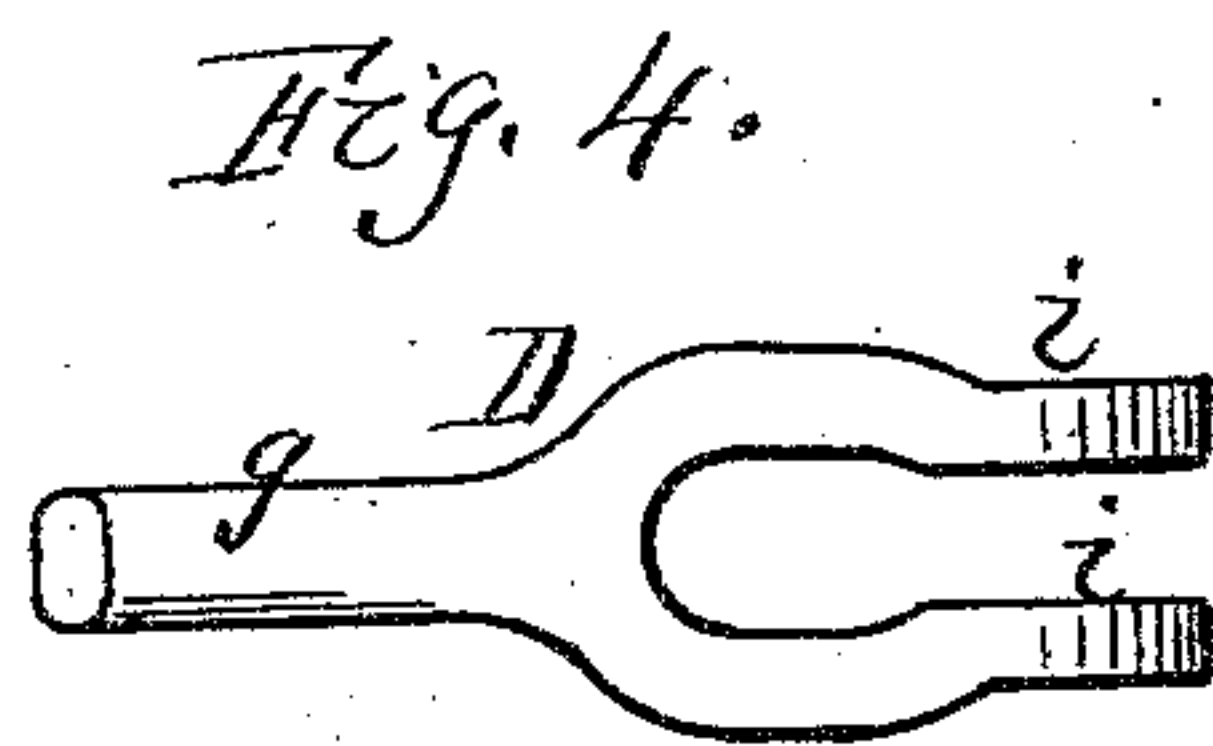
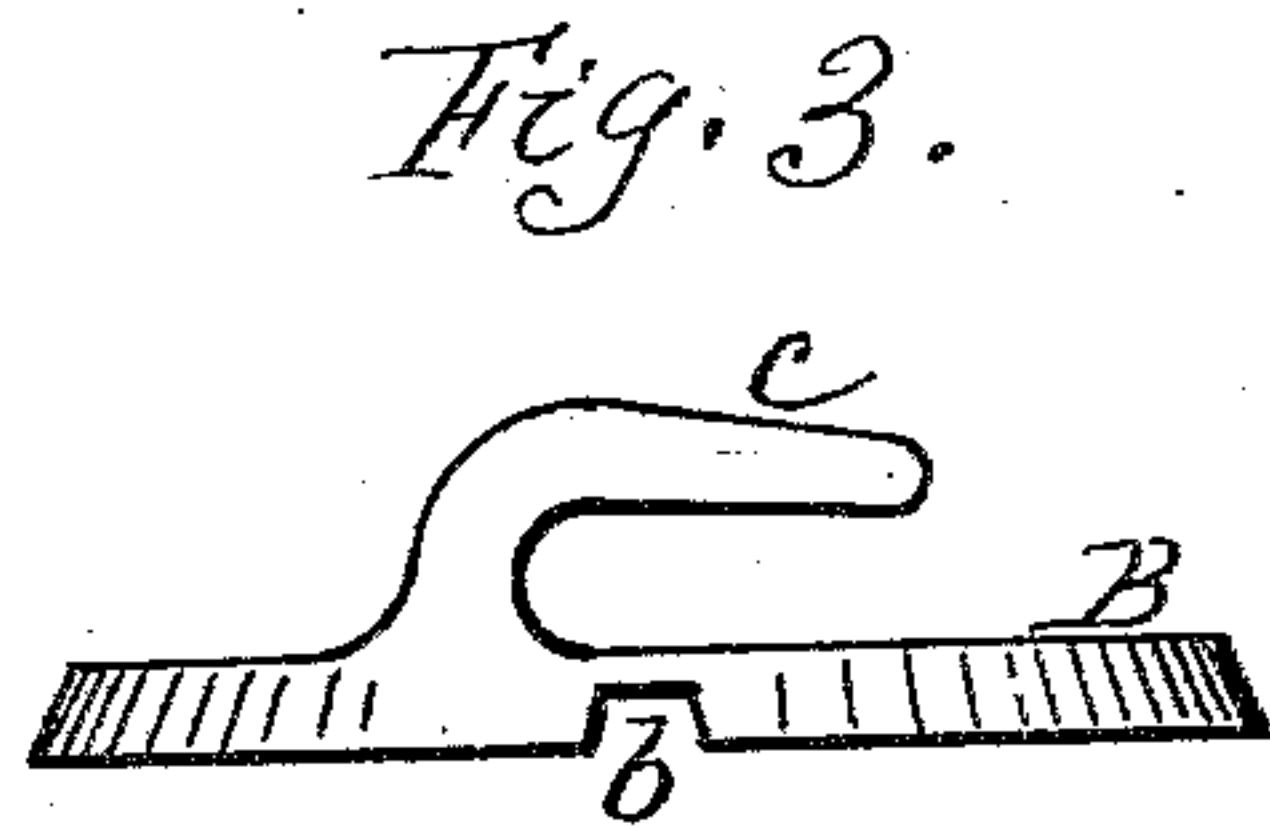
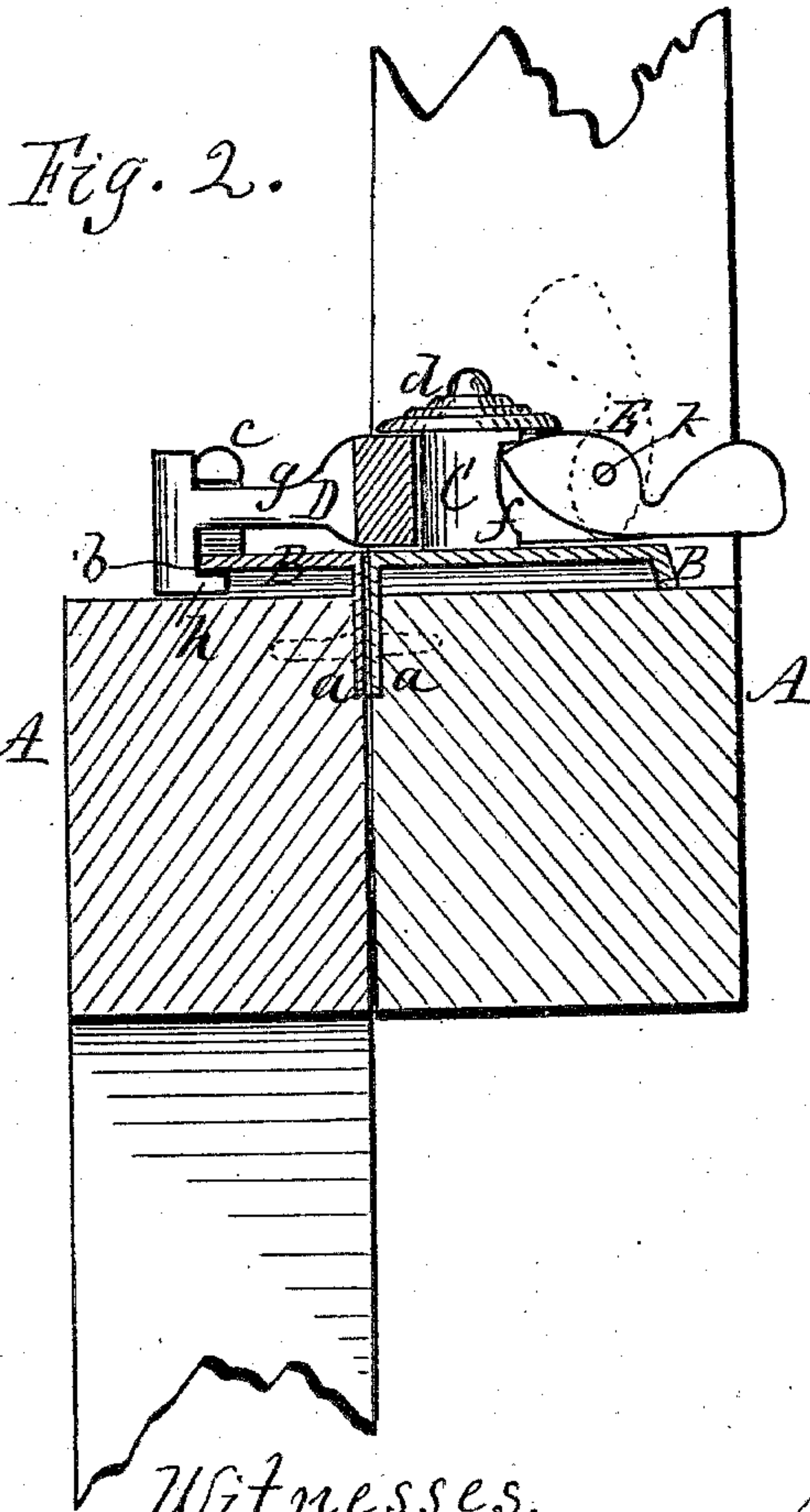
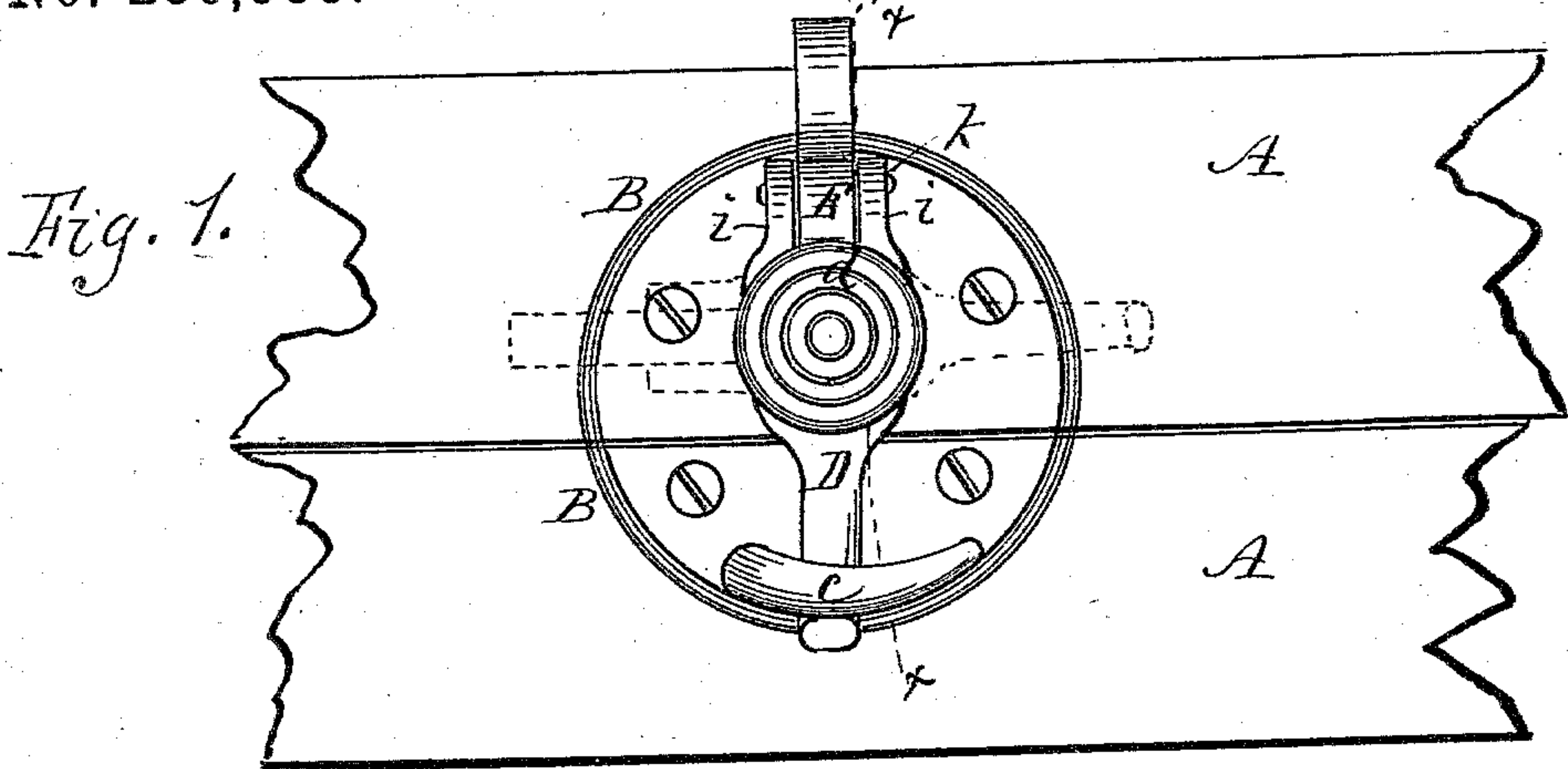
(Model.)

H. T. KING.

FASTENER FOR MEETING RAILS OF SASHES.

No. 280,935.

Patented July 10, 1883.



Witnesses.
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UNITED STATES PATENT OFFICE.

HIRAM T. KING, OF ROCHESTER, NEW YORK.

FASTENER FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 280,935, dated July 10, 1883.

Application filed April 13, 1883. (Model.)

To all whom it may concern:

Be it known that I, HIRAM T. KING, of Rochester, Monroe county, New York, have invented a certain new and useful Improvement in Sash-Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the device applied to the meeting-rails of the two sashes. Fig. 2 is a vertical section of the same in line *xx* of Fig. 1. Fig. 3 is a front elevation of the case. Fig. 4 is a plan of the forked catch removed from place. Fig. 5 is a diagram showing a cross-section of the fixed pin and a plan of the cam fitting the squared side thereof.

My improvement relates to locks for the meeting-rails of sashes, and is of that kind where a swinging lever is attached to a pin, on which it turns and engages by a hook with a notch in the front edge of the plate or case.

The invention consists, essentially, in the combination of a fixed pin or stud having squared sides, and a locking-catch and cam operating as hereinafter more fully set forth.

In the drawings, A A show the meeting-rails of two sashes.

B B are the two segmental plates which form the case, being attached respectively to the two rails, as usual. On the inner edges of the halves of the case are vertical flanges *aa*, which are screwed to the faces of the rails to give additional strength to the parts; but, if desired, these flanges may be dispensed with. In the front edge of the outer plate is an open notch, *b*, into which the hook of the locking-catch strikes, and above this is a concentric horn or arm, *c*, under which the catch passes, as will be presently described. This, however, may be dispensed with.

C is a vertical pin or stud rising from the rear plate of the case, and made fast thereto, either by casting it solid with the plate, riveting it, or otherwise attaching it. On top of the stud is a flat cap or head, *d*, which holds the locking-catch in place. In cross-section the stud has two squared sides, *ff*, Fig. 5, at right angles to each other; but the balance of the stud is circular, and the squares are also a little shorter than the full length of the stud,

leaving a small circular bearing both above and below. One of the squares stands parallel with the length of the rails and the other at right angles thereto.

D is the locking lever or catch, the same consisting of an arm, *g*, with a hook, *h*, in front and two branches or forks, *ii*, in the rear, which embrace the stud and rest below the flat head thereof.

E is the cam, consisting of a lever pivoted at *k* to the forked ends of the locking-catch in the rear of the stud. This cam is substantially of the form shown, and it has a square front end, which rests against the square *f* of the stud. The squares are made concentric with the pivot of the cam, so that the cam will retain a hold on the stud at all times, except when turned up vertically, as shown by dotted lines, Fig. 2, in which case the cam releases its hold and allows the locking-catch to slide forward on the stud sufficiently for the hook *h* to disengage from the notch *b*, in which case the locking-catch can be swung around out of engagement. When the cam is thrown down, as shown in full lines, the point of the cam stands above the level of the pivot and produces a perfect lock. The cap or head of the stud is of such size as to cover the opening or slot of the locking-catch at all times whether thrown forward or back.

The operation is as follows: The locking-catch is turned under the horn *c* till the hook *h* comes in line with the notch *b*. The lever of the cam is then pressed down, the cam riding upon the square *f*, which draws the locking-catch back and draws the hook into the notch, as shown in Fig. 2. A double lock is thus produced, first, by the engagement of the hook with the notch, which will not allow the catch to be either thrown forward or back, or be raised vertically, and, second, by the bearing of the square end of the cam against the square side of the stud, which will also prevent turning. In addition to this, the horn *c*, when used, prevents the catch from being turned. To unlock the catch, the lever of the cam is raised, as shown by dotted lines, which allows the catch to slide forward till the hook is disengaged, and the cam and catch are then swung around at right angles, as shown in the dotted

lines, Fig. 1, and the cam is then locked in a similar manner to the other square of the stud, which holds it fast and out of engagement, so that the lower sash can be raised or the upper one lowered.

One advantage of my invention is that the cam can be operated to disengage the catch, and the catch can then be swung around at one operation, and requiring but one hand of the operator, leaving the other hand free to operate the sash, whereas in ordinary sash-fasteners of this kind it takes both hands to operate the fastening, one being required to unlock the fastening and the other to turn it.

If desired, other devices may be used instead of the hook and notch to engage the parts—for instance, an eye and a pin or a hook.

In this sash-lock it will be seen that when the locking-catch is drawn up to engage the hook with the case the two rails of the sashes will be drawn tightly together by the stress, thereby preventing rattling, also shutting the joint to the passage of air and preventing the insertion of any instrument through the joint for the purpose of turning the catch.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sash-lock, the combination of the stud having one or more squared sides and a covering cap or head at its top, the locking-catch provided with a hook which engages with a notch in the case, and with forks which embrace the stud, and a cam pivoted to the catch and engaging with the square side of the stud to lock the catch in place, as set forth.

2. In a sash-lock, the fixed stud C, provided with two squared sides at right angles to each other, and concentric with the pivot of the cam, which fits said squared sides, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HIRAM T. KING.

Witnesses:

R. F. OSGOOD,

W. MARTIN JONES.