

G. B. KATEN.
Curtain-Cord Tightener.

No. 209,125.

Patented Oct. 22, 1878.

Fig. 1.

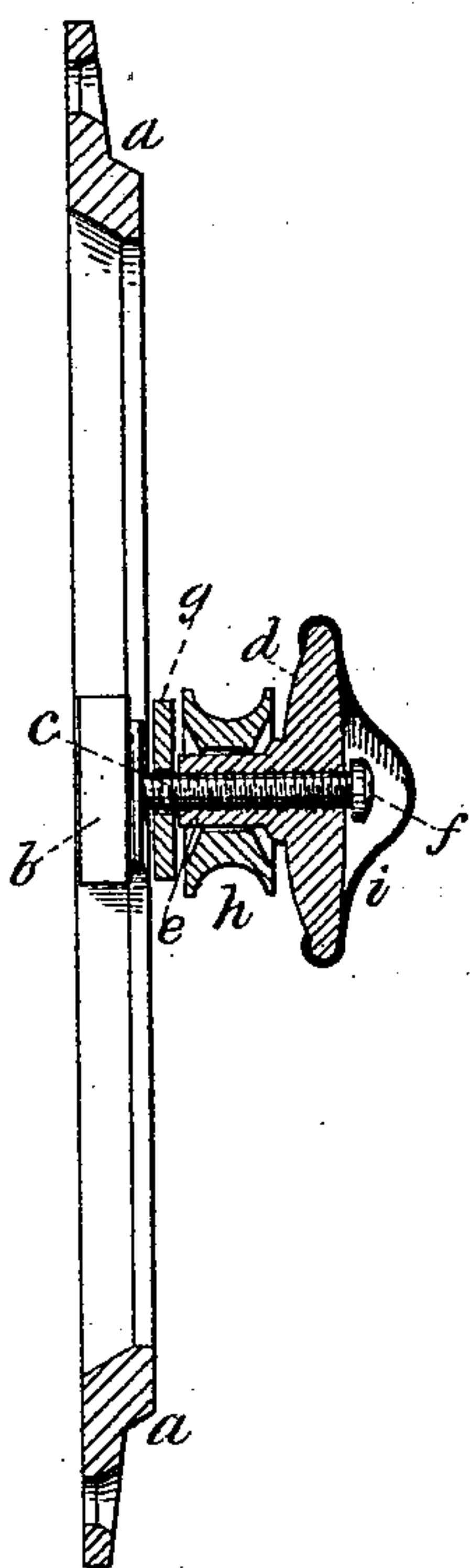
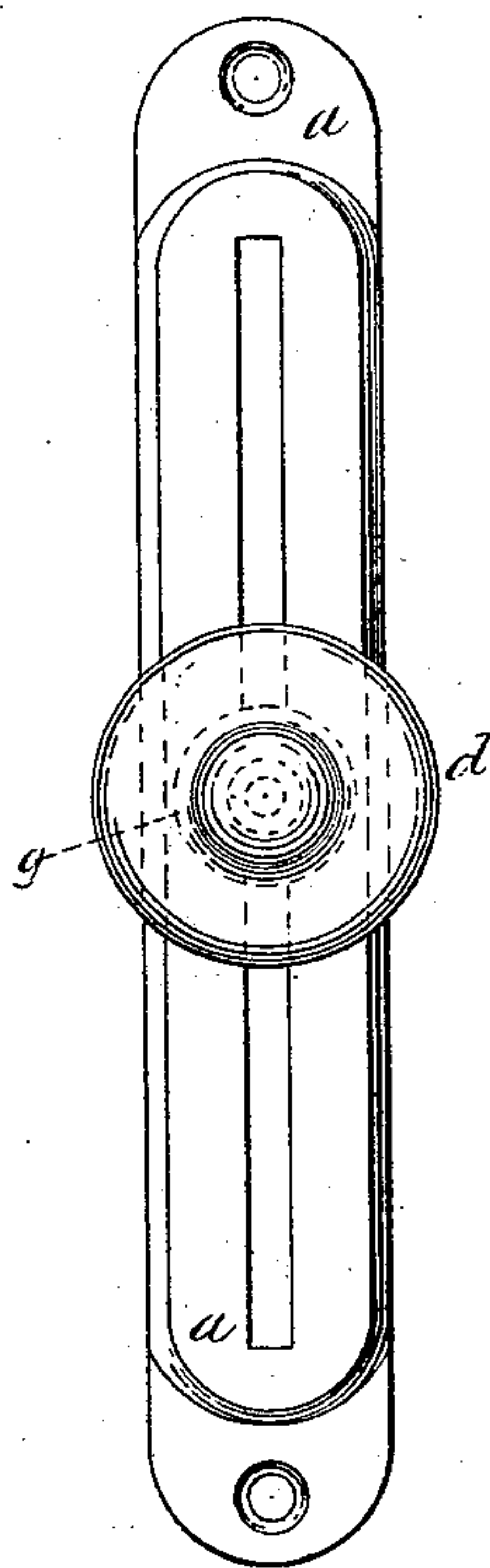


Fig. 2.



Attest:

Chas. M. Higgins.

W. H. C. Smith.

Inventor:

George B. Katen

by his Attorneys.

J. H. Wales & Son.

UNITED STATES PATENT OFFICE.

GEORGE B. KATEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS
RIGHT TO DUNCAN F. BLOUNT, OF SAME PLACE.

IMPROVEMENT IN CURTAIN-CORD TIGHTENERS.

Specification forming part of Letters Patent No. **209,125**, dated October 22, 1878; application filed
September 10, 1878.

To all whom it may concern:

Be it known that I, GEORGE B. KATEN, of New York city, have invented an Improved Curtain-Cord Tightener, of which the following is a specification:

My invention is an improvement on that class of curtain-cord tighteners in which the slide which travels in the slot of the plate and carries the cord-pulley has a screw-connection with the operating knob or button, so that by unscrewing the knob the slide may be loosened and moved to adjust the tension of the cord, and may then be clamped to the plate to hold it at the required adjustment by screwing up the knob.

In former devices, however, the construction of the parts was such as to provide but a short length of screw and nut, with no permanent connection between the two, so that the construction was rendered insecure and the knob liable to be screwed off in the working of the device.

Now, my invention may be stated to consist in a permanent connection between the stationary screw-slide and rotary screw-knob by means of a shoulder or head on the end of the screw beyond the nut or knob, by which the screw-motion of the knob is limited and the knob prevented from being screwed off in operating the device.

Figure 1 of the drawings herewith presents a longitudinal side view of my improved device, shown mainly in section, and Fig. 2 is a front elevation of the same.

The base-plate of the device is indicated at *a*, and is of about the usual form, being adapted to be secured at each end to the window-casing, and formed with an internal hollow or channel, and also a longitudinal slot, as usual. *b* is the slide, which is fitted in the internal hollow or channel of the base-plate, and is of square or rectangular form, as usual, so as to be capable of freely sliding up or down in the channel without turning therein. From the slide a screw, *c*, projects through the slot of the plate, and extends into the knob *d*, as shown. This screw is preferably formed solid with the slide *b*, and is threaded nearly its entire length, as shown. The knob is formed

with an elongated tubular shank, *e*, solid therewith, as shown, which is threaded to work as a nut upon the screw *c*, which extends entirely through the shank, and also through the head of the knob, as shown, into which the threaded bore of the shank is prolonged, as indicated. A long bearing for the screw and nut is thus provided, which imparts steadiness and security to the connection of the parts, as will be observed. The elongated shank *e* also forms the axis of the cord-pulley *h*, as shown, which is supported directly thereon and capable of free rotation on the same, the shank thus serving a double purpose and rendering the construction both simple and effective.

A washer, *g*, lies between the slotted face of the base-plate and the end of the knob-shank, so that it will be seen that by screwing down the knob the parts are tightened or clamped to the plate to hold the cord-pulley at any desired point on the plate, or, on the other hand, by unscrewing the knob, the parts are unclamped to permit the pulley, &c., to be moved up or down on the plate to obtain the desired tension of the cord, when the slide may again be clamped in place by screwing up the knob.

The knob is permanently connected with the slide and screw, and is prevented from being disengaged therefrom by a shoulder or head, *f*, formed on the end of the screw, which, when the knob is unscrewed more than sufficient to loosen the slide, abuts against the head of the knob or nut *d e*, and thus limits the screw-motion, so as to prevent the knob being screwed off, and thus becoming disengaged. This head is concealed and an ornamental finish given to the knob by an ornate cap, *i*, spun over the knob, as shown in Fig. 1.

When the screw is formed solid with the slide *b*, the head or shoulder *f* may be formed by a pin driven into the end of the screw, or by riveting down the end, or the screw may be formed separate from the slide with the head *f* turned on it and the opposite end of the screw immovably fixed in the slide, as will be understood.

This construction constitutes a material improvement over former devices, as above indi-

cated, and has the advantage of combining simplicity with security and efficiency.

What I claim as my invention is—

The combination, in a curtain-cord tightener, of the base *a*, slide *b*, screw *c*, screw-knob *d*, and pulley *h* with the shouldered head *f* of the screw, by which the knob is prevented

from being screwed off or disengaged from the slide, substantially as herein shown and described.

GEORGE B. KATEN.

Witnesses:

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