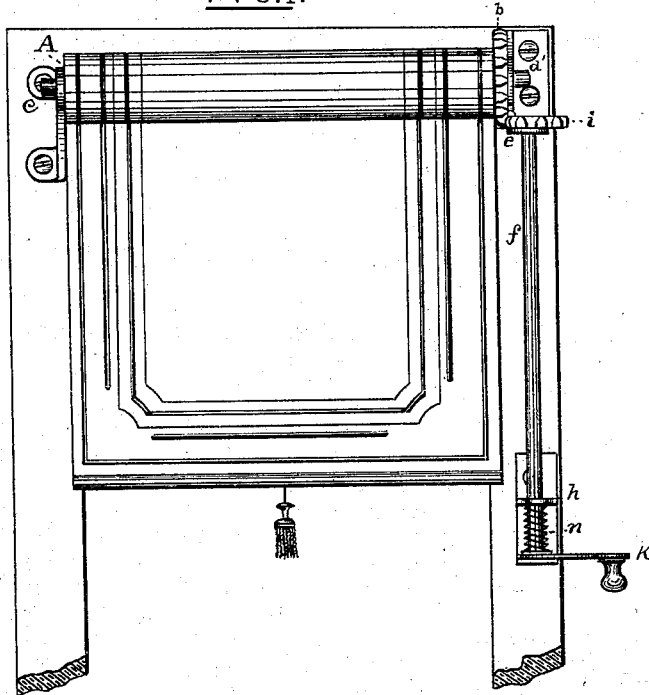


H. T. RAEKE.
Curtain-Fixtures.

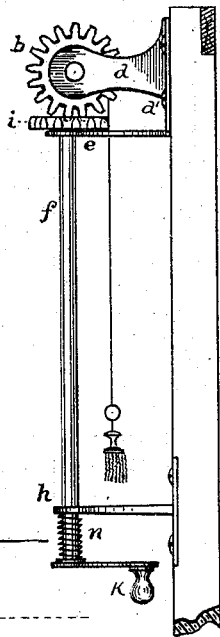
No. 198,682.

Patented Dec. 25, 1877.

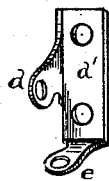
— FIG. I. —



— FIG. II. —



— FIG. III. —



— WITNESSES. —

Chas. E. Lewis
Geo. R. Sudder

— INVENTOR. —

Hermann J. Raeko
By his Attorney
Chas. B. Mann

UNITED STATES PATENT OFFICE.

HERMANN T. RAEKE, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **198,682**, dated December 25, 1877; application filed October 6, 1877.

To all whom it may concern:

Be it known that I, HERMANN T. RAEKE, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and useful Improvement in Window-Shade Fixtures, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a view of window-frame with my fixture attached. Fig. 2 is a transverse view of same. Fig. 3 is an enlarged view of one of the parts.

My invention relates to an improved fixture for operating the rollers of a window-shade.

In the drawing, A represents the roller, having attached on one end a bevel-gear wheel, *b*, or a cog-wheel with the teeth so shaped as to readily mesh or gear with a similar cog-wheel arranged at right angles thereto. A journal of the size and kind usually employed for curtain-rollers is combined with this wheel. The other end of the roller is provided with an ordinary metal journal and bracket, *c*. The end of roller having the cog-wheel attached is sustained by the bracket *d*, which is secured to window-frame by the part *d'*, which latter also has projecting from the lower end, and at a right angle thereto, the bearing *e*, which turns the vertical shaft *f*, which, in practice, is a light metal rod or stiff wire. *h* is the lower bearing for the shaft. The cog-wheel *i* is fixed to the upper end of shaft, and gears with the wheel *b*, and the crank K is secured to the lower end, by turning which

the roller is caused to revolve. A spiral spring, *n*, surrounds the shaft below the bearing *h*, against which and the crank-arm it rests. This spring retains the cog-wheel *i* in its position, and causes sufficient friction to prevent the curtain from unrolling.

The bracket or bearing *d* for the journal of roller and the bearing *e* for shaft being at right angles to the part *d'* and to each other, and in one piece, the proper adjustment of the right-angled gear-wheels is assured. As no cord is employed by this arrangement, the inconveniences to which its use gives rise are avoided.

By a suitable modification, and the use of cords in connection with the roller, this device may be employed for raising and lowering sash.

Having described my invention, I claim and desire to secure by Letters Patent—

The improvement in shade or curtain fixtures, consisting of the double bracket-bearings *d* and *e*, having the part *d'* attached to the frame, which bearings support, respectively, the curtain-roller A and the vertical shaft *f*, the former having attached the wheel *b*, and the latter the wheel *i*, gearing at right angles, the crank K, and a spiral spring, surrounding the shaft between the bearing *h* and the crank-arm, as shown and described.

HERMANN T. RAEKE.

Witnesses:

OSCAR ROELERKE,
CHAS. B. MANN.