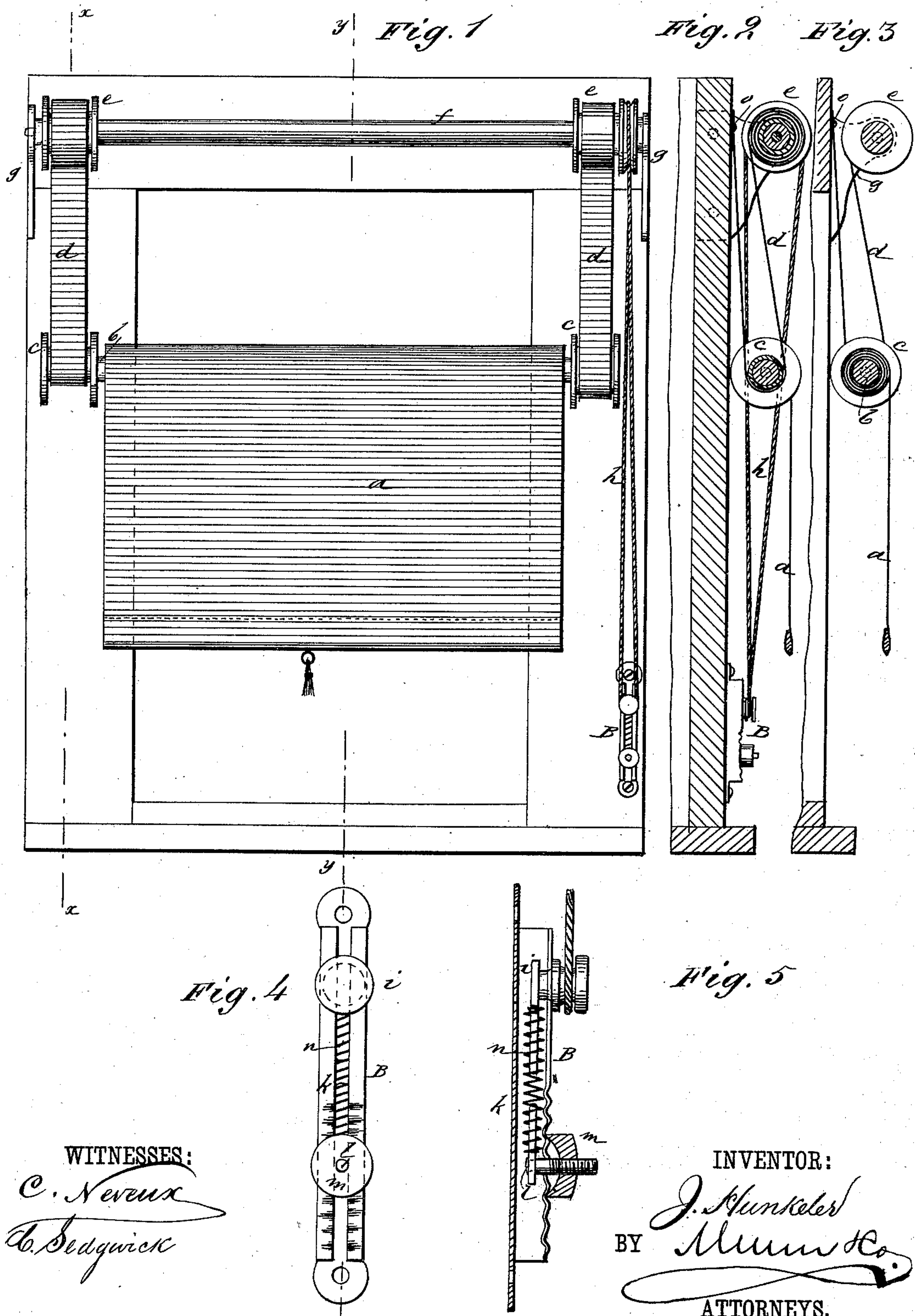


J. HUNKELER.
Window-Shade Hanging.

No. 216,187.

Patented June 3, 1879.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOSEPH HUNKELER, OF LOWELL, MISSOURI.

IMPROVEMENT IN WINDOW-SHADE HANGINGS.

Specification forming part of Letters Patent No. **216,187**, dated June 3, 1879; application filed January 20, 1879.

To all whom it may concern:

Be it known that I, JOSEPH HUNKELER, of Lowell, North St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Window-Shade Hangings, of which the following is a specification.

My improvements relate to window-curtain hangings of the class that permits the adjustment of the curtain to admit light at the top or bottom of the window to any desired extent.

The invention consists in combining with a curtain-roller a second roll, hung in the loops of flat belts that are attached at one end to the window-frame, and connect the flanged spools on the ends of the rolls, as hereinafter described.

In the accompanying drawings, Figure 1 is a front elevation of my improved hangings as applied to a window. Fig. 2 is a vertical section on line *x x* of Fig. 1. Fig. 3 is a similar view on line *y y*. Figs. 4 and 5 are, respectively, a face view and section of the cord-tightener.

Similar letters of reference indicate corresponding parts.

The curtain *a* is attached upon a roller, *b*, that has flanged spools *c* at each end, and the curtain and roller are sustained in the loops of flat belts *d*, that are attached by one end to the window-frame at *o*, and pass around spools *c*, and are wound on spools *e e* of the upper roller, *f*, that is fitted in brackets *g* at the top of the window, so that roller *b* may turn in its supporting-loops to wind up or unwind the curtain, or may be lowered by unwinding belts *d*, and the roller *b* held at any point in the length of the window.

The roller *f* is provided with a friction-cord, *h*, for operating it, which cord passes over a pulley on the end of *f*, and around a cord-

tightener, *B*, attached at the lower part of the window-frame.

The cord-tightener I make use of consists of a bent arm-piece, *i*, carrying a friction-roller, and extending through the vertical slot of a case, *k*, in which case it is connected to a spiral spring, *n*, that is held to the case by a bent arm-piece, *l*, extending through the slotted case, and clamped by a nut, *m*. The case *k* is serrated along the edges of the slot, so that the nut may take a good hold.

By this construction the cord *h* is held by spring tension, and may be adjusted to render it more or less tight.

By operating cord *h* the belts *d* are wound on spool *e*, or unwound, and the roller *b* thereby positioned at any point in the length of the window, as illustrated in the drawings, and light thereby permitted to enter at the upper part of the window. In this position of roller *b* the curtain may be rolled up or drawn down to cover the lower part of the window.

When roller *b* is drawn to the top, the curtain may then be used in the ordinary manner, the friction of spools *c* on belt *d* serving to prevent roller *b* from turning in its supports after the curtain is fixed in position.

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

The combination, with the roller *f*, pivoted in brackets *g*, connected by pulley and cord with a tightener, and provided with end-flanged spools, of a similarly-provided roll, *b*, suspended in the loops of flat belts *d*, attached at one end to frame, and connecting with spools *c e*, as shown and described.

JOSEPH HUNKELER.

Witnesses:

THEODOR WUNDERLICH,
JOHN K. HUBER.