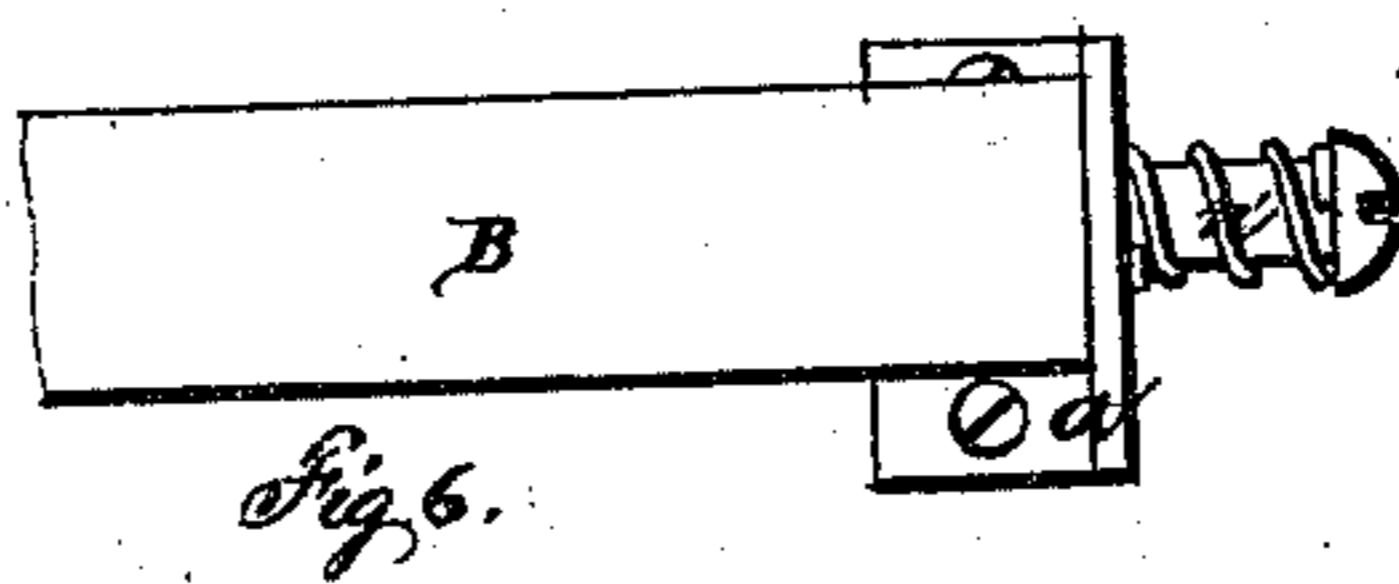
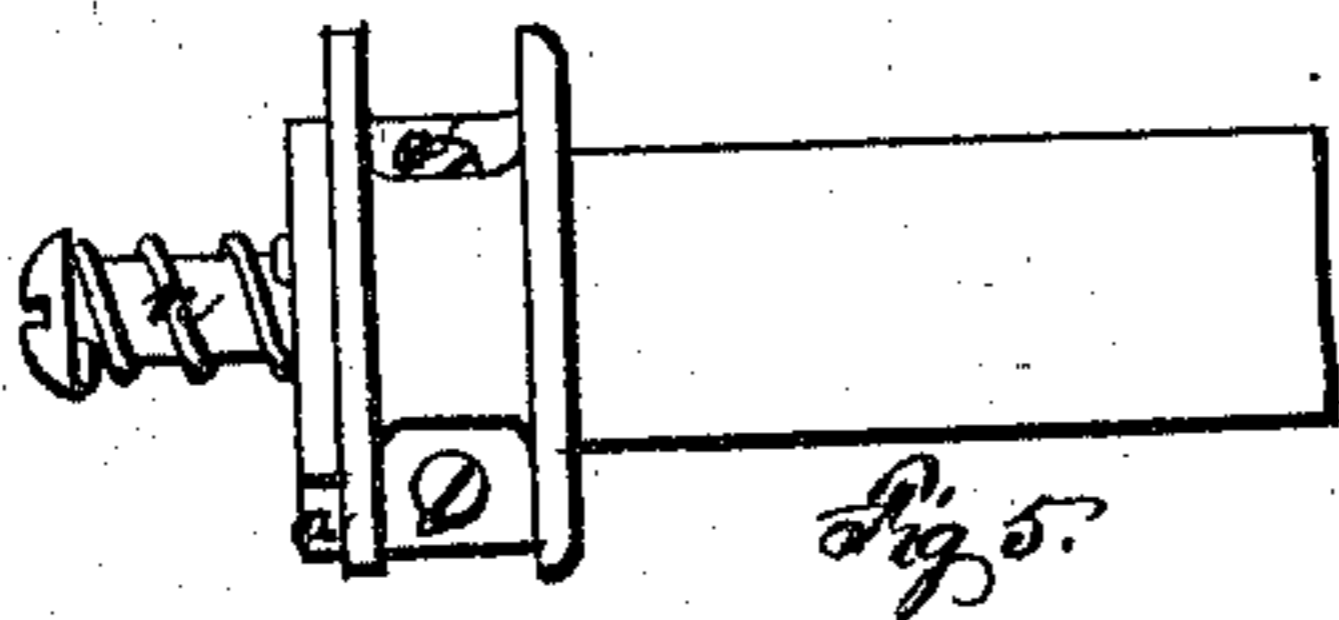
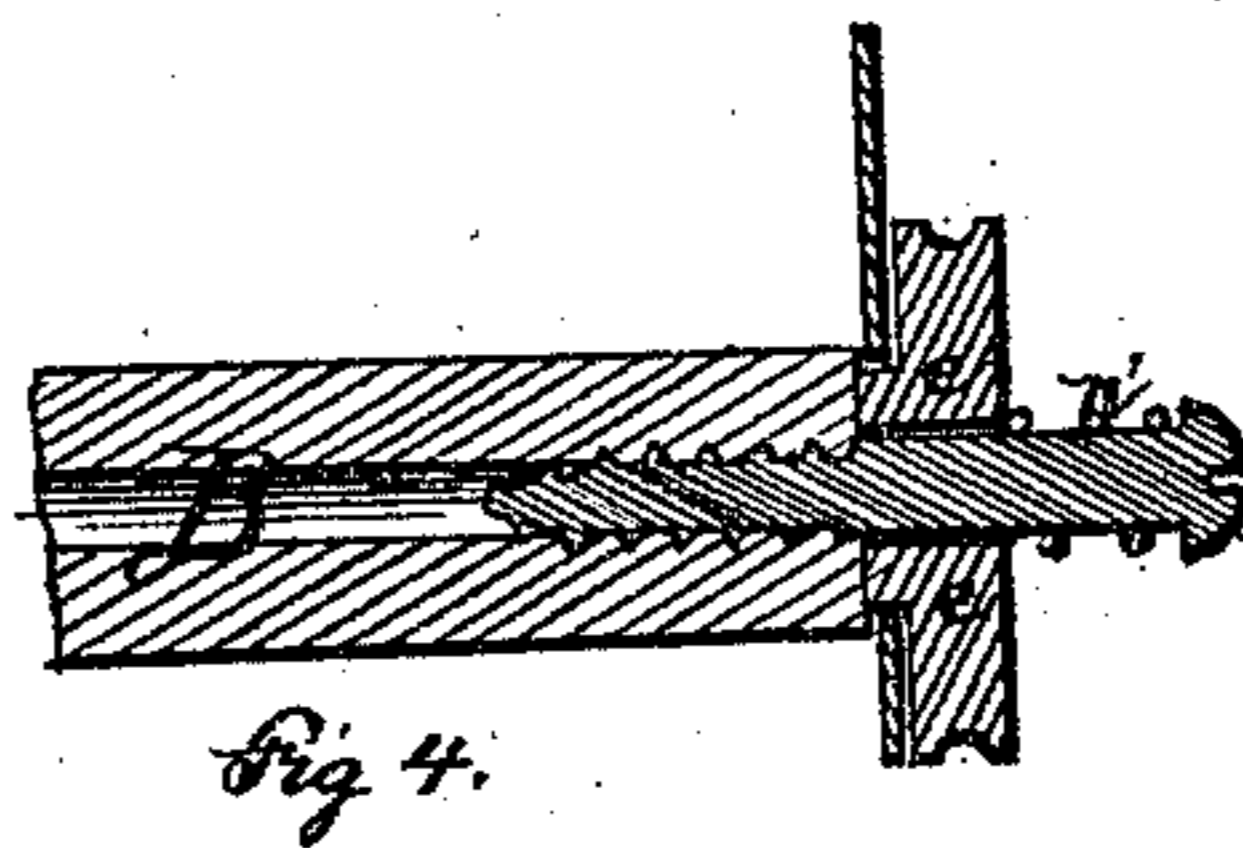
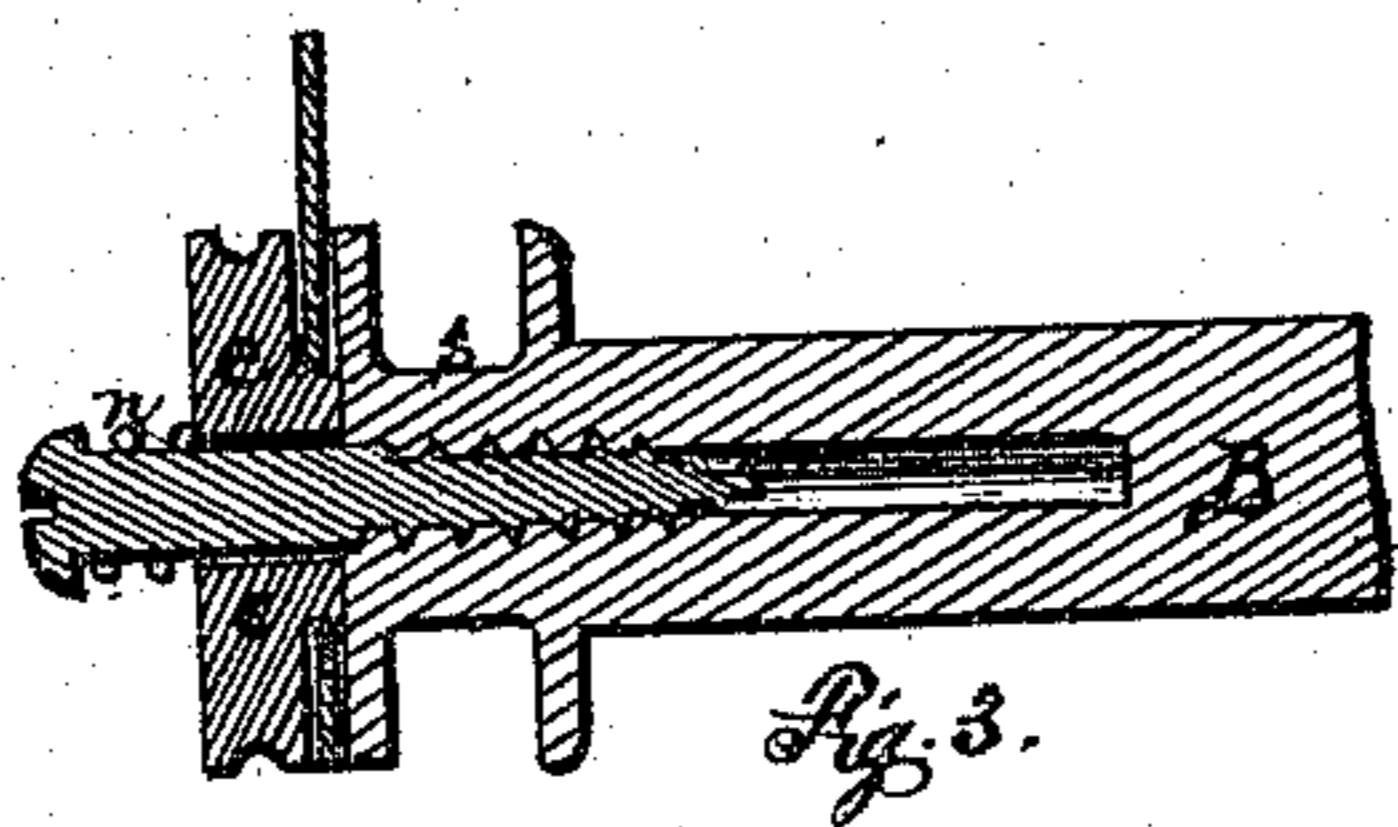
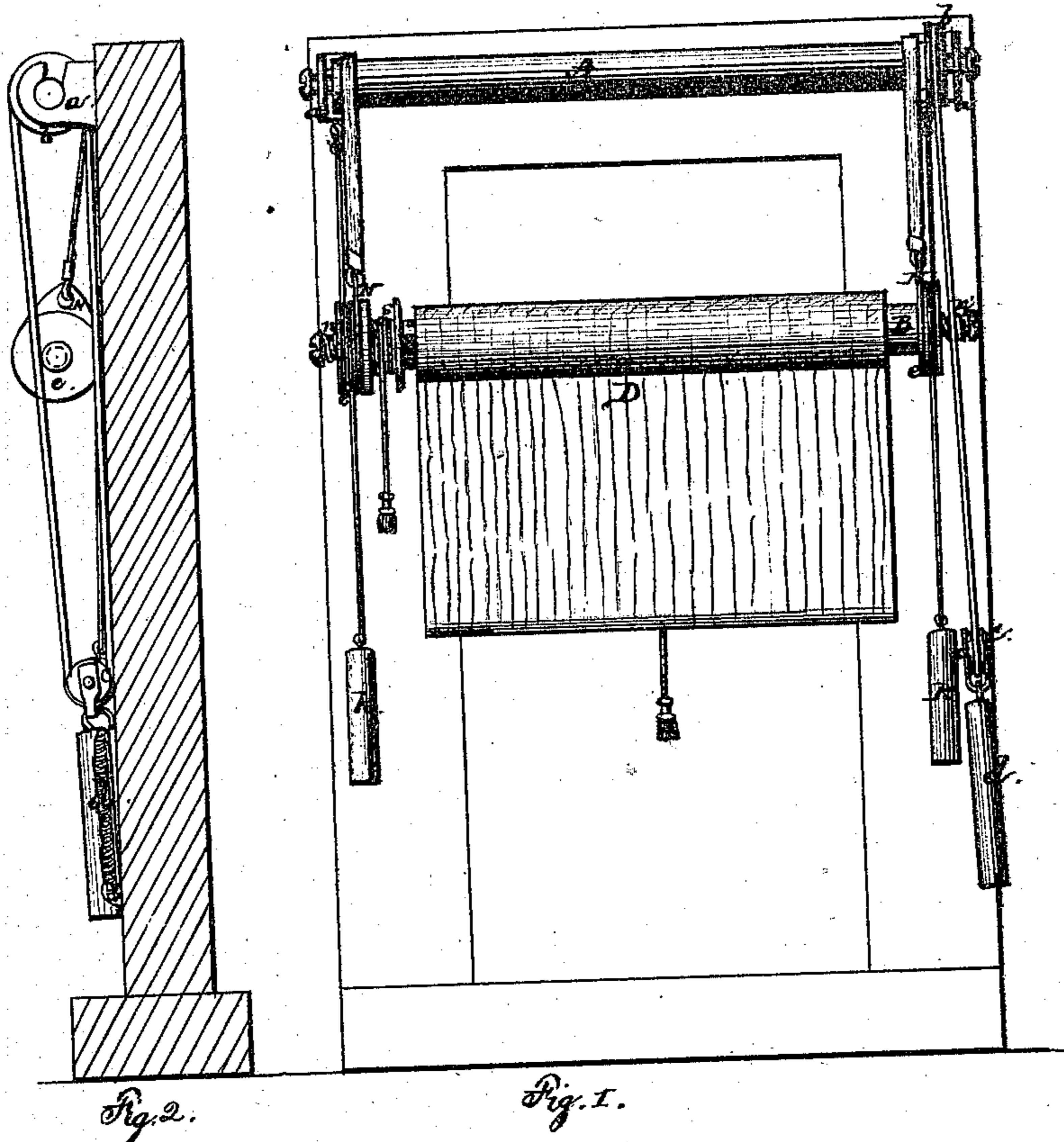


*F. Root,*

*Curtain Fixture.*

*No. 103,084.*

*Patented May 17, 1870.*



*Witnesses.*

*Chas. F. Sleeper.*

*J. E. Maynard.*

*Inventor.*

*Franklin Root.*

# United States Patent Office.

FRANKLIN ROOT, OF CHELSEA, MASSACHUSETTS.

Letters Patent No. 103,084, dated May 17, 1870; antedated May 9, 1870.

## IMPROVED CURTAIN-FIXTURE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, FRANKLIN ROOT, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of my fixture.

Figure 2, a side view of the same.

Figures 3, 4, 5, and 6 are details.

The object of my invention is to improve upon the methods by which curtains are hung, so that a curtain can be arranged to cover any desired portion of the window at will, whether it be the upper or lower part, the intermediate space, or the whole window, thereby admitting the light and air at the part where it is most needed at the time. The advantages of such an arrangement are well known, and need no explanation, as many attempts have been made to produce a curtain-fixture which would give the desired result, and with greater or less success.

I make my curtain-fixture in two parts, the general features of which are well known. The first part consists of the roller A, upon which is a sheave, *b*, the bearers *a a*, the cord and pulley *c*, and the spring *d*, the latter of which I usually case, as shown in the drawings.

In this style of fixture, as heretofore used, the pulley *c* has been held down by a wedge or by a ratchet, and, as it was thus immovably held, the fixture was frequently out of order, in consequence of the expansion or contraction of the cord, which would be either too tight to work easily, or so loose as not to hold the curtain in its place. By substituting the spring for the old contrivances, I am enabled to equalize the tension upon the cord, whether it contracts or expands, and this I consider an important part of my invention.

Suspended from the roller A, usually by means of tapes, as shown, is another form of curtain-fixture, so arranged that it can be raised or lowered by means of the fixture first mentioned, and to raise and lower this fixture is the whole duty performed by the first, in this connection.

The second fixture consists of the roller B, to which is attached the curtain D, and upon which is a spool, *s*, with a cord to raise the curtain.

At each end of the roller is a sheave, *e*, round which a cord passes, one end of which is fastened to the frame, and the other is (preferably) fastened to a spring, *k*, for the same reasons as before specified in the case of the pulley *c*.

The sheaves fit loosely upon screws or pins attached to the roller, as shown, and have upon them shoulders, which serve as journals for the hangers N, by which they are suspended from the tapes.

Springs *n n'* serve to press the sides of these shoulders against the roller.

The operation of my curtain-fixture is as follows, viz:

The upper fixture raises and lowers the lower fixture, winding or unwinding the tapes in the same manner that a curtain would be wound or unwound, thus uncovering or covering the upper portion of the window at pleasure. The pressure of the sheaves upon the rollers (by means of the springs) prevents the curtain from being unwound by its own weight, and, at the same time, affords a means whereby the sheaves, as they are revolved by the cord wound around them, will wind up or unwind the curtain as it is lowered or raised by the upper fixture, the weight of the curtain and its fixture operating to revolve the sheaves as the fixture is lowered.

The friction is not too great to prevent the curtain from being rolled up from the bottom, in the usual way, by means of the cord and spool, at whatever height the curtain may be held by the upper fixture. The cord passing around the sheaves *e e* also serves to hold the lower fixture close to the window frame.

I claim as my invention—

The combination of roller A and sheave *b*, with roller B and movable hangers N, with sheaves, cords, and springs, as and for the purpose specified.

FRANKLIN ROOT.

Witnesses:

CHAS. F. SLEEPER,  
J. E. MAYNADIER.