E. F. McCOMAS.

CURTAIN ROLLER AND BRACKET.

No. 192,077. Patented June 19, 1877.

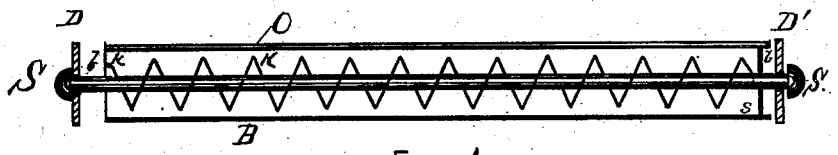

Fig. 1.

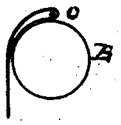

Fig. 2.

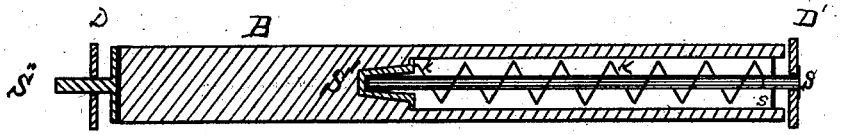

Fig. 3.

WITNESSES

Geo. A. Sturgeon

P. W. Felsinger

INVENTOR

Edwin F. McComas
by Sturgeon & Wallace
Attys.

UNITED STATES PATENT OFFICE.

EDWIN F. McCOMAS, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN H. SILOERIA, OF SAME PLACE.

IMPROVEMENT IN CURTAIN ROLLERS AND BRACKETS.

Specification forming part of Letters Patent No. **192,077**, dated June 19, 1877; application filed April 25, 1877.

To all whom it may concern:

Be it known that I, EDWIN F. McCOMAS, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Window-Curtain Roller; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the construction and operation of window-curtain rollers which are operated by a spring coiled within the hollow of the roller and around the shaft.

My invention consists in so constructing such a roller that the power of the spring not only raises the curtain when desired, as is now so commonly done, but also impels the end of the roller against a friction-brake, by which means the curtain is balanced.

In curtain-rollers wherein a spring is used to revolve the roller to draw up the curtain the said spring exerts its power, or is in a position to exert its power, in proportion to the distance the curtain is unrolled; and if a brake is used on the roller in place of a ratchet the brake must exert more power when the curtain is entirely unrolled than when it is only half-way down; in order words, the brake must increase in power in the same proportion that the actuating-spring does. To accomplish this result perfectly I use the power of the actuating-spring to actuate the break, as well as to actuate the roller—that is to say, I cause the spring to perform two offices, namely, to revolve the roller to draw up the curtain, and to prevent the roller revolving when it is desirable that the curtain shall not be rolled up.

I am aware that devices have been constructed to operate in connection with the springs of curtain-rollers by which the effect described above is accomplished; but all those arrangements have been complicated more or less. I believe my mode of arranging a curtain-roller as hereinafter described is more simple, less costly, and fully if not more effective.

The following is a full, clear, and exact description of my invention.

My device is shown in the drawing, as follows:

Figure 1 is a longitudinal section of one of my curtain-rollers when made of a cylinder of sheet metal. Fig. 2 is a cross-section of the same. Fig. 3 is a longitudinal section of a wooden roller.

B is the roller, and may be made of sheet metal, as in Fig. 1, or of wood, as in Fig. 3. S is the shaft, which in the metal roller passes through its entire length, and in the wood roller it ends in a socket, S′, and a gudgeon-iron, S″, is placed on the other end of the roller. In all cases the roller revolves upon the shaft, and also has a free lateral movement. D D′ are the hangers, and may be as commonly constructed, except that D′ shall have a faced surface on the inside, against which the end of the roller shall act, as in the manner of friction-brakes or friction-clutches. K is the spring, and is coiled around the shaft. This must be attached at one end to the shaft S, as at *s*, and at the other end to the roller, as at *k*. The length of the spring is regulated somewhat by the length of curtain to be placed upon the roller; but the spring must be openly coiled, so that when wound up it shall have a strong lateral force, as well as a strong recoiling force. Being thus constructed the roller is impelled against the hanger D′ in proportion to the length of curtain unrolled—or, in other words, in proportion to the recoiling force of the spring. Being thus forced against the hanger D′, which is to act as a friction-brake, as above mentioned, the curtain can be drawn down to any point desired, and it will remain there until the recoiling force of the spring is assisted by a person raising up on the curtain. Thus the use of all ratchet attachments is dispensed with, and also the use of balancing-weights.

I do not claim, broadly, the utilization of the lateral action of the spring to serve as a breaking power; but

What I do claim is as follows:

The combination of the hangers D D′, shaft S, and cylinder B, said cylinder having a rotary action between said hangers and upon said shaft, and a lateral action against one of said hangers, as and for the purposes set forth.

In testimony whereof I, the said EDWIN F. McCOMAS, have hereunto set my hand.

EDWIN F. McCOMAS.

Witnesses:

JNO. K. HALLOCK,

GEORGE A. STURGEON.