(No Model.) 2 Sheets—Sheet 1.

W. S. LONG.

SCREW ELEVATOR FOR CURTAINS.

No. 386,328. Patented July 17, 1888.

Fig. I.

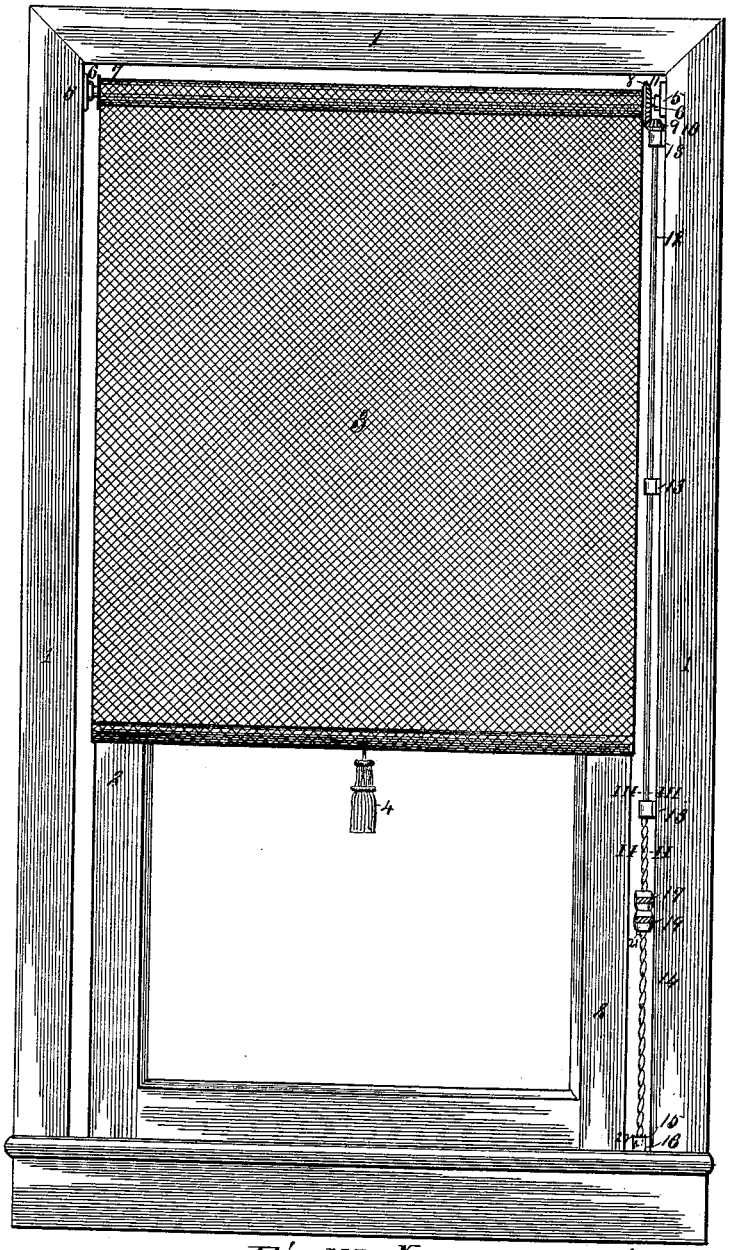


Fig. IV.

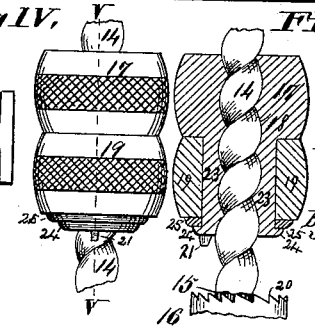


Fig. V.

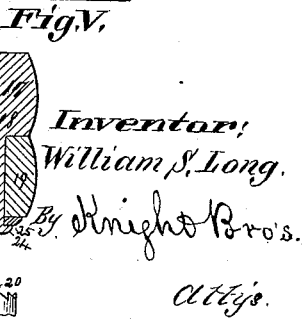


Fig. II.

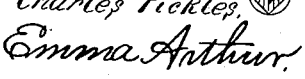
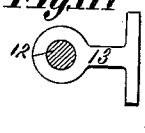


Fig. III.



Attest,
Charles Pickles.
Emma Arthur.

Inventor,
William S. Long.
By Knight Bro's.
Atty's.

(No Model.)

2 Sheets—Sheet 2.

W. S. LONG.

SCREW ELEVATOR FOR CURTAINS.

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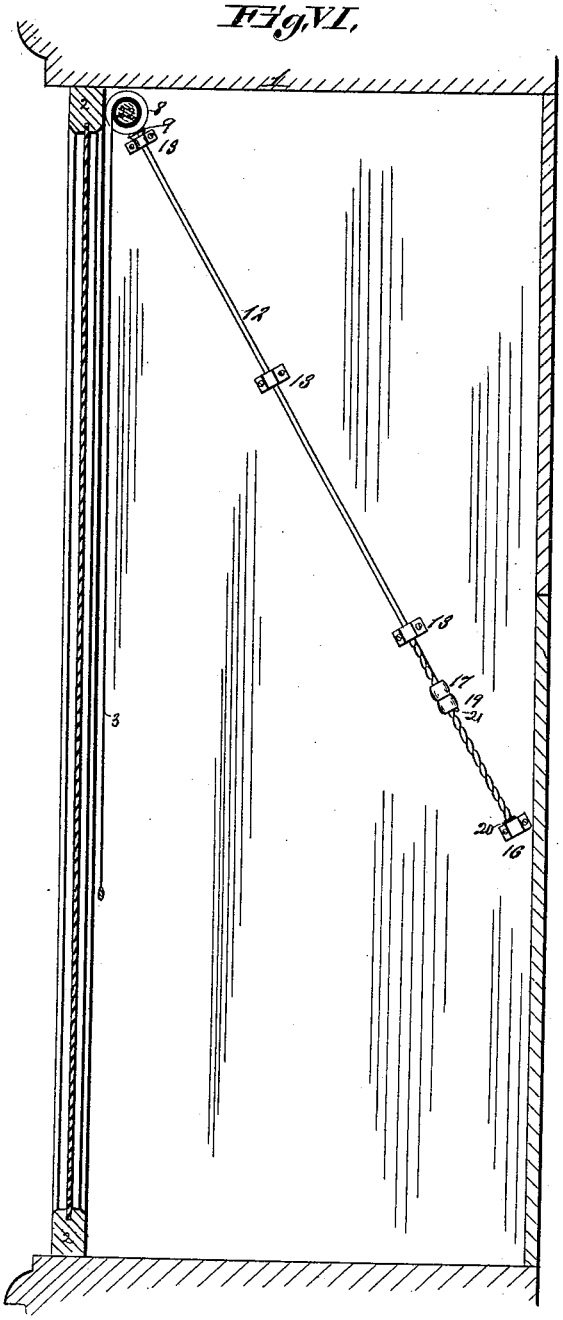
Fig. VI.



Attest;
Charles Pickles
Emma Arthur

Inventor;
William S. Long.
By Knight Bro's.
Att'ys.

UNITED STATES PATENT OFFICE.

WILLIAM S. LONG, OF ST. LOUIS, MISSOURI.

SCREW-ELEVATOR FOR CURTAINS.

SPECIFICATION forming part of Letters Patent No. 386,328, dated July 17, 1888.

Application filed August 29, 1887. Serial No. 248,193. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. LONG, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Screw-Elevators for Curtains, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is a front view, in elevation, of a curtain with my screw-elevator attached, the curtain partly elevated by the same. Fig. II is an enlarged horizontal section taken on line II II, Fig. I, showing the screw in cross-section. Fig. III is an enlarged horizontal section taken on line III III, Fig. I, showing one of the eyelet-brackets that hold the screw-rod. Fig. IV is an enlarged detail of the screw-rod, with the operating hand-nut and follower for working the same. Fig. V is an enlarged vertical section taken on line V V, Fig. IV, showing a detail of the screw-rod, with the operating hand-nut and follower; and Fig. VI is a side view, in elevation, of a modification for use in show and other recessed windows, with the actuating end of the screw-elevating rod presenting forward at an angle for convenience in operating.

This invention relates to devices for elevating and lowering curtains; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar figures of reference indicate like parts in all the views, 1 represents a window-casing, to which my device is attached.

2 is the window-sash; 3, the curtain; 4, its pendent tassel. Its roller 22 is supported by the usual socket-brackets, 5, in which the bearing-pintles 6, that support said rollers, work.

7 are the disks on the ends of the rollers, that keep the edges of the curtain uniform on the rollers, and may be secured to said rollers by screws or tacks. The pintle-bearing 6 at the inoperative end projects from the disk 7, and at the operative end projects from the miter-wheel 8, which may, if desired, take the place of the disk 7 at that end, and is secured to the roller in the same way, preferably by screws.

9 represents a co-operative bevel-pinion or miter-wheel, whose bevel-cogs 10 engage in the corresponding cogs 11 of the wheel with which it matches. The miter-wheel 9 surmounts the elevating-rod 12, to which it is rigidly secured, and said rod is secured to the frame in a vertical position, as shown in Fig. I, by eyelet-brackets 13, secured to the window-frame; or it may be secured at an angling presentation projecting forward at its lower end for convenience of operating in bay and bow or other recessed show-windows, &c., (see Fig. VI,) where the windows being dressed with goods on exhibit, &c., it would be both inconvenient and liable to displace and injure the goods if clerks had to make their way through the exhibit to elevate or lower the blinds, which they of necessity would have to do in the spring-elevators in common use.

14 is a screw-extension on the lower end of the elevating-rod, the foot of which rotates in the socket 15 of the stud. The said screw-extension of the rod may be formed by twisting a flat bar or by twisting two small rods around each other.

17 is an operative hand-nut, and is provided with an internal screw, 18, that extends downward also through a pendent extension, 23, which is surrounded with a hand-swivel, 19, that will allow the hand-screw and its pendent extension to freely turn within it when the operative rod is held from turning with one hand, while the other hand embraces the swivel and lowers it and the hand-nut, ready for the latter (on its reascent, which is then grasped as well as the swivel) to rotate the screw of the elevator-rod for the further elevation of the curtain, or, when lowering, reversing the order of the operation for running down the same.

24 is a laterally-projecting flange at the foot of the pendent extension of the hand-nut, and seated on said flange, between that and the hand-swivel, is an anti-friction bevel-edged washer, 25, that makes a good seat for the hand-swivel, surmounted by the operating hand-nut.

20 is a ratchet-rack around the top of the stud 16, with which, when the hand-nut descends to its seat, the catch-lug 21, that is pendent therefrom, engages and locks the rod from turning, so that whenever so seated and locked the curtain remains in the position to which it has been adjusted.

In the operation of my screw-elevator it will be understood that the hand-nut, or, if pre-

ferred, that and the hand-swivel together, are grasped by the hand and elevated thereby, if need be, to the first eyelet-bracket 13, turning the elevator-screw and rod in its socket 15 and rotating the miter-wheels 9 and 8 and with them the curtain-roller, thus rolling up the curtain. If the curtain is not sufficiently elevated by the one operation, the rod may be held from returning with the disengaged hand, and the other hand now passed down from the hand-nut to the swivel, which is then run down to the foot of the rod, when the hand regrasps the hand-nut, the other hand loosening its hold of the rod, and the elevating process, as described, is again repeated until the curtain is sufficiently elevated, when, as before stated, the operator, grasping the swivel, runs the hand-nut down to the foot of the rod, where it locks the same.

I claim as my invention—

1. In an elevator for curtains, the combination of a rod having a screw-extension, gear-connection between said rod and the curtain-roller, brackets in which the rod is mounted, and an operating device consisting, essentially, of a hand-nut provided with a pendent extension, both of which are provided with a screw-threaded opening, and a hand swivel fitting around the pendent extension, substantially as and for the purpose set forth.

2. In an elevator for curtains, the combination of a rod having a screw-extension, gear-connection between said rod and the curtain-roller, brackets in which the rod is mounted, a stud provided with a socket in which fits the end of the rod, a ratchet-rack extending around the top of the stud, a nut provided with a pendent extension, both of which are provided with a screw-threaded opening to fit the rod, a hand-swivel fitting around the pendent extension, and a projection on the latter adapted to engage said ratchet-rack, substantially as set forth.

WILLIAM S. LONG.

In presence of—
JOS. WAHLE,
EDW. S. KNIGHT.