(No Model.) 2 Sheets—Sheet 1.

J. L. BAKER.

CURTAIN FIXTURE.

No. 422,108. Patented Feb. 25, 1890.

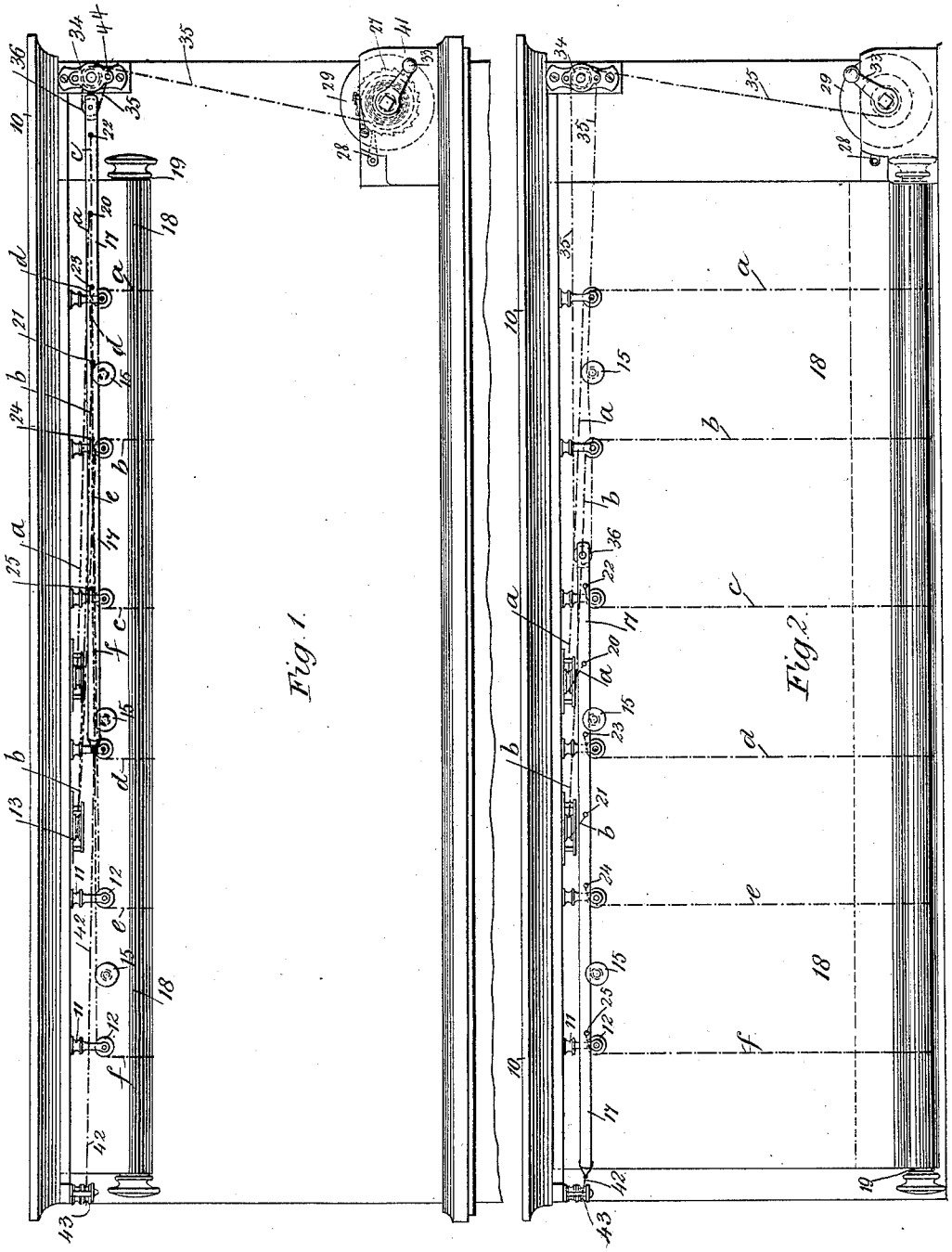

Fig. 1.

Fig. 2.

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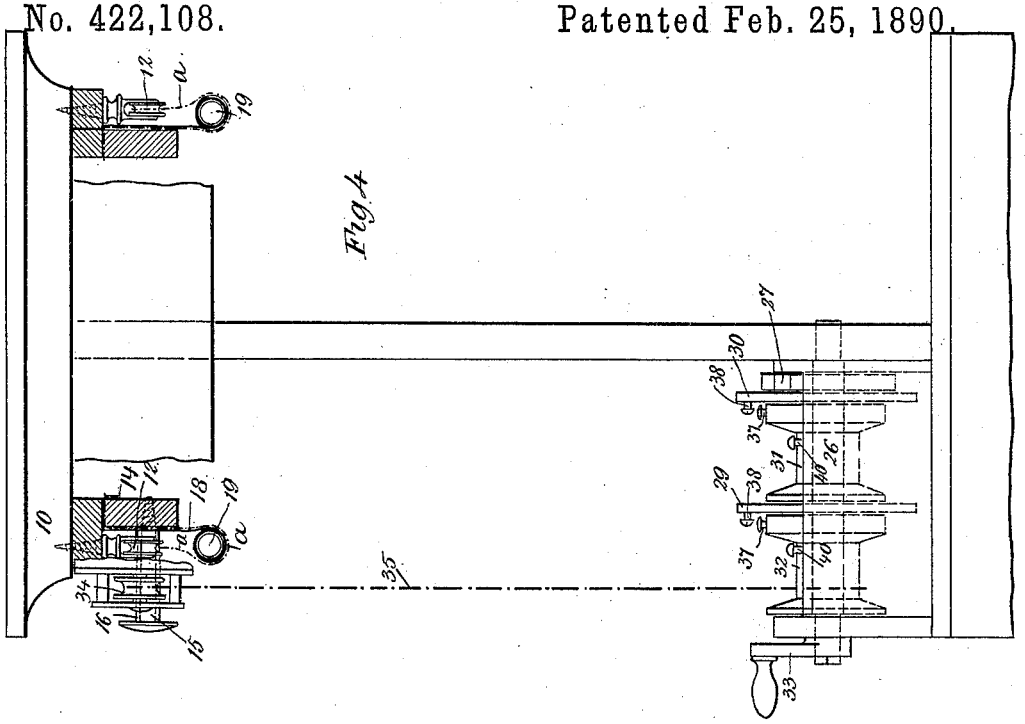

Fig. 4

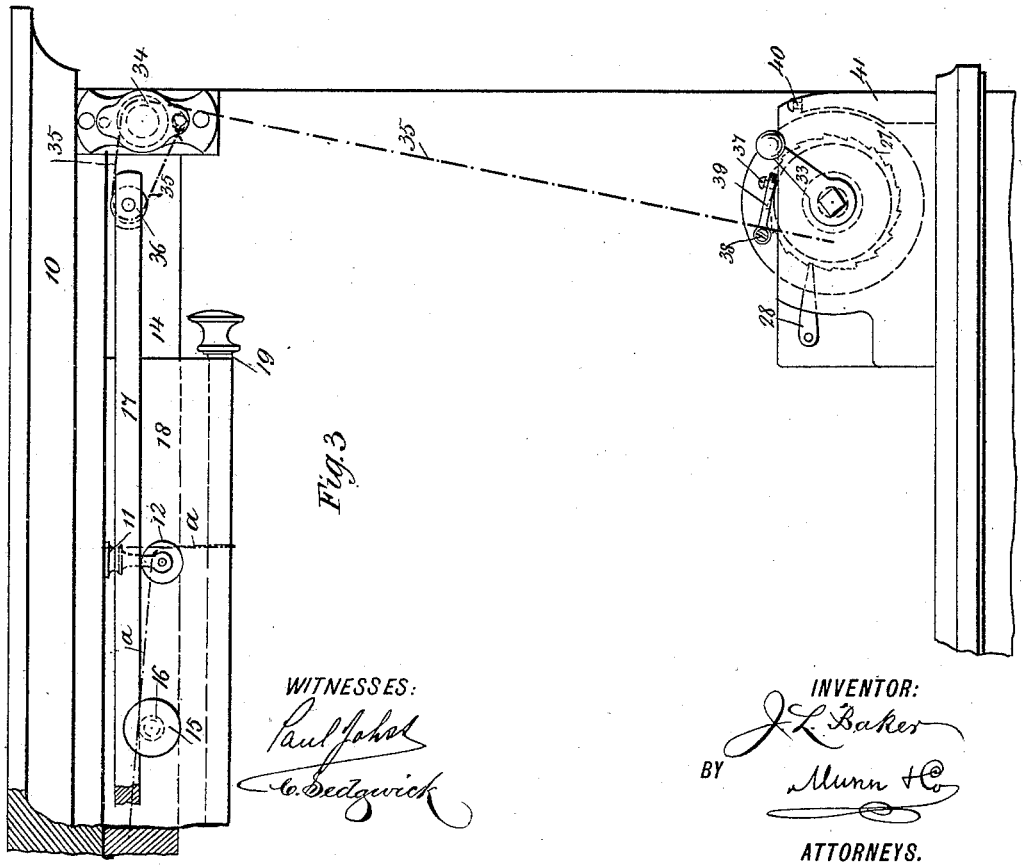

Fig. 3

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UNITED STATES PATENT OFFICE.

JOHN LAWRENCE BAKER, OF GREENSBOROUGH, NORTH CAROLINA.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 422,108, dated February 25, 1890.

Application filed August 24, 1889. Serial No. 321,827. (No model.)

To all whom it may concern:

Be it known that I, JOHN LAWRENCE BAKER, of Greensborough, in the county of Guilford and State of North Carolina, have invented a new and useful Improvement in Curtain-Fixtures, of which the following is a full, clear, and exact description.

My invention relates to an improvement in curtain-fixtures, and has for its object to provide a fixture especially adapted for use in connection with curtains covering shelving in stores, for instance, whereby such a curtain or curtains may be simply, expeditiously, conveniently, and evenly rolled up or unrolled, as desired.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of shelving illustrating the fixtures supporting a curtain, which curtain is represented as rolled up. Fig. 2 is a similar view, the curtain being shown as rolled down. Fig. 3 is a partial side elevation, as shown in Fig. 1, enlarged; and Fig. 4 is a transverse section through Fig. 1.

Beneath the cornice 10 of store or other shelving, in front of the said shelving, a series of longitudinally-arranged perpendicular hangers 11 are secured to said cornice, each of which hangers has journaled in its lower end a grooved friction-pulley 12, and at or near the center of the length of the cornice 10, to the under side of the same, slightly to the rear of the alignment of the hangers 11, horizontal sheaves 13 are secured, each sheave carrying a grooved pulley.

From the beading or cap piece 14, immediately beneath the cornice 10, a series of pins 15 are horizontally and outwardly projected, each pin being provided with a head and a collar or collars 16, held to turn loosely thereon. Upon the collars 16, which act as friction-rolls, a strip 17, of wood, metal, or other suitable material, is supported, which strip is preferably rectangular in cross-section and about one-half the length of the cornice above it; but the length of this strip may be varied as occasion may demand.

To the front surface of the cap 14 the upper end of a curtain 18 is rigidly secured, which curtain is provided with a pole 19 at its lower end.

To the cap 14, preferably between it and the curtain, a series of cords *a*, *b*, *c*, *d*, *e*, and *f* is secured, which cords pass downward in contact with the inner face of the curtain over the pulley 19 and perpendicularly upward in contact with the outer face of the said curtain, from whence they are distributed, as will be hereinafter described.

It will be understood that the number of cords *a b c*, &c., to be used is determined by the length of the curtain employed. Each cord passes upward over the friction-roller in the hanger immediately above it. The first cord at the right *a* is carried over the friction-roller, from which it passes over the friction-roller in the right-hand sheave 13, and the end of the cord, after being passed through the said sheave, is rigidly fastened to the back of the sliding bar 17 a distance from its right-hand end, as illustrated at 20 in Figs. 1 and 2. The next cord *b*, after passing over the friction-roller above it, is carried through the other sheave 13 and attached to the rear of the bar 17 at or near its center, as illustrated at 21. The cord *c* is carried from the hanger friction-roller, over which it passes horizontally in the direction of the right-hand end of the bar 17, and is secured to the back of said bar between the point of attachment of the cord *a* and the outer end, as illustrated at 22. The cord *d*, after passing over its hanger friction-roller, is likewise secured to the back of the bar 17, but at the point 23, which is between the points of attachment of the cords *a* and *b*. The cords *e* and *f* are also passed over hanger friction-rollers, and are likewise attached to the back of the bar 17 near the left-hand end, the cord *e* being secured to the left of the cord *b*, as shown at 24, and the cord *f* to the left of the cord *e*, as illustrated at 25.

The hangers 11 are of such length that the upper peripheral surface of their friction-rollers will be essentially in a plane with the under surface of the sliding bar to which the ends of the several curtain-cords are secured.

At either end of the shelving, preferably at the right-hand side and at or near the bottom, a horizontal outwardly-projecting shaft 26 is journaled, as best shown in Fig. 4, having secured near its inner end a ratchet-wheel 27, engaged by a pawl 28, pivoted to any suitable support or standard. Upon this shaft I usually rigidly secure two disks 29 and 30, one being located in front of the ratchet-wheel 27 and the other at or near the center of the shaft. Between the two disks 29 and 30 a reel 31 is loosely mounted upon the shaft, and a second reel 32 is likewise mounted between the outer bearing of the shaft and the central disk. The shaft 26 is preferably revolved by means of a crank-arm 33 attached to its outer end.

Beneath the cornice 10 over the shaft 26 a sheave 34 is perpendicularly secured, and one end of a cord 35 is securely fastened to the shaft 44, passing over a friction-roller 36, located in the right-hand end of the sliding bar 17, from whence the cord is carried over the pulley in the sheave 34 and downward to a connection with the reel 32.

The reel 32, and likewise the reel 31, have attached to their peripheral edges, adjacent to the disks 29 and 30, a pin 37, and a similar pin 38 is secured to the forward face of each disk near its periphery, as best illustrated in Fig. 4. Links 39 are passed over the pins to the disks, as shown in Fig. 3, adapted to act as a brake and also to connect the reels with the disks. When this latter operation is to be performed, the links are also passed over the pins upon the reels, whereby the said reels will be revolved when the shaft 26 is turned. When the links are to be used in the capacity of a brake, they are passed over the pins upon the reels and also over pins 40, attached to standards 41, parallel with the outer face of the shaft 26, said pins being illustrated in Fig. 3.

In operation, the curtain being down, as shown in Fig. 2, to raise the same the shaft 26 is turned, the reels having been previously connected with the disks upon the shaft, and when the curtain has been sufficiently rolled the pawl 28 effectually prevents it from dropping down and as the cord 35 is wound upon the reel 32 by the revolution of the shaft equal tension is exerted upon each and every cord *a b c*, &c., by the sliding bar 17 being drawn in the direction of the reel, and when the right-hand extremity of the sliding bar closely approaches the sheave 34 it will have drawn the upper ends of the cords so far to the right that the curtain will have been rolled up to its full capacity, as shown in Fig. 1.

I have illustrated two reels 31 and 32 in order to provide for the manipulating of two curtains, both of which cover the one set of shelving—as, for instance, an inner gauze curtain and an outer heavy curtain, the latter curtain only being shown. When the two curtains are used, the cord 35 of the inner curtain is attached to the inner reel 31. In manipulating these two curtains, if it is desired to raise the outer curtain only and leave the inner curtain unrolled, the link-connection between the inner disk and the inner reel is not made. Thus as the reel is loosely mounted upon the shaft it will not turn when the shaft is revolved to turn the outer reel, which is linked to the outer disk. The outer curtain having been elevated, the link is disengaged from the disk 29 and employed to attach the outer reel to the standard 41. Thus the outer reel will not turn when the shaft is revolved. The link-connection may now be made between the inner reel and the inner disk, and when it is desirable to elevate the inner curtain for any purpose it may be readily effected without changing the position of the outer one.

In Fig. 4 I have illustrated a curtain arranged on opposite sides of a partition, one curtain being in one room and the other in an adjoining room. The curtain in the adjoining room (illustrated at the right in Fig. 4) is provided with similar fixtures to that in the room at the left; but both may be operated from one shaft or windlass by connecting the extremity of the bar 17 in the left-hand room, having no friction-pulley 36 pivoted therein, with the corresponding end of the bar in the right-hand room, by a cord 42, which cord may be passed over suitably-arranged friction-pulleys 43.

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

1. The combination, with a cornice or other equivalent support, a series of hangers perpendicularly secured to said cornice, carrying friction-rollers, and horizontally-arranged sheaves, also attached to the cornice, of a bar held to slide laterally in front of the hangers, cords rigidly secured below the cornice at one end, formed in loops and having their other ends carried over the hanger-rollers, and certain of the cords through the sheaves and rigidly secured to the back of the said sliding bar, substantially as shown and described.

2. The combination, with a cornice or other equivalent support, a series of hangers perpendicularly secured to the said cornice, carrying friction-rollers, and horizontally-arranged sheaves, also attached to the cornice, of a bar held to slide laterally in front of the hangers, cords rigidly secured below the cornice at one end, formed in loops and having their other ends carried over the hanger-rollers, and certain of the cords through the sheaves and rigidly attached to the back of the said sliding bar, a friction-roller journaled in one end of the sliding bar, and a cord having one end attached to the support or cornice and the other end carried down to a connection with the shaft of a windlass, substantially as and for the purpose specified.

3. The combination, with a cornice or other support, hangers perpendicularly secured to

the said cornice, provided with friction-rollers, sheaves horizontally secured to the cornice, and a curtain having one end rigidly fastened beneath the cornice, of sleeved pins projected from beneath the cornice between the perpendicular hangers, a bar held to slide upon the said sleeved pins, having a friction-roller journaled at one end, cords rigidly secured at one end to the support at the rear of the curtain, which cords pass downward in contact with the rear of the curtain and upward in front of the same over the hanger-pulleys, and certain of the cords through the sheaves, all the said cords being attached to the rear of the sliding bar, and a connection between the end of the bar carrying the friction-pulley and the windlass, substantially as and for the purpose specified.

4. The combination, with a cornice or equivalent support, hangers carrying friction-rollers projected downward from the cornice, sheaves secured horizontally to the cornice, a curtain rigidly secured at one end beneath the cornice, horizontal pins arranged beneath the cornice, a bar held to slide upon said pins, and cords secured at one end beneath the curtain at its top, which cords pass downward in contact with the rear face of the curtain and upward in contact with its front face over the friction-pulleys of the hangers, and certain of the cords through the sheaves, all the cords being rigidly secured to the sliding bar, of a shaft having a disk rigidly secured thereto, carrying a pin near its periphery, a standard near said shaft, also carrying a pin, a reel loosely mounted upon the shaft, having a pin secured in its periphery adjacent to the disk, and a link adapted to connect the reel with the shaft-disk or the said standard, as and for the purpose specified.

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Witnesses:
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W. C. MCLEAN.