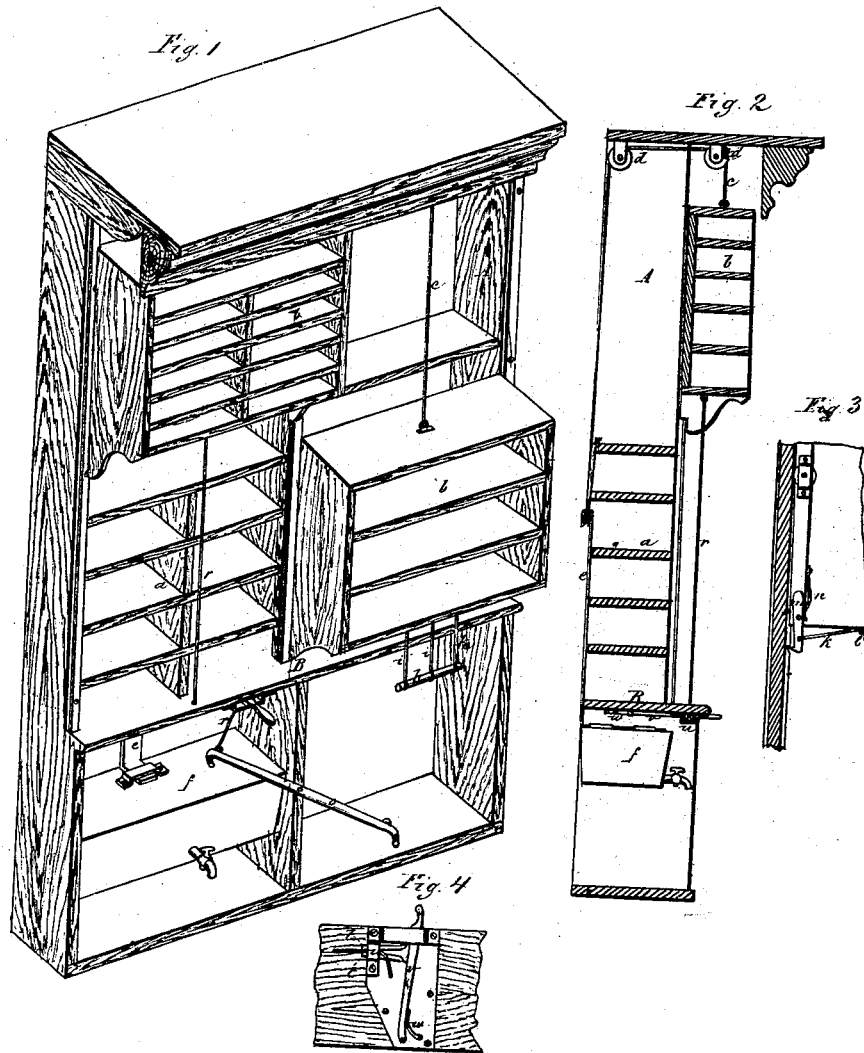


*R. Murdock,*  
*Store Shelving.*  
*No. 108930. Patented Nov. 1. 1870.*



Witnesses:  
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# United States Patent Office.

RICHARD MURDOCH, OF BALTIMORE, MARYLAND.

Letters Patent No. 108,930, dated November 1, 1870.

## IMPROVEMENT IN SHELVING FOR STORES.

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, RICHARD MURDOCH, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and improved Shelving for Stores; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a view, in perspective;

Figure 2, a transverse sectional elevation;

Figure 3, a side elevation of one latch mechanism that holds down a section of the sliding shelves; and

Figure 4 is a bottom view of another latch mechanism which accomplishes the same object.

This invention has for its object to enable salesmen to lay hold of the goods placed in the higher shelves of stores, out of easy reach, without climbing to the same, in order that the surfaces of the walls may be utilized for shelving clear to the ceilings.

The invention consists of upper sections of shelving made movable vertically, so that the salesman may draw the goods down to himself instead of going up to the goods, each movable section of shelving being provided with a counterbalance, or one section being hung in opposition to another, and latch mechanisms being provided for the purpose of preventing a section of shelving, as its weight decreases by reason of the removal of goods therefrom, from being drawn upward by the counterbalance before the salesman is ready to let it rise.

Referring to the drawing—

A is a case containing shelves divided into immovable sections *a*.

*b* are movable sections of shelves running in grooves in the inner sides of the case A, and extending in front of the same.

The sections *b* are each connected, as shown in fig. 2, by cords *c*, running over sheaves *d* hung to the top of the case A, with an arm, *e*, that extends upward, in rear of the shelves *a*, from a counter-weight, *f*, which may be either solid or may consist of a vessel for containing liquids.

By means of the counter-weights *f* the sections *b* may be raised to the top of the case, so as not to cover the front of the sections *b*.

When the salesman has occasion to exhibit goods stored in either of the upper sections of shelving, he has simply to draw the same down to within reach.

For drawing the sections *b* down, two different mechanisms are shown. One mechanism consists of

the bar *h*, fig. 1, which hangs horizontally below the section *a*, being connected therewith by cords *i*, and serving as a handle.

A cord, *k*, is also attached to the bar *h*, and, passing through an eye, *l*, in the bottom of the section *b*, is attached at its other extremity to a latch, *m*, that is pivoted to the back side of the section, and is pressed, by a spring, *n*, into a notch formed in the inner side of the case A.

When the section is drawn down the latch *m* holds it.

On pulling the bar *h*, the cord *k* withdraws the latch from its notch, so that it presents no obstacle to the descent of the section.

The second mechanism consists of a lever, *o*, fig. 1, pivoted beneath the sections of shelving *a*, and connected at its lower end with a cord, *r*, whose other extremity is attached to the lower side of the section *b*.

On turning the lever *o* toward the perpendicular, a pin, projecting backward from near its upper end, strikes the cord *r*, and causes the same to draw the section *b* downward.

The cord *r* passes between plates *t*, fig. 4, that are supported horizontally in a bracket, *u*, attached beneath the base-board B of the sections *a*.

The plates *t* are connected with a lever, *v*, by which they may be drawn, to a degree, out of the bracket *u*. On thus drawing out the plates *t*, the cord *r* is released from the clamping of the plates, and allowed to be operated by the lever.

On releasing the lever *v*, the spring *w* presses the plates *t* into the bracket *u*, causing them to clamp and hold the cord, and thus prevent the counter-weight from raising the section *b*.

The sections *b* may be hung in opposition, so as each to act as the counter-weight of the other.

The sections *a* may also be made movable, and operate as counter-weights to the sections *b*.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. A case of shelves, provided with sliding sections, combined with counter-weights, substantially as described.

2. The arrangement of the levers *o*, *v*, cord *r*, plates *t*, and bracket *u*, as specified.

RICHARD MURDOCH.

Witnesses:

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