

M. E. KELLOGG.

STORE FIXTURE.

APPLICATION FILED JULY 8, 1911.

1,020,427.

Patented Mar. 19, 1912.

2 SHEETS—SHEET 1.

Fig. 2.

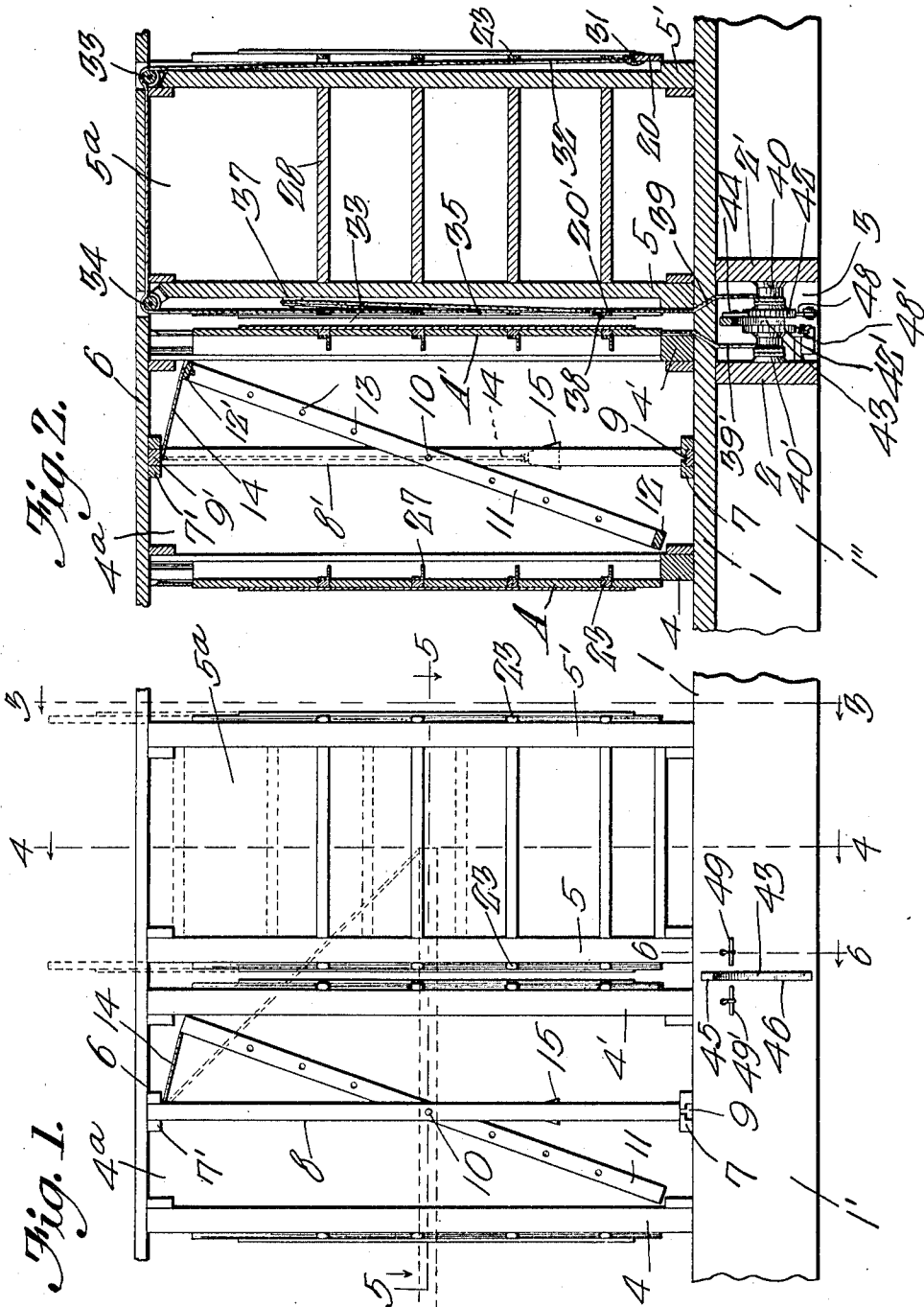


Fig. 1.

Witnesses

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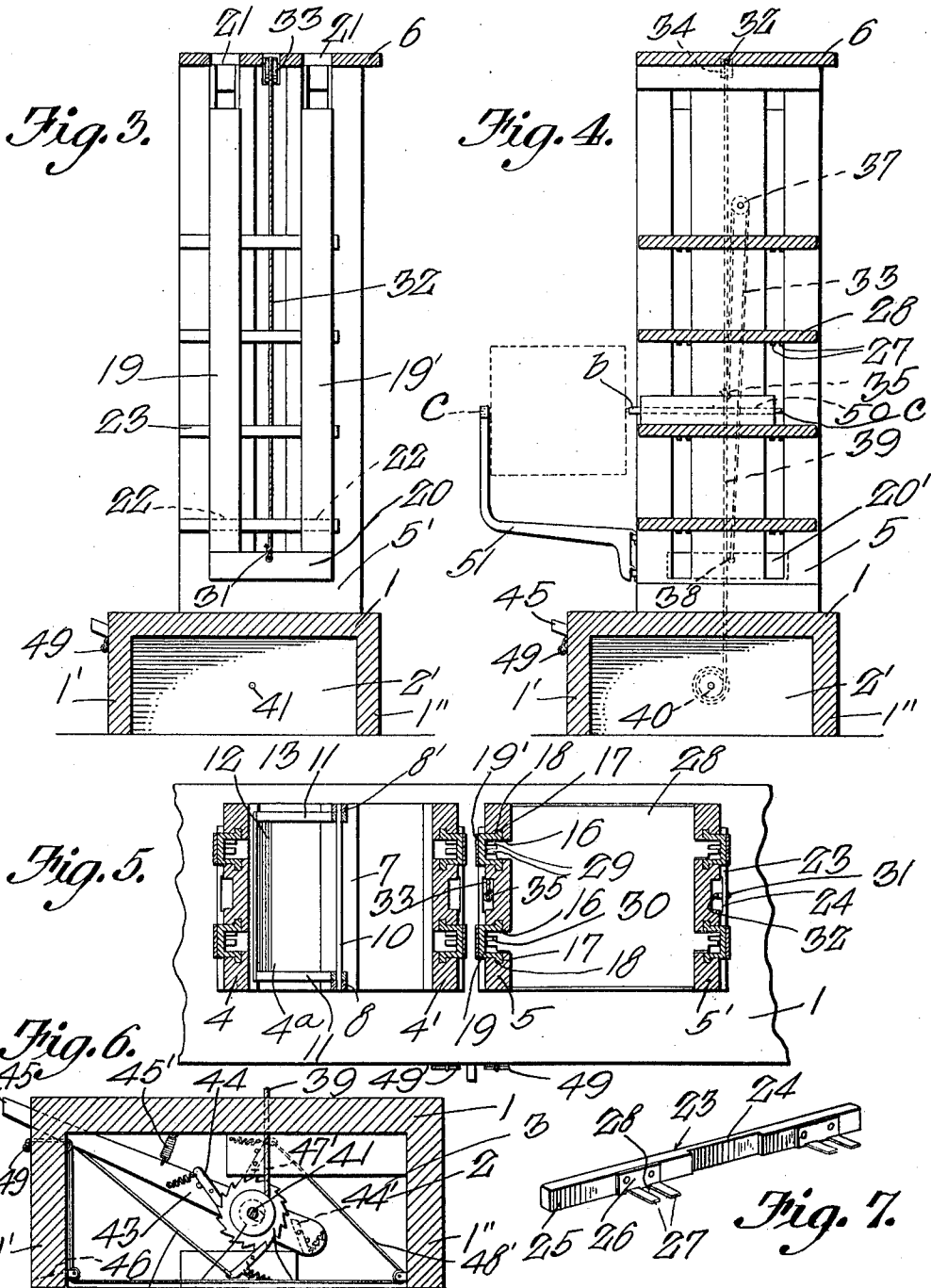
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UNITED STATES PATENT OFFICE.

MAURICE E. KELLOGG, OF MILAN, KANSAS.

STORE-FIXTURE.

1,020,427.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAURICE E. KELLOGG, a citizen of the United States, residing at Milan, in the county of Sumner and State of Kansas, have invented a new and useful Store-Fixture, of which the following is a specification.

This invention relates to improvements in store fixtures, the primary object of the invention being the provision of a novel form of dry goods display shelving and rack, the same being provided with means whereby the shelves may be removably mounted within a framework and carried by a vertically slidable and operable frame, whereby the said shelves may be moved vertically simultaneously to permit the removal of bolts of goods therefrom, the said frame carrying the said shelves being provided with transversely slidable means whereby the ends of the shelving may be released without the necessity of lifting the same.

A further object of this invention is the provision of a novel form of elevating means disposed in the base of the fixture and adapted to be operated manually to raise the shelving simultaneously, combined with a release device for permitting the said shelvings and their supports to fall by gravity to the normal holding position.

A still further object of this invention is the provision of a compartment having mounted therein a vertical and transversely slidable frame which carries a pivoted ladder or roll-goods supporting frame, so disposed that the same may be presented forwardly of the shelving support and be swung downwardly and held in desired position by means of a counterbalancing weight so that the clerk may remove the preferred article therefrom, the said supporting means or ladder returning to its normal vertical position by means of the counterbalancing weight.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a front elevation of two sections of the invention, one

portion being provided with the removable shelves in operable relation and the other portion being provided with the pivoted ladder or roll supporting device, the shelves being projected vertically as shown in dotted lines. Fig. 2 is a vertical longitudinal sectional view through the same. Fig. 3 is a vertical section taken on line 3—3 of Fig. 1. Fig. 4 is a similar section taken on line 4—4 of Fig. 1. Fig. 5 is a cross section taken on line 5—5 of Fig. 1. Fig. 6 is a cross section taken on line 6—6 of Fig. 1. Fig. 7 is a detailed perspective view of one of the adjustable shelf supporting and releasing rods.

Referring to the drawings, the numeral 1 designates the base of the shelving which as shown in Fig. 2 is provided with the two transverse boards 2 and 2', providing the compartment 3, the said compartment and the base being provided with the front and rear boards 1' and 1'' for closing the said base to prevent the admission of dust therein.

Supported upon the base 1 and projecting upwardly and vertically therefrom and in parallel, are the standards 4 and 4', and 5 and 5', respectively, although it is to be understood that any number of these sections may be mounted upon the base and along the walls, the same being of the desired height and width according to the articles to be sold. The top of the respective standards are spanned and held together by means of the plate or top 6, and as shown in the compartment 4^a, the underside of the top and the top of the base are provided with the guide strips 7 and 7', respectively, for the sliding reception of the strips 9 and 9', carrying the vertical standards or posts 8 and 8', respectively, forming an open framework for the pivotal support at 10, of the ladder or rack 11. This ladder, as clearly shown in Fig. 1, is provided with a series of rounds or rungs 13 intermediate of its cross heads 12 and 12', whereby the goods that are not wound upon bolts, trays or boards but in rolls may be placed upon the same and when the device is projected as shown in dotted lines in Fig. 1, the pivotal support may be swung to such position to permit access to the goods upon the rungs. In order to properly hold the said support in vertical position so that the posts 11 aline with the supports 8, and within the frame formed by the same, a flexible connection 14 is connected at the upper cross piece

12' and carries at its lower free end, the counterbalancing weight 15, which will normally hold the said ladder and support in alined position.

5 As clearly shown in Fig. 5 of the drawings, each one of the vertical standards or supports 4, 4', 5 or 5', is provided with vertical slots 16, having the oppositely disposed grooves 17 for the sliding reception of the frame 19 having the oppositely disposed
10 lugs or ribs 18 fitting within the grooves 17 as clearly shown, whereby the said supports may be moved vertically within the spaces 16 and pass through the openings 21 in the top 6 of the shelving. The lower ends of the respective vertical strips 19 which constitute the shelf supporting frame, are connected together by means of the cross head
15 20 and are provided intermediate of their ends with the parallel alined grooves or slots 22, for the removable and transversely slidable reception of the shelf supporting rods or strips 23, the detailed construction of each of which is shown in Fig. 7. These
20 strips are provided each with the recessed central portion 24, which limits the transverse movement thereof, the outer end 25 is the operating end, whereby the said strips may be pulled outwardly or pushed inwardly, the purpose of which will presently
25 appear. These shelf carrying strips are each provided with cleat plates 26, having the right angled projecting arms or prongs 27 providing the space 28', the same being normally disposed in the space 16 of the respective supports and adapted to receive the spaced lugs 29 of the removable shelves 28, the said lugs 29 being provided with recesses
30 35 whereby when the rods or supports 23 are moved outwardly the prongs 27 will be adjacent to the apertures or openings 30 in the lugs 29 of the shelves 28 and the adjacent end of the shelf will be permitted to fall so that the shelf may be removed as desired. These supports 19 and 19' are arranged in pairs upon opposite sides of the compartment, as at 5^a and are connected for universal vertical movement, the support 20 being connected at 31 to the flexible
35 40 connection 32, which passes upwardly and over the pulley 33 across the top of the compartment 5^a, over the pulley 34 and downwardly to the connection 35 within the space between the supports 4' and 5, another cable
45 50 or rope 33 being connected to the connection 35 and passing upwardly and over the pulley 37, and downwardly to a point at 38, where it is connected to the cross head 20' of the other vertically slidable member, the connection 35 being connected by means of a flexible connection or rope 39 which passes
55 60 downwardly through the base and is wound upon the drum or spool 40 mounted upon the shaft journaled in the partitions 2 and 2' and within the compartment 3 of the

base. By this means it will be seen that any movement of the flexible connection 39 will simultaneously operate both connections 32 and 36 to cause the shelving supports to move in unison.

Upon the shaft 41 are journaled the two spools 40 and 40', for independent movement and connected to the spool 40' is a cable or rope 39, which is operably connected to supports A and A' within the compartment 4^a, thus permitting the said compartment 4^a to be used similarly to the compartment 5^a by removing the support 8 and its pivotal frame 11.

The mechanism to operate the cables 39 and 39' respectively, consists of the lever 43, carrying the oppositely disposed spring actuated pawls 44 and 44', which operate respectively upon the two ratchets 42 and 42', so as to thereby operate the spools 40 and 40' and wind the cables 39 and 39' upon their respective spools, thus elevating the shelf supports as shown in dotted lines in Fig. 1 to any desired height. The outer end 45 of the lever 43 is disposed for movement within the slot 46 formed in the front portion of the base, the spring 45' returning the said lever to upright position so that the operator simply has to push down upon the lever to operate the ratchets upon the shaft 41. In order to release the ratchets 42 and 42' so that the frames operated thereby may fall by gravity and seat within the shelving frame, are provided two spring actuated retarding detents 47 and 47', normally in engagement with their respective ratchets 42 and 42' as clearly shown in Fig. 6, and to each of these respective ratchets is connected a cable or flexible connection 48 and 48', respectively which are operable at the front as shown in Fig. 1 by means of the handles 49 and 49' either one of the same being pulled upon to release its respective ratchet to permit the respective drums 40 and 40' to unwind the cables 39 and 39' and thus permit the shelf support to fall by gravity and be seated within the frame of the shelving.

As shown in Fig. 4 of the drawings, the metal bolt supports 50 are removably mounted upon the shelves 28 and each one is provided with the grooved pin *b* and the cylindrical pin *c*, whereby when it is desired to unwind the material from said bolts, the cylindrical pin of one member will fit within the grooved pin of the other member and permit the said plate to assume the position as shown in full and dotted lines Fig. 4, where its outer end *c* supported in the journal bracket 51, which is pivotally connected to the desired portion of the shelf support so that the same may be moved into and out of operable position. By this means a reel is provided for the unwinding and winding of the material upon the bolt plate 50.

By this construction of shelving or store fixture, it is evident that goods may be displayed upon the shelves in bolts, and the said bolts may be readily removed or placed in a convenient position for removal, and where the goods are formed in rolls, the same may be mounted upon the swinging frame 11 and projected exteriorly of the shelving so that the clerk may unwind to secure the desired amount of material.

By this construction it will be seen that a very convenient and useful form of shelving or store fixture is provided and one which will economize space and at the same time be attractive in appearance.

What is claimed is:

1. In a device of this character, the combination of a frame, vertical shelf supports arranged in pairs and for vertical movement within the frame, a series of transversely slidable shelf rods carried by each support, a shelf for each pair of alined rods of said supports, co-acting means carried by the shelves and rods for removably attaching the shelves to the supports, and means for moving the supports and shelves vertically and in unison.

2. In a device of this character, the combination of a frame, vertical shelf supports arranged in pairs and mounted for vertical movement within the frame, a series of shelves removably attached to said supports, co-acting means carried by the shelves and supports for permitting the release of the shelves from the supports, and means for moving the supports and shelves vertically and in unison.

3. In a device of this character, the combination of a frame, vertical shelf supports arranged in pairs and mounted for vertical movement within the frame, a series of shelves removably attached to said supports, co-acting means carried by the shelves and supports for permitting the release of the shelves from the supports, flexible cables connecting both members of the supports, and a manually operated drum connected to said flexible cables for moving said supports and shelves in unison.

4. In a device of this character, the combination of a frame, vertical shelf supports arranged in pairs and mounted for vertical movement within the frame, a series of shelves removably attached to said supports, co-acting means carried by the shelves and supports for permitting the release of the shelves from the supports, flexible cables connecting both members of the supports, a manually operated drum connected to said flexible cables for moving said supports and shelves in unison, and means for locking said manually operated means to retain the supports and shelves in the desired position.

5. In a device of this character, the combination of a frame, said frame being di-

vided into vertically disposed compartments, a shelf support vertically mounted in each wall of the compartment, two supports to each compartment, a series of shelves removably supported between the supports within the compartment, co-acting means carried by the shelves and supports for removably attaching the shelves to the supports, and means connecting each pair of supports together for vertical and simultaneous movement.

6. In a device of this character, the combination of a frame, said frame being divided into vertically disposed compartments, a shelf support vertically mounted in each wall of the compartment, two supports to each compartment, a series of shelves removably supported between the supports within the compartment, co-acting means carried by the shelves and supports for removably attaching the shelves to the supports, two flexible connections connected to the respective supports, another flexible connection connected to said two flexible connections, and manually operated means connected to the last mentioned connection for operating the same to move the vertical supports and shelves in unison.

7. In a device of this character, the combination of a frame, said frame being divided into vertically disposed compartments, a shelf support vertically mounted in each wall of the compartments, two supports to each compartment, a series of shelves removably supported between the supports within each compartment, co-acting means carried by the shelves and the supports for removably attaching the shelves to the supports, two flexible connections connected to the respective supports, another flexible connection connected to said two said flexible connections, manually operated means connected to the last mentioned connection for operating the same to move the vertical supports and shelves in unison, and means for locking said last mentioned means to retain the supports and shelves in the desired position.

8. The combination with vertical frames, said frames being provided with a series of vertical and alined slots therein, of a shelf support having two parallel members slidably mounted in said slots, a series of shelf carrying rods mounted for transverse slidable movement in the parallel supports, said parallel supports being disposed so that the rods are arranged in pairs, a shelf for each pair of rods, and co-acting means carried by the rod and adjacent portion of the shelf for removably connecting the shelf to the rod.

9. The combination with two vertical frames, said frames being provided with a series of transverse and alined slots therein, of a shelf support having two parallel mem-

bers slidably mounted in said slots, a series of shelf carrying rods mounted for transverse slidable movement in the parallel supports, said parallel supports being disposed
5 so that the rods are arranged in pairs, a shelf for each pair of rods, co-acting means carried by the rod and adjacent portion of the shelf for removably connecting the shelf to the rod, and means connecting each pair
10 of parallel supports for moving the supports and shelves in unison.

10. The combination with two vertical frames, said frames being provided with a series of vertical and aligned slots therein, of
15 a shelf support having two parallel members slidably mounted in said slots, a series of shelf carrying rods mounted for transverse slidable movement in the parallel supports, said parallel supports being disposed
20 so that the rods are arranged in pairs, a shelf for each pair of rods, co-acting means carried by the rod and adjacent portion of the shelf for removably connecting the shelf to the rod, means connecting each pair of

parallel supports for moving the supports 25 and shelves in unison, and means for locking said last mentioned means to retain the supports and shelves at the desired adjustment.

11. The combination with a shelf support- 30 ing frame, comprising two members, each of said members having two parallel strips, each of said strips being provided with a series of transversely disposed slots therein, a rod slidably mounted in each pair of said 35 slots of the strips, a series of shelves, and co-acting means carried by the ends of the shelves and said rods, whereby the shelves are held in relative position between the strips, and may have either end released 40 therefrom by the movement of the rods.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MAURICE E. KELLOGG.

Witnesses:

R. O. DICKSON,
GEO. W. HOUGH.