No. 618,712. Patented Jan. 31, 1899.

W. E. McCALL.

SPOOL THREAD CABINET.

(Application filed Aug. 30, 1897.)

(No Model.) 2 Sheets—Sheet 1.

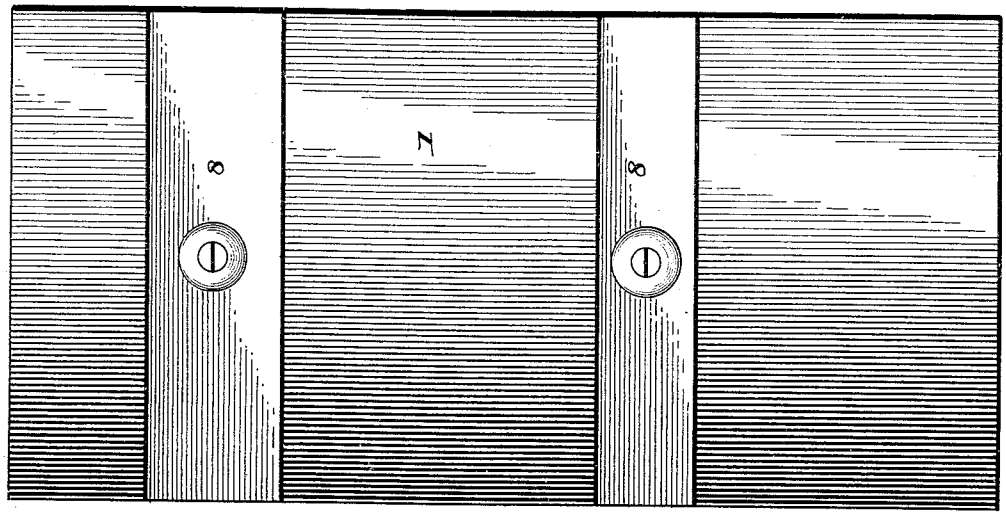


Fig. 3.

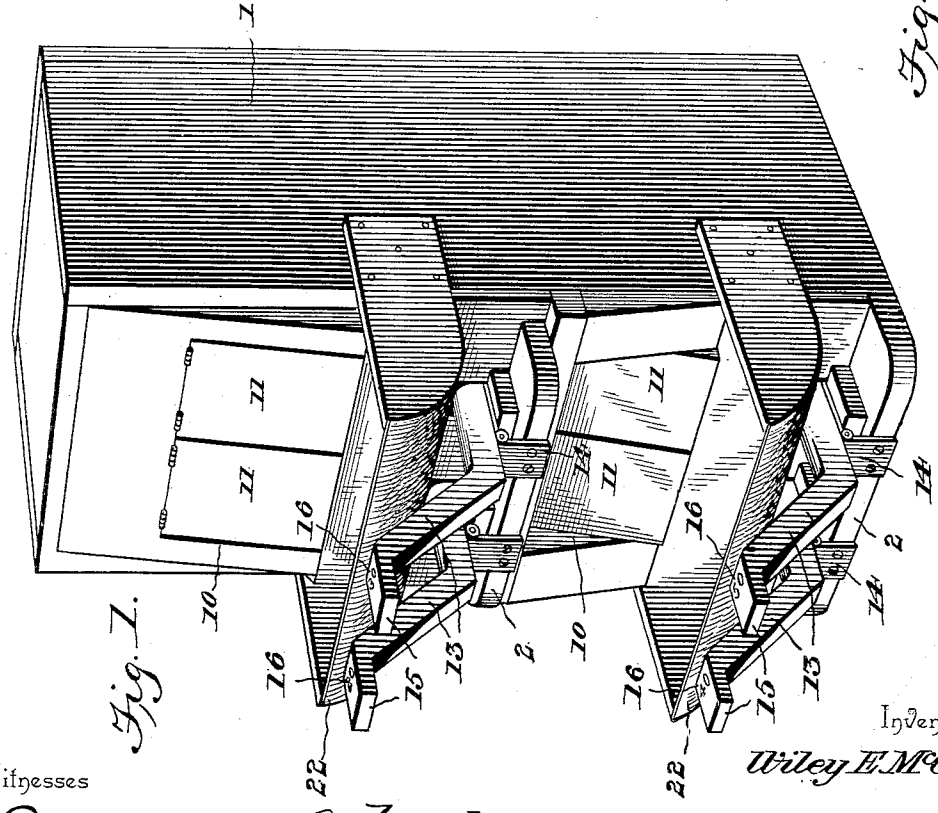


Fig. 1.

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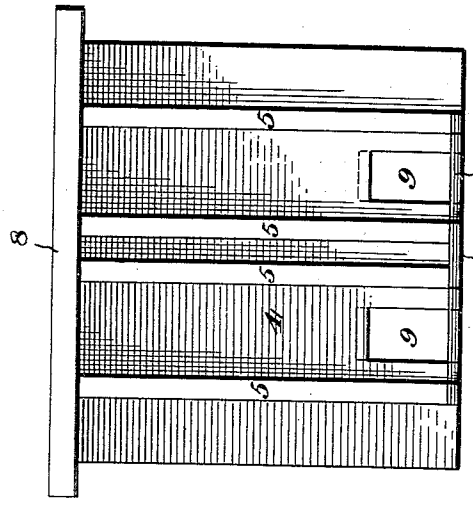


Fig. 4.

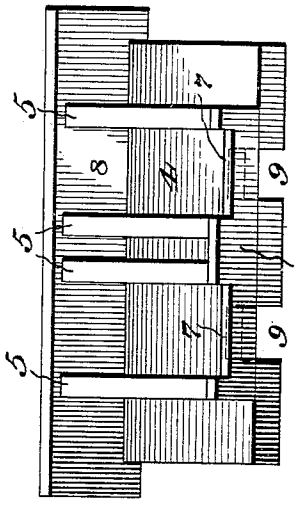


Fig. 5.

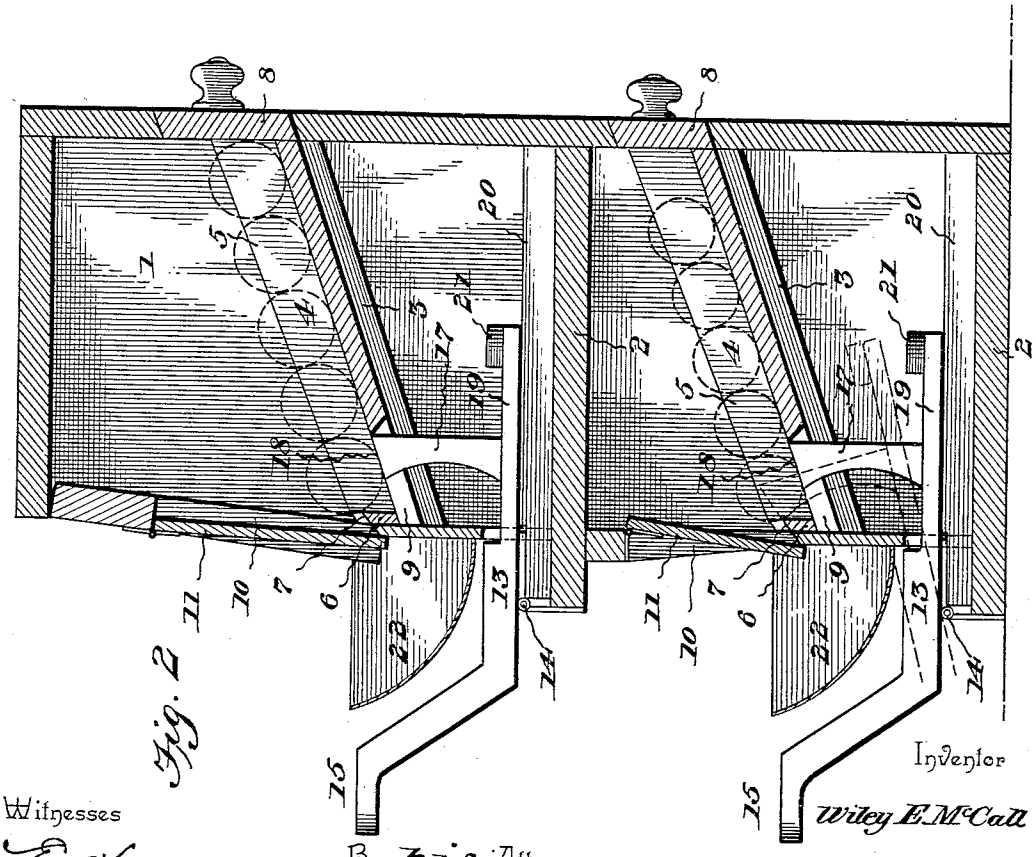


Fig. 2

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UNITED STATES PATENT OFFICE.

WILEY E. McCALL, OF JASPER, FLORIDA.

SPOOL-THREAD CABINET.

SPECIFICATION forming part of Letters Patent No. 618,712, dated January 31, 1899.

Application filed August 30, 1897. Serial No. 649,987. (No model.)

To all whom it may concern:

Be it known that I, WILEY E. McCALL, a citizen of the United States, residing at Jasper, in the county of Hamilton and State of Florida, have invented a new and useful Spool-Thread Cabinet, of which the following is a specification.

This invention relates to cabinets for spool-thread, its object being to provide a cabinet for this purpose having a series of inclined compartments for the reception of the spools of thread, each compartment having a hinged gravity-door at its front end, through which the spools may be delivered by simply depressing a key.

With this object in view the invention consists of the several details of construction and combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a cabinet constructed in accordance with my invention. Fig. 2 is a vertical transverse section. Fig. 3 is a rear elevation. Fig. 4 is a plan view of one of the spool-holding drawers detached. Fig. 5 is a front end view of the same.

Similar reference-numerals indicate similar parts in the several figures.

The casing, which is indicated by 1, may be made of any suitable material and be of any length, height, and width required. As being sufficient to illustrate my invention, I have shown in the drawings a cabinet with four delivery-openings; but it is of course to be understood that as many delivery-openings may be provided in the cabinet as may be required for the several kinds and sizes of spool-thread. The casing is provided with horizontal partitions (indicated by 2) to divide the cabinet into chambers, and each chamber is provided with inclined ways 3, secured to the casing above the horizontal partition. These inclined ways are designed to support the drawers or trays 4, each of which is provided with suitable partition-strips 5 to divide it into compartments. The front wall 6 of each tray is of sufficient depth to serve as a stop for the front spool, and its upper edge is preferably beveled, as indicated at 7. The rear wall 8 of each tray is designed to fit closely in the openings in the back of the casing through which the trays are inserted or withdrawn.

The bottom of each compartment is provided at its front end with a slotted opening 9, which extends under the front wall 6 to the front edge of the tray, and the casing is provided with a series of openings 10, which openings are opposite the several compartments.

11 indicates doors for the openings 10, each door being hinged at its upper end in any suitable manner to the casing and adapted to close by gravity. Preferably the construction will be such that the doors when in their closed positions will incline outwardly toward their lower ends, or, in other words, they will not have to assume a true vertical position in order to close the opening. This can be accomplished in several ways, as will readily suggest themselves to a skilled mechanic, and the object of such an arrangement is that the doors shall always entirely close the openings, which might possibly not be the case if the doors had to swing to a true vertical position.

13 indicates levers which are hinged or pivotally connected in any suitable manner to the horizontal partitions 2, as indicated at 14. The outer ends of the levers are bent upwardly and form keys 15, each of which will preferably be provided with a designating-number, (indicated by 16,) which number will correspond with the size of the thread in the compartment with which the key is connected. Each lever is provided on its inner portion with an upwardly-projecting arm 17, which arm is preferably curved to bring its upper end somewhat in advance of its lower end, and the upper end of the arm is beveled, as indicated at 18, to correspond with the inclination of the bottom of the compartment. The upper end of the arm is designed to be flush with the upper surface of the bottom of the compartment and to be so arranged as to engage the front spool in the compartment in such manner that when the key is depressed the arm will lift the spool and at the same time cause it to move forwardly toward the door, and when the spool is lifted above the top edge of the front wall it will naturally

roll forward and open the door sufficiently to pass out of the casing.

The inner ends 19 of the levers extend beyond the arms 17 and are adapted to be supported on the horizontal partitions 2 or on strips 20, secured to the partitions, and the inner ends are preferably provided with weights 21, which will serve to return the levers and the arms 17 to their normal position when the keys are relieved from pressure. It is obvious that instead of weights springs may be substituted to accomplish this purpose.

22 indicates troughs which are arranged at the front of the casing in such manner that the spools of thread as they are discharged from the several compartments will fall into the troughs. Any other kind of receptacle may be substituted for the trough, if desired.

The several compartments will be filled with the spools of thread, which will have a normal tendency to roll down toward the front of the casing, and it is obvious that by simply depressing the keys the spools may be successively discharged from the compartments into the trough. The drawers or trays may be entirely removed from the casing, if desired, in order to supply them with the spools of thread, or they need only be partially withdrawn. A cabinet constructed in accordance with my invention will prove a very convenient and useful device for stores, in which spools of thread will be entirely protected from dust, &c., and at the same time may be easily and quickly removed from the case when necessary.

It will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described the invention, I claim—

1. In a spool-thread cabinet, the combination of a casing provided with inclined ways and having front and rear openings located at the ends of the ways, a series of spool-carrying trays arranged within the ways at an inclination and adapted to be removed through rear openings of the casing, said trays having sides and ends and provided with a bottom having an opening at the lower end, and means operating through the openings of the bottoms of the trays for successively ejecting the spools, substantially as described.

2. In a spool-thread cabinet, the combination of a casing, a spool-carrying tray supported on an inclination in the casing, said casing having an opening in front of the tray, a hinged gravity-door to close said opening, a pivoted lever having an arm extending into the tray and adapted to lift the front spool out of the tray and move it against the gravity-door, the outer end of said lever having a designating-mark, and a receptacle supported in front of said door and below it to receive the spool when discharged by the lever, substantially as described.

3. In a spool-thread cabinet, the combination of a casing, a series of trays supported on inclined ways within the casing, strips dividing each tray into compartments to receive the spools, each compartment having an opening in the bottom at its front end, and said casing having a series of openings, one in front of each compartment, a hinged gravity-door for each opening in the casing, a lever for each compartment pivoted intermediate of its ends to the exterior of the casing, one end of each lever extending into the casing and having a vertical arm extending through the opening in the bottom below the front spool, substantially as described.

4. In a spool-thread cabinet, the combination of a casing, a series of trays supported on inclined ways in the casing, strips dividing each tray into compartments to receive the spools, each compartment having an opening in the bottom at its front end, and said casing having a series of openings one in front of each compartment, a hinged gravity-door for each opening, a pivoted lever for each compartment having a vertical arm extending therefrom through the opening in the bottom of the compartment below the front spool, said arm having its upper end beveled to correspond with the inclination of the tray, and a weight or spring at the inner end of the lever to return it to its normal position after being operated to discharge a spool from the compartment, substantially as described.

5. In a spool-thread cabinet, the combination of a casing having an opening, and provided with inclined ways adapted to support spools and extending upward from the opening, a key consisting of a lever fulcrumed between its ends on the casing and extending into the same, the inner portion of the lever being provided with an upwardly-extending arm located beneath the inclined ways and arranged to engage the spools, and the weight arranged on the inner end of the lever and located in rear of the said arm, substantially as described.

6. In a spool-thread cabinet, the combination of a casing provided at its front with openings and having inclined ways, a series of removable trays supported by the inclined ways and having sides and ends and adapted to receive spools, said trays being provided near their front ends with openings, a series of keys consisting of levers fulcrumed between their ends on the casing and extending into the same, the inner portions of the levers being provided with arms arranged to extend through the openings of the trays, and a series of drawers covering the openings of the casing and adapted to close automatically after the spool has been ejected through them, substantially as specified.

7. In a spool-thread cabinet, the combination of a casing, a spool-carrying tray supported at an inclination in the casing, said

casing having an opening in front of the tray, a gravity-door to close the opening, and an ejecting device operating from the bottom of the tray and arranged to eject the spools successively through the said opening and positively open the gravity-door, substantially as described.

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

WILEY E. McCALL.

Witnesses:
I. S. GRIGER,
M. H. JAMES.