

(No Model.)

2 Sheets—Sheet 1.

C. W. HUDGENS.
THREAD CABINET.

No. 476,924.

Patented June 14, 1892.

Fig. 1.

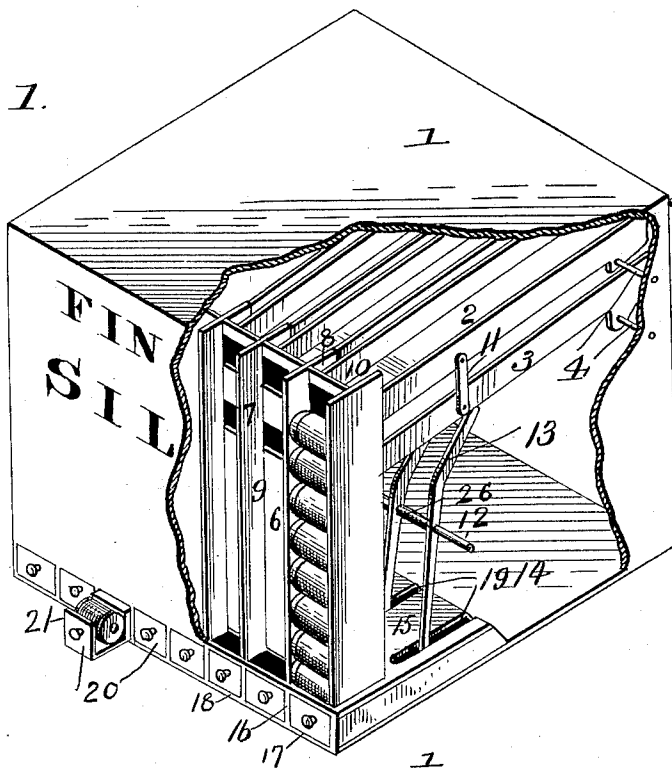
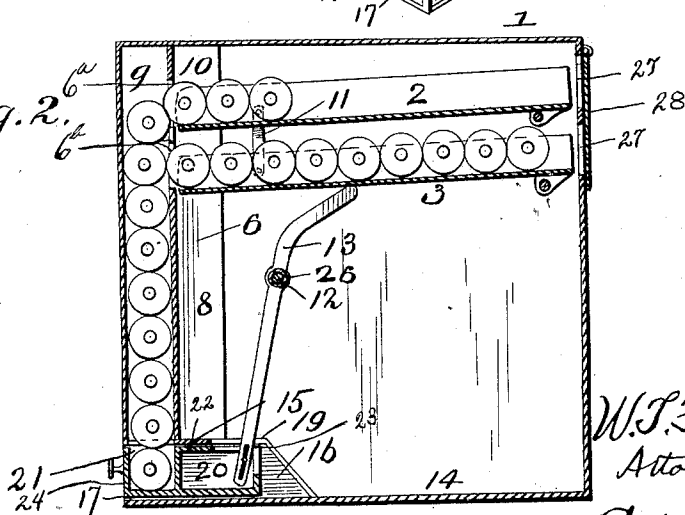


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 3.

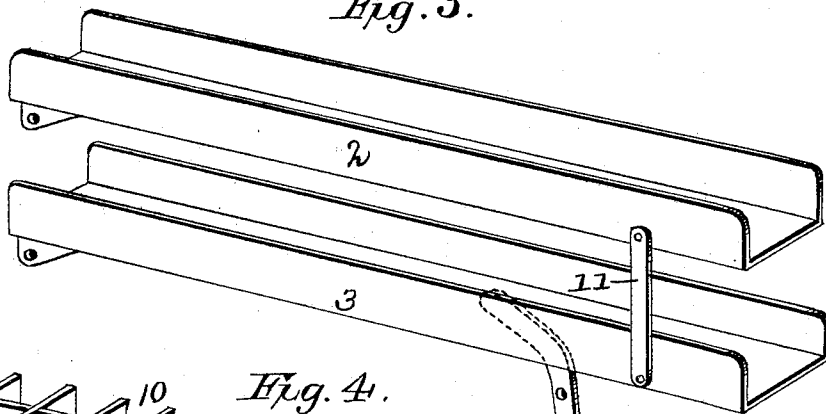


Fig. 4.

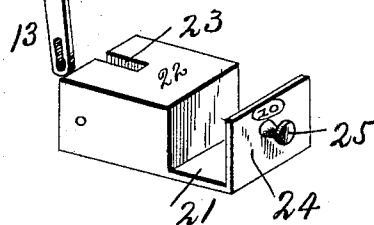
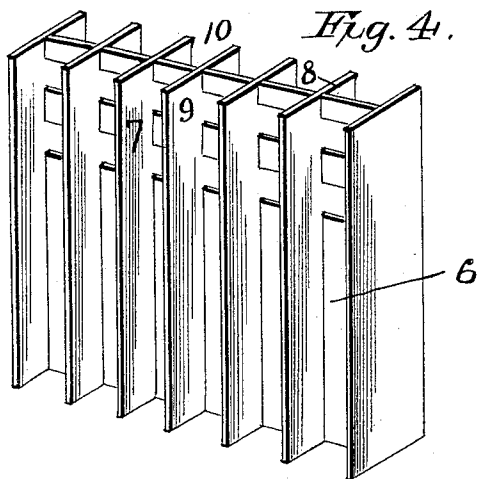
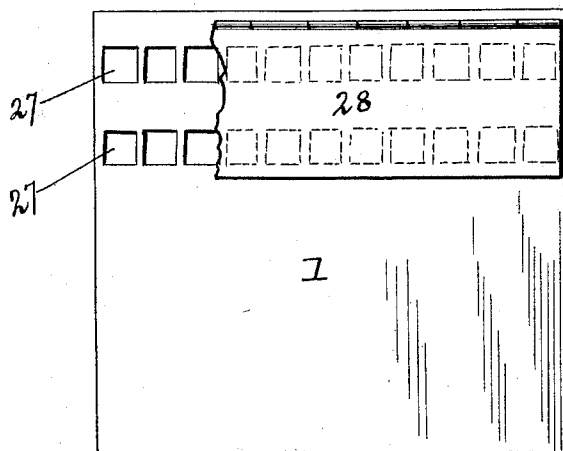


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES W. HUDGENS, OF ELIZABETH, ARKANSAS.

THREAD-CABINET.

SPECIFICATION forming part of Letters Patent No. 476,924, dated June 14, 1892.

Application filed July 25, 1891. Serial No. 400,767. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HUDGENS, a citizen of the United States, residing at Elizabeth, in the county of Fulton and State of Arkansas, have invented certain new and useful Improvements in Thread-Cabinets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in a new and improved self-feeding thread-cabinet which possesses many novel features and advantages and which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view, partly in section, of my new and improved thread-cabinet. Fig. 2 is a transverse vertical sectional view of the same, looking toward the front of the cabinet. Fig. 3 is a perspective detail view of a part of the operating mechanism. Fig. 4 is a similar view of the series of vertical chutes at the front end of the cabinet. Fig. 5 is a rear elevation of the cabinet, a portion of the flap or cover being broken away.

Referring to the several parts by their designating-numerals, 1 indicates the outer rectangular casing of the cabinet, in the upper part of which are mounted the upper and lower series of horizontal chutes 2 3. These chutes are pivotally mounted at their rear ends upon transverse rods 4 and are of such size that the spools will lie transversely within them. The chutes are inclined slightly downward toward the front of the cabinet, so that the tendency of the spools will be to roll down toward the same. Thin blocks or washers are placed on the rods 4 between the chutes 2 and between the chutes 3 to hold them at the proper distance apart. At the front end of the casing is mounted the vertical partition 6, from the front and rear sides of which project the opposite vertical series of flanges 7 8, forming between them the vertical chutes 9 10. The front ends of the approximately horizontal chutes 2 3 fit loosely between the rear vertical ribs 8, so that they can play up and down between the same. The upper and lower chutes are connected near their forward ends by the links 11, which are pivoted at

their ends to the chutes, as shown. Beneath the forward portion of the chutes is arranged a transverse rod 12, on which are centrally pivoted the series of levers 13, the upper ends of which are inclined backward and project up in contact with the underside of the lower horizontal chutes 3.

The bottom of the cabinet is closed by the solid bottom 14, above the forward portion of which is situated the horizontal wall 15, having a series of slots 19 for the passage of the levers 13, the space between the wall 15 and the bottom being divided by the vertical partitions 16 to form the drawer-spaces 17.

20 indicates the sliding drawers, each of which is formed at its outer end with the opening or slot 21, adapted to receive a spool, while in the top-wall end 22 of the closed portion of the drawer is formed a slot 23, in which is pivoted the lower end of one of the levers 13. Each drawer is provided with a front 24, having a handle or pull 25, and upon this front is affixed the number of the spool which that drawer will contain. Washers 26 are placed upon the rod 12 between the levers 13 to hold them the proper distances apart. The front of the cabinet may be closed by a plate of glass, which will enable the spools in the vertical chutes 9 to be readily seen.

In the back of the cabinet at the rear ends of the chutes 2 3 are formed the series of openings 27, which are normally closed by the hinged flap or cover 28, which is raised to fill the chutes when the latter become empty.

The operation of the cabinet is as follows: When the drawers are closed and the lower ends of the levers 13 are thus pushed back, the chutes 2 3 will be raised at their forward ends by the levers until the said ends come opposite the openings 6^a 6^b, formed in the vertical partitions 6, and as the spools are placed in the chutes 2 3 in filling the cabinet, the drawers being closed, they will run down through the said openings until they fill the front vertical chutes 9, and both the upper and lower horizontal chutes are then filled before closing the cabinet. One spool, the lowermost one, in each vertical chute will rest in the space 21 in its appropriate drawer, and when one of the drawers is drawn out to remove from it the desired spool its top wall 22

will close the lower end of the vertical chute to prevent the spools contained therein from dropping down until the drawer has been pushed in again. At the same time the outward movement of the drawer swings the upper end of that pivoted lever 13 down, thus dropping the forward ends of the feed-chutes 2 3 below the level of the partition-openings 6^a 6^b to prevent the spools from passing from the feed-chutes into the front vertical chute, thus preventing the unnecessary pressure of the series of spools in the feed-chutes upon those in the front chute while the drawer is still open. When the drawer is closed, the lowermost spool in the vertical chute will drop into it, and as the closed outer drawer raises the front ends of the chutes one spool in the upper chute will pass into the top of the vertical chute to fill the same. It will thus be seen that each vertical chute will be automatically fed from its upper chute 2 until all of the spools in the said feed-chute are exhausted, when those from the lower feed-chute will begin to feed into the vertical chute until they in turn are exhausted.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my new and improved self-feeding thread-cabinet will be readily understood. Only one line of feed-chutes 2 may be employed, or three or four may be used, if desired, by arranging them one below the other, connecting them by links 11, and forming a corresponding number of openings 6^a 6^b in the vertical partitions 6, so that when one line of chutes

is exhausted the one next below will come into play.

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

1. In a thread-cabinet, the combination, with the casing, the vertical partition 6, having the lateral ribs or flanges 7 8 and an opening between said ribs or flanges, and the chute pivotally connected adjacent to its rear end and having its forward free end resting between the flanges 8, of the partition adjacent to the opening therein, the sliding drawer having a top wall in its rear portion, and a lever fulcrumed at an intermediate point in its length and flexibly connected at its lower end to the drawer and bearing at its upper end against the chute, substantially as and for the purpose set forth.

2. In a thread-cabinet, the combination, with the casing having a series of openings in its rear side, a flap or cover covering said openings, and the partition 6, having a series of openings, of a series of chutes pivotally connected adjacent to their rear ends and having their forward free ends resting adjacent to the openings in the partition, the links 11, flexibly connecting the chutes, and a suitable means for raising and lowering the free ends of said chutes, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. HUDGENS.

Witnesses:

E. H. HARRIS,
W. M. LUCAS.