

No. 646,424.

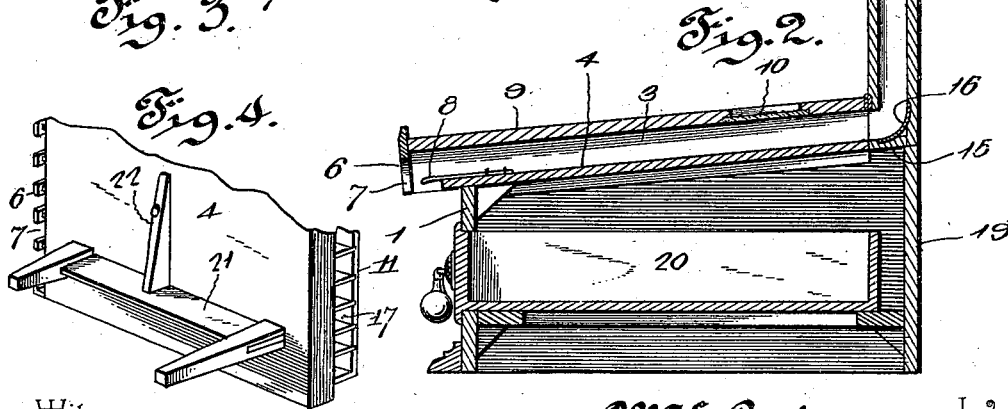
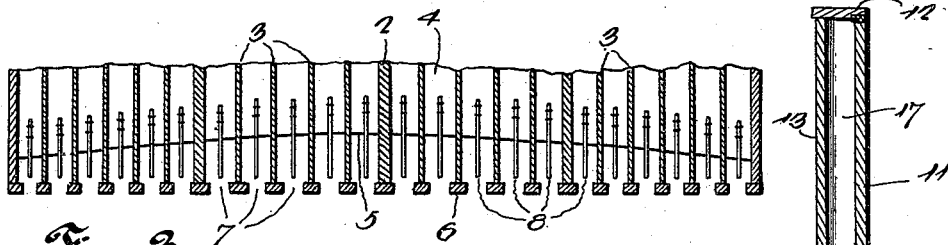
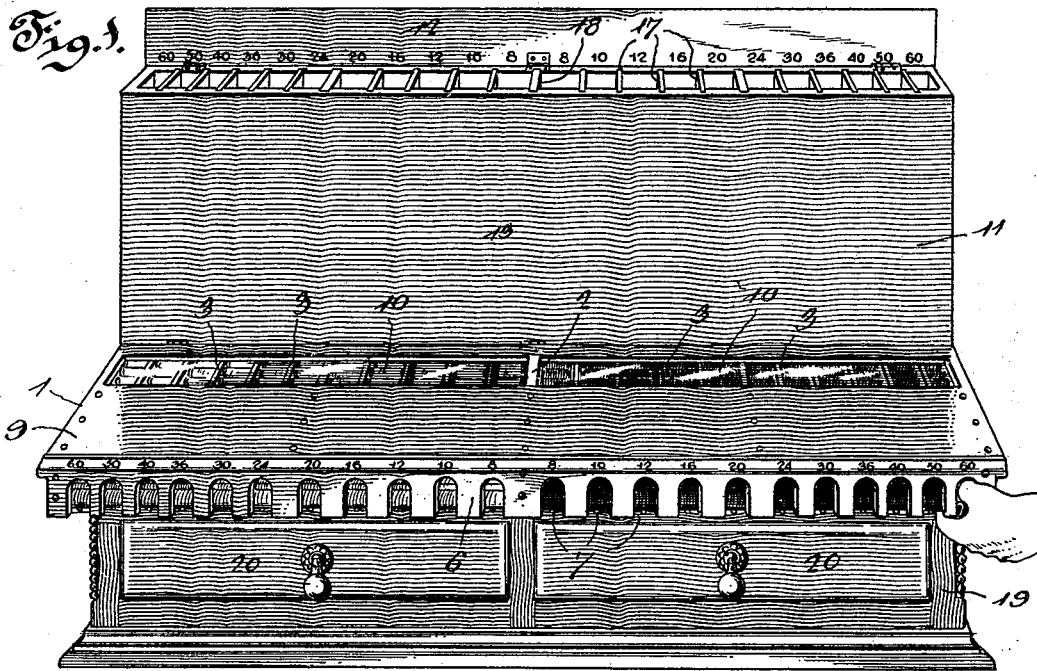
Patented Apr. 3, 1900.

W. H. GENTNER.

SPOOL CABINET.

(Application filed Aug. 30, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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SPOOL-CABINET.

SPECIFICATION forming part of Letters Patent No. 646,424, dated April 3, 1900.

Application filed August 30, 1899. Serial No. 728,997. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GENTNER, a citizen of the United States, residing at Farmington, in the county of Van Buren and State of Iowa, have invented a new and useful Spool-Cabinet, of which the following is a specification.

This invention relates to certain improvements in cabinets for spool-cotton and the like; and it has for its objects among others the simplification of the delivery of spools of thread or other small packages from a case or cabinet to the hand of a retail or other dealer; to expose in an accessible manner various colors of spool cotton or silks or to hold like shades in separate sections, and also to afford means for indicating the exhaust of any one or more grades in the cabinet; to arrange the spool cotton or silk so that the coarser numbers will be centrally positioned and gradually decrease outwardly toward opposite ends and to provide for convenience in filling the cabinet and also for relieving the chutes of an obstructing spool that may have been accidentally inserted in an irregular manner, and also to provide means for reducing the cabinet to compact form with special advantages in shipment or storage.

Other objects and advantages of the invention will appear in the subjoined description and the novelty hereinafter claimed, and in the accompanying drawings a preferred embodiment of the improvement is illustrated, and wherein—

Figure 1 is a perspective view of a cabinet embodying the invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a horizontal section of a part of the improved device. Fig. 4 is a detail perspective view of a portion of the bottom of the cabinet, showing the mode of applying the folding legs thereto.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

In carrying the invention into practice a substantially-rectangular delivery-casing 1 is provided and has any desired external ornamentation and also of such size and dimensions as may be selected for a particular number or quantity of spools. This delivery-casing is preferably centrally divided by a trans-

versely-disposed main partition 2, between which and the opposite ends of the casing are a plurality of spool-separating partitions 3, which are arranged in planes parallel with the said main partition 2. The bottom board or closure 4 of the said delivery-casing 1 has less transverse extent than the said casing in a similar direction, and this difference in width is due to a recess 5, formed in the front edge of the said bottom or closure 4, which is deepest at the center and gradually becomes shallower toward opposite ends of the said bottom or closure.

Depending over the front of the delivery-casing 1 is a guard-rail 6, having therein a series of finger-openings 7, extending upwardly thereinto from the bottom and corresponding in number to that of the spool-channels in the delivery-casing. The lower edges of the separated members of the rail are in alignment with the bottom or closure 4, and the formation of the recess 5 provides various-sized feed-openings in rear of the rail. Extending forwardly from the bottom board or closure 4 to the center of the opening 7 are spring-fingers 8, which are intended to hold the spools from accidental disengagement, but offer very little resistance to a withdrawal of the spools, as will presently be described, owing to the fact that they are formed of thin spring metal.

The top 9 of the delivery-casing presents a smooth surface that may be used for different purposes, if desired, and therein near the rear on opposite sides of the partition 2 are transparent panels 10, which expose the spool-channels to exterior view and provide means for distinguishing the colors of the spool cotton or silks and also to show when any one or more of the channels may need replenishing. All the channels between the partitions 3, which form means for feeding the spools toward the rail 6, open out at the rear of the delivery-casing 1, and to the rear end of said casing is hinged a supply-casing 11. The supply-casing 11 is also of substantially-rectangular form and has a closed front and back and a hinged top 12. The front 13 is shorter than the back 14 a distance equal to the height of the channels in the casing 1, and extending forwardly from the lower extremity of the back 14 is a ledge-strip 15, which is adapted

to coincide with the rear edge of the bottom board or closure 4. A curved directing-plate 16 extends from the lower portion of the back 14 to the upper part of the ledge-strip 15, said
 5 plate having a flush-fitting at its opposite ends, and in hinging the said casing 11 the connecting devices for this purpose at the outer and intermediate portions are secured to the lower portion of the wall 13 and the
 10 rear edge of the top of the casing. The casing 11 is vertically divided by a series of partitions 17, there being the same number of loose partitions as the partitions 3. The partitions 17 form chutes, and these chutes from
 15 a central partition 18 gradually decrease in size toward the opposite ends of the casing 11, and the channels between the partitions 3 also correspondingly decrease toward the opposite ends of the casing 1. The chutes between
 20 the partitions 17, through the medium of the directing-plate 16, have easy communication with the channels of the casing 1, and in loading the device the spools are regularly dropped in the chutes and roll forward from the bot-
 25 tom of the latter toward the rail 6 until the channels in the casing 1, as well as the chutes, are filled to their full capacity. The weight of the spools behind and above will of course shove the outermost spools closely against the
 30 rail 6, and the height of the several channels in the casing 1 is but a little greater than the diameter of the spool intended to be deposited therein, and thereby overcrowding of the spools is prevented. During the filling opera-
 35 tion if a spool should accidentally drop into the mouth of its chute in an irregular manner and become lodged adjacent the directing-plate 16 the section or channel thus blocked can be quickly exposed by turning the casing
 40 11 down on the casing 1 and afford means for quickly releasing the irregularly-fed spool without disturbing the spools within the casing 1.

The front of the rail 6 is supplied with a series of numerals, which in the present instance are lowest adjacent the partition 2 and progressively increase toward the opposite end of the casing 1, and the inner part of the hinged top 12 is in like manner numbered to
 50 indicate the chutes leading to the channels adapted to contain that number of thread and avoid confusion in filling the cabinet.

The cabinet is shown as rested upon a base 19, in which are arranged drawers 20; but the form of support of the cabinet itself is immaterial and may be varied at will and is not essential to the successful operation of the improved device. Ordinary legs could be used in place of the base, as shown, and
 60 as long as the casing 1 is arranged at an inclination downwardly toward the front, so as to cause the spools therein to feed regularly toward the openings 7 in the rails 6.

The device as shown arranged in the drawings is adapted to have all of one color of cotton on one side of the partition 2 and all of another color on the opposite side of said

partition. This may also be varied, as will be appreciated by those understanding the advantages of a cabinet of this character, and
 70 instead of numerals other designating means may be employed and other packages aside from spool cotton or silk might be as conveniently retailed from the cabinet.

In removing the spools from the cabinet 75 the hand is placed under the rail beneath the number desired and the thumb forced through the opening 7, thereby passing the forward spool downwardly against the resistance of the holding-finger 8 and until the
 80 latter is clear and automatically flies up to prevent the succeeding spool in the same channel from becoming disengaged. It will be seen from this simple mode of using the device, together with the convenience in num-
 85 bering, that very little trouble is experienced in obtaining from the cabinet any number of spools desired. Furthermore, the device can be filled at any time, and when prepared for shipment in the first instance it can be re-
 90 duced to compact form by turning the casing 11 downward over the top 9 of the casing 1.

The main figures of the drawings show a base for drawers therein; but, as previously stated, this is not essential and, as shown by
 95 Fig. 4, may have directly connected thereto pairs of hinged legs 21, adapted to be held in operative position by turning supports or props 22. The legs will be applied to oppo-
 100 site ends of the bottom board or closure 4, and this form of the device will be exceptionally useful when it is desired to reduce the parts to minimum compact form. When the pairs of legs 21 are not in use and the device
 105 arranged for storage or transportation, said legs are folded against the bottom board or closure 4 and the spool-casing turned down on top of the delivery-casing. It will be observed from this arrangement that the fold-
 110 ing device will take up but very little space.

The proportions and dimensions of the cabinet and the parts thereof may be changed to suit various applications and the minor details of construction may be varied without in the least departing from the spirit or sac-
 115 rificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. In a device of the character set forth, the combination of a delivery-casing having a series of parallel channels therein, each formed with a front open feeding-terminal and also open at the rear, and a supply-casing hinged to the rear portion of the delivery-casing and
 125 provided with a series of chutes adapted to have unobstructed communication with the channels in said delivery-casing, said chutes and channels having a similar dimension and accurately registerable.

2. In a device of the character set forth, the combination of a delivery-casing having a series of spool-channels therein, a bottom board or closure recessed at its front edge and a rail
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depending over the channels at the front of the casing in advance of the recessed end of the bottom board or closure and having a series of openings alining with the several channels, and spring-fingers standing outwardly from the front terminations of the channels.

3. In a device of the character set forth, the combination of a delivery-casing having a series of spool-channels therein opening out clear through the rear, having front open feeding-terminals, and a supply-casing hinged to said delivery-casing and provided with a series of chutes adapted to have their lower extremities merged into the rear extremities of the said channels.

4. In a device of the character set forth, the combination of a delivery-casing having a series of spool-channels therein open at the rear, having front open feeding-terminals, a supply-casing hinged to the said delivery-casing and provided with a series of chutes adapted to be made continuous with the said channel and a curved direction-plate extending across the rear bottom portions of the several chutes.

5. In a device of the character set forth, the combination of a delivery-casing having a series of channels therein with front open feeding-terminals and rear open extremities, transparent panels separately arranged in the up-

per portion of the said delivery-casing to expose the channels, a front depending rail located over the feeding-terminals of the channels and having a series of openings alined with the several channels, and a supply-casing hinged to the rear of the delivery-casing and provided with a series of chutes adapted to have unobstructed communication with the channels in said delivery-casing, the chutes and channels being of similar dimension.

6. In a device of the character set forth, the combination of a delivery-casing having a series of channels open at the rear and also provided with front open feeding-terminals, and a supply-casing hinged to the rear of the delivery-casing and provided with a series of chutes adapted to have unobstructed communication with the channels in said delivery-casing, the channels and chutes being similarly decreased in width from the center toward the opposite ends of the devices containing the same.

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

WILLIAM H. GENTNER.

Witnesses:

J. K. HUTCHESON,
L. T. GENTNER.