

J. H. ADKINS.

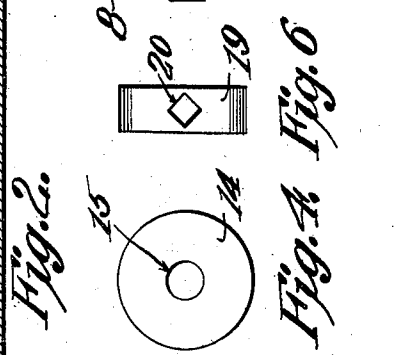
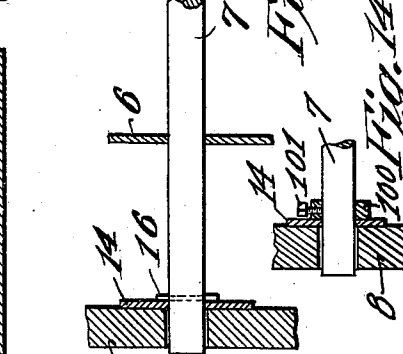
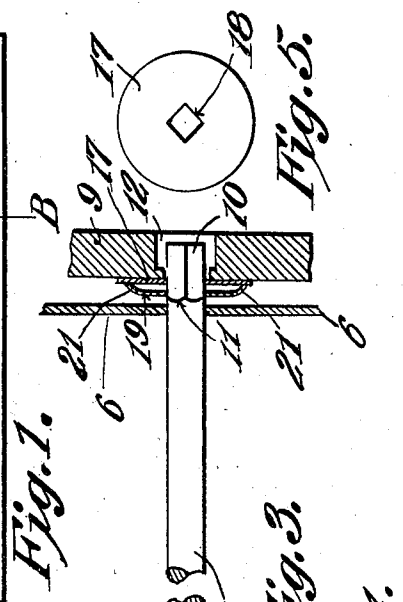
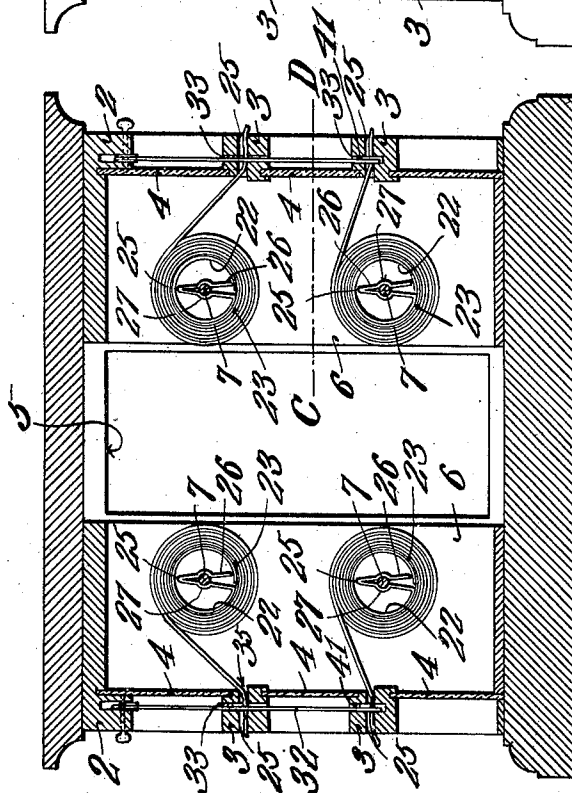
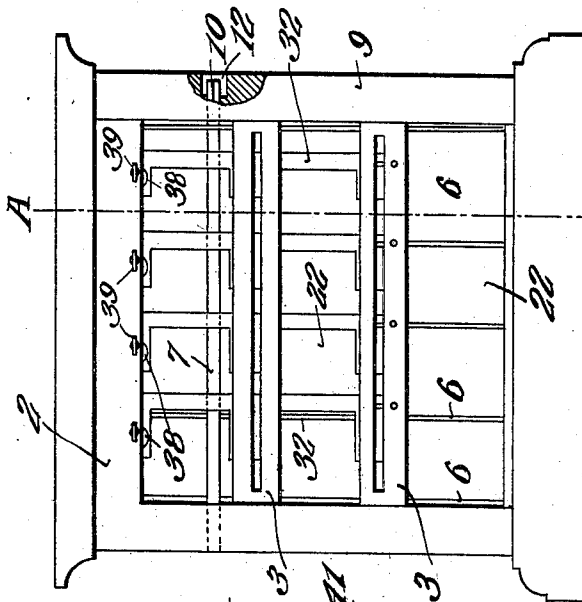
LACE CABINET.

APPLICATION FILED OCT. 28, 1910.

Patented Aug. 29, 1911.

2 SHEETS—SHEET 1.

1,001,797.



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LACE CABINET.

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2 SHEETS—SHEET 2.

1,001,797.

Fig. 7.

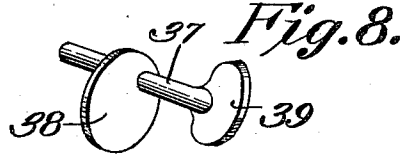
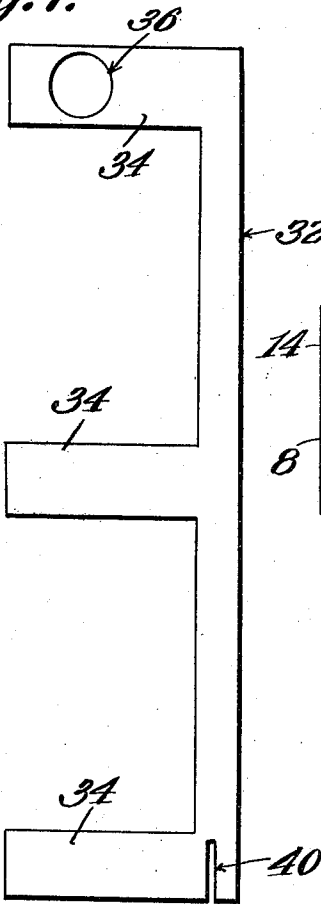


Fig. 9.

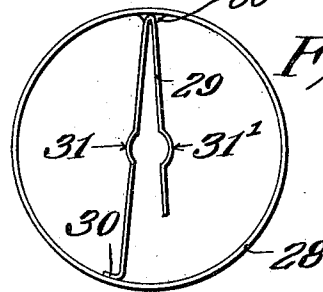
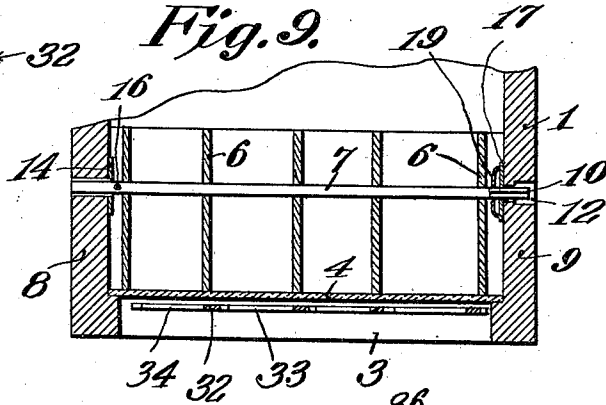


Fig. 10.

Fig. 11.

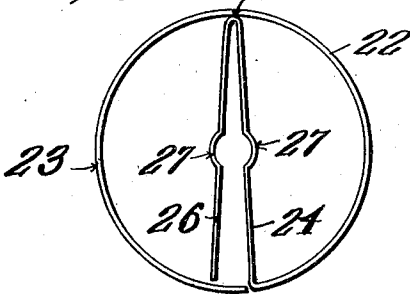


Fig. 12.

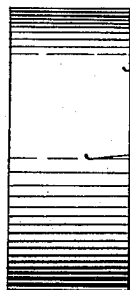
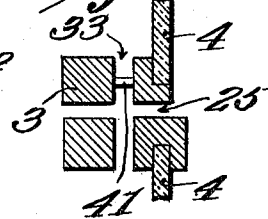


Fig. 13.



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LACE-CABINET.

1,001,797.

Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed October 26, 1910. Serial No. 539,192.

To all whom it may concern:

Be it known that I, JOSEPH H. ADKINS, a citizen of the United States, residing at Chatham, in the county of Pittsylvania and State of Virginia, have invented a new and useful Lace-Cabinet, of which the following is a specification.

It is the object of this invention to provide a cabinet adapted for the display and dispensing of lace and other flexible material, to provide novel means for limiting the withdrawal of the material from the cabinet, and to provide rotatable holders for the material.

In the drawings;—Figure 1 is an end elevation, parts being broken away; Fig. 2 is a vertical longitudinal section upon the line A—B of Fig. 1; Fig. 3 is a sectional detail of the cabinet, taken longitudinally of the shafts which are mounted therein, one of the shafts being shown in elevation in Fig. 3; Fig. 4 is a plan of one of the washers; Fig. 5 is a plan of another washer which is employed in the structure; Fig. 6 is a plan of the spring plate whereby the shaft is slid longitudinally; Fig. 7 is a plan of one of the keepers; Fig. 8 is a perspective of the member whereby the keeper is actuated; Fig. 9 is a fragmental section upon the line C—D of Fig. 2; Fig. 10 is an end elevation of one of the spring reels; Figs. 11 is an end elevation of another form of spring reel; Fig. 12 is a side elevation applicable equally to either of the reels shown in Figs. 10 and 11; Fig. 13 is a transverse section of one of the bars which extend across the open ends of the cabinet; and Fig. 14 is a sectional detail, showing a modified means for limiting the longitudinal sliding movement of the shafts.

The supporting structure for the movable elements of the device embraces a cabinet 1. This cabinet 1 is open at its ends, and cross bars 2 and 3 extend across the open ends of the cabinet. Transparent plates 4 are supported between the cross bars. The cabinet 1 may be equipped in its side walls with doors, one of which is shown in Fig. 2, and there denoted by the numeral 5.

In the interior of the cabinet 1 are a plurality of spaced partitions 6. By referring to Fig. 2 it will be seen that these partitions 6 are located at opposite ends of the cabinet 1, and are spaced apart at their adjacent edges, so that the central portion of the

cabinet 1 is open and unobstructed. Since the opposite ends of the cabinet are duplicates, but one end of the cabinet will be described, it being understood that this description applies with equal propriety to the other end of the cabinet.

Journalled for rotation in the partitions 6, and vertically alined, are a plurality of shafts 7. Referring particularly to Fig. 3, it will be seen that each shaft is terminally extended into the side walls 8 and 9 of the cabinet 1. Each shaft, at one end, is squared as shown at 10, thus defining a shoulder in the shaft, where the squared portion 10 merges into the circular portion of the shaft. This shoulder in the shaft is denoted by the numeral 11. In the side wall 9 of the cabinet 1 is formed a recess 12 into which the squared end 10 of the shaft projects. The diameter of this recess 12 is considerably larger than the diameter of the shaft 7, so that a wrench or key may be introduced into the recess, for the rotation of the shaft 7.

A washer 14, shown in detail in Fig. 4 is provided with an opening 15, adapted to receive the shaft 7. This washer 14 is located adjacent the side wall 8 of the cabinet. In the interior of the cabinet, a pin 16 or other suitable device, is thrust into the shaft 7, so that the washer 14 is retained between the pin 16 and the adjacent side wall 8 of the cabinet.

Referring to Fig. 5, it will be seen that the invention further includes a washer 17, provided with a polygonal hole 18, the outline of which corresponds with the cross section of the squared end 10 of the shaft 7. This washer 17 is disposed upon the squared end 10 of the shaft 7, in the interior of the cabinet. The shaft 7 carries a spring plate which may be of any form. In the present instance, the spring plate, denoted by the numeral 19 in Fig. 6, is arcuate in outline, and provided in its intermediate portion with a hole 20, the outline of which corresponds with the cross sectional contour of the squared end 10 of the shaft 9. This spring plate 19 is disposed in abutment with the shoulder 11, the ends 21 of the spring plate bearing against the inner face of the washer 17.

The shaft 7 is longitudinally slidable in the elements into which it is mounted, and it will be seen that, since the intermediate portion of the spring plate 19 is engaged by

the shoulder 11, the ends 21 of the spring plate bearing against the washer 17, the pin 16 will bear against the washer 14, thrusting the washer 14 against the side wall 5 8 of the cabinet. Thus, the spring plate 19, coöperating with the pin 16 and the washer 14, constitutes a friction brake, tending to limit the rotation of the shaft 7. There may be any number of the shafts 7, disposed 10 one above the other. Upon these shafts 7, and between the partitions 6, are disposed spring reels, denoted generally in Fig. 1 by the numeral 22. These spring reels are positioned in vertically alined rows between 15 adjacent partitions 6. The spring reels 22 engage the shafts 7 frictionally, so that when the shafts 7 are rotated, to reel in the lace or other flexible material, the reels 22 will be likewise rotated. However, when 20 the shafts 7 are held by means of the friction brake mechanism heretofore described, the reels 22 will rotate upon the shafts 7 as the lace is being drawn out. These spring reels may be variously fashioned. One 25 form of spring reel, denoted specifically by the numeral 22, is shown in detail in Fig. 11. Referring to this figure, the reel will be seen to be fashioned from a single strip of material, bent into circular form, to form 30 the periphery 23 of the reel. One end of this strip is then bent to form an arm 24, located within the portion 23 of the reel, the arm 24 being sharply bent upon itself at 25, to form another arm 26, the end of 35 which is disposed adjacent the other end of the strip from which the reel is fashioned. The arms 24 and 26 are resilient, and serve to bear yieldingly upon the shaft 7, the shaft being held in oppositely disposed 40 bearings 27, formed in the arms 24 and 26.

Another form of spring reel is shown in Fig. 10. This spring reel consists of an annular rim 28, within which is disposed a U shaped member 29, consisting of a long 45 arm 31, and a short arm 31'. The long arm 31 terminates in a laterally projecting foot 30 which is secured to the rim 28. At its point of bending, the U shaped member 29 is soldered, or otherwise secured, as denoted 50 by the numeral 86, to the rim 28. The short arm 31' will afford the desired resiliency.

The invention further includes a plurality of keepers, denoted generally by the numeral 32. One of these keepers 32 is clearly 55 shown in outline in Fig. 7. These keepers 32 are adapted to reciprocate vertically, in vertical slots 33 formed in the cross bars 2 and 3. Each keeper is provided with a plurality of laterally extended fingers 34, there 60 being one finger for each of the cross bars 2 and 3. In the cross bars 2 and 3, there are slots 35, disposed at right angles to the slots 33. It is through these slots 35 that the lace or other material which is wound 65 upon the reels 22, is extended, when the lace

is being reeled off. In the upper finger 34 of the keeper is a circular opening 36, adapted to receive an eccentric 38 upon a shaft 37, the shaft 37 being journaled for rotation in the upper cross bar 2. To facilitate the rotation of the shaft 37, the same is 70 provided with a finger plate 39. In the lower end of the keeper 32 there is an upright slot 40, adapted to receive the pin 41, located in the vertical slot 33 of the lower 75 cross bar 3.

It will be seen that by manipulating each of the finger plates 39, each keeper 32 may be elevated, out of engagement with the lace, so that the lace may be drawn freely 80 through the slot 35. However, by rotating the shaft 37, the keeper 32 may be depressed, causing the fingers 34 thereon to bind the lace against the cross bars 3. Thus, the keeper constitutes a means for holding the 85 lace upon each vertical row of reels 22, against withdrawal from the cabinet 1. The interengaging elements comprising the pin 41 and the slot 40 in the keepers 32, serve to direct the sliding movement of the 90 keepers, under the actuation of the eccentrics 38.

When it is desired to remove a quantity of lace from one of the reels, one of the shafts 37 is rotated, lifting the correspond- 95 ing keeper 32 and withdrawing the fingers 34 from the lace. The lace may then be reeled off the desired length, whereupon, by a reverse rotation of the shaft 37, the keeper 32 may be depressed, binding the lace 100 against one of the cross bars 3, and holding the lace against further unreeling.

As hereinbefore pointed out, during this unreeling of the lace, the reels 22 rotate 105 upon the shafts 7, the shafts 7 being held against rotation by the friction brake mechanism embraced in the elements 19, 16 and 14. When the lace is being reeled within the cabinet, the shafts 7 rotate, the reels 22 engaging the shafts 7 frictionally, and rotating 110 therewith.

The drawings show typical embodiments merely, and many changes, properly falling within the scope of what is claimed, may be made without departing from the spirit of 115 the invention or sacrificing any of the advantages thereof.

Referring to Fig. 14, and comparing the same with Fig. 3, it will be seen that the pin 16 may be omitted, the place of the pin 16 120 being taken by a collar 100, held upon the shaft 7 by means of a set screw 101, inserted through the collar.

Having thus described the invention, what is claimed is:— 125

1. In a device of the class described, an open front cabinet; vertically alined reels supported for rotation in the cabinet; bars 130 extended across the front of the cabinet, over which bars the contents of the reels

pass; upright keepers held for longitudinal sliding movement transversely of the bars and having outstanding fingers coöperating with the bars to hold the contents of the reels; the keepers being open between the fingers, whereby the contents of the reels may be inspected through the open front of the cabinet; the body portions of the keepers, between the fingers, constituting edge guides, adapted to receive the material when the same is being removed from the reels.

2. In a device of the class described, a supporting structure; a winding shaft rotatable and longitudinally slidable therein, the shaft having a polygonal, key-receiving end accessible from the exterior of the supporting structure and defining a shoulder in the shaft; an arcuate spring plate having

an opening corresponding to the cross section of the polygonal end of the shaft, the spring plate being engaged in its intermediate portion by the shoulder, one part of the supporting structure being positioned to receive the thrust of the ends of the plate to slide the shaft longitudinally; and a shaft-carried element engaging a remote point of the supporting structure, under the impulse of the spring plate, to serve as a friction brake for the shaft.

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

JOSEPH H. ADKINS.

Witnesses:

T. LANG WHITEHEAD,
J. L. HAYMES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."