D. LOCHNER.

DISPLAY CABINET.

APPLICATION FILED OCT. 18, 1911.

1,014,158. Patented Jan. 9, 1912.

Fig. 1.

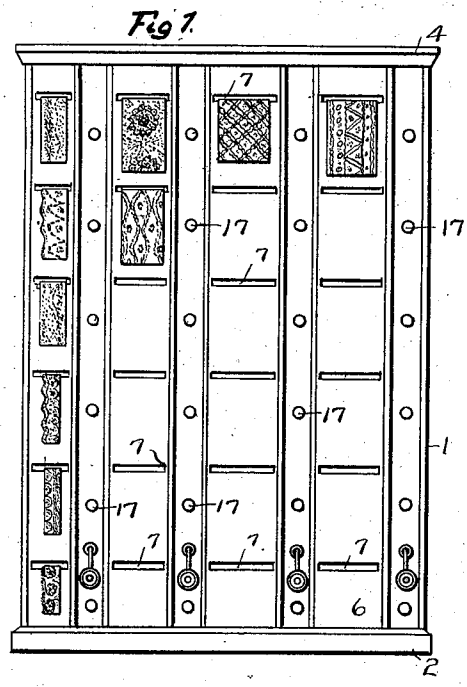


Fig. 2.

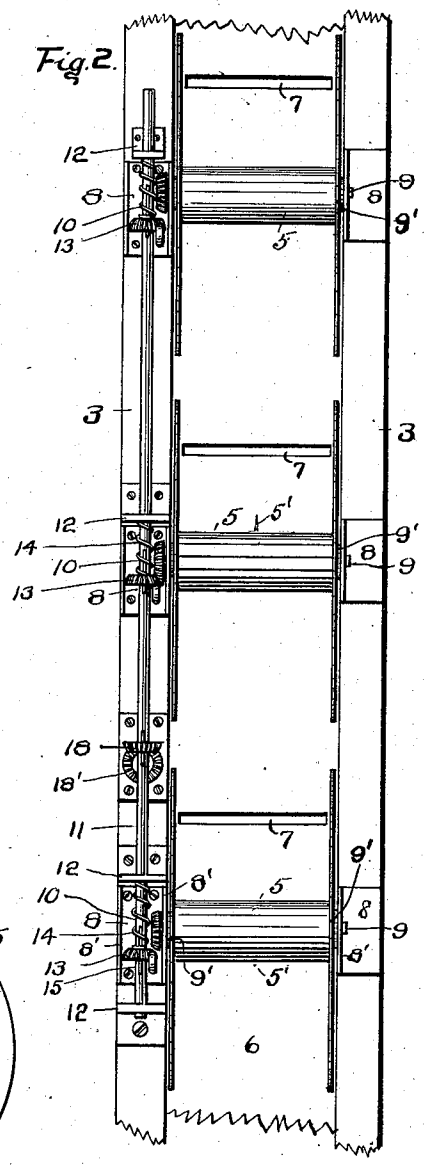
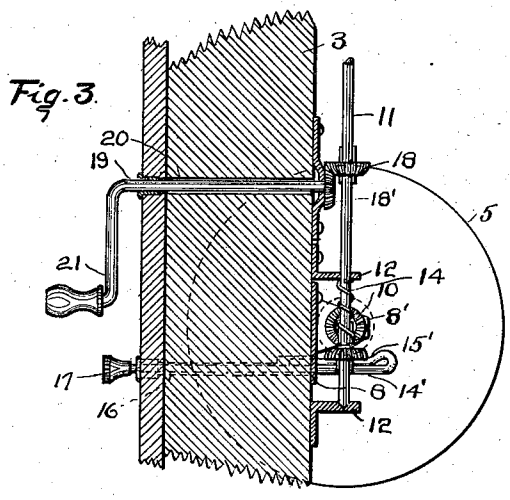


Fig. 3.



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DISPLAY-CABINET.

1,014,158. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed October 18, 1911. Serial No. 655,279.

To all whom it may concern:

Be it known that I, DAVID LOCHNER, a citizen of the United States, residing at Woodburn, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Display-Cabinets, of which the following is a specification.

My invention relates to improvements in display cabinets, particularly cabinets for the display of laces and other similar articles. Its object is to provide a cheap and efficient device for storing and displaying laces and other articles which may be wound upon spools, the latter being inclosed in the device and having a novel means connected thereto by which the spools may be rotated to wind or rewind the materials thereon.

The invention consists in the certain novel arrangement and combination of parts as hereinafter described.

In the accompanying drawings I illustrate one manner in which my invention may be accomplished, in which—

Figure 1 is an elevational view of a cabinet constructed according to my invention; Fig. 2, an interior fractional view of the same illustrating the arrangement of spools and winding mechanism and Fig. 3, an enlarged side view, partially in section showing one of the spools and the winding mechanism for the same.

Referring to the drawings 1 is the cabinet which is built of any suitable material and which may be cylindrical or formed of any number of sides. The frame consists of a base 2, uprights 3 and top 4, the uprights being suitably spaced laterally to form spaces between the same within which the spools 5 may be operative. The exterior siding 6 is secured to the uprights 3, and may be paneled, as shown in Fig. 1, for appearance sake. The siding 6 is provided with any desirable number of openings or slots 7, which are arranged in a plurality of vertical columns according to the number of spools 5 with which the cabinet is to be provided. To the inner face of each upright 3 is fixed a plurality of brackets 8, the brackets being spaced according to the vertical arrangement of openings 7 and being located a suitable distance below the respective openings. Each bracket is a U in form, the two arms or wings 8′ projecting outwardly from the upright. Each arm or wing of each bracket is perforated to form a bearing for spindle 9 on one end of the adjacent spool 5. Between each wing 8′ and the adjacent face of the spool is a suitable bushing or packing 9′ which slips over the spindle 9. This bushing is preferably of felt, which furnishes a desirable friction between the spool and its bearings to prevent undue rotation of the same in operation. A pin 5′ on the spool serves to hold the lace or other article to the spool thereby enabling the user to insert the article through opening 7 from the exterior and catch the article on the pin and this being accomplished without opening up the cabinet. The spindles on the corresponding ends of the spools in each vertical group are provided with bevel gears 10. Adjacent each vertical group of said gears is revolubly mounted a vertical shaft 11, suitable brackets 12, which are secured to upright 3, serving to support the shaft. On this shaft are keyed gears 13 which are slidable on the shaft, there being one such gear for each spool 5 and the gear being adapted, when elevated, to mesh with the associated gear 10. Gears 13 are normally held out of mesh with gears 10 by springs 14 which encircle shaft 11 between the respective brackets 12 and the adjacent gear 13. Beneath each gear 13 is a suitable cam 15, for elevating the gear into mesh with the associated gear 10. In the drawings this cam consists of a rod 14′ bent upon itself to form a cam surface 15′ beneath the gear 13, the rod projecting through an opening 16 in the upright 3 and side of the cabinet to the exterior, the outer extremity of the rod being provided with a suitable handle or grip 17 by which the rod may be reciprocated to draw the cam portion of the same into contact with the lower surface of the gear 13 thereby causing the gear to slide upwardly. At a suitable point on shaft 11 is fixed a bevel gear 18 and meshing with said gear is another gear 18′ which is mounted on a revoluble shaft 19. Shaft 19 passes through an opening 20 in the upright 3 and the side of the cabinet to the exterior, the outer extremity thereof having a crank 21 by which the shaft 19 and gear 18′ may be rotated to cause shaft 11 to rotate. Any number of spools may be arranged in each vertical row, each spool being equipped with a gear which is adapted to mesh with a slidable gear on a common shaft.

The operation of my device is simple. The lace or other material is wound on the spools, the free ends thereof protruding through

openings 7 to the exterior of the cabinet. The user may unwind any one of the spools at will and to restore or rewind the material onto the spool he first draws outwardly the corresponding rod 14′ thereby forcing the cam 15 under the associated gear 13 and causing the gear to slide on the shaft 11 into mesh with gear 10 which is secured to the selected spool 5. He then rotates crank 21 thereby rotating shaft 11 and gears 13 and 10 and also the spool, which rotation of the spool winds the material up on the same.

It is apparent that any one or more of the spools in a vertical row may be operated independently of the remainder, and this by rotating a single crank and shaft after connecting to the shaft such spool or spools as may be desired.

What I claim is:

1. The combination in a device of the class described of a plurality of spools revolubly mounted in a row, a revolubly mounted shaft adjacent the spools, means to rotate the shaft, means to independently connect the shaft and spools whereby by the rotation of the shaft one or more of the spools may be rotated independently of the others.

2. The combination in a display cabinet of a plurality of spools revolubly mounted in a row, a revolubly mounted shaft, means to rotate the shaft, slidable means on the shaft adapted to be connected to the spools but normally disconnected therefrom, and means to move the latter means to connect one or more of the spools to the shaft independently of the others.

3. In a display cabinet the combination of a plurality of spools revolubly mounted in a column, a gear on one end of each spool, a revolubly mounted shaft, means to rotate the shaft, a plurality of gears slidably secured to the shaft and adapted to mesh with the respective spool gears but normally separated therefrom and a cam for and adjacent each sliding gear and independently operative to move the sliding gears into mesh with the associated spool gears independently of each other, whereby one or more of the spools may be rotated by the shaft independently of the others.

In witness whereof I hereunto subscribe my name this 16th day of October, 1911.

DAVID LOCHNER.

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