

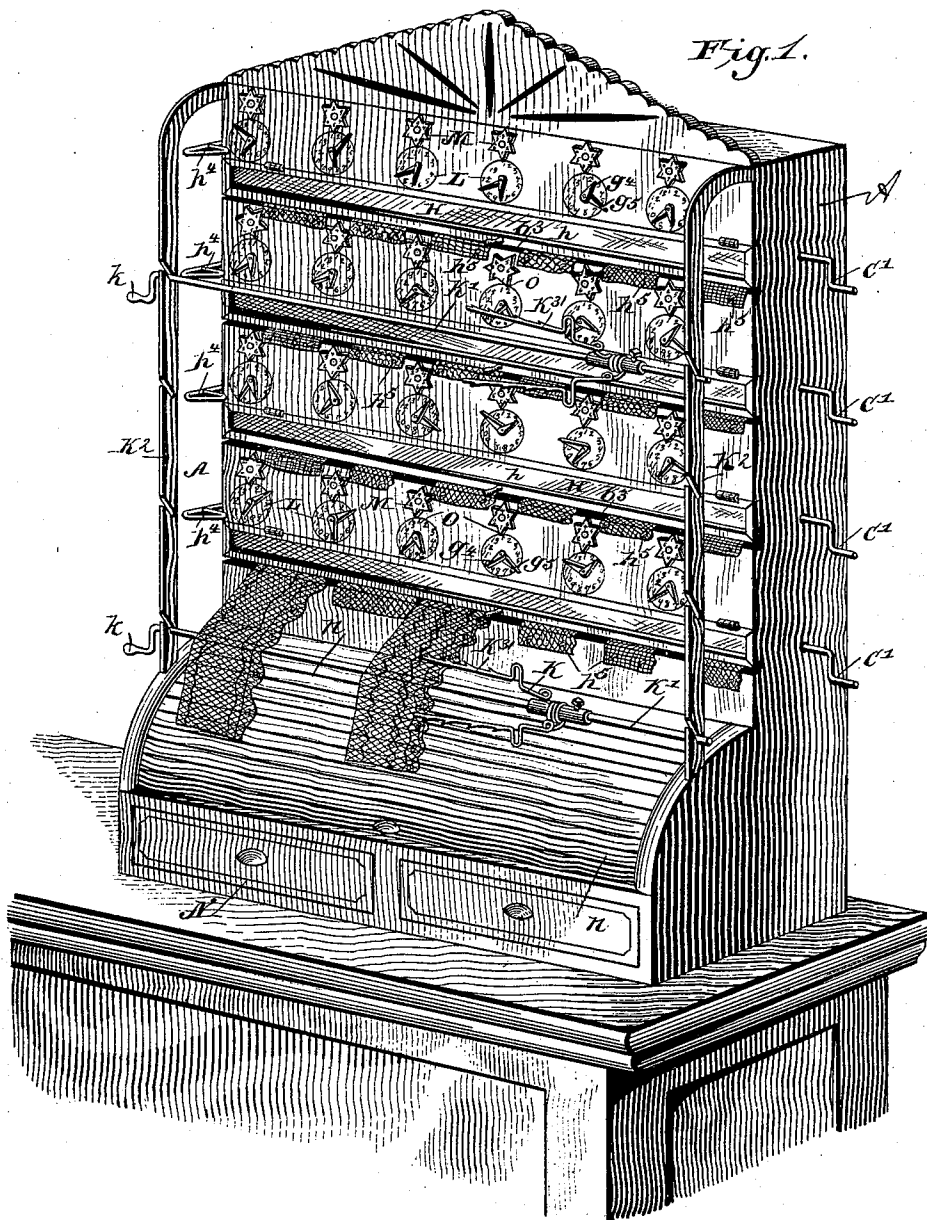
(No Model.)

2 Sheets—Sheet 1.

G. M. THOMPSON.
SELF MEASURING LACE CABINET.

No. 576,796.

Patented Feb. 9, 1897.



WITNESSES:

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Fig. 2.

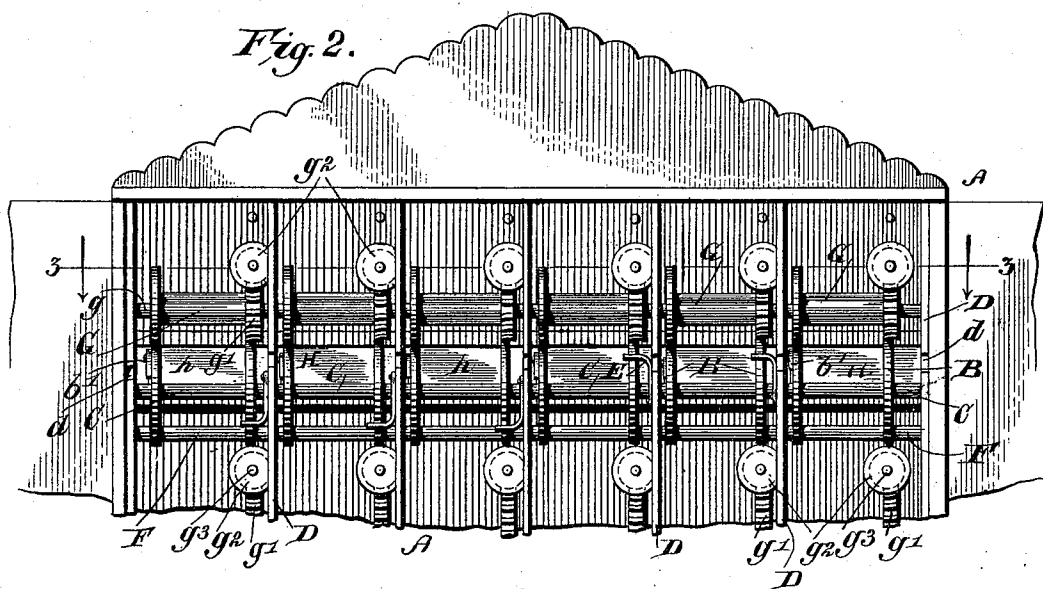


Fig. 3.

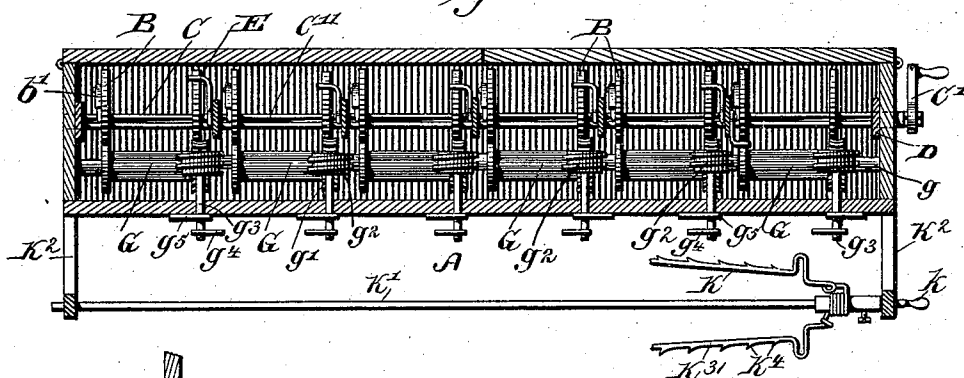


Fig. 4.

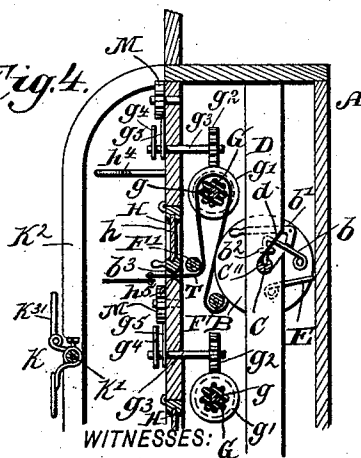


Fig. 5.

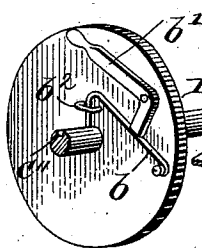
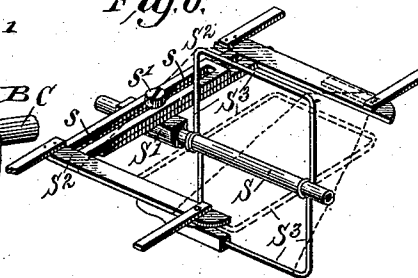


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE M. THOMPSON, OF SCHOCHOH, KENTUCKY.

SELF-MEASURING LACE-CABINET.

SPECIFICATION forming part of Letters Patent No. 576,796, dated February 9, 1897.

Application filed October 1, 1895. Renewed December 10, 1896. Serial No. 615,234. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. THOMPSON, residing at Schochoh, in the county of Logan and State of Kentucky, have invented a new and Improved Self-Measuring Lace-Cabinet, of which the following is a specification.

This invention is an improved store-service apparatus to be placed upon the counter or upon other suitable support. More particularly stated, the invention is an improved cabinet for displaying laces and similar goods.

The invention also comprehends an improved measuring and indicating attachment whereby the lace contained within the cabinet can be reeled therefrom and measured, and the indicator will show the total amount of lace sold.

Another object of the invention is to provide an improved construction of reel upon which the lace to be sold is wound; the construction of said reel being such that the lace can be quickly and easily removed therefrom and the same will be folded in regular order for wrapping.

With these and such other objects in view, as will hereinafter appear, my invention consists of the peculiar construction and arrangement of the various parts, all of which will be fully described, and then pointed out in the appended claims.

In the drawings forming part of the specification, Figure 1 is a perspective view of my improved cabinet, showing the same filled with lace, some of said lace being drawn from said cabinet. Fig. 2 is a detail view showing a portion of the interior mechanism. Fig. 3 is a horizontal section on the line 3 3 of Fig. 2. Fig. 4 is a detail transverse vertical section, and Fig. 5 is a detail view showing the manner of connecting the lace-spool to the winding-axle. Fig. 6 shows a further detail.

In carrying out my invention I employ case or cabinet A, within which are arranged a series of lace-holding spools B, said spools being arranged on horizontal shafts or axles C, held within notches *d* in the upright strips D, secured within the case. The shafts and axle C project through the case at the end, and at one end are provided with crank-handles C', by means of which said shafts are revolved when it is desired to wind lace thereon.

The shafts C are arranged in horizontal

series, and each shaft carries a number of lace-spools B, each spool being independent of the other and of any width desired. In order to connect each spool with its respective shaft and axle, I construct each shaft with a longitudinal groove C'', in which is forced a key *b*, pivoted to the head of the spool and held into engagement with the groove by means of a lever *b'*, working through a guide *b''*, and said key has a certain inherent elasticity which will hold said key out of engagement with the groove, so that the lace can readily be unwound from the spool, and when it is desired to connect the spool and axle the lever is turned, as in Fig. 5. The spool, however, is provided with a friction-brake E, which is attached to the upright D and bears upon the spool-head, said brake retarding the movement of the spool sufficiently and always keeping the lace taut while unwinding.

In withdrawing the lace it is first passed beneath a fixed tension-bar F, then over a roller G, under another tension-bar F', and out beneath the edge of a hinged door H, having a glass panel *h* and a rounded lower edge *h''*. The lace is then reeled upon a reel K, adjustably mounted upon a shaft K', provided at its end with a crank *k*. There is preferably a shaft K' for every shaft C, said shaft K' being detachably mounted on a frame K'', connected with the front of cabinet and having notches K³, in which the shafts rest.

The reels K are adjustably mounted on the shaft K', so they can be quickly moved opposite any desired spool, and these reels are composed of a series of arms K⁴, free at one end, so that by compressing the said arm the lace which has been wound thereon can be readily removed, and it will be noted that said lace is then folded ready for wrapping. One of the arms is preferably formed with barb or spurs K⁵ to grasp and straighten the lace upon the reel. The rollers G, one for each spool B, are roughened or corrugated, so that the lace passing thereon will cause the same to revolve and then the shaft *g*, upon which the said rollers are mounted, there being as many shafts *g* as there are shafts C.

Mounted upon the shaft *g*, adjacent to each roller G, is a worm-gear *g'*, which meshes with a worm-gear *g''*, carried upon the inner end

of an arbor g^3 , carrying indicating-hands g^4 and g^5 , and its outer end, which, in connection with the dial L and movable indicator-disk M, shows the measure of lace reeled off.

5 The dial L may be divided accordingly, as desired, but in the present instance I have shown the same divided into ten parts, and the movable indicator is shown as having six points or teeth. The short hand g^4 is detach-
10 able from the arbor g^3 , while the long hand g^4 is fixed. The purpose of this is as follows: The roller G and gears are so constructed that when a yard of lace has been unwound from its spool the long and short hand will
15 in the first instance start at "1." After this purchase it is preferred to detach the short hand and move it back to "0." Now we will suppose the second purchase to be ten yards. The long hand being at "1" will swing com-
20 pletely around and, striking the first point of indicator M, will turn the same and show that ten yards have been sold. The long hand will afterward stand at "1" on the dial L, showing that the total is eleven yards sold and the
25 short hand will again be at "0." The short hand is therefore used in measuring and the long one in indicating the total number of yards sold, so that the spool can be replenished before it becomes totally exhausted.
30 Each spool has its independent indicator and operating mechanism, and one spool can be filled, emptied, or manipulated in any desired manner without affecting the other. Each
35 spool also has an attaching-tape T, to which the lace is connected, said tape being long enough to extend outside the case, so that the lace can be easily pinned thereto without opening the hinged doors H.

Spring-catches h^4 are attached to the end
40 of case adjacent to each door H, said catches being employed to hold said door raised or open. Small hooks h^5 are also attached to the face of the casing, the purpose of which is to catch the lace and prevent it being drawn
45 back into the case or cabinet.

In Fig. 6 I have shown the form of wheel employed in unwinding a bolt of lace and

feeding the same to the spools, and by reference to said figure it will be seen that said
reel comprises a tubular spindle S, which is
50 filled upon the shaft K', and journaled upon said spindle is a block S', carrying the reel-
arms S^2 , adjustable through the medium of slots s and set-screws s' . These arms carry
55 fixed fingers s^2 at one end and pivoted fingers s^3 at the opposite end, said fingers serving to hold the lace upon the reel. Between the
arms S^2 is mounted a spreader-frame S^3 , which is adapted to be turned at right angles to the
60 plane of arms S^2 , so as to give the bolt a better form for unwinding. The reel is first placed inside the bolt and the fingers turned
out. The reel is then placed on the shaft and the spreader-frame turned, as shown. The
unreeling operation can then be carried on. 65
While I have shown the case as single it can also be made double.

I have also shown the case supported upon a display-case portion N, having a rolling top
n, similar to desk, and within said portion
70 can be displayed various samples of lace.

From the above description, taken in connection with the accompanying drawings, it is thought the operation of my device will be
75 clear to every one.

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

1. In a device of the character described, the combination with the notched upright
80 strips of the grooved shafts, the spools having keys and levers, and the friction-brake attached to the upright strips and bearing on the spool substantially as shown and described. 85

2. In a device of the character described the combination with a reel composed of a series of arms free at one end, one of the said arms being barbed substantially as shown and described.

GEO. M. THOMPSON.

Witnesses:

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E. J. REID.