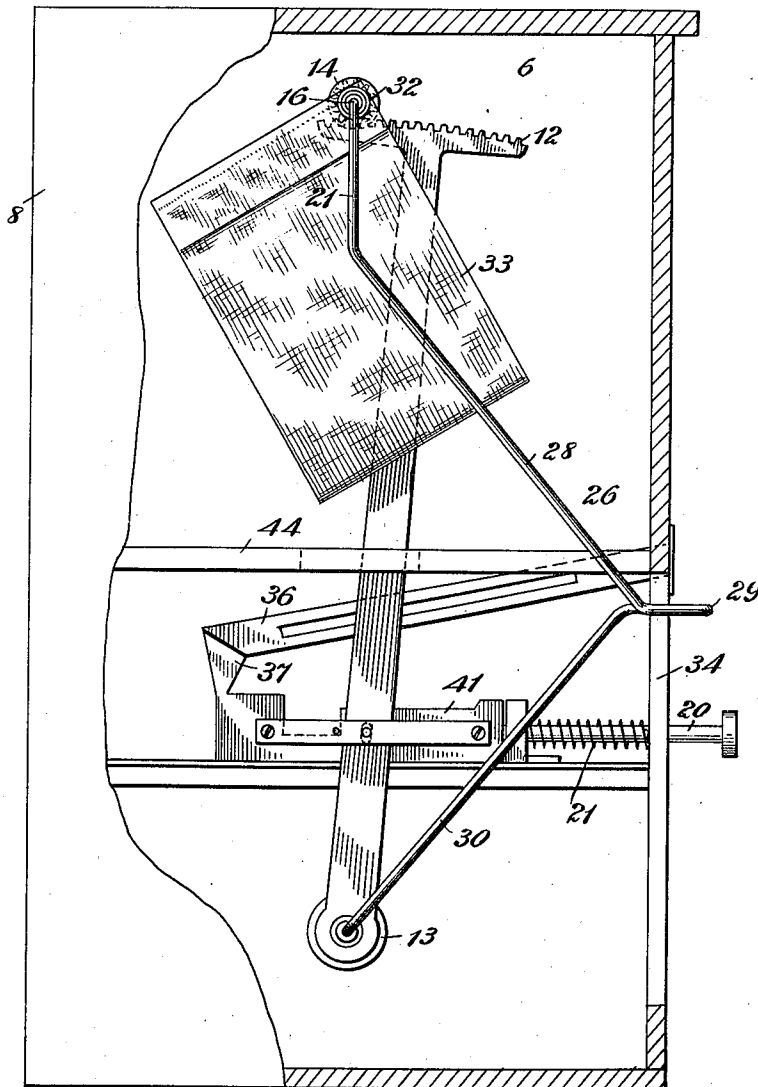


L. A. WEAVER.
TOWEL DISPENSING MACHINE.
APPLICATION FILED MAY 6, 1914.

1,185,356.

Patented May 30, 1916.
3 SHEETS—SHEET 1.

Fig. 1



WITNESSES
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B. Joffe

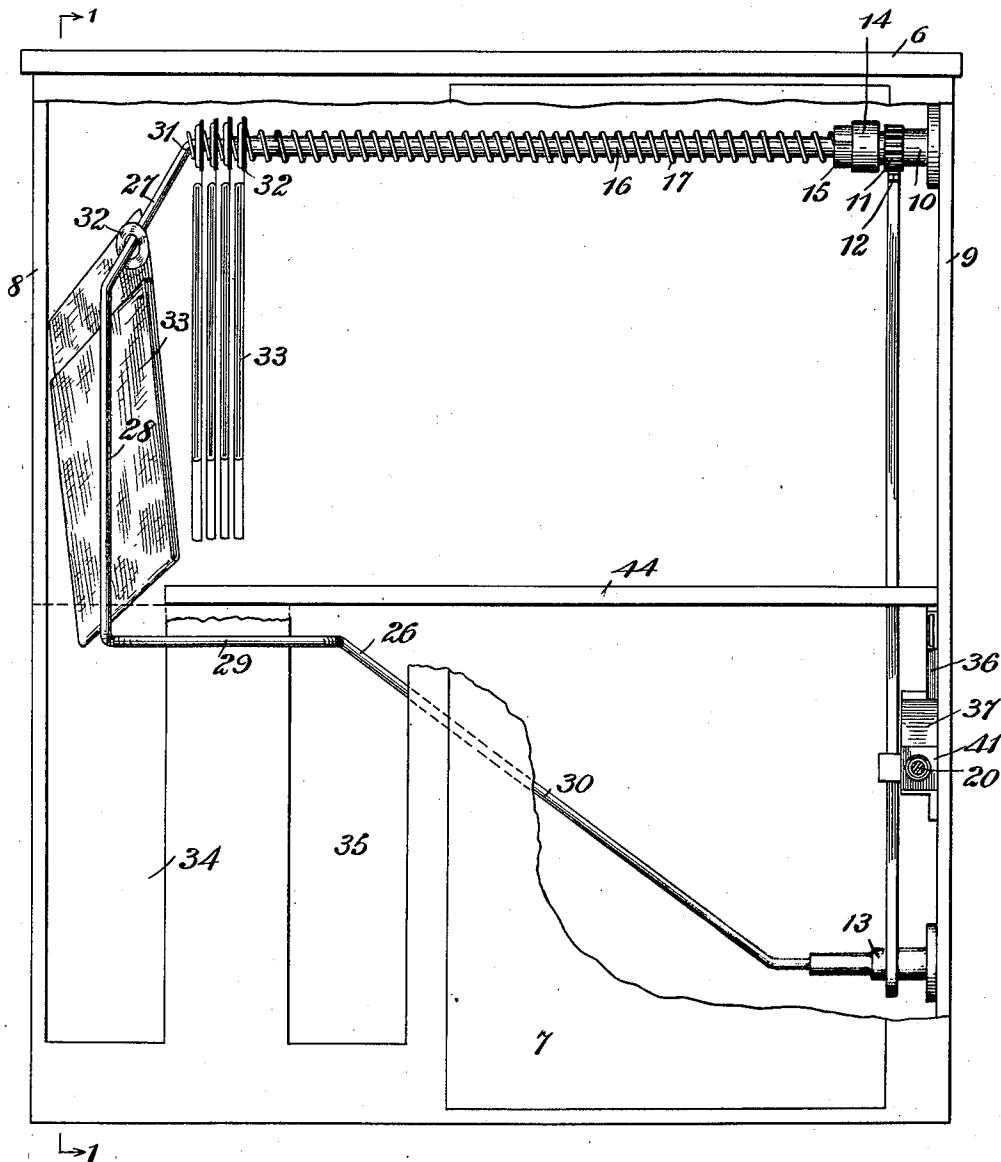
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Fig. 2



WITNESSES
F. D. Sweet
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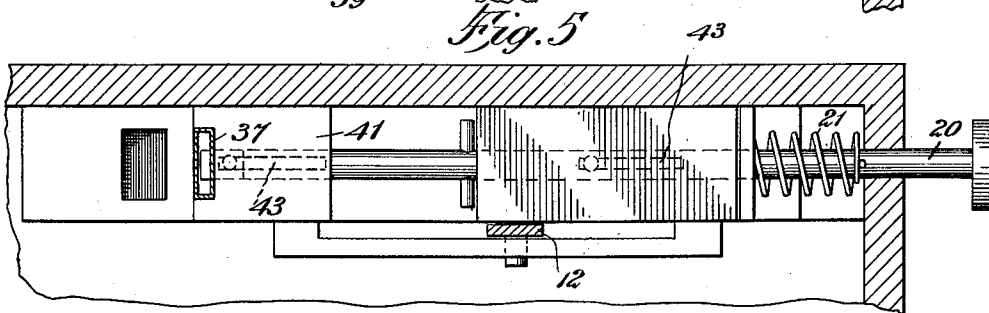
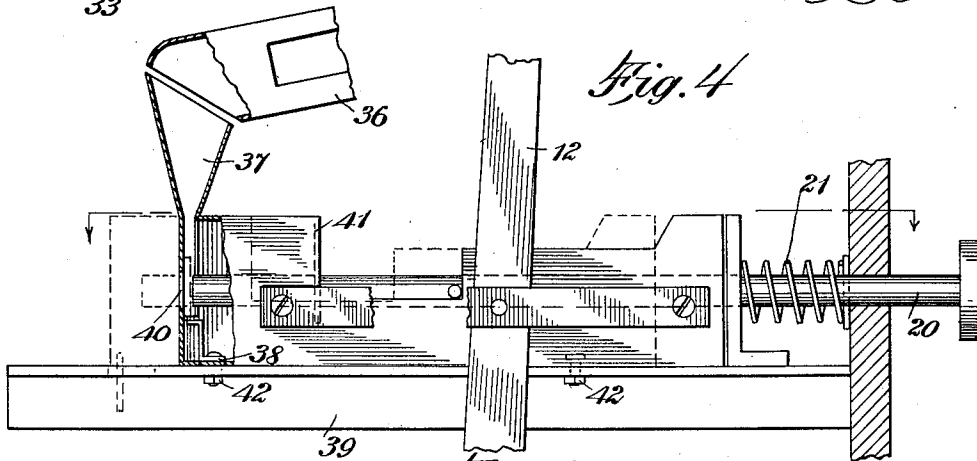
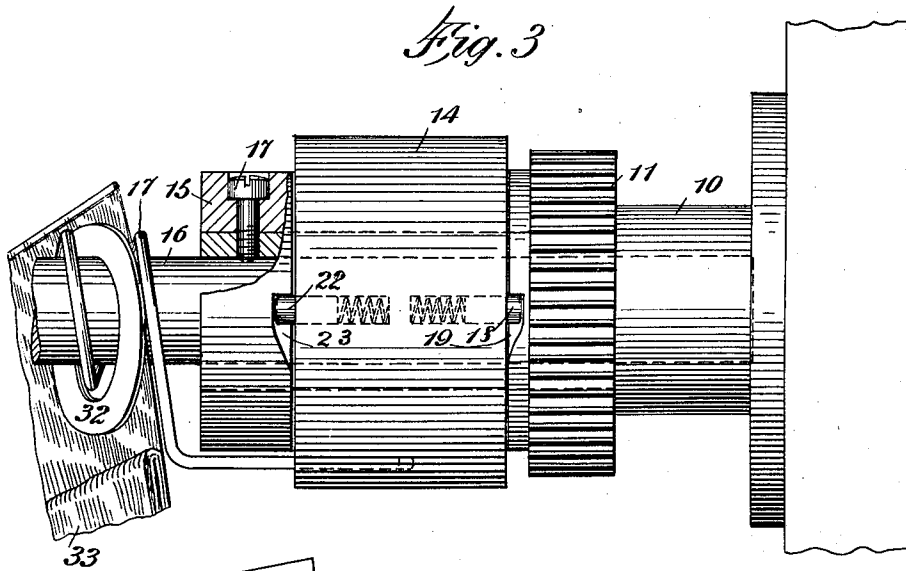
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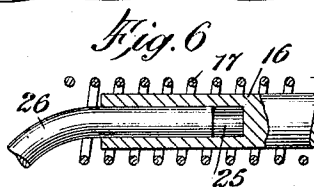
1,185,356.

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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

LUE ALLEN WEAVER, OF BRADFORD, PENNSYLVANIA.

TOWEL-DISPENSING MACHINE.

1,185,356.

Specification of Letters Patent.

Patented May 30, 1916.

Application filed May 6, 1914. Serial No. 836,653.

To all whom it may concern:

Be it known that I, LUE A. WEAVER, a citizen of the United States, and a resident of Bradford, in the county of McKean and State of Pennsylvania, have invented a new and Improved Towel-Dispensing Machine, of which the following is a full, clear, and exact description.

The invention relates to check or coin-controlled towel-dispensing cabinets.

An object of the invention is to provide a check or coin-controlled towel dispensing cabinet adapted to relieve the burden placed by statute, in certain States, upon the proprietors of hotels, restaurants, etc., requiring them to discard the use of so-called roller towels and supply their guests with individual towels.

With my invention, if a hotel proprietor desires to furnish free individual towels to his guests he may issue free towel checks to them; while other people, not guests, will be required to insert a predetermined coin to operate the cabinet before the same will deliver a towel.

Another object of the invention is to provide a simple, compact, strong and inexpensive towel cabinet which will deliver a towel after a predetermined coin or check has been inserted into the cabinet.

A further object of the invention is to provide an individual, check-controlled towel cabinet or device which will deliver one towel at a time, and which towel cannot be separated from the cabinet and is returnable into the cabinet after it has been used.

I attain these objects by the conventionally disclosed structure shown in the accompanying drawings which form part of the specification and in which similar characters of reference indicate corresponding parts in all the views and wherein—

Figure 1 is a vertical section on line 1—1, Fig. 2, of a towel cabinet embodying my invention; Fig. 2 is a front elevation of the cabinet, the front being partly broken away to show the details of construction; Fig. 3 is an enlarged view of the feed mechanism; Fig. 4 is a side elevation of the coin mechanism; Fig. 5 is a plan view thereof; and Fig. 6 is a detail structure of the connection between the towel guide and the towel support.

Referring to the drawings, 6 represents a cabinet of any suitable size, the front of

which is provided with a locking door 7 whereby access may be had to the coin mechanism and the feed mechanism positioned within the cabinet. The left side 8 of the cabinet is preferably mounted to swing, so that access can be had to the cabinet there-through to place towels on to the feed mechanism. If desired, a part only of the side may be made to swing. Secured to the other side 9 of the cabinet, adjacent the top thereof, is a horizontally disposed sleeve 10 on which is mounted to rotate a pinion 11 in mesh with a sector 12 mounted to swing on a second horizontally disposed sleeve 13 secured to the side 9 adjacent the bottom of the cabinet. Mounted on the sleeve 10 adjacent the pinion is a ring 14 which is maintained against the pinion 11 by a stop ring 15 secured to the end of the sleeve 10. This stop ring 15 prevents, also, the axial displacement of the pinion 11 on the ring. A rod 16 is engaged into the sleeve 10 and secured rigidly thereto by the screw 17, which secures the stop ring 15 to the sleeve. This rod 16 forms the support for the towels and extends substantially through the entire width of the cabinet, *i. e.*, from the side 9 nearly to side 8. Mounted to rotate on the rod 16 is a coil spring 17 which forms a revoluble thread on the rod 16. One end of the spring is secured to the sleeve 13, while the other end overhangs the end of the rod 16.

The ring 14 is coupled to the pinion 11 by providing a spring-actuated plunger 18 adapted to engage a notch 19 provided in the face of the pinion contacting with the face of the ring. The notch 19 is so arranged that when the sector 12 is moved away from the front the rotation of the pinion will cause the ring 14 to rotate and therewith the spring or thread 17. The length of the sector is such that when the same is moved by a rod 20 of the coin-controllable mechanism, the pinion 11 will make a complete revolution. The return movement of the sector 12 produced by a coil-spring 21 provided on the rod 20 will bring the pinion 11 to its original position; but the rotation of the ring 14 therewith is prevented by providing a second spring-operated plunger 22 adapted to engage a notch 23 provided in the stop ring 15. It will be noted that the plunger 22 will reengage the notch 23 after the ring 14 has been turned through a complete revolution.

The free end of the rod 16 is provided with an axial recess 25 into which fits one end of a towel guide 26, the other end of the towel guide fitting into the sleeve 13. The towel guide 26 is preferably formed of a strong wire the ends and the middle of which are substantially horizontal. The part of the guide between the upper end and the middle is first bent downwardly from the rod 16 to the side 8, as indicated by the portion 27, and then toward the front of the cabinet, as indicated by the part 28. The horizontal middle part 29 of the guide 26 is located outside of the front of the casing, the lower end of the guide 26 being united to the middle 29 by a part 30 inclined from the middle toward the bottom of the casing and also from the side 8 toward the side 9, as best indicated in Figs. 1 and 2. The free end of the spring 17 is located at the elbow 31 formed by the portion 27 and the upper end of the guide 26. Engaged between the coils of the spring 17 are rings 32, which rings are supported by the rod 16 and also by the upper end of the guide 26 which is engaged by the spring 17. Each of the rings 32 is secured to a towel 33 and, therefore, the entire weight of the towels is carried by the rod 16 which forms the support therefor, the guide 26 forming a reinforcement for the rod 16.

As the ring 14 is turned through one revolution, the towel rings 32 engaged by the spring 17 will advance through one thread toward the free end of the spring on the support 16. The ring 32 which was adjacent the free end of the spring 17 will be moved over the elbow 31 where it is freed by the spring and, under gravity, will slide on the portions 27 and 28 to the middle portion 29. The front of the casing, in the lower part, is provided with a cut-out or opening 34 which is in alinement with the part 28 of the guide so that the towel sliding under gravity on the parts 27 and 28 can pass to the middle part 29, which is exterior of the casing. The so-dispensed towel can then be used; and by shifting the same to a second opening 35, similar to opening 34 provided at the other end of the middle part 29, the same can be forced back into the casing, as under gravity the towel will slide on the part 30 of the guide 26 toward the lower end of the guide engaged in the sleeve 13. This part of the casing forms the receptacle for the used towels, which can be removed through the door 7.

The swinging of the sector 12 may be controlled by any suitable check or coin mechanism, of which one construction is shown, consisting of a coin guide 36 adapted to lead the coin or check from the exterior of the cabinet to the chute 37 positioned therein. The coin or check is directed by the chute to a bracket 38 which is

secured to a rail 39 on which the coin mechanism is mounted. When the coin rests on the bracket 38 it faces the end of the push rod 20 and prevents said end of the push rod from passing through an opening 40 provided in the end of the coin chute 37, and, therefore, when the coin is so facing the end of the rod 20, and the rod 20 is pushed the coin chute is moved with the rod. The coin chute 37 is integral with a casing 41 which forms a guide for the push rod 20. The casing 41 is guided in its movement by bolts 42 secured to the rail 39 and passing through slots 43 provided in the bottom of the casing 41. The arm of the sector 12 is connected to the casing by any suitable means and, therefore, when the push rod 20 moves the casing 41, the sector is made to swing on its pivot, *i. e.*, on sleeve 13, thus causing the revolution of the pinion 11, as previously described. The return movement of the casing and therefore of the sector is obtained by the coil spring 21 provided on the push rod 20.

It will be noted that when the towels are to be placed on to the support formed by the rod 16 the guide 26 is removed therefrom by pulling the same out through the side 8. The spring 17 can then be disconnected from the ring 14 and the towels threaded thereon by simply turning the spring, thus the rings 32 will feed on to the rod 16. The towels are preferably folded, and a single pin prevents the unfolding of the same. When the rod 16 is filled with towels, the spring 17 is again connected to the ring 14 and the guide 26 is replaced, the elbow 31 preventing the lateral displacement, *i. e.*, the disconnection of the spring 17 from the ring 14. The device is then ready for dispensing the towels.

It will be remarked that the feed of the towels is obtained by a spring mounted to rotate on the rod, and the guide 26 which directs the towels fed by the spring to the exterior of the casing prevents the carrying away of the towels and, furthermore, directs the used towels back into the cabinet, from which they can be easily removed. The clean towels positioned on the support formed by the rod 16 are separated, by means of a transverse member 44, from the used towels, thus adding to the sanitary condition of the towel cabinet.

As shown in the drawing, the rings 32 are set into the fabric of the towels, but, if desired, said rings may be secured to the corner of the towels in any other suitable way.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a towel-dispensing cabinet, a substantially horizontal support for towels; a coil-spring concentric with the support and mounted to rotate about said support said

spring engaging the towels; means for turning said spring in a predetermined direction whereby towels may be delivered successively from the support; and a guide associated with the support adapted to engage the delivered towels and guide the same out of and back into the cabinet.

2. In a towel-dispensing cabinet, a substantially horizontal support; a coil-spring mounted to rotate about said support; a sleeve engaging one end of the spring and mounted to turn on said support; means for turning the sleeve in one direction only; a pinion associated with said sleeve; said support adapted to receive towels between the threads of the spring; and a guide associated with the support which is adapted to engage the towels advanced by the spring on the support and direct the towels out of and back into the cabinet substantially as and for the purpose set forth.

3. In a towel-dispensing cabinet, a stationary towel support, spiral-shaped feed means revoluble about the support and

adapted to engage the towels on the support, means for operating the feed means whereby the towels are fed from the support, and a towel guide for receiving the towels fed from the support and direct them out of and back into the cabinet.

4. In a towel-dispensing cabinet, a towel support, spiral-shaped means mounted to rotate on the support and adapted to engage the towels, means for revolving said spiral means through a predetermined distance whereby one towel at a time is fed from the support, and a guide associated with the support to engage the towels fed therefrom, said guide being adapted to direct the towels out of and back into the cabinet.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LUE ALLEN WEAVER.

Witnesses:

R. R. RECK,

JAMES B. HORN.