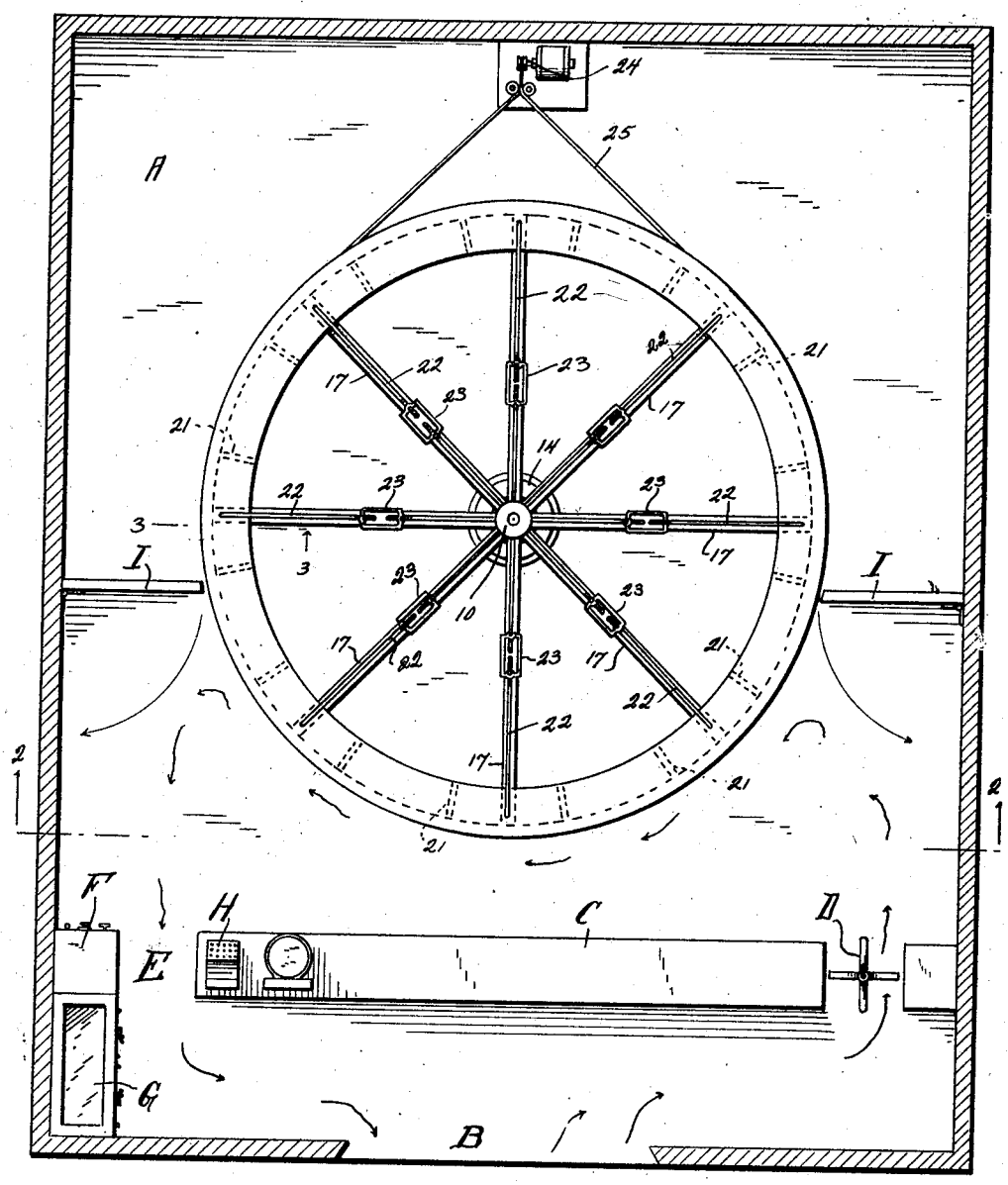
March 26, 1929. J. A. McCLANAHAN 1,706,536

DISPLAY AND VENDING APPARATUS

Filed April 22, 1924 2 Sheets-Sheet 1

Fig. 1.



INVENTOR.

J. A. McClanahan

BY

Watson E. Coleman

ATTORNEY.

March 26, 1929. J. A. McCLANAHAN 1,706,536

DISPLAY AND VENDING APPARATUS

Filed April 22, 1924 2 Sheets-Sheet 2

Fig. 2.

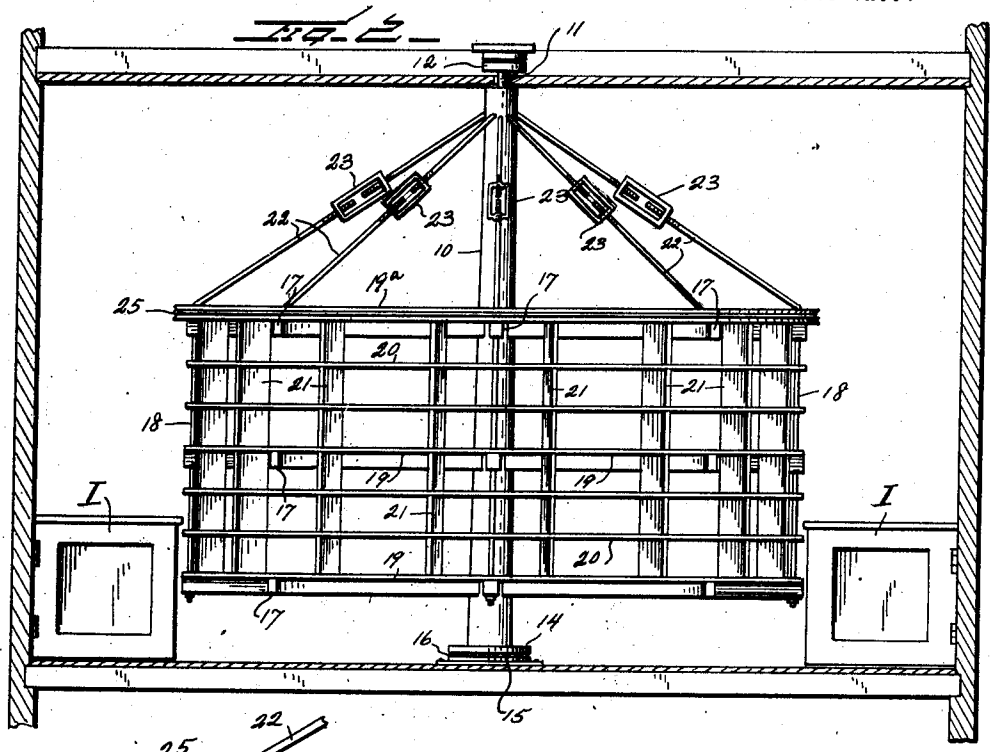


Fig. 3.

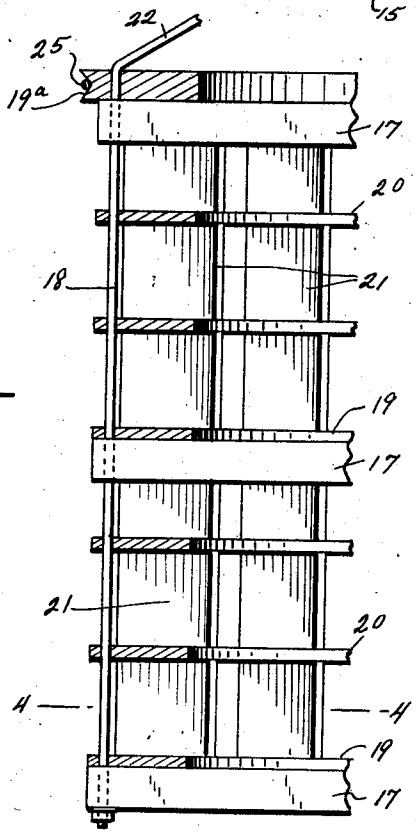
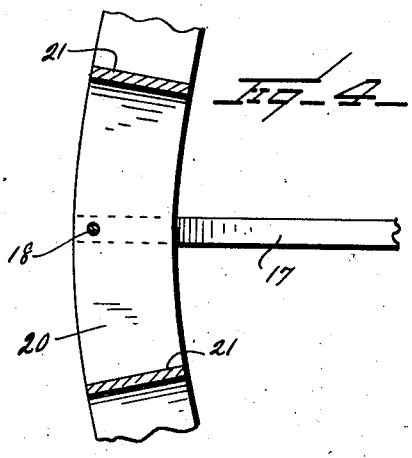


Fig. 4.



INVENTOR.
J. A. McClanahan
BY
Watson E. Coleman
ATTORNEY.

Patented Mar. 26, 1929. 1,706,536

UNITED STATES PATENT OFFICE.

JAMES A. McCLANAHAN, OF NEWBERN, TENNESSEE.

DISPLAY AND VENDING APPARATUS.

Application filed April 22, 1924. Serial No. 708,298.

This invention relates to improvements in display and vending machines, and particularly to that class of vending apparatus in which there is a centrally disposed display cabinet which is mounted at the center of the store and which has a plurality of shelves upon which goods may be disposed, this display cabinet being mounted for slow rotation by means of a motor so that articles of merchandise may be displayed to purchasers in such a manner that purchases may be readily made without the assistance of any clerk.

A further object is to provide a mechanism of this character which does not require a special building to be constructed wherein it may be mounted, but it may be mounted in any store building and rotatably supported between the floor and the ceiling.

A still further object is to provide a construction of this character having improved details which make the device simple, effective, readily assembled and particularly strong and which device may be run by a low powered motor at relatively small cost.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of a store equipped with my display and vending apparatus;

Figure 2 is an elevation of the apparatus;

Figure 3 is a vertical sectional view on the line 3—3 of Figure 1;

Figure 4 is a fragmentary horizontal sectional view through the display and vending apparatus.

Referring more particularly to the drawings, it will be seen that in Figure 1, I have shown a store, designated generally A, rectangular in plan and having an entrance opening B. Extending across the store adjacent the entrance end thereof is a counter C which at one end abuts against a revolving gate D. At the opposite end there is a passageway E. Opposite this end of the counter and beyond the passageway is preferably disposed a safe F and an ice box G is disposed between the safe and the front wall of the store. A cash register H is placed on the counter C adjacent the passageway E, while scales are disposed very close to the cash register. The clerk who checks off the sales and receives the cash stands at this counter C. Midway of the store there are two inwardly extending partitions I.

Disposed in the middle of the store is a revolving display and vending device which includes a mast or revolving post 10. The upper end of this post is reduced at 11 to form a shaft and extends upward through the ceiling, and above the ceiling the shaft is supported by a small roller bearing 12 having anti-friction balls or rollers. I do not wish to be limited to this manner of supporting the mast, as other anti-friction means might be provided. The lower end of this mast 10 extends downward to a point adjacent the floor and there carries a circular plate 14 which confronts the base plate 15, this plate being bolted or otherwise connected to the floor. Both of these plates 14 and 15 are provided with an annular ball race within which the balls 16 are disposed.

Extending radially from the post 10 are the wood or metal arms or supports 17. There are three of these, as illustrated, the ends of these supports being connected by vertical tie rods 18. Carried upon these supporting arms are three shelves 19, and between these shelves 19 are disposed intermediate shelves 20, these intermediate shelves being supported by means of vertical partitions 21. Thus the shelves are divided by these partitions into a series of compartments in which the goods to be carried are displayed. These compartments may be closed at the back or closed at the front with doors or may be entirely open from front to rear.

The shelves only extend upward about half the height of the post or mast 10, and extending downward from the top of the post and outward to the topmost shelf 19 are truss rods 22 having turnbuckles 23 in their length. These rods act to support the extremities of the arms and are operatively connected to the extremities of the upper arms 17, or they may be connected directly to the vertical truss rods 18 so as to tie all the shelves together and tie the series of shelves to the top of the post so as to prevent any tendency of the series of shelves to drop. By tightening up or releasing the turnbuckles 23, it is possible to level all of the shelves and thus prevent any tendency of the device to wabble and at the same time permit it to ro-

tate very easily. The partitions I extend from the side walls of the room nearly to the display and vending device itself and sufficiently close so as to prevent any possibility of a customer going around the partitions, that is, between the partitions and the vending device.

The back portion A′ of the store room is where the supplies are to be kept and a clerk is employed in this store room to place supplies on the empty shelf from time to time when he notices a shelf that is empty. The circular rotatable vending device is slowly rotated by means of a band wheel 24 over which passes a belt 25, which preferably passes around a relatively thick upper shelf 19^a which may have flanges thereon and which constitutes a band wheel, thus doing away with the necessity of gearing of special mechanism to this end.

The partitions I may have gates in them whereby access may be had to the rear of the store, these gates being only openable by the salesman. It will be seen that with this construction the goods are not sold by salesmen but are selected and taken down from the shelves by the customer himself. The counters may be arranged adjacent the revolving delivery device so that the customer may place baskets conveniently on said counters and from time to time reach up to a shelf and select what he desires. The partition gates keep customers from going behind the delivery device out of sight of the cashier so there is no chance to steal goods. The central post at its lower end tapers from ten inches in diameter at its lower end to eight inches at the top. This puts all the weight on the balls and does away with all friction and all noise and lost motion.

The device is very plain and simple, will take very little power because of the fact that the belt 25 runs around the entire top row of shelves and goes direct to the motor fastened on the wall of the building nearby, and does away with all noise. Inasmuch as the central post runs to the ceiling and is supported at top and bottom by ball bearings, all friction is done away with and at the same time the post is kept balanced without effort. The device may be built and operated with very little expense.

While I have illustrated a construction which I believe to be particularly effective in actual practice, I do not wish to be limited to the exact details shown as these may be varied in many ways without departing from the spirit of the invention as defined in the appended claim.

I claim:—

A store service apparatus including a room, a rotatably mounted central mast extending upward from the floor of the room to the ceiling thereof, a series of annular, vertically disposed shelves disposed one above the other concentric to the mast, radial arms projecting from the mast and supporting the shelves, means whereby the shelves may be adjusted and supported at all times in horizontal planes, and means for rotating said shelves and the shaft at a relatively slow speed, the room having partitions extending from the sides of the room inward toward the shelves and terminating just short of the path of movement of the shelves, that portion of the room to one side of the shelves being thus adapted to be used as a purchasing area and the portion on the other side of said partitions being adapted to be used as a storage room.

In testimony whereof I hereunto affix my signature.

JAMES A. McCLANAHAN.