

J. MIDDLEBROOK.

CHURN.

APPLICATION FILED FEB. 3, 1909.

936,921.

Patented Oct. 12, 1909.

Fig. 1.

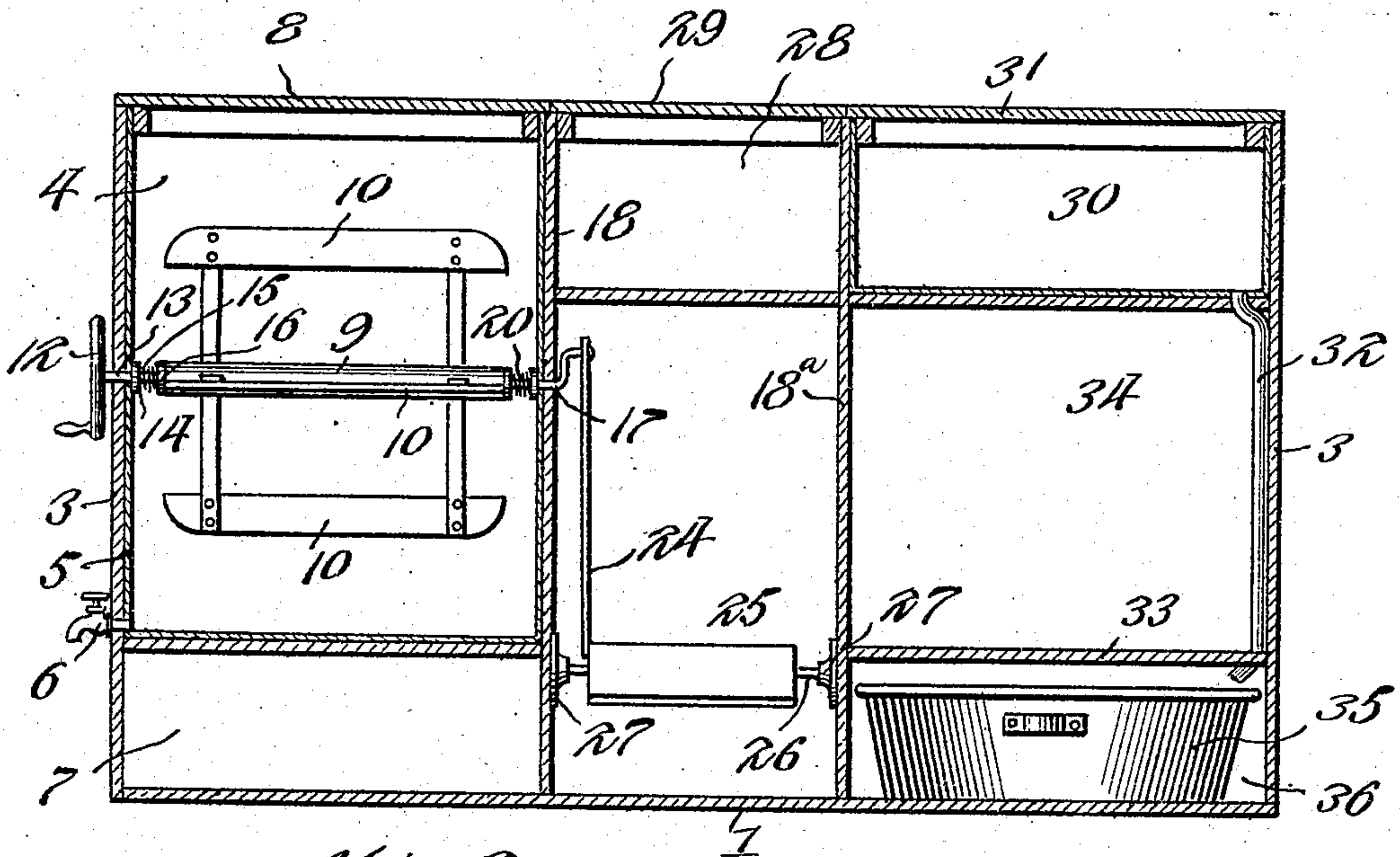


Fig. 2.

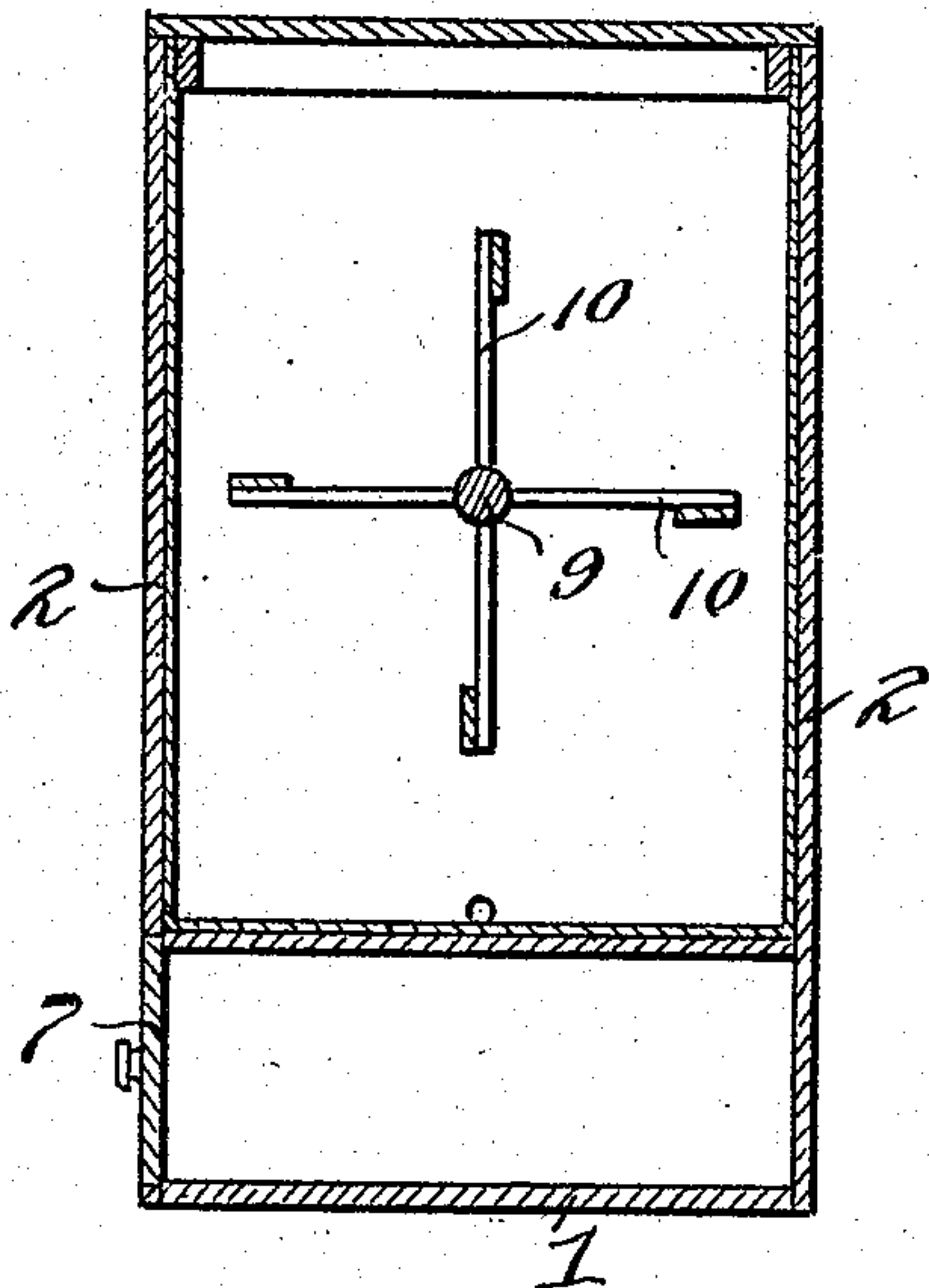
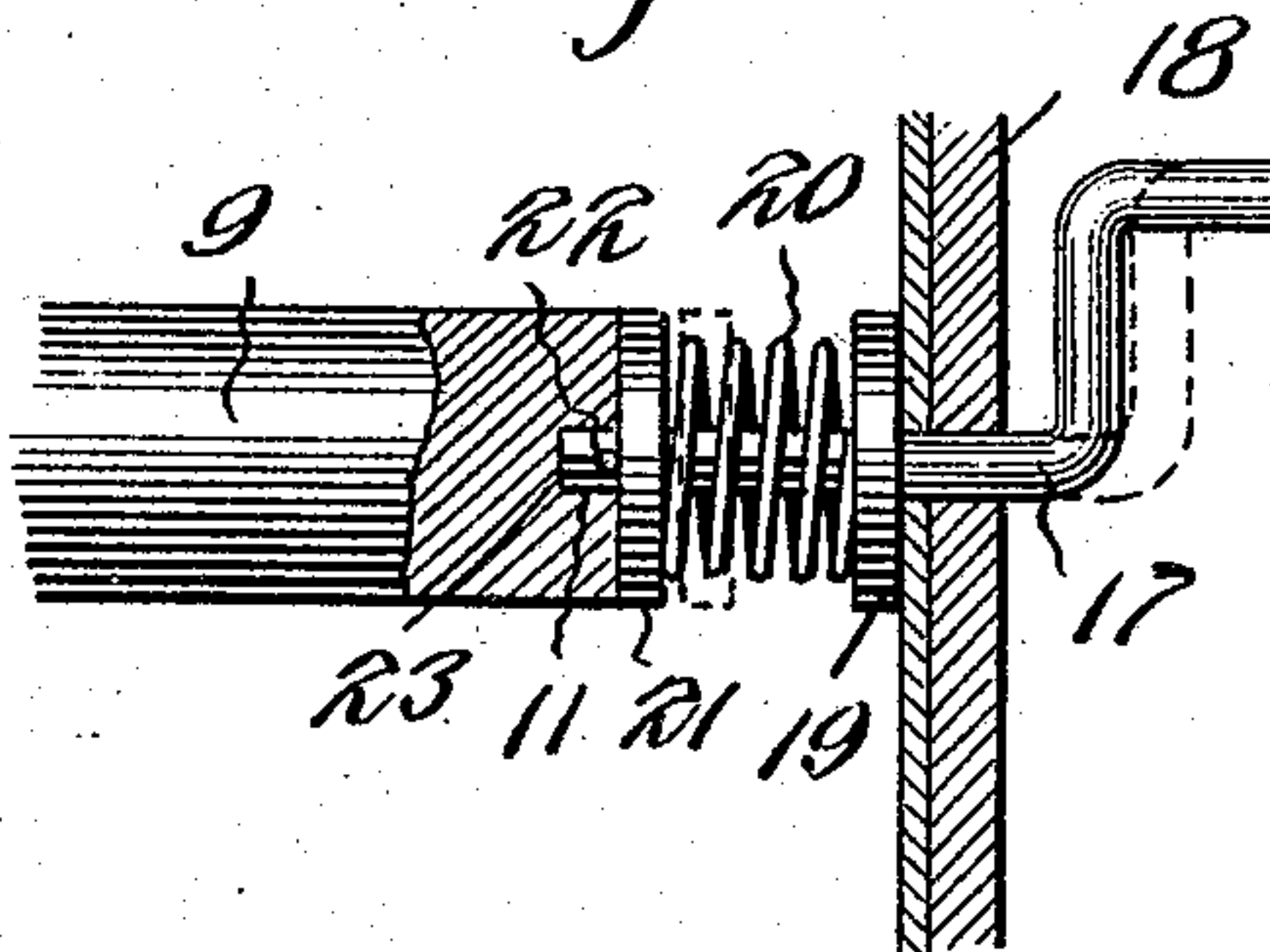


Fig. 3.



Witnesses

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CHURN.

936,921.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed February 3, 1909. Serial No. 475,865.

To all whom it may concern:

Be it known that I, JOHN MIDDLEBROOK, a citizen of the United States of America, residing at Brimley, in the county of Chippewa and State of Michigan, have invented new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns, and one of the objects of the same is to provide a churn which can be operated either by foot or by hand and which will permit the ready removal of the dasher for cleaning.

Another object of the invention is to provide a churn mounted for rotation in a cabinet having compartments for ice, cream, butter and other accessories to butter making, the cabinet having a smooth top adapting it to be used as a table.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which,—

Figure 1 is a transverse vertical section of a churn made in accordance with my invention. Fig. 2 is a front to rear vertical section of the churn. Fig. 3 is a detail sectional view, showing the manner of mounting the dasher shaft upon the crank.

Referring to the drawing, the numeral 1 designates a bottom of a cabinet provided with sides 2 and ends 3. The cabinet is divided up into various compartments, the churn compartment 4 being suitably lined with an impervious material 5. A spigot 6 at the bottom of the churn 4 is for running off the buttermilk, and below the churn is a drawer 7 for containing a butter ladle, print molds and other accessories. The churn is covered by a plain top 8 fitted upon the churn.

The dasher shaft 9 provided with radial dashers 10 has squared sockets 11 in its ends to receive the squared ends of the removable shaft upon which said dasher shaft is mounted. At the outer end a hand wheel 12 is mounted on a shaft 13 extending through the churn body, and upon the end of the shaft 13 is a sliding washer 14, a spring 15 surrounding the shaft and a washer 16 held rigidly upon the shaft. The outer end of the shaft is squared to fit the squared socket in the end of the shaft 9. The opposite end of the shaft is mounted upon a crank element 17 journaled in a partition

18 forming the inner side of the churn body, said crank element having a sliding washer 19, an encircling spring 20 and a washer 21 held upon the element 17 by means of a pin 22. The inner end of the crank element is squared, as at 23, to fit the squared socket 11, and the shaft 13 is similarly connected to the shaft 9. A treadle rod 24 is pivotally connected to the crank element 17 at its upper end, while the lower end is pivoted to a treadle 25 connected to a shaft 26 journaled in keepers 27 secured to the partitions 18 and to a spaced partition 18^a. Immediately above the treadle mechanism is a compartment 28 which is inclosed by a cover 29 lying flush with the cover 8 of the churn. At one side of the partition 18^a is a compartment 30 for containing ice, said compartment being provided with a top or cover 31. A drip pipe 32 extends from the bottom of the ice compartment 30 through the floor 33 of the cream compartment 34, said drip pipe discharging into a suitable pan 35 disposed in a compartment 36 designed for that purpose.

The operation of my invention may be briefly described as follows: The dasher shaft 9 may be rotated either by means of the treadle 25 or the hand wheel 12. When it is desired to clean the churn the shaft 13 is pulled outward, and the crank element 17 is also withdrawn against the tension of the springs 15 and 20 to release the shaft and permit the entire shaft and dasher to be removed from the churn. The churn may be used as a table and is a convenient piece of furniture for containing the various articles necessary in the process of making butter.

My invention is of simple construction, is very convenient for its purpose and operates smoothly and efficiently in carrying out its functions.

I claim:—

The herein described churn comprising a receptacle, a dasher journaled horizontally in said receptacle, a shaft extending through said receptacle and provided with a squared end to fit a squared socket in the dasher shaft, a hand wheel mounted on the end of said shaft, a spring surrounding said shaft, a sliding washer connected to said shaft whereby the latter may be withdrawn to release the dasher shaft and permit removal of the dasher, a crank element mounted in

the opposite side of the receptacle and provided with an encircling spring and sliding washer, said crank element having a squared end to fit a squared socket in the end of the
5 dasher shaft, and a foot treadle connected to said crank element, whereby the dasher may be operated either by hand or foot power.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN MIDDLEBROOK.

Witnesses:

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