H. SOGGS.

Churn.

No. 48,987.

Patented July 25, 1865.

Fig. 1.

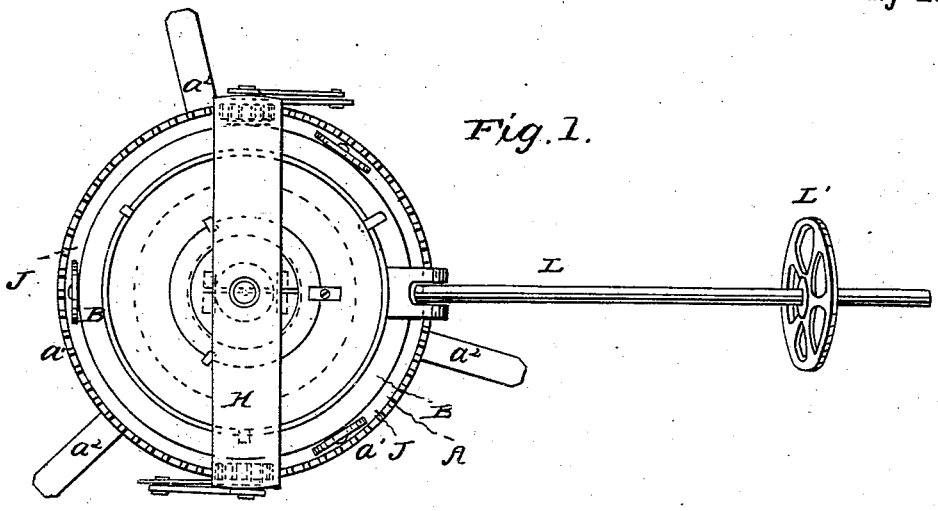
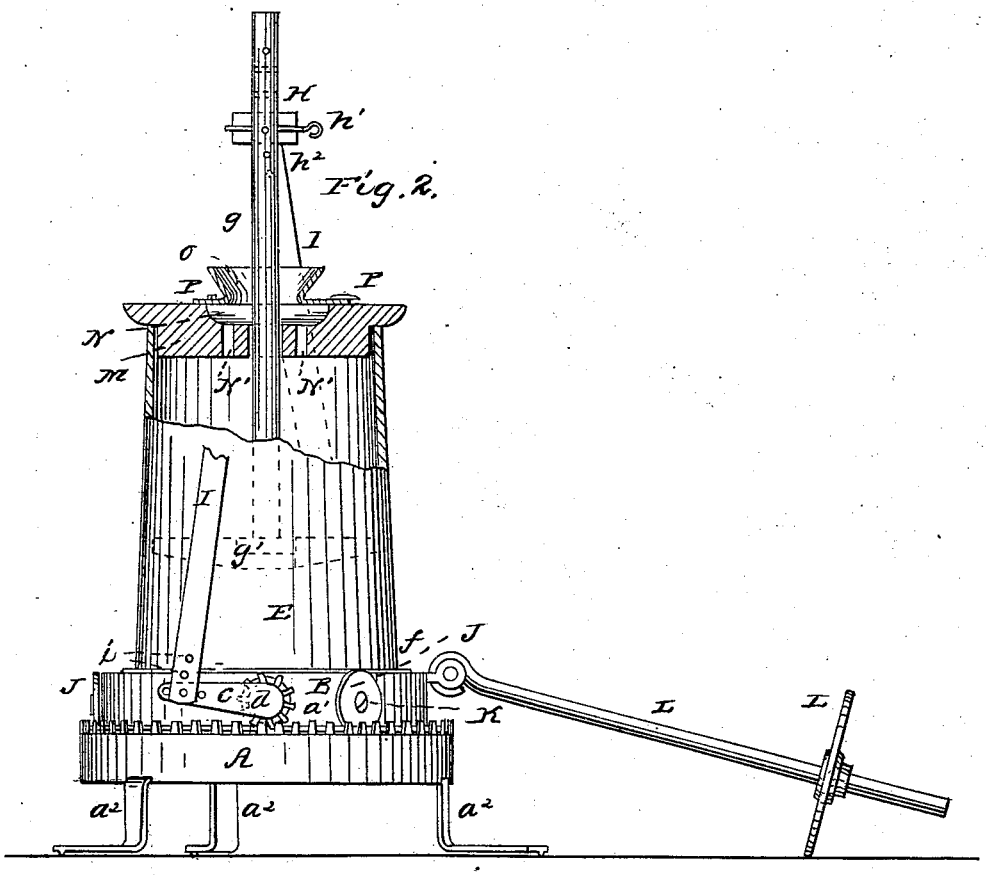


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY SOGGS, OF COLUMBUS, PENNSYLVANIA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **48,987**, dated July 25, 1865.

To all whom it may concern:

Be it known that I, HENRY SOGGS, of Columbus, in the county of Warren and State of Pennsylvania, have invented a new and Improved Churn; and I do hereby declare that the following is a full and exact description thereof, having reference to the accompanying drawings, making a part of this specification, in which—

Figure I is a plan view, and Fig. II is an elevation.

The nature of this invention relates to improvements in the common dash-churn; and it consists, first, in making a recessed chamber in the churn-cover, with air-holes opening into the churn, in combination with a hollow cap, which sets over the recess in a manner to cover the chamber and allow the dash-rod to pass through it, which recess and chamber together form an improved vent; second, in an improved method of operating the dash by means of a circular revolving plate or disk upon which the churn-tub is placed, and to which disk is connected two pinion-shafts, in combination with a bottom stand having a toothed rim which meshes with the crank-pinions, so that as the disk is revolved a vertical up-and-down motion will be communicated to the dash.

Letters of like name and kind refer to like parts in each of the figures.

A represents a circular bottom stand, having a cog or toothed rim, a', connected therewith. It also has either permanent or removable feet a^2. Upon this stand is placed a circular plate or disk, B, of a little smaller diameter than the stand, and is connected to the stand by means of a central pivot, upon which pivot it revolves. To this disk are connected two crank-pinions, C, opposite each other, by means of short screw-shafts d or otherwise, so that the pinions will mesh in with the cog-rim a', and so that the disk will revolve within the cog-rim. Upon this disk is placed a common dash-churn, E, which may be fastened thereon by means of the large-headed pin f catching onto the flange of the churn, or by screws, or by any other convenient and well-known manner.

The dash-rod is shown at g and the dash-blades at g'. A cross-head, H, is connected to the dash-rod, and is made adjustable thereon by means of the pin h' and pin-holes h^2.

The connecting-rods which connect the cross-head with the pinion-shafts are shown at I. These are also made adjustable to the cross-head or to the pinion-shafts by means of a short bolt and different bolt-holes i.

J represents friction-wheels, which are connected to the disk B by the screw-bolts k' or otherwise. These wheels run upon the face of the stand inside of the cog-rim and support the disk, the crank-pinions at the same time meshing in with the cog-rim.

L is an operating-lever, which is connected with the disk in such permanent manner that the disk (and with it the churn) may be rotated thereby. The wheel L′ is useful for supporting the outer end of the lever when animal power is applied.

M represents the churn-cover, and N a recess formed therein. N′ are air-holes leading from the recess through the cover into the churn.

O is a hollow double-funnel-shaped cap, made of tin or other suitable material, and fitted over the recess, so as to form an air-chamber within. This cap may be fastened down to the cover by means of the large-headed screws P, or by any other convenient means. The dash-rod works through this cap, as represented, there being sufficient space around the dash-rod for the ingress of air into the air-chamber; but such is the relation of the cap to the air-holes that if any cream or milk shall spatter through the air-holes it will strike against the cap and run back into the churn, so that no milk or cream can splash over the cap onto the outside of the churn in the act of churning, and yet at the same time a sufficient quantity of air is admitted into the churn.

The bottom stand, A, and the disk B may be made of cast-iron or wood. I make them of cast-iron by preference.

Such are the adjustable connections of the churn to the disk and of the cranks to the dash-rod already described that a churn of any given size may be placed upon the disk and operated. The described vent is also applicable to a churn of any size.

Operation: This churn may be operated by hand, in which case the lever will be moved back and forth just far enough to give one revolution to the cranks. A slight circular movement of the disk will give a revolution to the

crank-pinions, and thereby cause a movement of the dash up and down. The cranks, being placed on opposite sides of the disk, will revolve in opposite directions, and hence will give a slight circular motion to the dash, which motion is advantageous. Animal power may be applied at the end of the lever, in which case the animal, being harnessed, would travel in a circuit around the churn, giving a circular motion to the disk, which causes the crank-pinions to revolve by meshing in with the stationary cog-rim *a'*, and thereby a vertical and slightly circular movement is given to the dash, and the churning quickly, easily, and thoroughly done.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A recess, N, made in the churn-cover, having air-holes N', in combination with the hollow cap *c*, for the purpose of an improved vent, substantially as described.

2. The combination and arrangement of the revolving disk B, including the crank-pinion C and common churn placed thereon, and bottom stand, A, including the cog-rim *a'*, with the connecting-rods I and cross-head H, for the purpose of operating a common dash-churn, substantially as set forth.

HENRY SOGGS.

Witnesses:
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