

(No Model.)

S. D. PALMER.
CHURN.

No. 541,877.

Patented July 2, 1895.

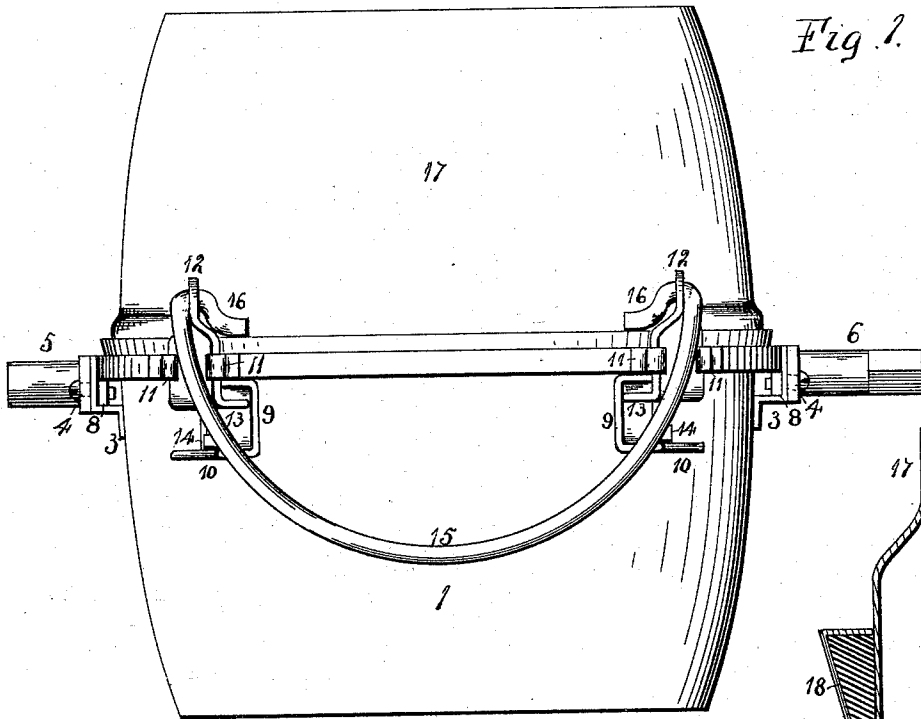
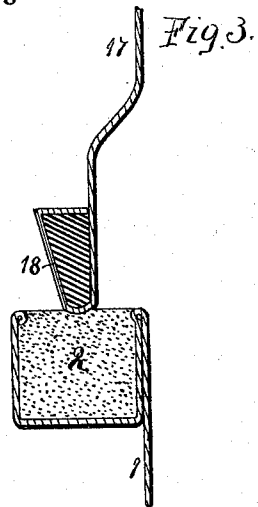
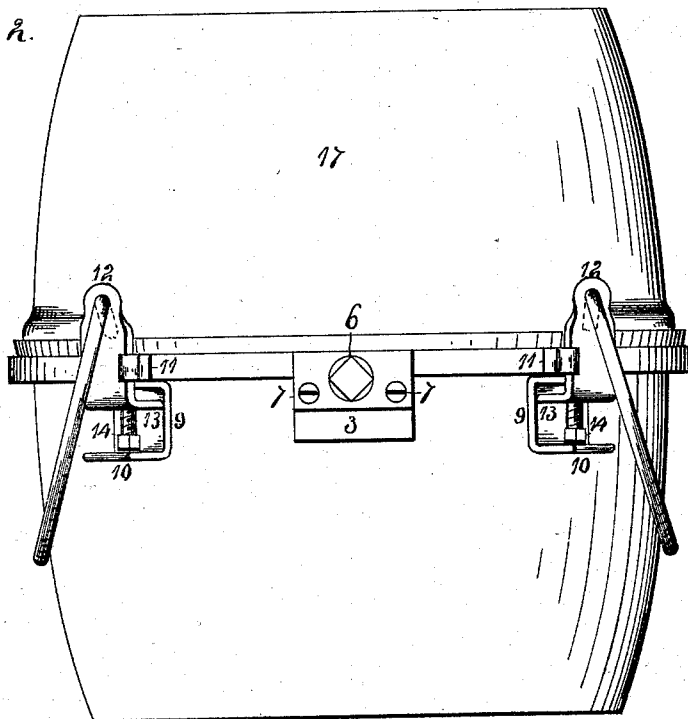


Fig. 2.



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UNITED STATES PATENT OFFICE.

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CHURN.

SPECIFICATION forming part of Letters Patent No. 541,877, dated July 2, 1895.

Application filed August 24, 1894. Serial No. 521,241. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. PALMER, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Metallic Churns, of which the following is a specification.

The object of this invention is to construct a churn body in two substantially equal sections suitably joined, and one of the sections supporting a packing ring forming a seat upon which the open end of the other section rests.

In the accompanying drawings, Figure 1 is a side elevation of my improvements. Fig. 2 is a side elevation as seen from one of the trunnions. Fig. 3 is an enlarged vertical section through the center portion of the sections.

Rotary churns as heretofore constructed have employed a churn body of barrel form, to the open end of which a cover is removably attached, such construction of churn body having a small opening which in connection with the length of the body renders access to the inside of the churn very difficult, and the employment of a ring head to contract the opening and to which the fastenings are connected forms an obstruction or ledge against which the cream accumulates and becomes rancid and not easy to clean.

In the construction of a churn embodying my improvements the churn body consists of two substantially equal sections one of the sections supporting a packing upon which the open end of the other section rests, and means for holding the sections connected. The sections form receptacles which are adapted for other uses than a churn, and being largest at their open ends are easily kept clean.

The lower section 1, is of dish form and stamped from sheet steel. The upper end is turned back, thence horizontally and again parallel with the length of the section forming an annular recess within which is placed a packing ring 2, and is held in place by the vertical sides of the recess. To opposite sides of the lower section are secured angle plates 3, provided with holes 4. To these plates are secured trunnions 5, and 6, the latter fitted to receive a crank, by screws 7, passing through holes in the base of the trunnion

supports, and through the holes 4, in the plates, receiving nuts 8 placed between the plates 3, and outer surface of the lower section, and held from turning by the under face of the packing recess and upper surface of the plates. To the outer surface of the lower section at four equal points are secured brackets having a vertical portion 9, and a horizontal foot 10, and from its upper end extend lugs 11, forming a vertical guide way, an ear having its vertical portion 12, perforated, and its lower end 13, bent toward the center of the section and overlying the horizontal foot 10, of the brackets. A screw 14, has a screw threaded connection with the lower end 13, of the ear its head resting upon the vertical portion 10, of the bracket. By means of this screw the ear can be vertically adjusted. To a pair of these ears is pivoted a bail 15, having their ends 16, bent in cam form. Therefore a pair of bails are employed in the construction of each churn.

The upper section 17, of the churn is of substantially the same size and form as the lower section, excepting its open end is somewhat enlarged so as to overlie the center of the packing ring, and has a metallic ring 18, held in place by the metal of the open end in the same manner that a binding wire is held in place. This ring is of wedge form its larger end extending at right angles to the length of the section forming a ledge, and its smaller end resting in contact with the packing. When this upper section is seated in proper position upon the packing of the lower section the bails are turned to bring their cam shaped ends upon the upper surface of the wedge shaped ring 18, and a further movement of the bails will firmly seat the upper section, and by the vertical adjustment of the ears the pressure of the cams upon the upper section may be varied to make a water tight joint between sections.

By the attachment of the brackets for supporting the trunnions and the supports of the ears to the upper end of the lower section, and the outer wall of the packing receptacle strength is imparted to the packing receptacle.

I claim as my invention—

1. The combination of a churn body composed of two sections one section having an

annular recess at its open end forming a receptacle for a packing, the other section having a wedge shaped metal strip held in position in its open end, the strip having its smaller
5 end rounded and its upper end flat, and lying in a plane transversely of the section, and means for joining the sections resting upon the flat upper surface of the strip.

2. A churn body composed of two sections

joined together at their centers, one section having brackets secured at its open end, ears held in place by the brackets and means for adjusting the ears lengthwise, and fastening means connected to the ears.

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