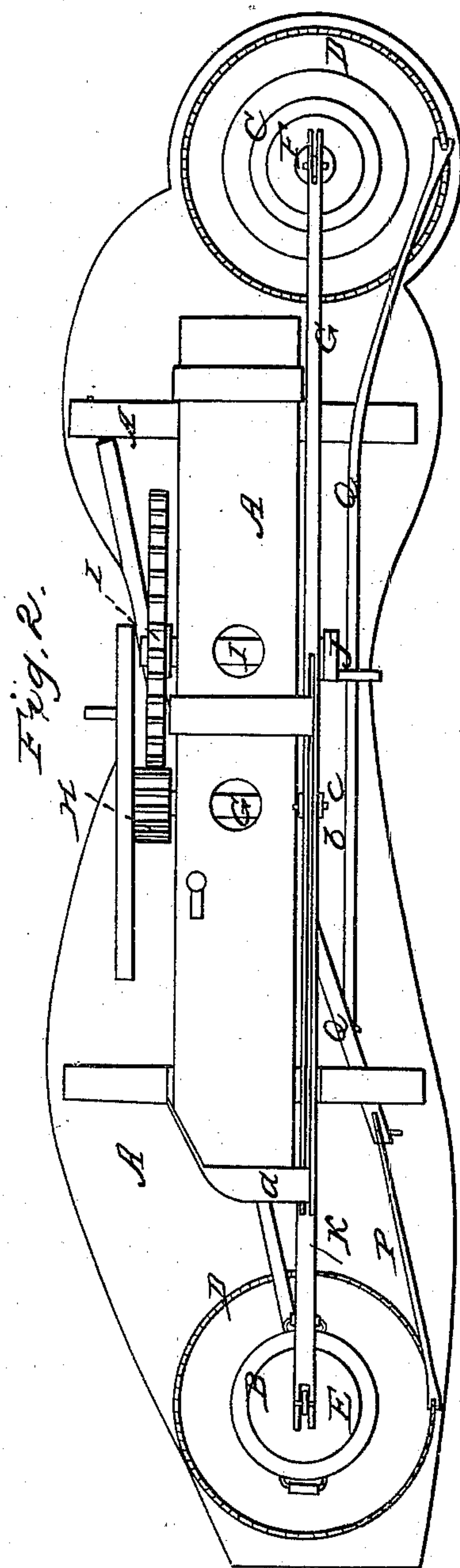


## Churn.

Patented Aug. 17, 1858.





# UNITED STATES PATENT OFFICE.

MOSES SWAN, OF POTTER HILL, NEW YORK.

OPERATING CHURNS, &c.

Specification of Letters Patent No. 21,221, dated August 17, 1858.

*To all whom it may concern:*

Be it known that I, MOSES SWAN, of Potter Hill, in the county of Rensselaer and State of New York, have invented a new and  
5 useful Arrangement of Mechanism for Combining a Rotary Churn-Tub with a Rotary Washtub and Operating the Dasher and Plunger of the Same; and I do hereby declare that the following is a full, clear, and  
10 exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a side elevation of a churn tub and washtub as combined and operated by my improved arrangement of mechanism. Fig. 2, is a plan of the same.

Similar letters of reference, in each of the several figures indicate corresponding parts.  
20 The nature of my invention consists in the arrangement of mechanism hereinafter specified for combining the churn tub with the wash tub and giving the plunger and dasher of the same an up and down movement, and  
25 at the same time imparting a rotary motion to both tubs.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

30 A, represents the framing on which the mechanism and tubs are arranged.

B, is the wash tub and C, the churn tub. Both of these tubs are arranged upon a revolving ratchet rim D. The hub B, has a  
35 rising and falling plunger E, and the tub C, has a rising and falling dasher F. The dasher F, is connected to one end of a pivoted lever G<sup>1</sup>, said lever being pivoted by its other end to a standard a, of the frame and  
40 connected near the center of its length by a link b, to an eccentric pin c, of a horizontal shaft G, as shown. On the shaft G, a pinion H, is arranged, said pinion gearing into a large spur wheel I of the shaft I'. With  
45 this arrangement, by turning the crank J, of the shaft I', an up and down motion is imparted to the dasher.

The plunger E, is connected to one end of a rocking lever K, which is pivoted near the  
50 center of its length to the frame A, as shown

at d. The loose end of this lever extends to the shaft G, and lies a little below the same.

L, is a cam or projection on the periphery of the eccentric c'. This cam as the shaft  
revolves comes in contact with the loose end 55 of the lever K, and imparts an upward movement to the plunger. As the plunger ascends, a pin d on the plunger rod comes forcibly in contact with a flat spring M, and reverses its motion, and thus it will be  
60 seen that an up and down or reciprocating motion is imparted to the plunger.

N, is another eccentric on the shaft G. This eccentric is set so as to operate just after the eccentric c', and cam L, have per- 65 formed their duty.

O, is a strap which encircles the eccentric N. P, a pawl pivoted to said strap and Q, a similar pawl pivoted to the pawl P. The  
pawls P, Q, take into the teeth of the ratchet 70 rims D, D, as shown, and consequently when the shaft G, is turned the tubs B, C, will be turned gradually in the path of a horizontal circle. It is advantageous, thus to rotate the tubs, for by so doing if churning is being  
75 performed, the whole body of the cream will be more perfectly subjected to the action of the dasher, and if washing is being performed, the plunger will be brought in contact with every portion of the clothes. It is  
80 also advantageous to thus combine the churn-tub and wash-tub, for by so doing the necessity of employing two separate systems of gearing and two persons to perform the two  
85 operations is avoided, as both can be performed by one system of gearing and by one person.

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

The arrangement of mechanism specified 90 for combining the churn tub with the wash tub and giving the plunger and dasher of the same an up and down movement and at the same time imparting a rotary motion to both tubs, substantially as and for the pur- 95 poses set forth.

MOSES SWAN.

Witnesses:

LEBBEUS LAMSSON,  
PERRY W. RICHMOND.