C. LEHMANN.

Improvement in Apparatus for Stirring and Mixing Soap.

No. 131,283. Patented Sep. 10, 1872.

Fig. 1.

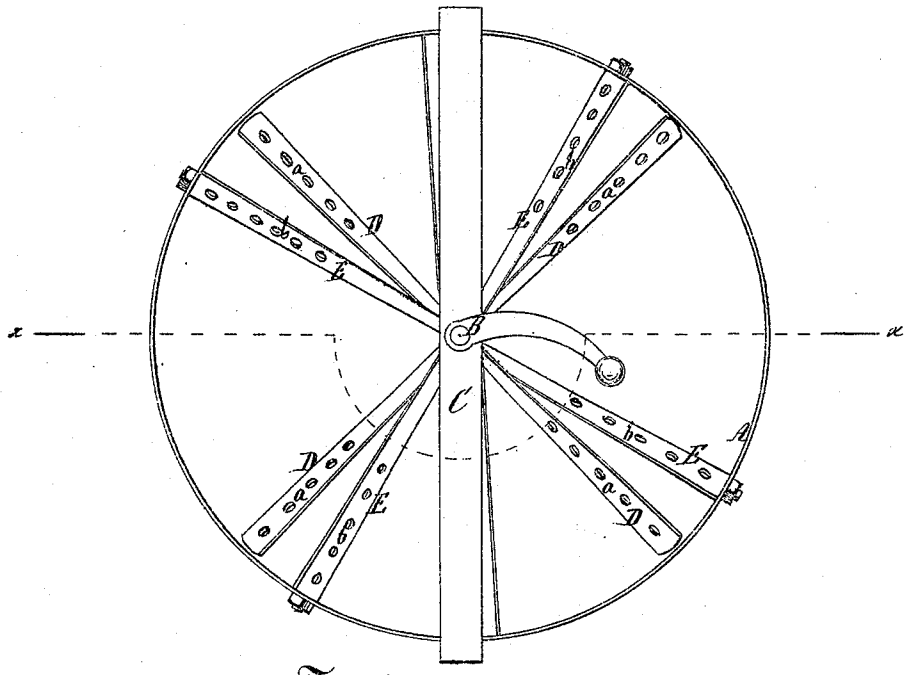
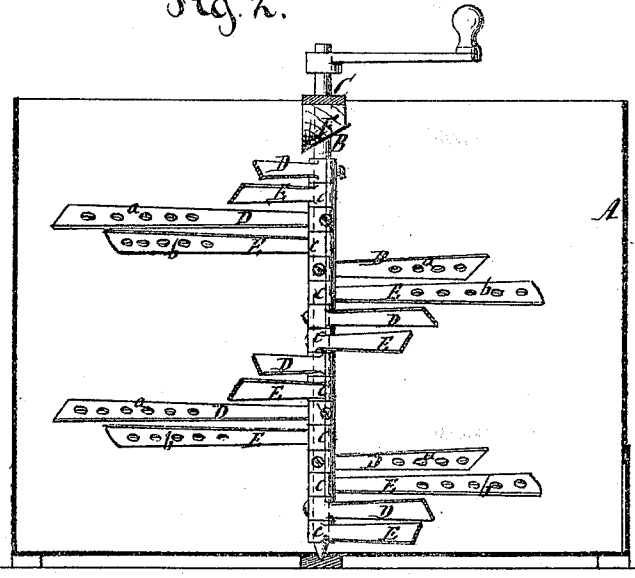


Fig. 2.



Witnesses.
Ernst Bilhuber.
Chas. Wahlers.

Inventor.
Charles Lehmann
per
Van Santwood & Hunt
Attys

UNITED STATES PATENT OFFICE.

CHARLES LEHMANN, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR STIRRING AND MIXING SOAP.

Specification forming part of Letters Patent No. **131,283**, dated September 10, 1872.

To all whom it may concern:

Be it known that I, CHARLES LEHMANN, of the city, county, and State of New York, have invented a new and Improved Machine for Stirring Soap and other materials; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a plan or top view of this invention. Fig. 2 is a vertical section of the same in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts.

This invention relates to a machine for stirring soap or other materials, which is constructed with a series of stirring-blades which are set in oblique positions, and radiate from a central shaft and alternate with another series of similar stirring-blades, which are set in oblique positions opposite to those of the first set, all the stirring-blades being perforated with a number of holes and inclosed in a tub, across the top of which extends a cross-bar which forms the bearing for the central shaft, and to which are secured two squeezing inclines, one on each side of the shaft, in such a manner that by imparting a revolving motion to the central shaft the soap or other material is exposed to a sqeezing action between the inclines and stirring-blades, and also between the two sets of stirring-blades, and at the same time the material is cut up and intimately mixed.

In the drawing, the letter A designates a cylindrical tub, which contains a vertical central shaft, B, the lower end of which is stepped in a socket in the bottom of the tub, while the upper part of said shaft has its bearing in a bridge, C, extending diametrically across the tub. From the shaft B extend, in radial directions, a series of blades, D, which are set in oblique positions, so that their advancing edges are lower than their rear edges, and in each of these blades are a series of holes, *a*, the object of which will be presently explained. The blades D alternate with another series of blades, E, the inner ends of which are secured to sleeves *c*, embracing the shaft B, while their outer ends are firmly secured to the tub A. These stationary blades E are inclined in a direction opposite to that of the blades D, and they are perforated each with a number of holes, *b*.

If the shaft B is turned, the soap or other material contained in the tub A is alternately squeezed between the movable and the stationary blades, and then one set of blades acts as scrapers for the other set, while the liquid particles of the soap or other material, on being exposed to the squeezing action of the blades, escape through the holes *a* and *b* in said blades. At the same time, by the combined action of the two sets of blades, the soap or other material is cut up in various directions, and the whole mass is intimately mixed.

To the under surface of the bridge C are secured inclined plates F, one on each side of the shaft B. These inclines slope down in the same direction as the movable stirring-blades D, and their lower edges come close down to a level with the top edge of the upper blade D, so that as this blade approaches either of the inclines, a quantity of the material to be stirred is carried in under said incline, and finally exposed to a squeezing action, and at the same time the liquid particles, which are liable to accumulate at the top, are sucked down and brought in intimate contact with the parts below.

If desired, both sets of stirring-blades may be made to revolve in opposite directions by connecting the blades E to a cage and extending the sleeve of the upper blade up so that a bevel-wheel can be mounted on it, which imparts to the same a revolving motion in a direction opposite to that of the shaft B.

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

In a machine for stirring soap and other materials, the arrangement of two sets of stirring-blades alternating with each other and set to incline in opposite directions, each of said blades being provided with holes, in combination with a central shaft to impart motion to one or both sets of stirring-blades, and with squeezing inclines secured to a bridge extending across the top of the tub which incloses the entire mechanism, substantially as described.

CHARLES LEHMANN.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.