

J. N. MERIAM.

Apparatus for Stirring and Cooling Lard.

No. 85,117.

Patented Dec. 22, 1868.

Fig. 1.

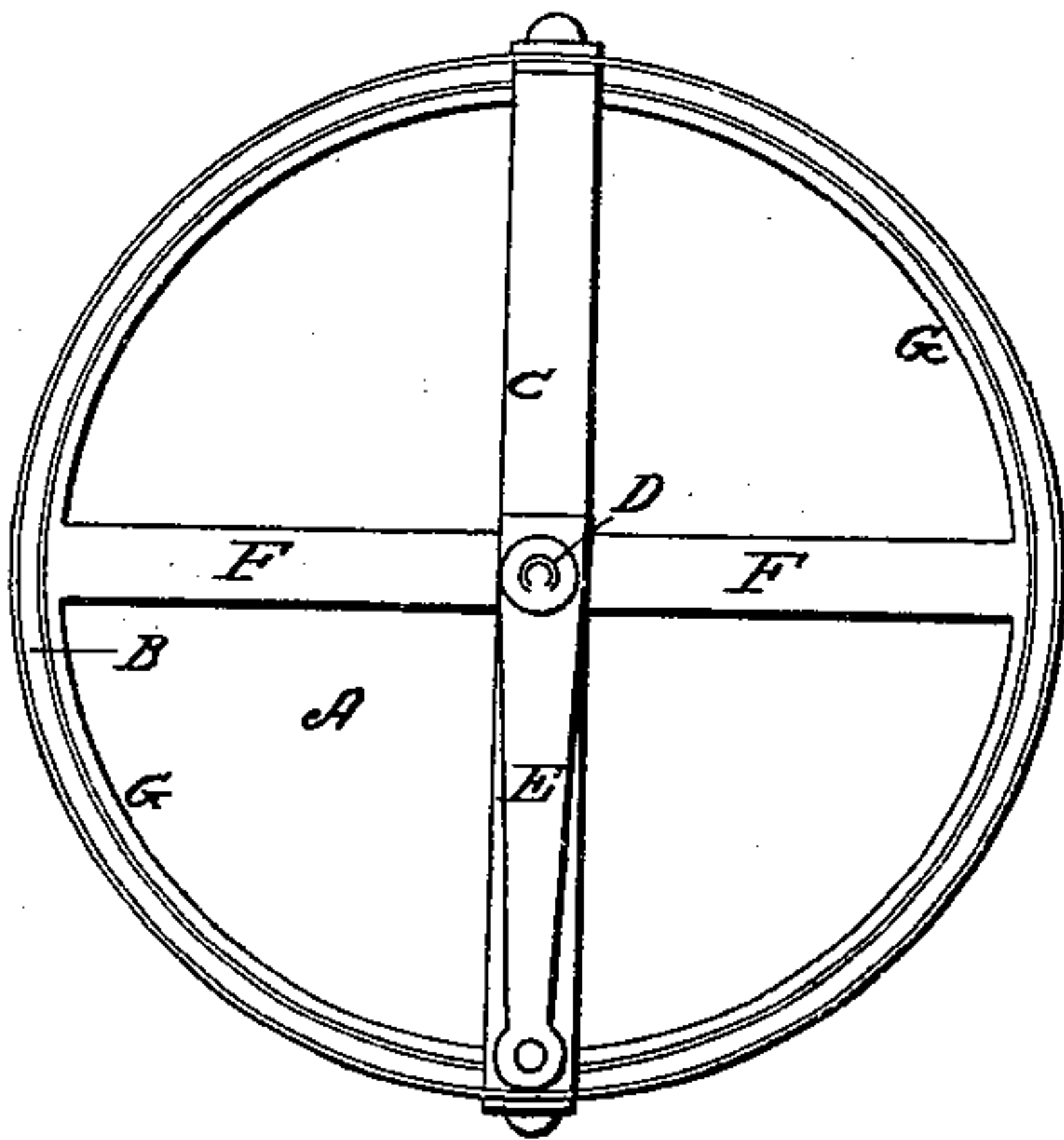


Fig. 4.

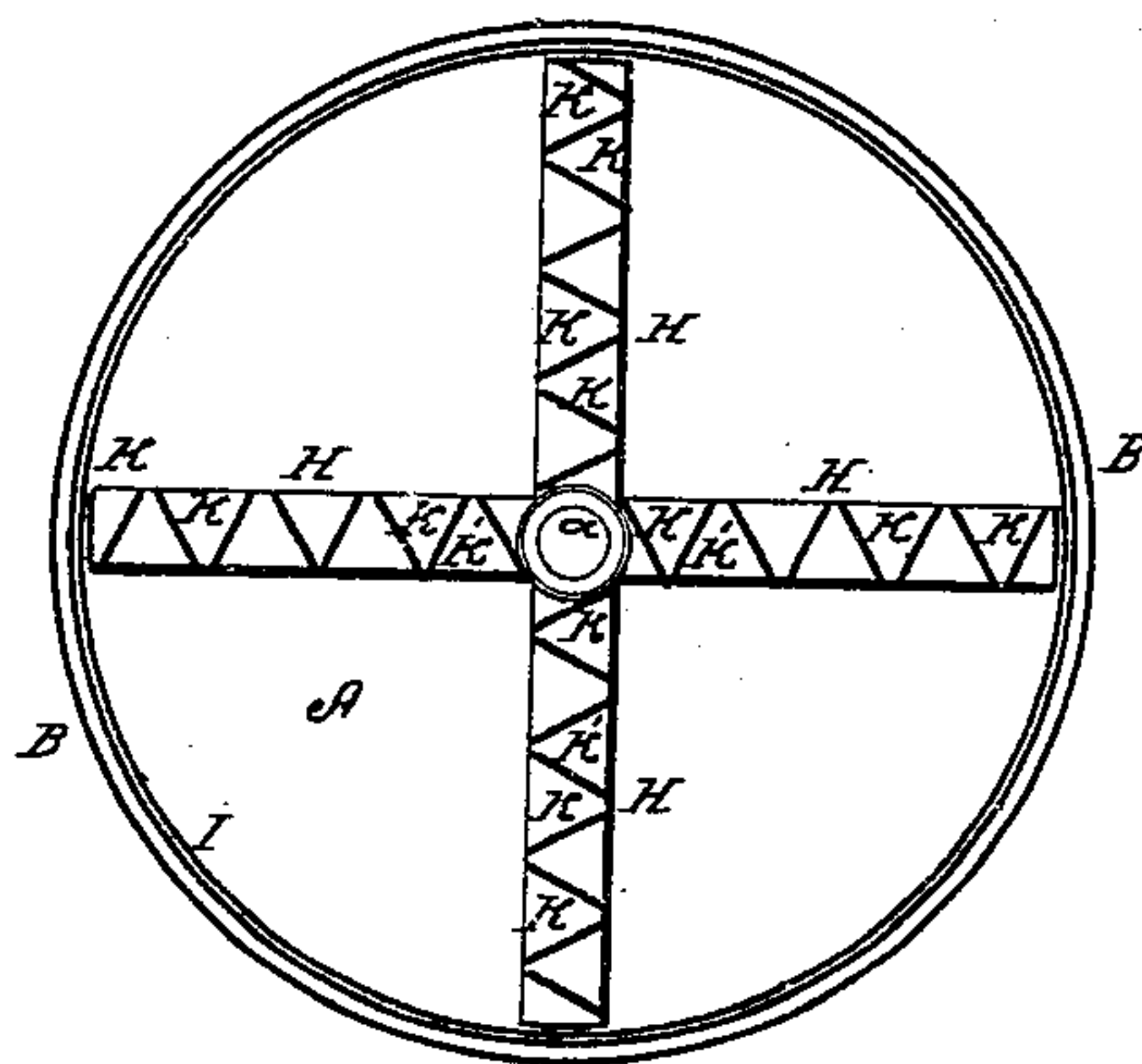


Fig. 2.

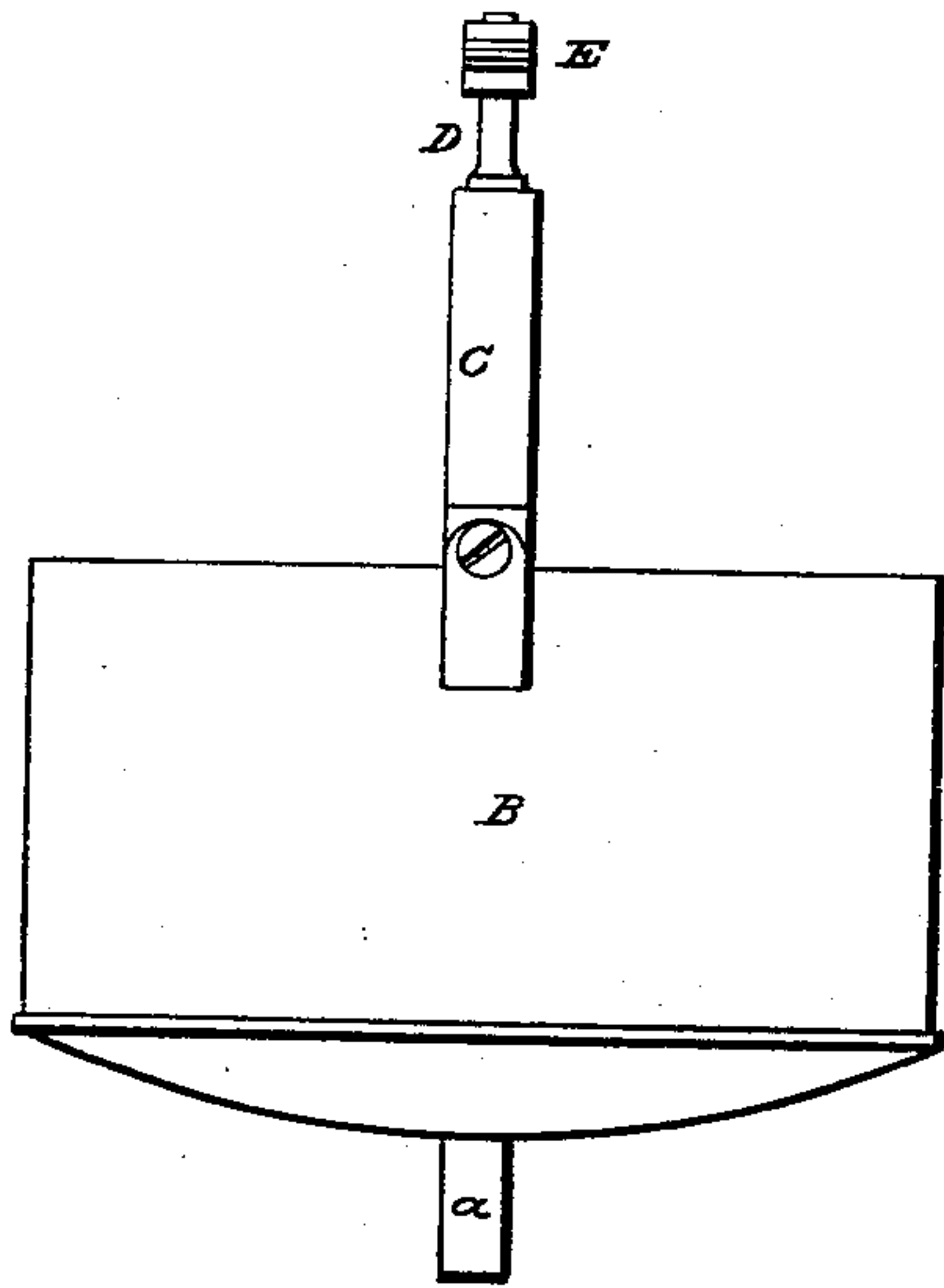
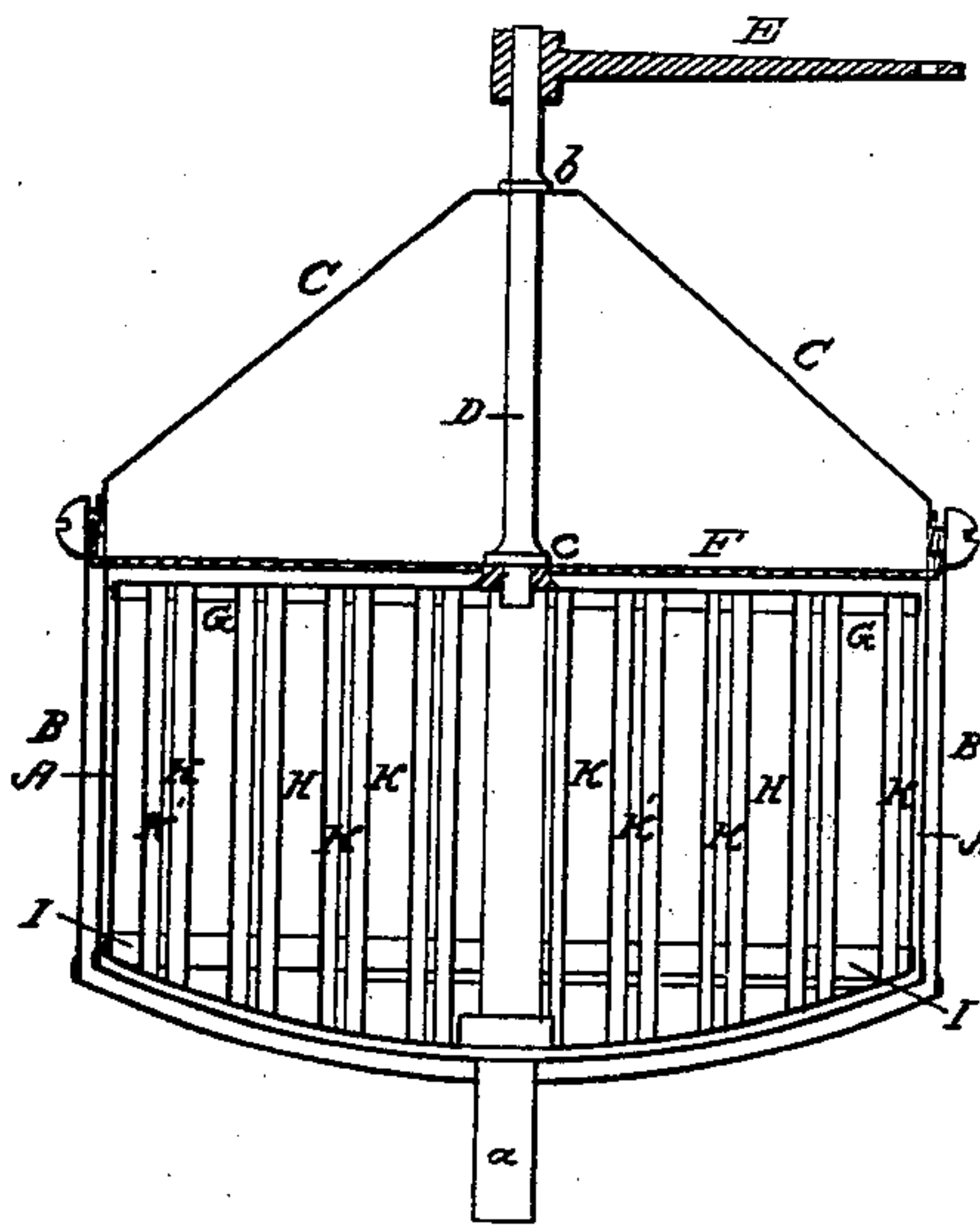


Fig. 3.



Witnesses:

S. N. Piper.
J. B. Snow.

Inventor:

John N. Meriam
by his attorney
R. H. Eddy.

United States Patent Office.

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Letters Patent No. 85,117, dated December 22, 1868.

IMPROVED APPARATUS FOR STIRRING AND COOLING LARD.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, JOHN N. MERIAM, of Cambridgeport, of the county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Apparatus or Mechanism for Agitating and Cooling Lard; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view,
Figure 2, a front elevation,
Figure 3, a vertical and transverse section, and
Figure 4, a horizontal section of my improved machine or apparatus.

In such drawings—

A denotes a cylindrical tank or vessel, surrounded by an annular chamber, or refrigerator, or cooler, B, through which, when the apparatus is in use, a current of cold water is to be caused to flow, or such chamber may contain a cooling or refrigerating-matter, liquid, or mixture.

An eduction-pipe, *a*, leads out of the bottom of the tank A, such bottom being concavo-convex, in order to convey the lard to the mouth of the said educt.

A truss, C, projecting from the top of the vessel A, serves to support, in proper bearings, *b c*, a vertical shaft, D, from whose top an arm, E, is extended, the purpose of such arm being to enable a reciprocating rotary motion to be imparted to the shaft by any suitable motor applied to the arm.

A series of four radial arms, F F F F, is applied to the lower end of the shaft D, the said arms, at their outer extremities, being joined by a hook or ring, G.

Each arm composes the upper part of one of four rectangular frames, H H H H, whose lower bars are joined by a ring, I.

Within each of the frames H is a series of vertical slats or stirrers, K K', which are arranged obliquely, or in angular positions, with respect to one another, in manner as shown in fig. 4; that is, all those marked K are parallel to each other, and out of parallelism with the rest, which are also parallel with each other, so that when the system of stirrers is put in revolution, in either direction, within a body of lard, when in the tank, such lard will be compressed by and be-

tween the several stirrers, and will be effectually broken up.

I am aware of the lard-cooling apparatus which constitutes the subject of the United States patent, No. 78,925, and make no claim to the same, or any part thereof, my invention being in the nature of an improvement or improvements on apparatus of like character.

My invention saves the necessity of the series of stationary bars or slats to operate with and between the series of orbital rotary slats. All the slats of my machine or apparatus are rotary about a common axis, and they are not only arranged obliquely to their circles or paths of rotation, but so that each slat shall make an angle with that next, or either of those next to it, the same being as above described.

By this arrangement of the slats, the lard is not only stirred up, but compressed or squeezed together by two of them, as it may be passing between them.

The arrangement also renders much less power necessary to run the slats through the lard, as they act as inclined planes, instead of squarely against it.

The arrangement also enables the series of slats employed, to act in the way they do, whether they be revolved in one or the other direction.

Furthermore, my employment of four slatted frames, H, a shaft, D, and a connection-ring, I, is different from anything shown in the said patent, as it leaves a clear space between the four frames, and thus gets rid of a shaft going down between them, and thereby saves the gathering of the lard on the shaft, and the labor which would otherwise be required to effect its removal therefrom. Therefore,

I claim, in the machine as described for treating lard, the arrangement of slats K K' of each series, with respect to each other, as set forth.

I also claim the combination and arrangement of the four slotted frames H, the connection-ring I, and the shaft D.

JOHN N. MERIAM.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.