

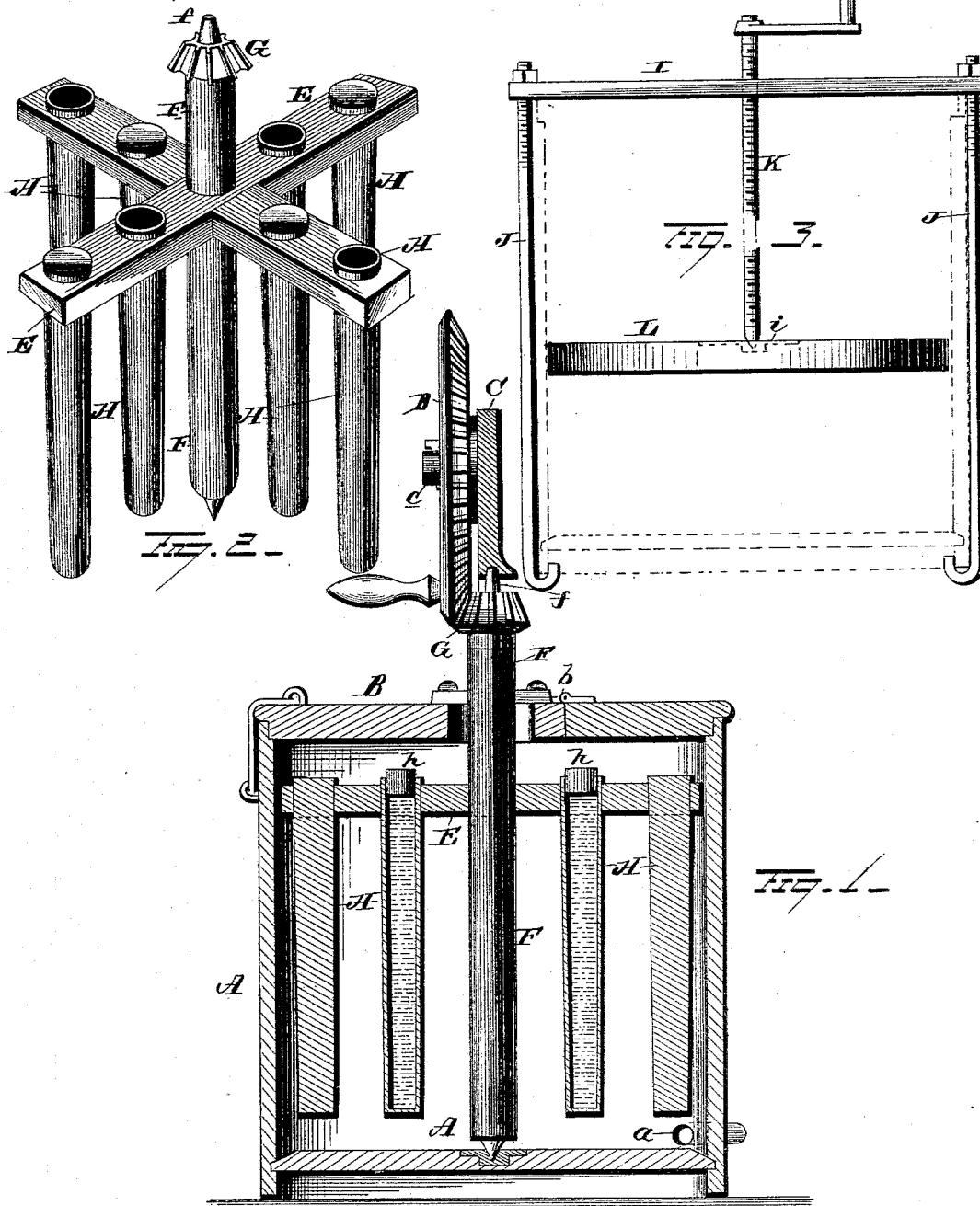
(No Model.)

D. B. PECK.

CHURN.

No. 304,022.

Patented Aug. 26, 1884.



WITNESSES
S. J. Nottingham
George Cook.

INVENTOR
Dane B. Peck.
B. H. Sumner,
Attorney

UNITED STATES PATENT OFFICE.

DANIEL B. PECK, OF JACKSON, MICHIGAN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 304,022, dated August 26, 1884.

Application filed September 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL B. PECK, of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in churns, the object being to provide a churn which shall materially hasten the production of the butter, and by which a much better quality of butter may be produced. A further object is to provide a churn which shall be simple and economical in construction, and at the same time durable and efficient in use; and with these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in vertical section of my improvement, the compressor being removed. Fig. 2 is a detached perspective view of the agitator. Fig. 3 is a detached view of the compressor.

A represents the churn-body, made of any desired size and shape, and is provided near its base with an outlet, *a*, and with a sectional removable cover, B, the two sections being hinged together, as shown at *b*.

To the cover B is secured the standard C, provided with the bearing *c*, on which is mounted the gear-wheel D, the latter being provided with a handle, *d*, through which motion is imparted to the rotary dasher, which latter is constructed as follows:

E represents two arms securely fastened together, through which passes the shaft F, provided on its upper end with the pinion G, adapted to mesh with the gear-wheel D, the said pinion having on its upper face a stud or projection, *f*, which fits in a depression formed in the standard C, thereby keeping the shaft F in its proper position. The arms E are provided with a suitable number of perforations, in which are adapted to fit the cylinders H, either a portion or all of which are hollow, the hollow cylinders being preferably formed of metal. The upper ends of these cylinders are

provided with stoppers or covers *h*, while the lower ends thereof are closed.

I would have it understood that I do not limit myself to any exact number of cylinders, or to the material of which they are formed, as the above may be varied to suit circumstances.

Fig. 3 represents the compressor, which is formed of the cross-bar I, adapted, when the cover B is removed, to fit across the top of the churn-body A, to the ends of which said bar I are secured the clamping-rods J, the lower ends of which are bent to pass under the bottom of the churn. The bar I is centrally provided with a threaded perforation, through which passes the working-screw K, the lower end of which is adapted to bear on a metal strip, *i*, which is secured to the compressor-plate L, made of any desired material, and adapted to fit within the churn-body A.

Having described the construction of my improved churn, I will now set forth its mode of operation.

The cream is poured in the churn and the dasher set in motion by means of the handle on the gear-wheel D, the hollow cylinders H having been first filled with hot or boiling water. After the cream has been churned a certain length of time the hot water is removed from the cylinders and substituted by cold water or granulated ice and the dasher again put in motion, which has the effect of much quicker developing the butter than by other means. The buttermilk is then drawn off by means of the outlet *a* and fresh water substituted and the butter thoroughly washed by means of the dasher. The water in turn is drawn off, leaving the butter in aggregations of small globules. The salt is then added and the dasher moved backward and forward to thoroughly mix the same and work the butter, after which the cover B and dasher are removed and the plate L placed upon the butter and the screw applied, which forces the said plate down upon the butter, and compressing it forces out all the water. The butter is then ready to pack or work into prints or rolls, as desired.

It will now be readily seen that by means of my improved apparatus the butter is produced in a much shorter time, produces a better qual-

ity of butter, in that the butter is not handled and the grain injured, the dasher leaving it in a perfect state for salting; also, by means of the above construction the butter is produced, washed, and worked by one machine.

My invention is exceedingly simple in construction, is durable in use, and can be manufactured at a small initial cost.

It is evident that many slight changes in the construction and arrangement of the different parts might be resorted to without departing from the spirit of my invention, and therefore I would have it understood that I do not limit myself to the exact construction shown and described, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I

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

The combination, with a churn-body, of a rotating shaft, laterally-extending arms secured to said shaft, beaters depending from the arms, one or more of said beaters being hollow for the purpose of containing water, and plugs for closing the upper ends of the hollow beaters, all of the above parts being combined substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DANIEL B. PECK.

Witnesses:

E. A. CLEMENT,
WM. WORSFOLD.