

(No Model.)

J. F. RICHARDSON.
CHURN.

No. 561,131.

Patented June 2, 1896.

Fig. 1.

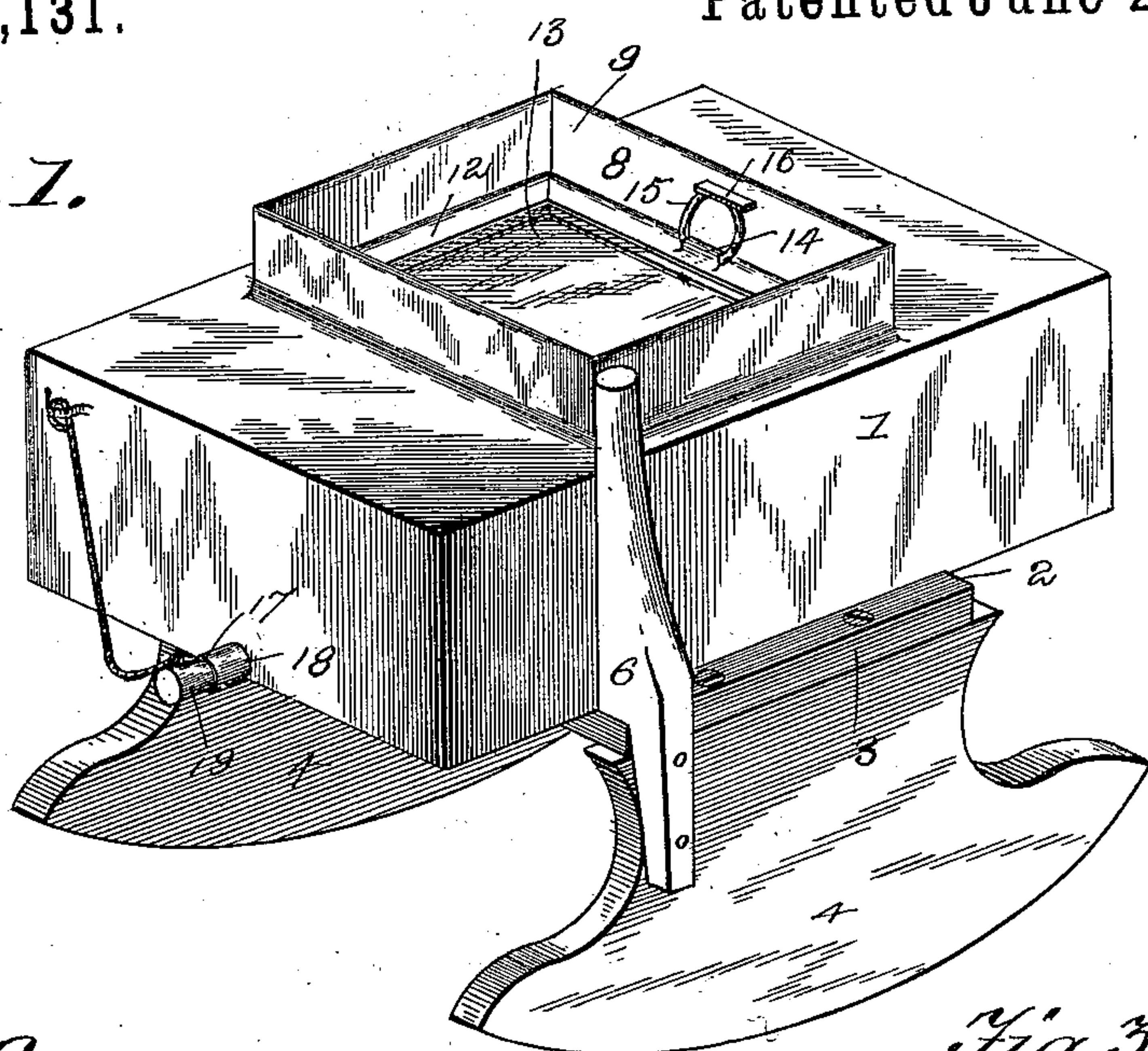


Fig. 2.

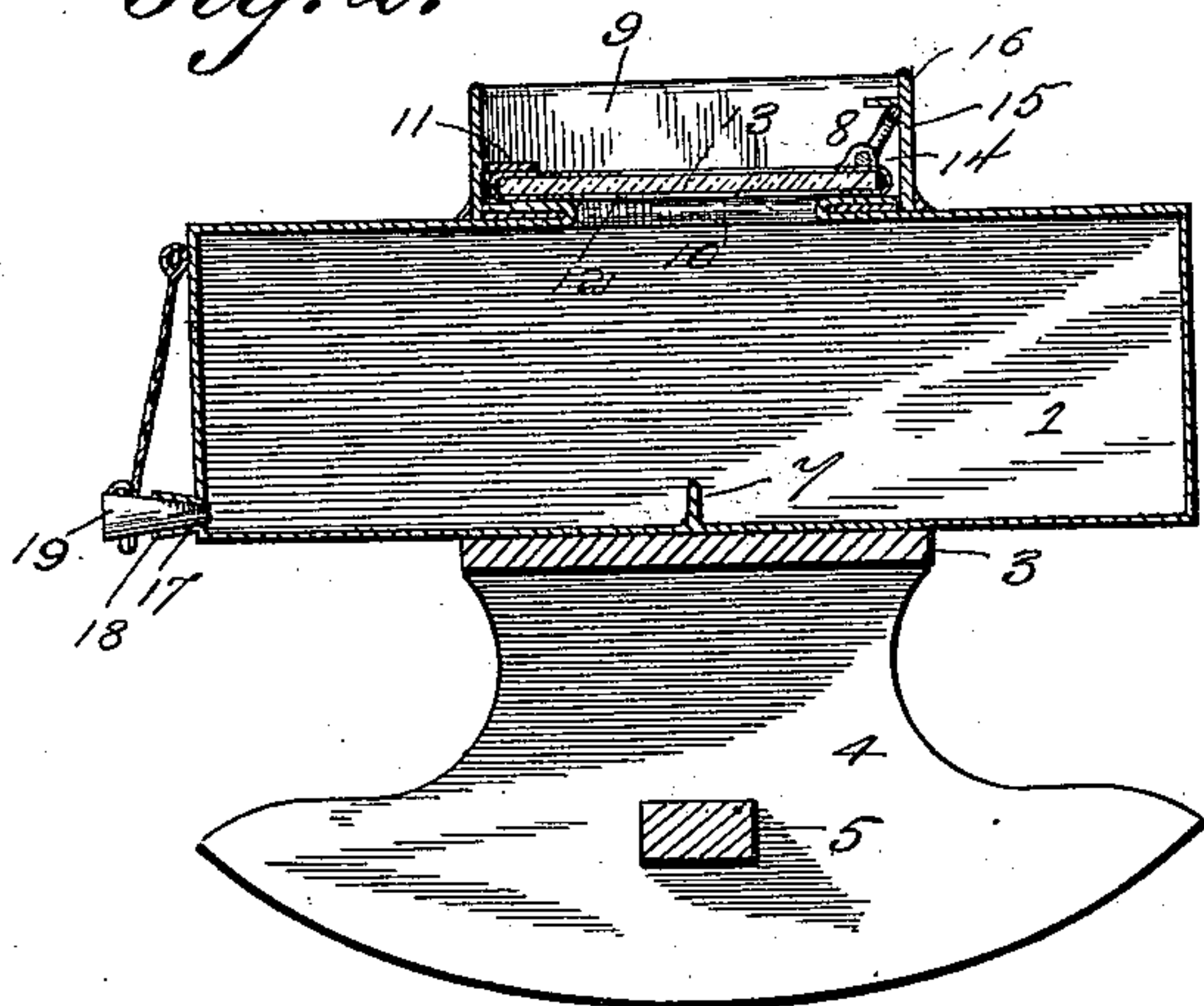


Fig. 3.

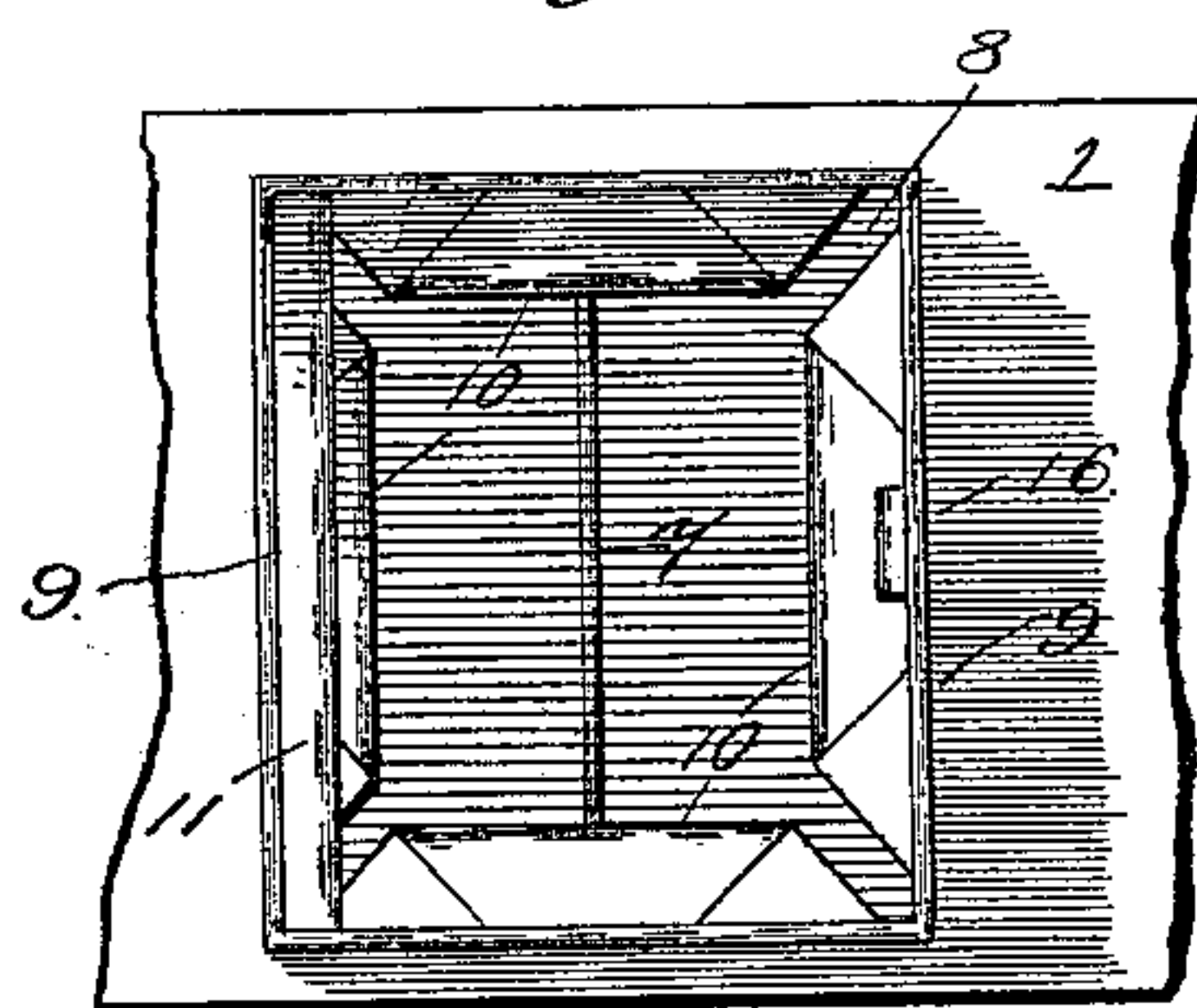
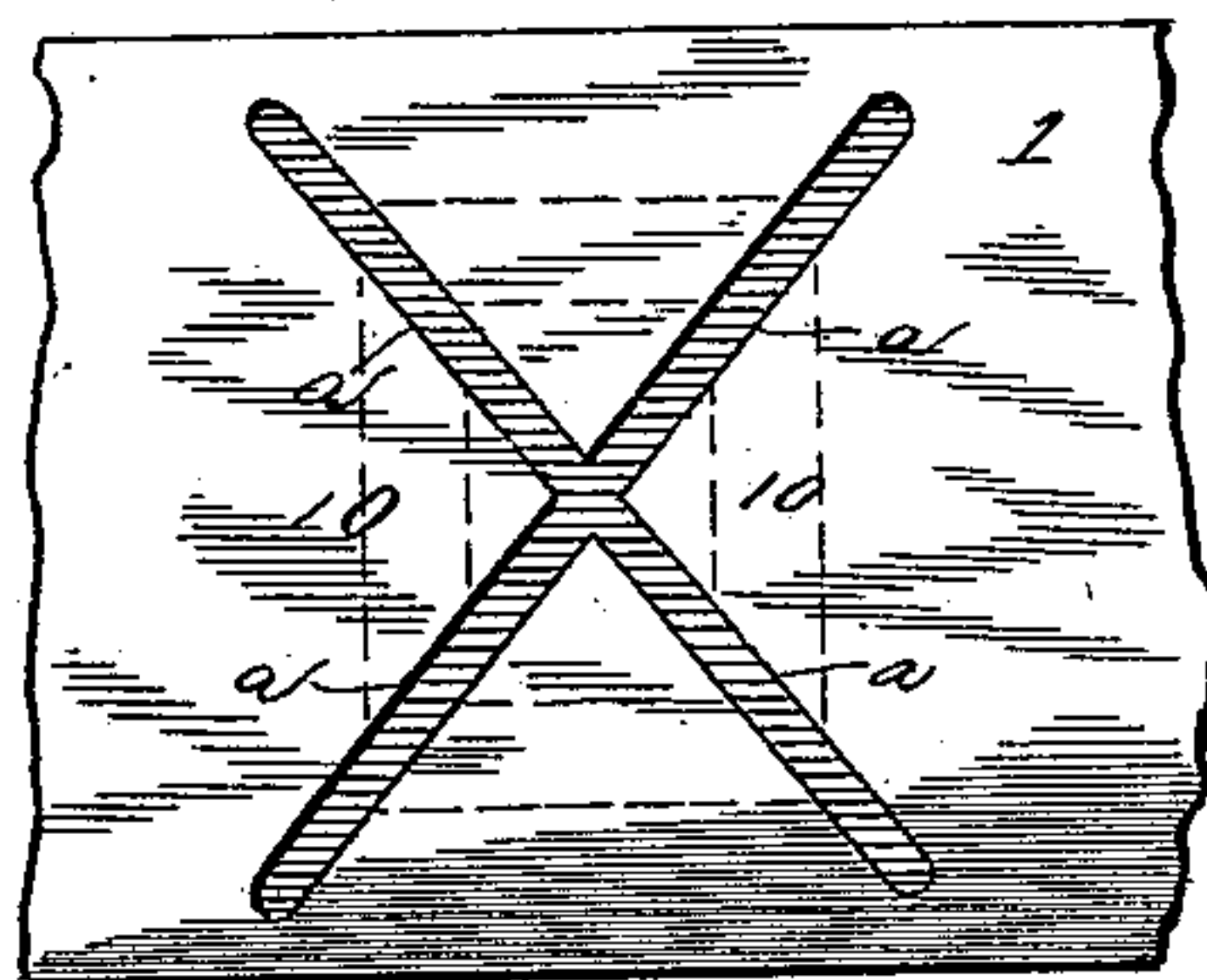
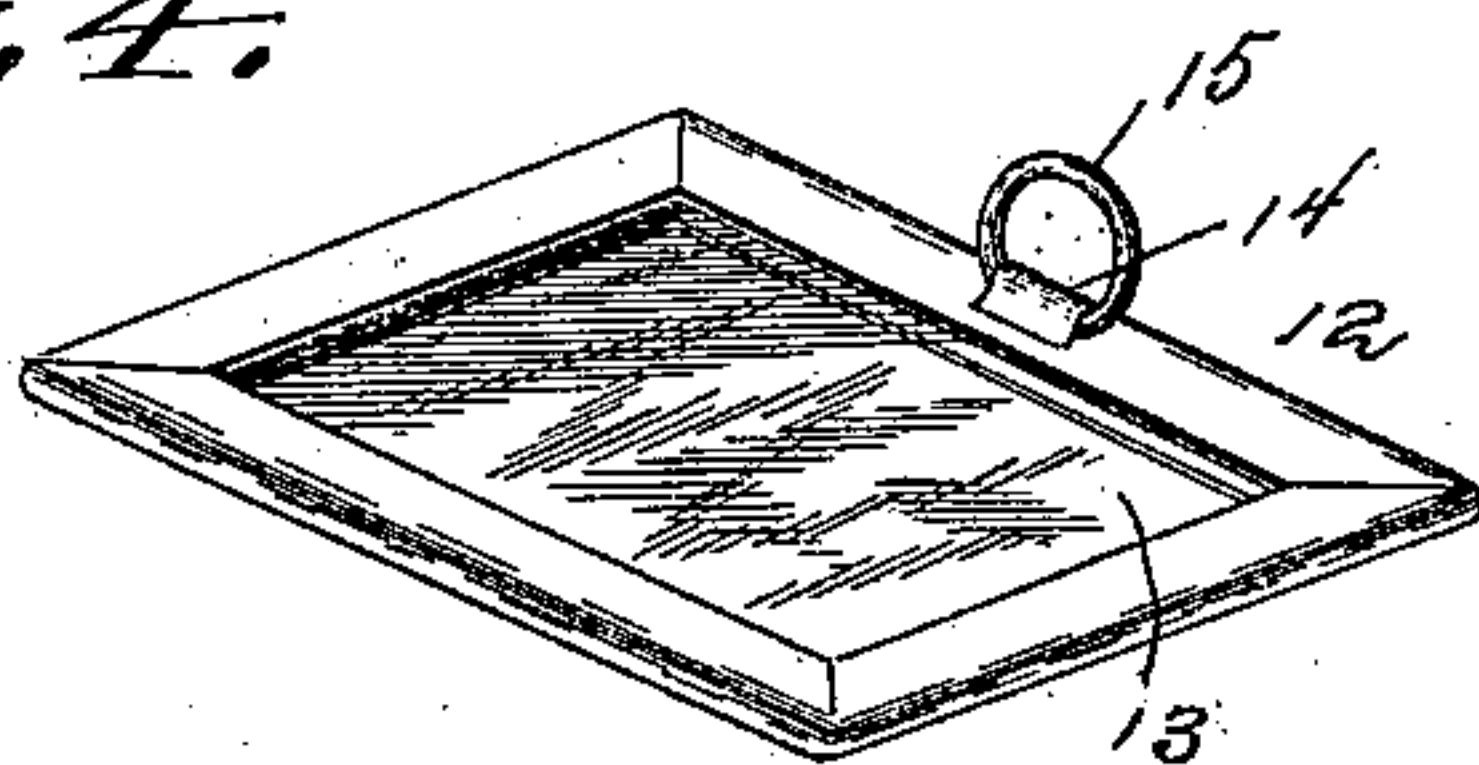


Fig. 4.



Inventor

Joseph F. Richardson

Witnesses

E. H. Monroe.

J. B. Devere.

By *his* Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOSEPH F. RICHARDSON, OF BIRKS CITY, KENTUCKY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 561,131, dated June 2, 1896.

Application filed November 15, 1894. Serial No. 528,858. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. RICHARDSON, a citizen of the United States, residing at Birks City, in the county of Daviess and State of Kentucky, have invented a new and useful Churn, of which the following is a specification.

This invention relates to an improvement in that class of churns wherein a body portion or receptacle is mounted for rocking movement, whereby the cream to be churned will be dashed from one end of the body to the other at each operation thereof.

My invention resides in certain peculiar features of construction connected with the lid for closing an opening in the top of the body portion and in the means for mounting said lid and securing it in place. The object contemplated is to provide a lid which may be readily and quickly removed, and which may be secured in place with all necessary efficiency to prevent the escape of cream from the body portion.

To this end the invention consists in forming in the top of the body portion a rectangular opening and in providing flanges projecting inwardly in the plane of the top. Upon these flanges a rectangular frame is removably seated, said frame carrying a glass plate and being held in place at one edge by means of an additional flange extending inwardly from one side of the opening above and parallel with the plane of the top of the body. On the side opposite to this additional flange an inwardly-projecting lug is arranged, which lug is adapted to coact with a ring or link pivoted to the frame of the glass plate and capable of swinging under the lug to positively engage it and hold the frame of the glass plate in place.

The invention further consists in a peculiar manner of forming the opening in the body portion, whereby the material removed to form the opening serves to form a series of flanges integral with the sheet metal composing the body portion. This is accomplished by first forming two intersecting slots extending diagonally across the proposed opening and by subsequently bending the free ends of the triangular tongues formed by these slots back upon the main or body portions of the

same to provide reinforcement, as more fully described hereinafter.

In the drawings, Figure 1 is a perspective view of a churn embodying the essential features of my invention. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a plan view of the opening in the body portion, showing the arrangement of the flanges thereof. Fig. 4 is a detail perspective of the lid of the body portion. Fig. 5 is a plan view illustrating the slots which are formed in the body portion in the process of forming the opening therein.

Similar numerals and letters of reference indicate corresponding parts in all the figures of the drawings.

1 indicates a churn-body, preferably constructed of sheet metal and shaped as a parallelogram, it being elongated longitudinally and provided at its sides and at its lower portion with the flanges 2, which project horizontally therefrom, and which are securely fastened to the board 3 of the parallel rockers 4, a brace 5 being provided, whereby the rigidity of the rockers is insured.

6 indicates a handle, which is rigidly secured to one of the rockers 4, and which projects upwardly therefrom, its purpose being to furnish means for imparting motion to the churn-body.

Located within the churn-body and projecting upwardly from the bottom thereof is a transverse rib 7, provided to break the cream as it is forced back and forth through the body and accelerate the churning operation. Formed in the upper side of the body 1 and at the middle thereof is an opening 8, approximately square in plan, which extends from one side of the body portion to the other, and rising vertically from the sides of the opening 8 is the flange 9, which extends continuously around the opening and is adapted to form a guard therefor.

10 indicates inwardly-extending horizontal tongues or flanges equal in number to the sides of the opening and approximately triangular in plan, the same being formed and separated by the diagonally-disposed intersecting slots *a*, (shown in Fig. 5,) the extremities of which are located at the four corners of the opening. After thus separating the

tongues the points thereof are folded or doubled back to form thickened flanges or rolls adapted to support a lid 12 for the churn-body, said lid fitting within the upstanding flange 9. The tongues are preferably doubled to form three folds, whereby the points are covered or rolled in between the remaining folds.

11 indicates an additional flange secured to the inside of the flange 9 at one end thereof and projecting inwardly and horizontally above the adjacent flange 10 and parallel therewith. The purpose of this flange is to confine one side of the lid or frame 12 in place. The lid or frame 12 is composed of metal suitably constructed and provided with a glass plate 13. One side of the frame or lid 12 has secured thereto an eye 14, carrying the ring 15, and by these means the ring 15 is mounted to swing freely in a vertical plane. By reference to Fig. 2 it will be seen that the lid or frame 12 is seated within the flange 9 and that it rests upon the flanges 10. Rigidly secured to the flange 9 and directly opposite the point carrying the flange 11 is an inwardly-projecting lug 16, under which the ring 15 is adapted to be forced, whereby the lid or frame 12 is forced down upon the flanges 10, which will effectively close the opening 8 and make the escape of air or cream impossible. The rolling of the triangular tongues to form the flanges 10 produces a cushion having a yielding quality, which provides for forming an air-tight joint.

Formed in one end of the body portion 1 and at the lower side thereof is a discharge-opening 17, surrounded by a nozzle 18 and provided with a plug 19. The purpose of this arrangement is to permit the withdrawal of the residue left by the churning operation, as is common in all such apparatus.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

A churn having a rocking body constructed of sheet metal and provided in its upper side with an opening 8 surrounded by an upstanding flange 9, horizontal resilient or compressible supporting-flanges 10 arranged within the flange 9 and forming a cushion, the flanges 10 being constructed of triangular tongues struck from the churn-body and folded or rolled outwardly or toward the flange 9 to form said opening 8, a lid fitted within the flange 9 and resting upon the flanges 10, and means for forcibly depressing the lid upon the flanges 10 to form an air-tight joint, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH F. RICHARDSON.

Witnesses:

J. A. FRAYSER,
ROBERT FREY.