

(No Model.)

N. PACKARD.
CHURN.

No. 551,558.

Patented Dec. 17, 1895.

Fig. I.

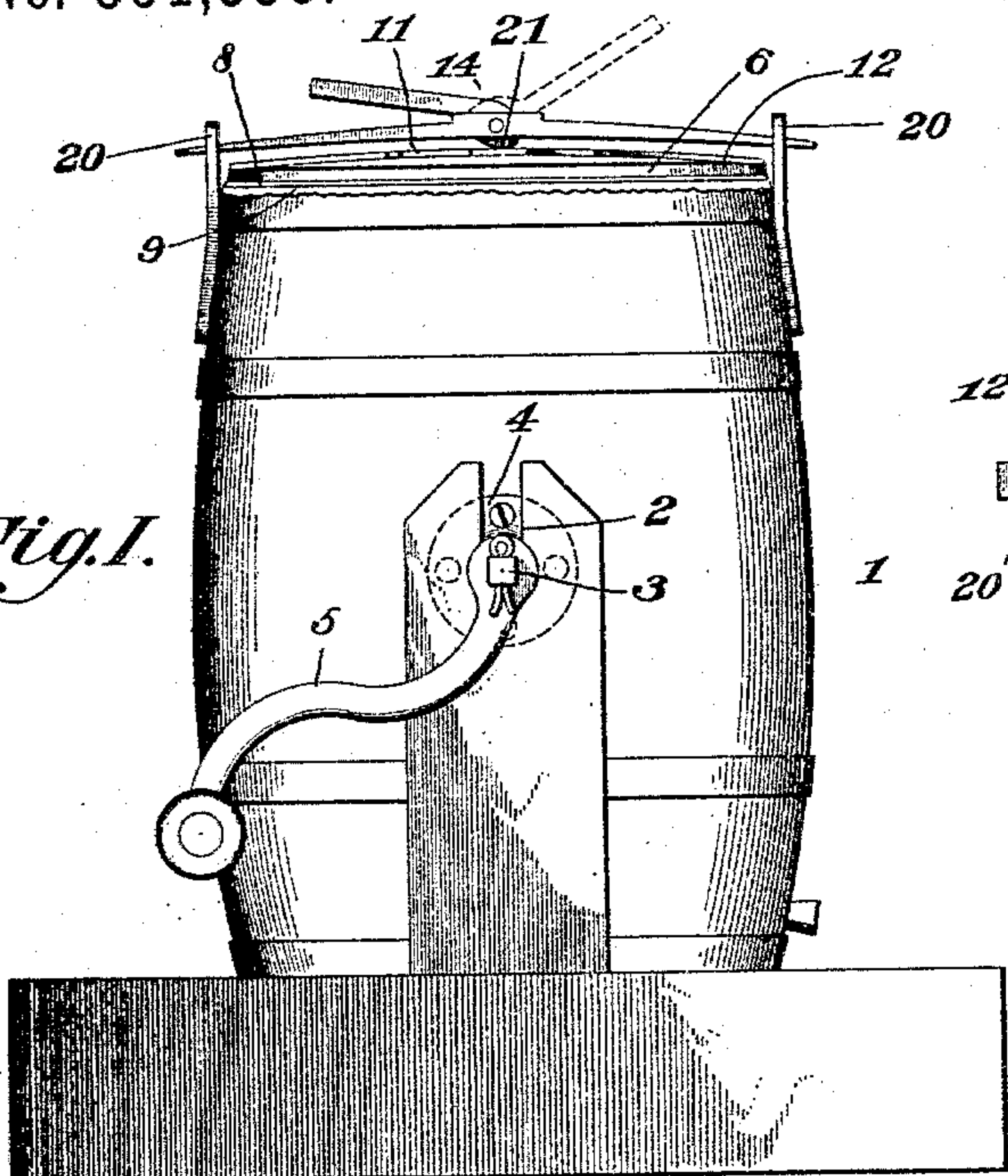


Fig. II.

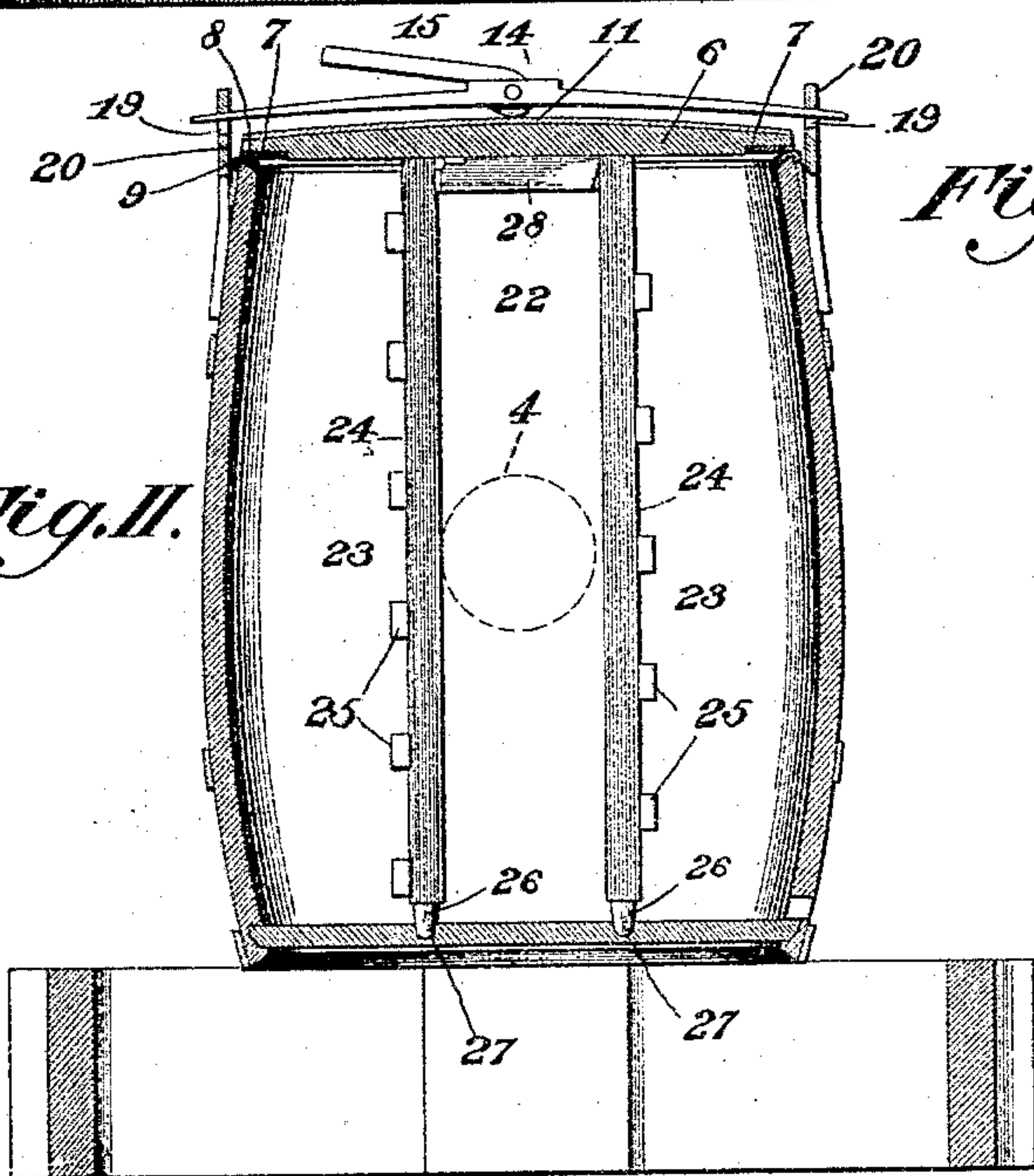


Fig. IV.

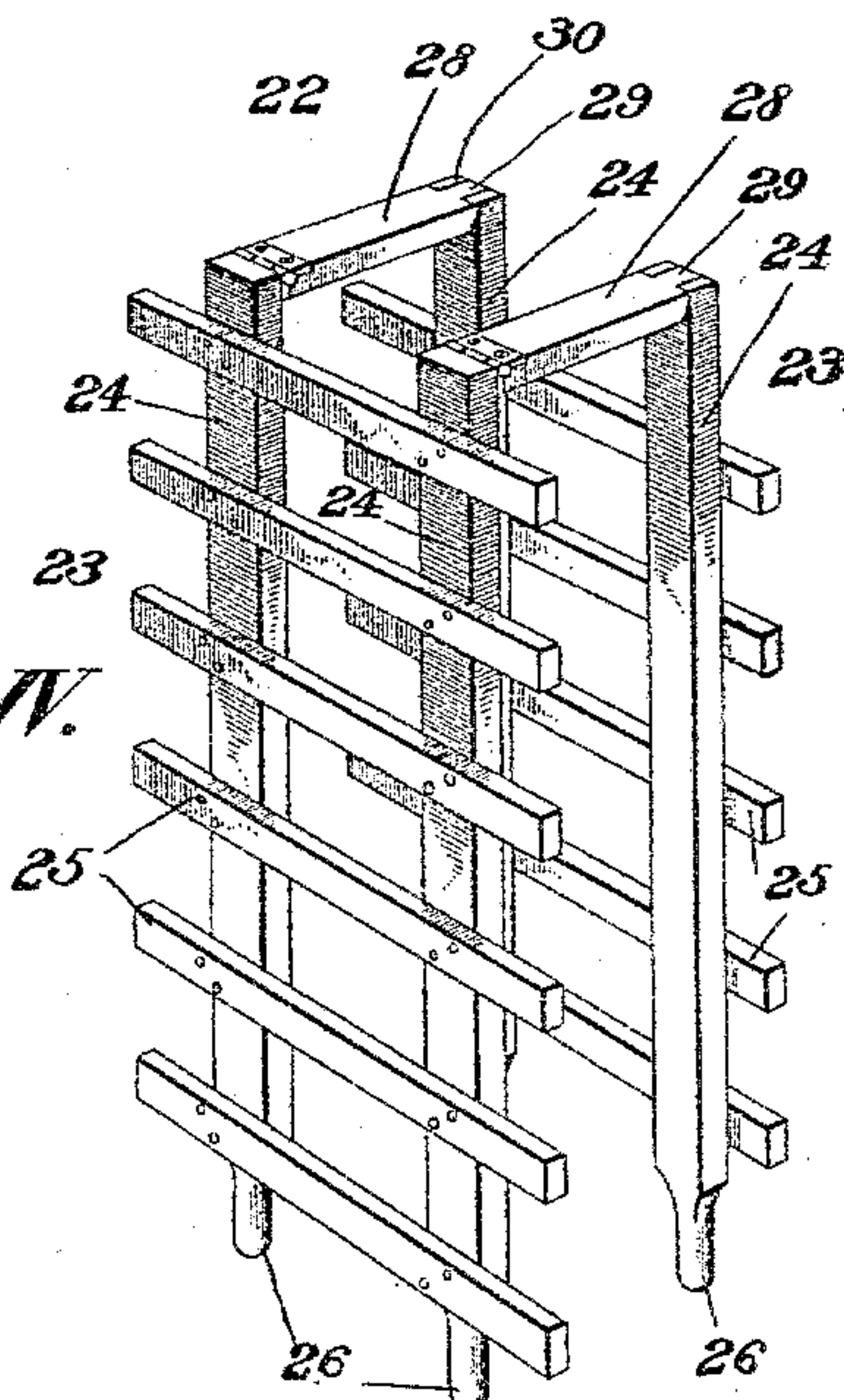
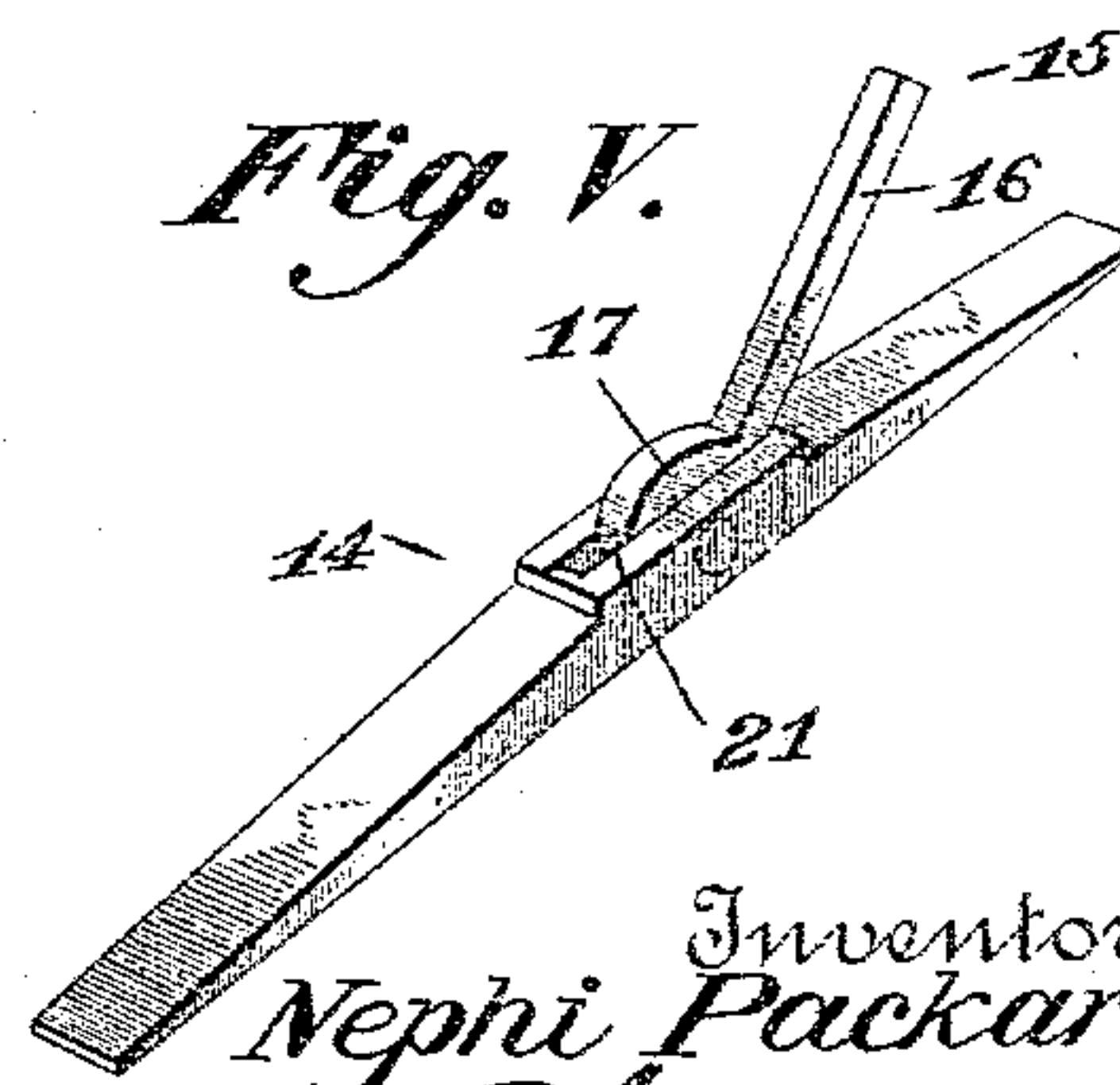


Fig. V.



Witnesses

Edw. S. Durall.

S. Macker

By Joseph B. Litchin
Attorney

Inventor
Nephi Packard.

UNITED STATES PATENT OFFICE.

NEPHI PACKARD, OF SPRINGVILLE, UTAH TERRITORY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 551,558, dated December 17, 1895.

Application filed February 25, 1895. Serial No. 539,596. (No model.)

To all whom it may concern:

Be it known that I, NEPHI PACKARD, of Springville, in the county of Utah and Territory of Utah, have invented certain new and
5 useful Improvements in Churns, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is the production of a rotary churn adapted by reason of
10 its novel construction to expedite the operation of churning and to facilitate the removal of the product.

In the accompanying drawings, Figure I is an elevation of my churn, illustrating the
15 means of securing the cover. Fig. II is a similar view showing the side of the churn-body broken away. Fig. III is a top plan view of my churn. Fig. IV is a detail view of the dasher, and Fig. V is a perspective of
20 the lock-spring and cam-lever.

Referring to the figures on the drawings, 1 indicates the churn-body, which is preferably of cylindrical form, revolubly mounted in suitable bearings 2 by means of trunnions
25 3 projecting from diametrically-opposite sides of the churn-body and secured thereto by means of trunnion-plates 4, as illustrated.

5 indicates a crank secured to the extremity of one of the trunnions for imparting rotary
30 motion to the churn-body.

6 indicates a cover provided with an annular recess 7 and a resilient band 8 secured therein adapted to rest upon a similar band
35 9 upon the upper edge of the churn-body. When the cover is in place, these bands are adapted to afford a close connection between the cover and the receptacle, and are preferably of soft rubber or similar material. The
40 cover is provided, preferably, with a somewhat convex upper surface, and is provided at its center with a metallic plate 11 and with radial plates 12 extending from the plate 11 to the periphery of the cover.

14 indicates a locking-spring tapering from
45 its middle toward its ends and provided with a vertical longitudinal slot in which is pivoted a cam-lever 15, provided with a handle 16 and cam 17. When it is desired to close the churn-body the cover is placed in position and the lock-bar 18 is placed thereon, its
50 extremities extending through apertures 19 in diametrically-opposite ears 20 secured to

the churn-body at its top, the cam-lever in this position being thrown back to the position indicated by dotted lines in Fig. I. It
55 will be observed that the operator, by grasping the lever and throwing it to the reverse position, will cause the cam to force the cover securely against the top of the churn-body, the spring-bar yielding sufficiently to allow
60 the nose 21 of the cam to pass beyond the line of the pivot, when, as is evident, the resiliency of the bar will lock the cam-lever and firmly secure the cover.

22 indicates a double dasher, consisting of
65 two racks 23, composed of vertical parallel strips 24 and transverse bars 25, the transverse bars of the two racks being placed alternately, the transverse bars of one rack being in the same horizontal plane as the
70 space of the other rack.

26 indicates lugs upon the lower ends of the vertical rack-bars, adapted to fit in the recesses 27 in the bottom of the body.

28 indicates tie-bars pivotally secured to
75 the upper extremities of the vertical rack-bars of one rack and provided at their opposite ends with tongues 29, adapted to fit in grooves 30 in the upper extremities of the rack-bars of the other rack. The shoulders
80 of the tie-bars are somewhat inclined, as illustrated, to force the upper ends of the racks apart and securely wedge them within the churn-body.

It is evident that the racks may be easily
85 placed within the body, but that when the tie-bars have forced them apart and wedged them securely against the curvilinear sides of the receptacle, they are securely fastened in place, the cover bearing against the tie-
90 bars and preventing their casual displacement. It is quite apparent, however, that as soon as the cover is removed the tie-bars may be lifted, allowing the racks to approach the center of the receptacle and to be easily
95 removed.

I do not desire to limit myself to the details of construction herein shown and described, but reserve to myself the right to change, vary, and modify the same within the scope
100 of my invention.

I claim—

1. The combination with a cylindrical body part, of a plurality of racks therein, tie bars

pivotally secured to one rack and having incline shoulders at their opposite extremities adapted to engage the opposite rack and wedge said racks against the cylindrical body part, and a cover adapted to force the tie bars in place, substantially as specified.

2. In a churn, the combination with a cylindrical churn body, of a plurality of racks therein consisting of vertical rack bars and transverse rack bars located alternately, and tie bars hinged to the upper extremities of the vertical bars of one rack and provided with tongues adapted to engage grooves in the upper extremities of the vertical bars of the other rack, said tie bars being provided with inclined shoulders adapted to bear against the vertical bars of one rack to wedge the racks securely within the churn body, substantially as specified.

3. The combination with a cylindrical body part, of a plurality of racks therein, tie bars pivotally secured to one rack and adapted to engage the opposite rack and wedge said racks against the cylindrical body part, a cover adapted to force the tie bars in place,

a spring bar above the cover secured at its opposite ends to the churn body, and a pivoted cam lever directly pivoted to the spring bar and engaging the cover to force the same against the tie bars, substantially as specified.

4. The combination with a cylindrical body part, of a plurality of racks therein, tie bars pivotally secured to one rack and having inclined shoulders at their opposite extremities adapted to engage the opposite rack and wedge said racks against the cylindrical body part, a cover adapted to force the tie bars in place, a spring bar above the cover secured at its opposite ends to the churn body, and a cam lever pivoted within a slot within the spring bar and engaging the cover to urge the same against the tie bars, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

NEPHI PACKARD.

Witnesses:

CHARLES D. EVANS,

JEDEDIAH PRINCE EVANS.