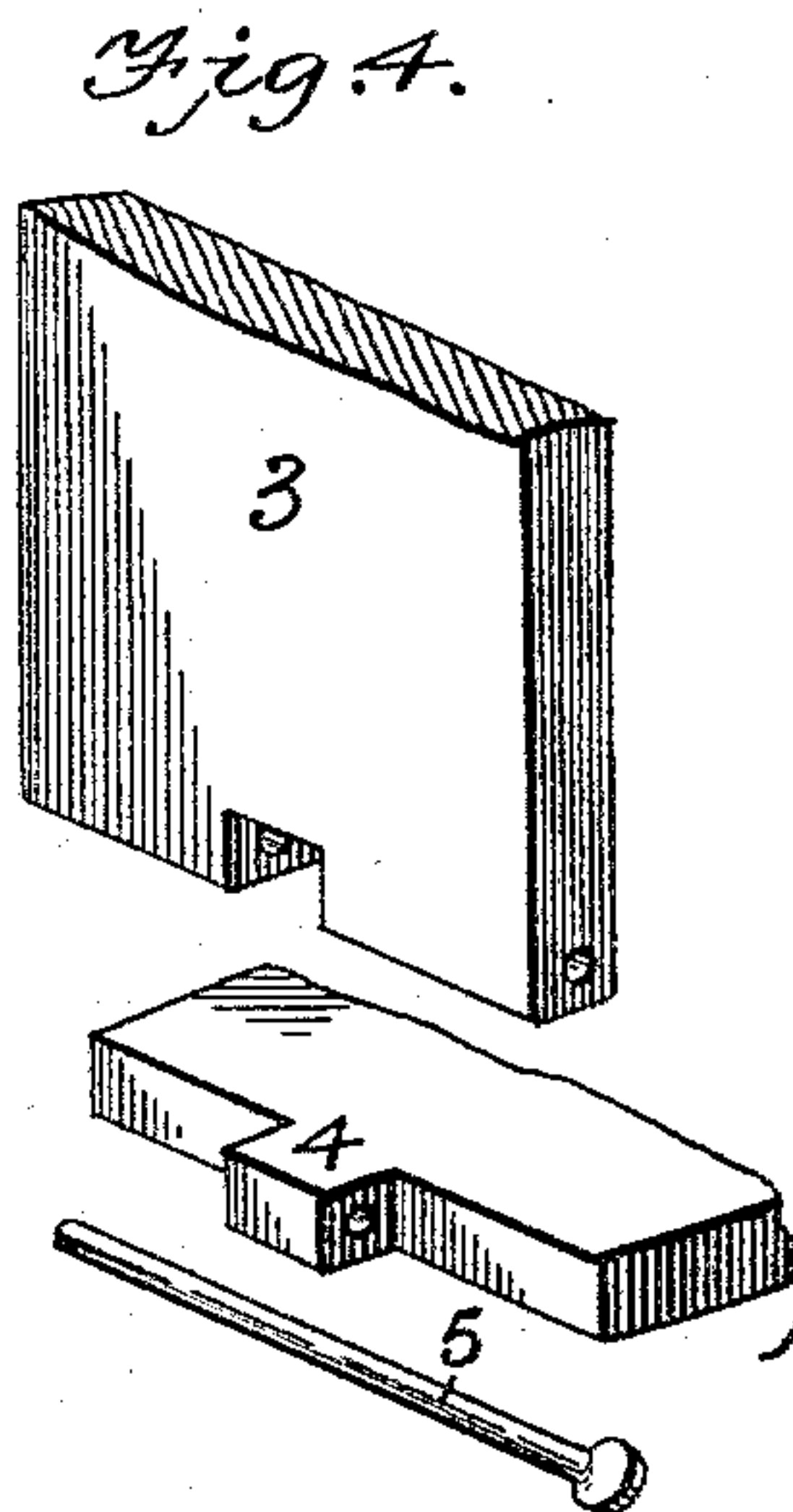
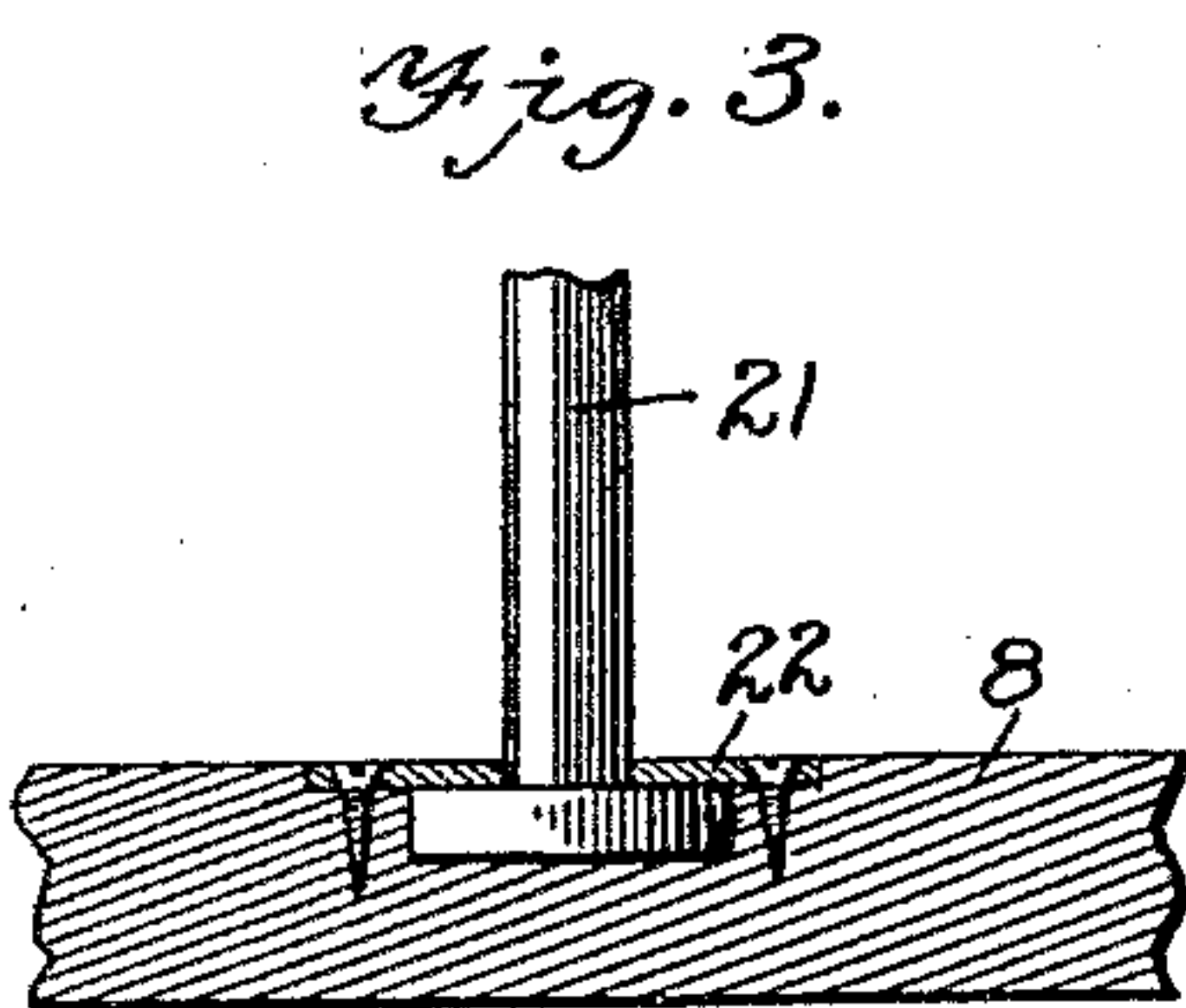
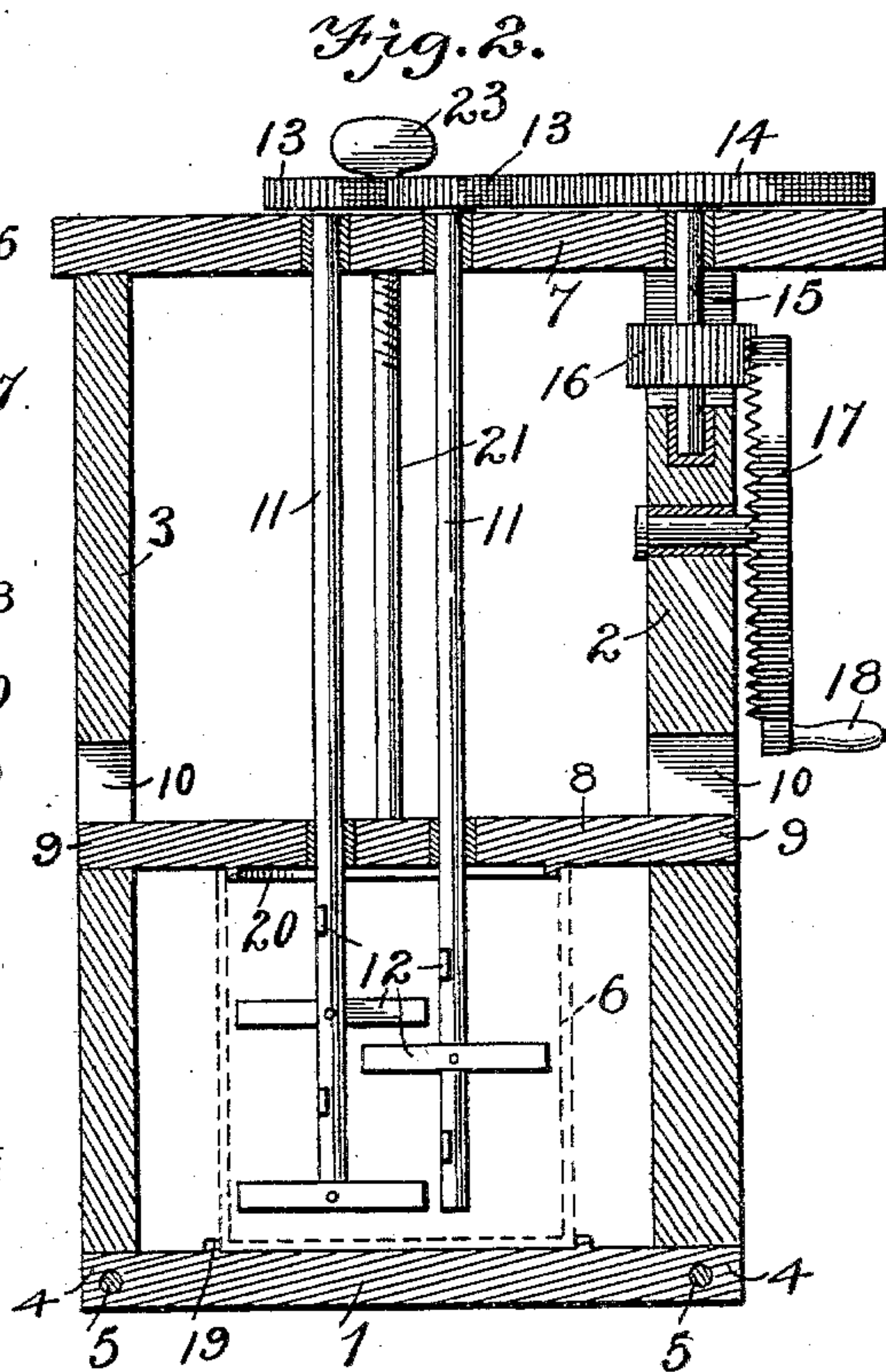
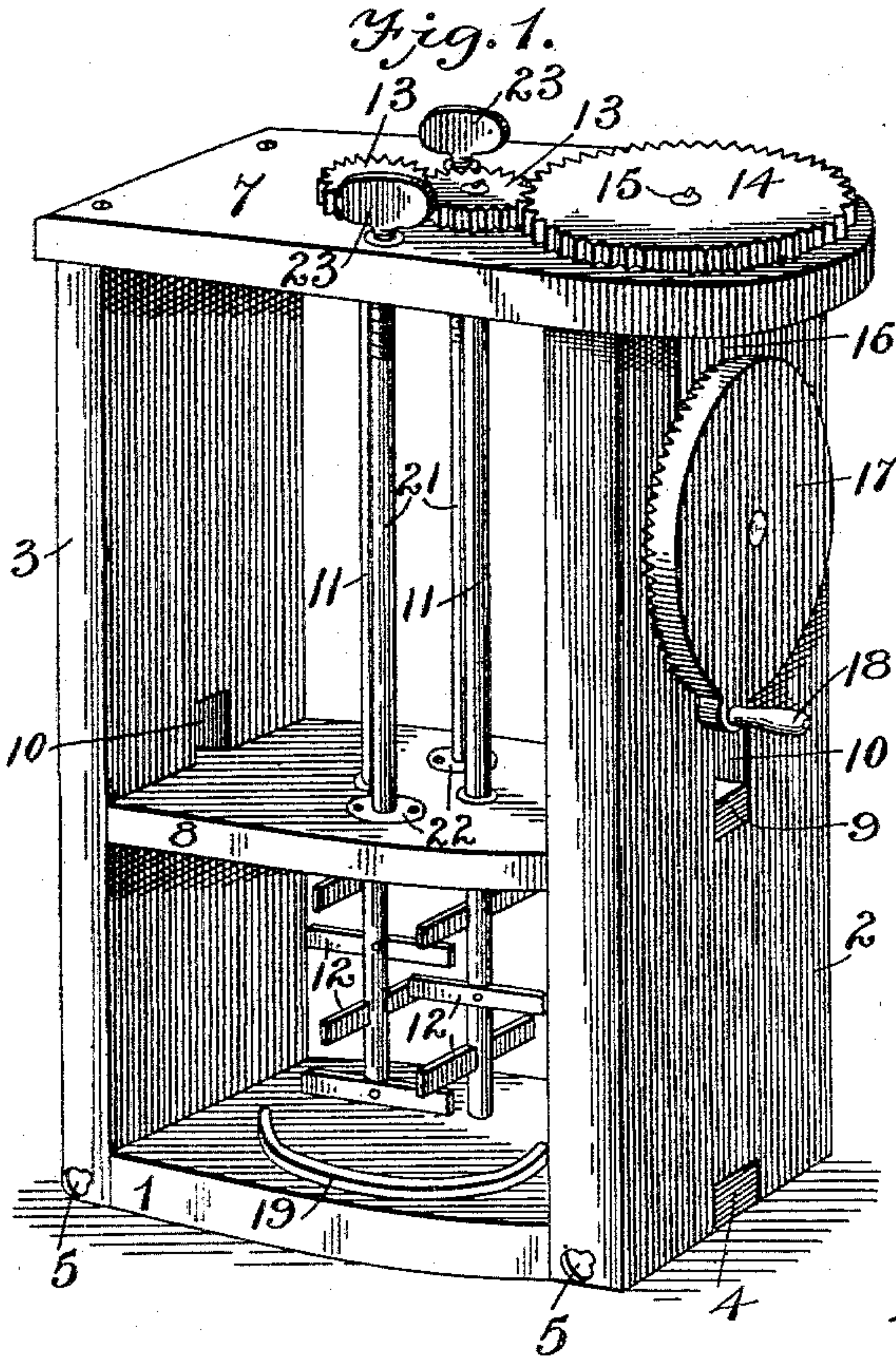


(No Model.)

M. V. OLINGER.  
CHURN.

No. 597,736.

Patented Jan. 25, 1898.



Witnesses

Edwin G. McKee

By his Attorneys,

*[Signature]*

*Chas. H. Co.*

Inventor  
Martin V. Olinger



# UNITED STATES PATENT OFFICE.

MARTIN V. OLINGER, OF BULL RUN, TENNESSEE.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 597,736, dated January 25, 1898.

Application filed May 20, 1897. Serial No. 637,386. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN V. OLINGER, a citizen of the United States, residing at Bull Run, in the county of Knox and State of Tennessee, have invented a new and useful Churn-Power, of which the following is a specification.

My invention relates to churn-powers, and particularly to that class wherein a plurality of dashers are actuated by common operating devices; and the object in view is to provide a simple and efficient construction and arrangement of parts whereby the mechanism is adapted for use in connection with receptacles or jars of different sizes, the lid of the receptacle being carried by the frame of the dasher-operating mechanism and being adjustable by means of devices mounted upon said frame.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a churn-power constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail sectional view of the swivel connection employed for connecting each adjusting-screw to the receptacle lid or cover. Fig. 4 is a detail view in perspective of a portion of the frame to show the connection between the base and the uprights.

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

1 designates a base from which rise uprights 2 and 3, the latter being bifurcated at their lower extremities to receive reduced extensions or tongues 4 on the ends of the base. Said tongues and the contiguous portions of the uprights are provided with horizontally-aligned seats for the reception of keys 5, whereby after a churn-receptacle 6 has been arranged upon the base the frame, including the uprights 2 and 3, is arranged thereover and is finally attached to the base by means of the keys 5. The upper ends of the uprights are connected by a transverse cross-bar 7, and connecting the uprights at an intermediate point is an adjustable churn lid

or cover 8, having terminal tongues or extensions 9, which fit in vertical guide-slots 10 in the uprights to provide for adjusting the lid vertically to suit the height of the churn receptacle or jar which may be arranged upon the base. In aligned bearings formed in the cross-bar 7 and the adjustable lid or cover 8 are mounted the twin dasher-staffs 11, provided at their lower ends with dashers 12 and at their upper ends with intermeshing pinions 13, thus causing opposite rotation of the dasher-staffs. Motion is communicated to one of the pinions 13 by means of an intermediate spur-gear 14, having its shaft 15 extended downwardly into a suitable bearing in the upright 3 and fitted with a pinion 16, with which meshes a crown driving-gear 17. This driving-gear is preferably fitted with an operating handle or crank 18.

The base is preferably provided with a sectional rib or raised portion 19, within which the churn-receptacle is adapted to be arranged, and the lid or cover is preferably provided with a corresponding depending rib 20 to fit within the top of the receptacle when the latter is adjusted to bear at its under surface upon the upper edge thereof. The means which I employ for adjusting the lid or cover consist of feed-screws 21, threaded in suitable openings in the cross-bar 7 and swiveled at their lower extremities in the lid or cover, the swivel connection consisting of the headed extremities of the feed-screws arranged in sockets or depressions in the lid or cover and engaged by washer-plates 22. The upper ends of the feed-screws are shaped to form handholds 23. It is obvious that by means of these feed-screws the lid or cover may be forcibly depressed to secure the churn-receptacle firmly upon the base and thus prevent displacement of the receptacle or the splashing beyond the walls thereof of its contents.

From the above description it will be seen that by employing a frame carrying the dashers and dasher-operating mechanism in connection with a base to which the uprights of the frame are detachably connected the frame, after detachment, may be moved vertically to withdraw the dashers from the churn-receptacle, thus avoiding the necessity of using jointed dasher-staffs or auxiliary means for disconnecting the dashers to allow



of their removal from the churn-receptacle and the removal of the churn-receptacle from the frame. The simple provision of a detachable connection between the uprights and the base enables me to use unbroken or continuous dasher-staffs mounted permanently upon the frame, and yet enables me to withdraw the dashers from the churn-receptacle with facility.

Various 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—

1. In a churn-motor, the combination of a base having a receptacle-seat, a frame, including connected uprights detachably secured at their lower ends to the base and adapted for vertical displacement, a receptacle lid or cover mounted for vertical adjustment upon the uprights, and adapted to bear upon the upper edge of a churn-receptacle to hold the latter in engagement with said seat upon the base, dashers, and operating mechanism mounted upon the frame, and means, consisting of feed-screws mounted upon the

frame, for adjusting the lid or cover, the dashers being vertically removable from the receptacle when the frame is detached from the base, substantially as specified.

2. In a churn-motor, the combination of a base having a receptacle-seat, and provided with terminal extensions or tongues, a frame including connected uprights provided at their lower extremities with bifurcations to receive said extensions or tongues of the base, and adapted for vertical displacement, means for detachably securing the bifurcations in engagement with said extensions or tongues, a receptacle lid or cover mounted for vertical adjustment upon the uprights, and adapted to bear upon the upper edge of a churn-receptacle, dashers, and operating mechanism mounted upon the frame, and means, consisting of feed-screws mounted upon the frame, for adjusting the lid or cover, 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.

MARTIN V. OLINGER.

Witnesses:

JOE P. EDINGTON,

J. M. HOMER.