

No. 768,086.

PATENTED AUG. 23, 1904.

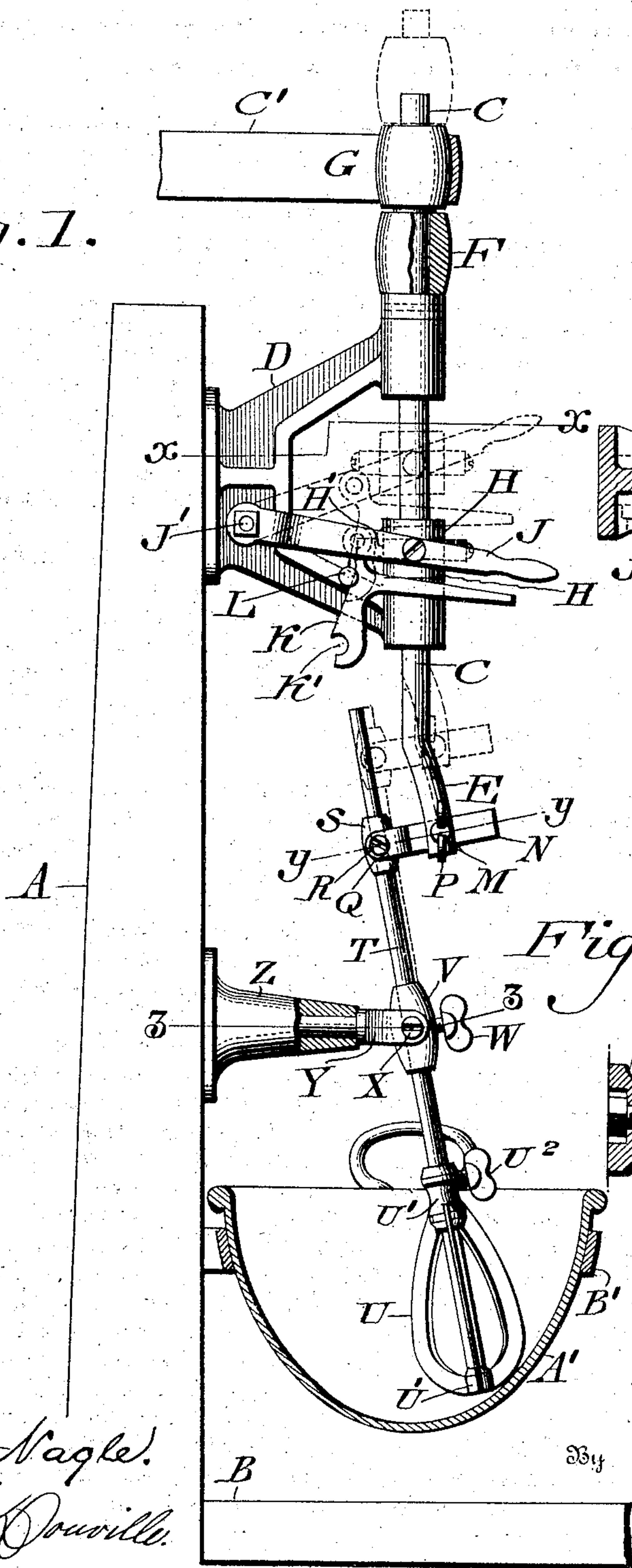
W. STURMA.

BEATER, MIXER, AND MASHER FOR EGGS, CREAM, VEGETABLES, &c.

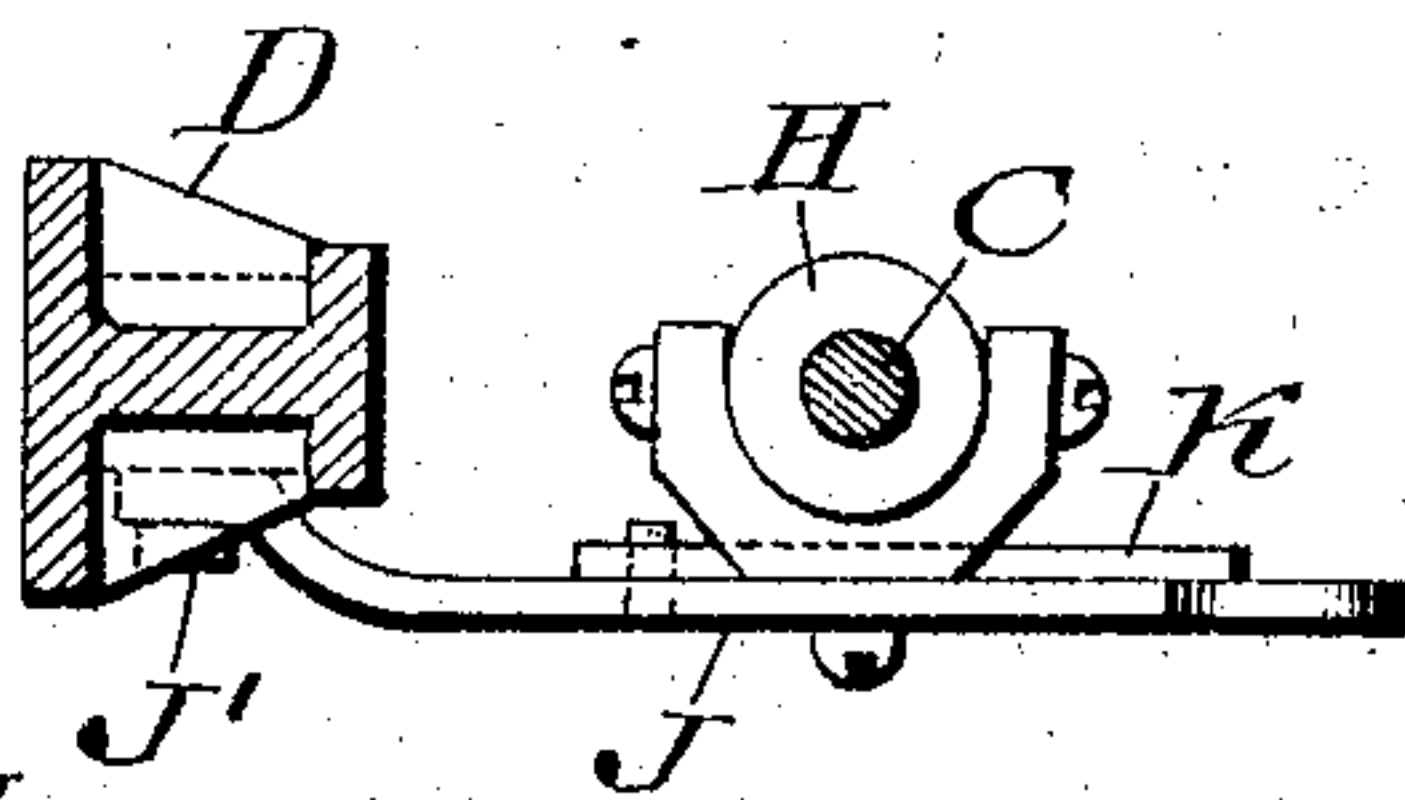
APPLICATION FILED MAR. 11, 1904.

NO MODEL.

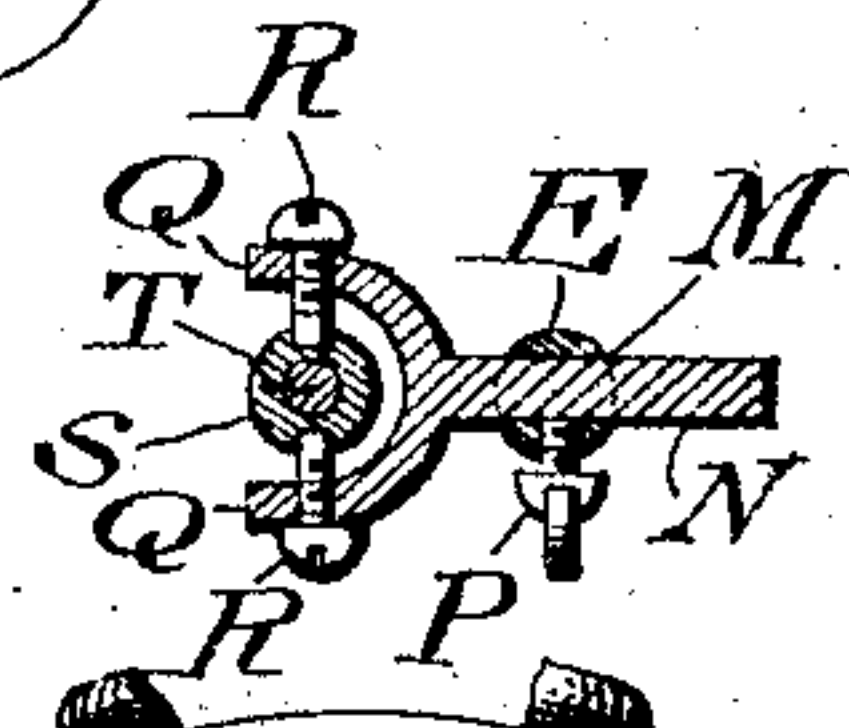
*Fig. 1.*



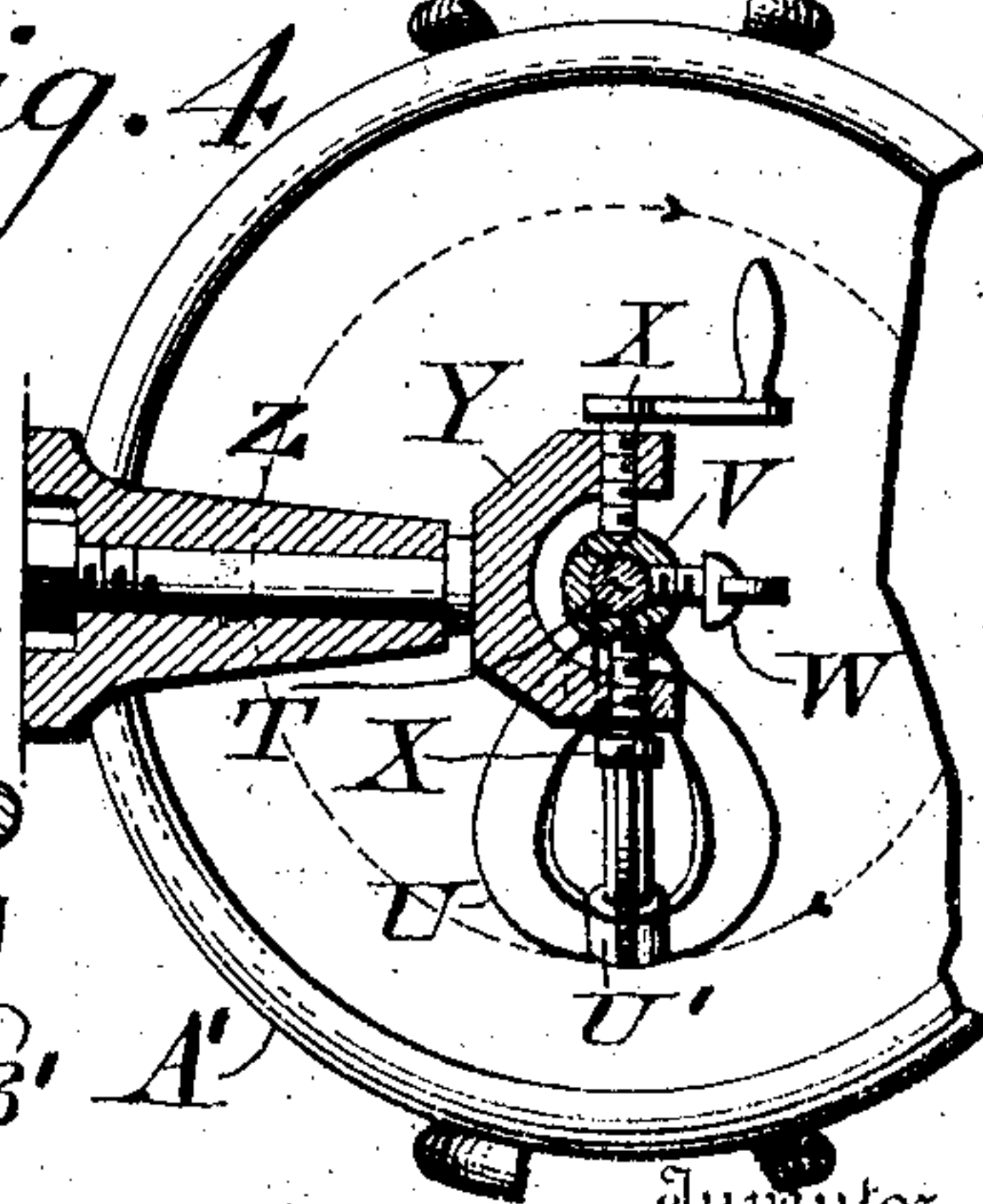
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses

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## UNITED STATES PATENT OFFICE.

WILLIAM STURMA, OF PHILADELPHIA, PENNSYLVANIA.

BEATER, MIXER, AND MASHER FOR EGGS, CREAM, VEGETABLES, &amp;c.

SPECIFICATION forming part of Letters Patent No. 768,086, dated August 23, 1904.

Application filed March 11, 1904. Serial No. 197,614. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM STURMA, a subject of the Emperor of Austria, (having resided in the United States over one year last passed, but having declared my intention of becoming a citizen thereof,) residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Beaters, Mixers, and Mashers for Eggs, Cream, Vegetables, &c., of which the following is a specification.

My invention consists of a device for beating eggs, cream, &c., mixing batter, dough, &c., and mashing vegetables, &c., embodying means for imparting rotary motion to the head of the device and varying the angle thereof and for rendering said head operative and inoperative.

It also consists of details of construction, as will be hereinafter set forth.

Figure 1 represents a partial side elevation and partial vertical section of a beater, &c., embodying my invention. Fig. 2 represents a horizontal section on line *x x*, Fig. 1. Fig. 3 represents a horizontal section on line *y y*, Fig. 1. Fig. 4 represents a horizontal section on line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a standard, and B the supporting-base therefor.

C designates the driving-shaft, which is vertically mounted in the bracket D, which is secured to the standard A, said shaft having its lower end deflected, as at E. On the upper end of said shaft are the loose and fast pulleys F and G, respectively, either of which is adapted to have a suitable belt or band C' passed around the same. Secured to the shaft C adjacent to the bracket D are the collars H, between which is the sleeve H', which loosely encircles said shaft and has pivotally connected with it the lever J, whose axis J' is on the bracket D, said lever being adapted to raise said shaft C. Depending from said lever and pivotally connected therewith is the latch K, on the lower portion of which is a recess K', which is adapted to engage with a pin or stud L on the bracket D, thus holding the lever J, and consequently the shaft C, in

elevated position, whereby the belt or band engages with the loose pulley G, and the shaft C is thereby inoperative. When, however, the latch is withdrawn from the stud or pin L, the lever is permitted to drop, and with it the lever J, whereupon the shaft C also drops, and the fast pulley F is then engaged by the belt or band, and the shaft C is accordingly rotated, as shown in Fig. 1.

In the lower end of the bent or deflected end E of the shaft C is a slot M, in which is adjustably fitted the bar N, said end being provided with a screw P for holding said bar in adjusted position. On the end of the bar are bifurcations Q, in which are screws R, the latter having their points freely entering the sleeve S, through which freely passes the shaft T, the lower end of which carries the head U, said shaft also passing through a sleeve V, to which it is adjustably secured by the screw W, said sleeve being engaged by the screws X on the rocking bifurcated arm Y, which is mounted in the bracket Z, the latter being secured to the standard A. For convenience of operating one of said screws a crank-handle is shown as applied to the outer end thereof.

The head U, which is adapted for beating, mixing, mashing, &c., enters the pan A', which is sustained by the ring B' or other means on the standard A. When the screw W is loosened, the shaft T may be raised or lowered, so as to adjust the height of the head U, after which said screw is again tightened.

The operation is as follows: The shaft C is lowered, whereby the belt or band engages the fast pulley, thus rotating said shaft. As the arm N lowers with said shaft the sleeve S slides freely downwardly on the upper end of the shaft T. As said arm rotates with said shaft C rotary motion is imparted by said shaft and the sleeve S to the shaft T, and as the latter is connected with the bracket Z after the manner of a universal joint, due to the rocking arm Y and screws X, said shaft T oscillates and causes the head U to be carried around by the same and so sweep the interior of the pan A', thus effectively acting on the contents of said pan.

As the arm N may be moved in and out of the



lower end of said shaft C, the upper end of the shaft T may be set nearer to or farther from said shaft C, thus changing the angle of said shaft T and adapting the head U to describe a smaller or larger circle or sweep in the pan for purposes requiring the same. When it is desired to stop the action of the head U, the latch K is raised, thus raising the lever J, and consequently the shaft C, whereby the belt or band shifts to the loose pulley, the effect of which is evident. The latch is now engaged with the pin or stud L, thus retaining the shaft C in its elevated position.

Owing to the deflected end E of the driving-shaft C, the upper end of the lower or auxiliary shaft T is permitted to have greater sweep in its oscillation.

The head proper of the beater, mixer, or masher consists of a number of vertically-arranged blades, at the top and bottom of which are collars U', which latter receive the adjacent portions of the shaft T. The blades are adapted to contact with the inner side of the pan and act as scrapers to prevent sticking of the contents of the pan with the same, and top collar of said head has a screw U<sup>2</sup> for connecting it with said shaft T, the latter freely entering said collar, said screw when loosened permitting of the removal of the head. Owing to the deflection E of the shaft C, the shaft T in its adjusted position toward or from said deflection serves to place the inner side of the head U, in the present case the side on the left of said head, as shown in Fig. 1, at or about the middle of the pan, so whatever material or batch is in the latter will be beaten, mixed, &c., in its middle as well as at its side.

Various changes may be made in the details of construction shown, and I do not, therefore, desire to be limited in each case to the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a mixer, beater, &c., a driving-shaft, a bearing therefor, fixed and loose pulleys connected with said shaft, a driving-belt for said pulleys, means for raising and lowering said shaft and causing the shifting of said belt from one pulley to the other, a head on the lower end of said shaft and a pan below said head freely receiving said head.

2. In a mixer, beater, &c., of the character stated, a driving-shaft, fast and loose pulleys thereon, a driving-belt for said shaft adapted to engage either of said pulleys, a lever connected with said shaft to elevate the latter, a lock on said lever adapted to engage a station-

ary member for retaining said lever in elevated position, said lock when disengaged permitting said lever to lower a head on the lower end of said shaft and a pan below said head freely receiving said head.

3. In a mixer, beater, &c., a driving-shaft, a bearing therefor, fixed and loose pulleys connected with said shaft, a driving-belt for said pulleys, means for raising and lowering said shaft and causing the shifting of said belt from one pulley to the other, an auxiliary shaft, a bearing therefor, a head on said shaft, and an adjustable connection for said shafts whereby the angle of the auxiliary shaft may be varied.

4. In a device of the character stated, a driving-shaft, a lever connected with said shaft to elevate the latter, a lock on said lever adapted to engage a stationary member for retaining said lever in elevated position, said lock when disengaged permitting said lever and consequently said shaft to lower a head on the lower end of said shaft and a pan below said head freely receiving said head.

5. In a device of the character stated, a driving-shaft, a sleeve freely encircling said shaft and adapted to engage a collar fixed to said shaft, a lever mounted on a stationary member and connected with said sleeve, a latch carried by said lever, a projection on a stationary member on which said latch may be seated to hold said lever interlocked in elevated position, a head on the lower end of said shaft and a pan below said head freely receiving said head.

6. In a device of the character stated, a head, a collar thereon, a driving-shaft freely occupying said collar, a set-screw on said collar adapted to engage said shaft and a pan below said head freely receiving said head.

7. In a device of the character stated, a driving-shaft, an auxiliary shaft, a pan below the latter, a head on said auxiliary shaft freely entering said pan, and a connection for the adjacent ends of said shafts, the lower end of said auxiliary shaft being laterally deflected.

8. In a device of the character stated, a driving-shaft, an auxiliary shaft, a pan below the latter, a head on said auxiliary shaft freely entering said pan, a bar adjustably connected with the lower end of said driving-shaft, and a sleeve freely receiving the upper end portion of said auxiliary shaft, said bar being pivotally connected with said sleeve.

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Witnesses:

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