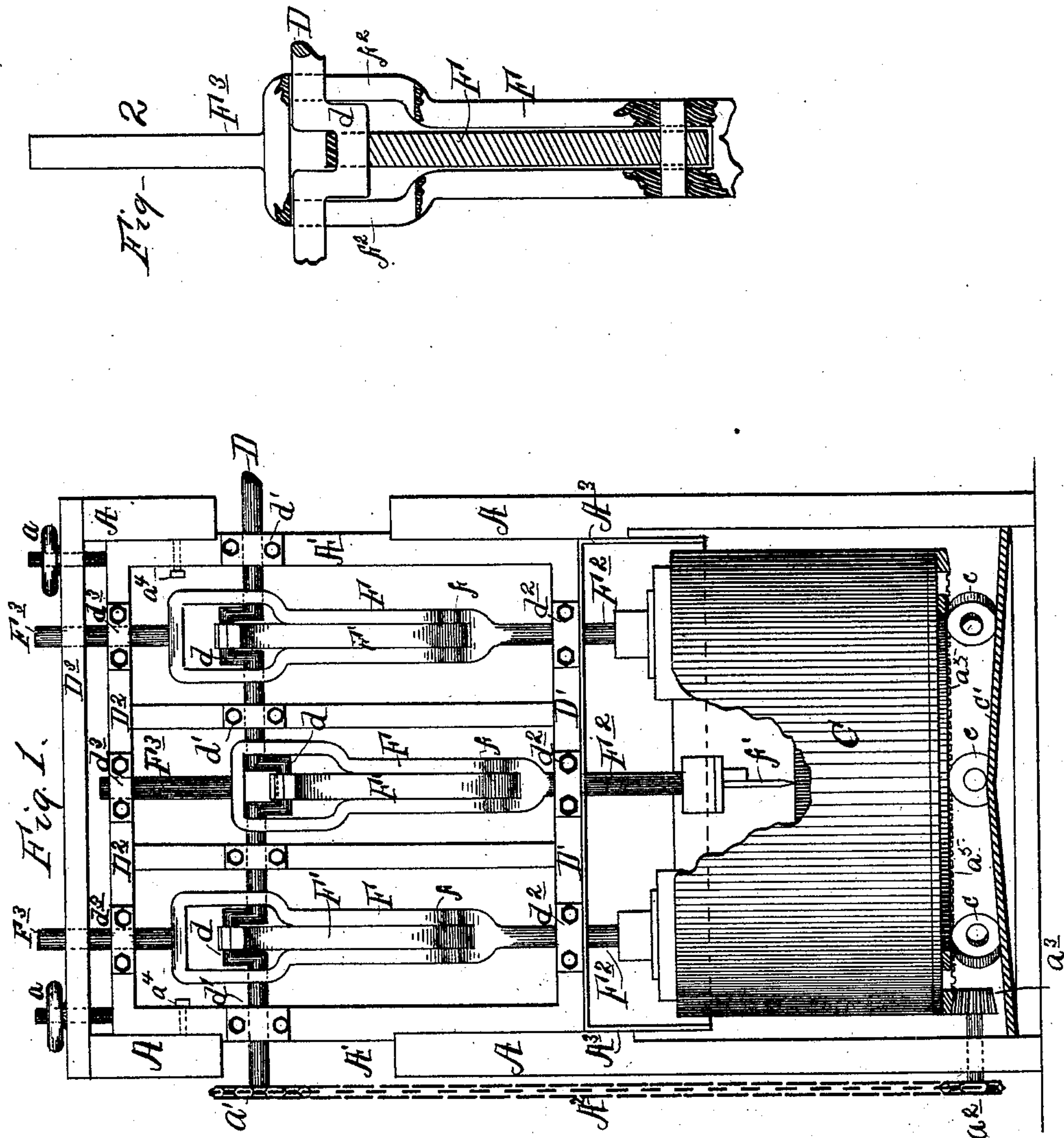


(No Model.)

W. W. RENKIN.  
MEAT CHOPPER.

No. 420,583.

Patented Feb. 4, 1890.



Witnesses.

Geo. H. Harney  
J. C. Willson

Inventor,

Wm. W. Renkin  
by J. H. Stevenson  
Atty.



# UNITED STATES PATENT OFFICE.

WILLIAM W. RENKIN, OF ALLEGHENY, PENNSYLVANIA.

## MEAT-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 420,583, dated February 4, 1890.

Application filed June 14, 1889. Serial No. 314,317. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. RENKIN, of No. 84 Irwin avenue, Allegheny, Pennsylvania, have invented a new and useful Improvement in Meat-Choppers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Similar letters of reference indicate corresponding parts.

My invention relates to machines for chopping meat by machinery.

In the accompanying drawings, Figure 1 is a side elevation of a meat-cutting machine constructed in accordance with my invention; and Fig. 2 is a detail view, partly in section, of one of the plungers and a part of the crank-shaft.

A A is frame-work.

A' A' is a sliding frame, being moved up and down by the screws  $a a$ . This sliding frame A' has fixed to it the crank-shaft D at  $d' d'$  and also cross-beams  $D'$  and  $D^2$ , to which are fixed the guide-caps  $d^2$  and  $d^3$ .

A<sup>2</sup> is a chain belt on the wheels  $a'$  and  $a^2$  to operate the bevel-wheel  $a^3$ , and thus move the tank or chopping-pan C by means of the cogs  $a^5$ .

$c c c$  are wheels running on the track  $c'$ .

D<sup>3</sup> is a cross-beam at the top of the frame-work.

$d d d$  are cranks on the shaft D. These cranks operate the knives  $f'$ , which are fixed to the vertical shaft P<sup>2</sup>. Each plunger is forked at an intermediate point of its length between the aligned cylindrical parts or ends F<sup>2</sup> F<sup>3</sup> thereof, and the fork extends upward till near the top, when it enlarges, so as to allow a free movement of the crank  $d$  within the same. This enlarged fork is provided with a slot  $f^2$  in the sides thereof. This slot is made for the purpose of a guide to the upward and downward movement of the plunger P<sup>2</sup>. Inside this fork is the pitman P', secured to the crank  $d$  and pivoted to the plunger P<sup>2</sup> at  $f$ .

At the top of the fork F is a small shaft passing up through the beam D<sup>3</sup>. This serves as a guide to the movement of the stems or shafts P<sup>3</sup>.

The several stems or shafts P<sup>2</sup> work verti-

cally, operating the knives in the pan C, which is continually revolving on the wheels  $c c$ .

Thus constructed my machine will be easily put together or taken apart for repairs. This is done by simply removing the boxing  $d'$ ,  $d^2$ , and  $d^3$ . Then the shaft D is passed through the slots  $f^2$  of the forks F, which are then put in position.

On the pan C, I place a cap or covering A<sup>3</sup>, preferably made of sheet-iron sloping backward, through which the plungers P<sup>2</sup> pass. The use of this covering is to prevent substances like oil from falling into the can when the chopping process is going on.

The screws  $a a$  are to be used in raising or lowering the knives  $f'$  to meet the changed condition of the wooden block within the pan C, made so by usage. The set-screws  $a^4$  may be used for the same purpose.

Instead of the crank-shaft D, I can use eccentrics to operate the knives.

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

1. In a meat-chopping machine, the combination, with a rotary receptacle carrying a bed and the main supporting-frame, of a vertically-adjustable frame supported within the main frame and having the upper and lower bars thereof provided with the vertically-aligned guides, the vertical adjusting-screws supported in the supplemental adjustable frame, the reciprocating plungers, each having the parts F<sup>2</sup> F<sup>3</sup> thereof fitted in said aligned guides and provided with the forked intermediate part F and the longitudinal slots  $f^2$ , a crank-shaft passing through the slots  $f^2$  in the plungers and having its cranks operating in the forked parts of the plungers, and the pitmen, each located in the forked part of one of the plungers and connected to the crank-shaft and to the plunger at the base of the forked part thereof, substantially as described.

2. In a meat-chopping machine, the combination of a main frame, a rotary receptacle carrying a bed and having a circular rack on its bottom, a driving-shaft geared to said rack for rotating the receptacle, a crank-shaft connected by an intermediate sprocket-chain with said driving-shaft, a main frame, a vertically-adjustable frame supported in said

main frame and having its upper and lower bars provided with vertically-aligned bearings, the vertical adjusting-screws supported in the supplemental adjustable frame, the  
5 plungers fitted in said bearings and having the slotted forked intermediate parts, and the pitmen connected to the crank-shaft and the plungers, substantially as described.

In testimony that I claim the foregoing as my invention I hereto set my hand in presence of two witnesses.

WILLIAM W. RENKIN.

Witnesses:

ADOLPHE H. BOCKING,  
WM. O. BELT.