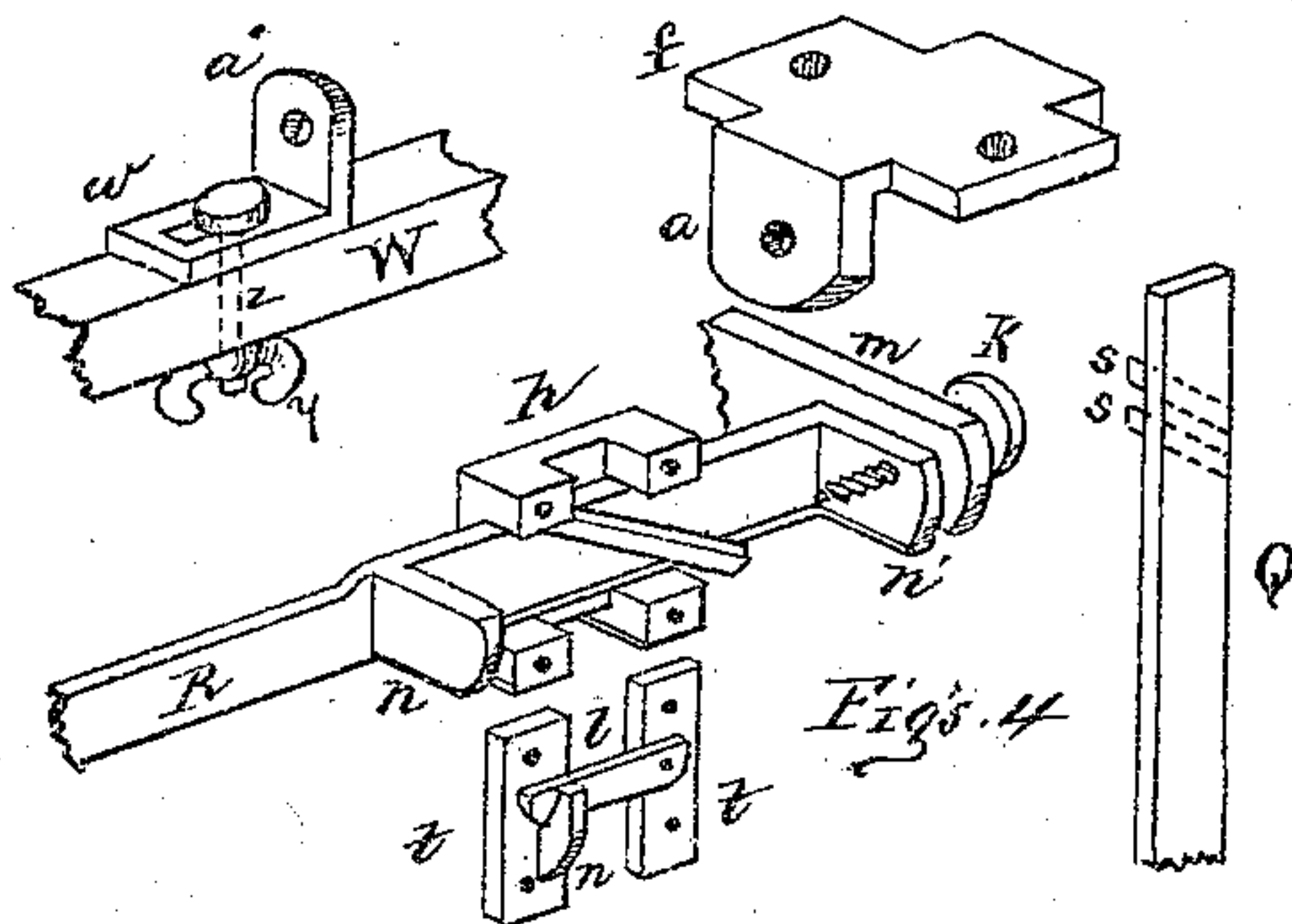
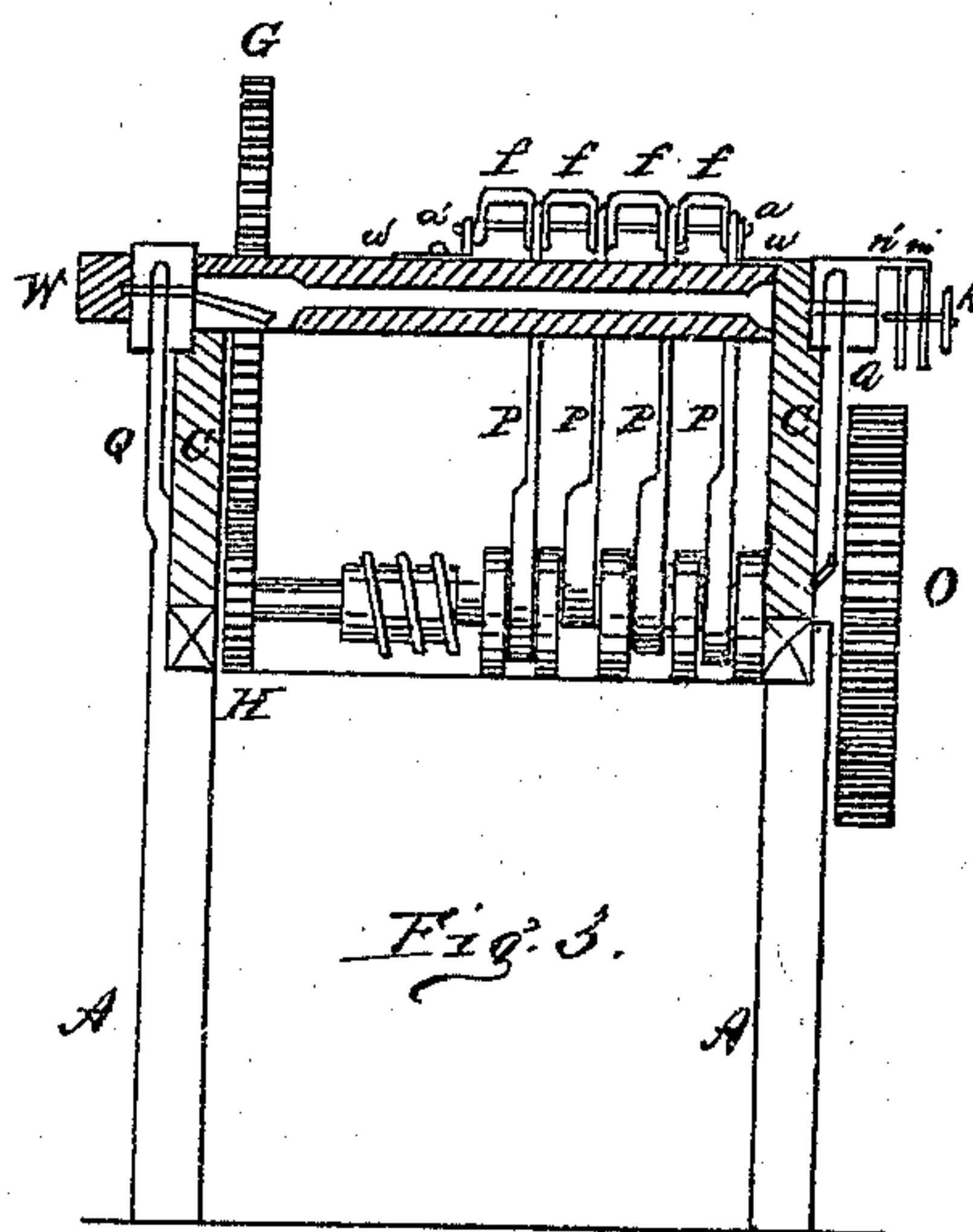
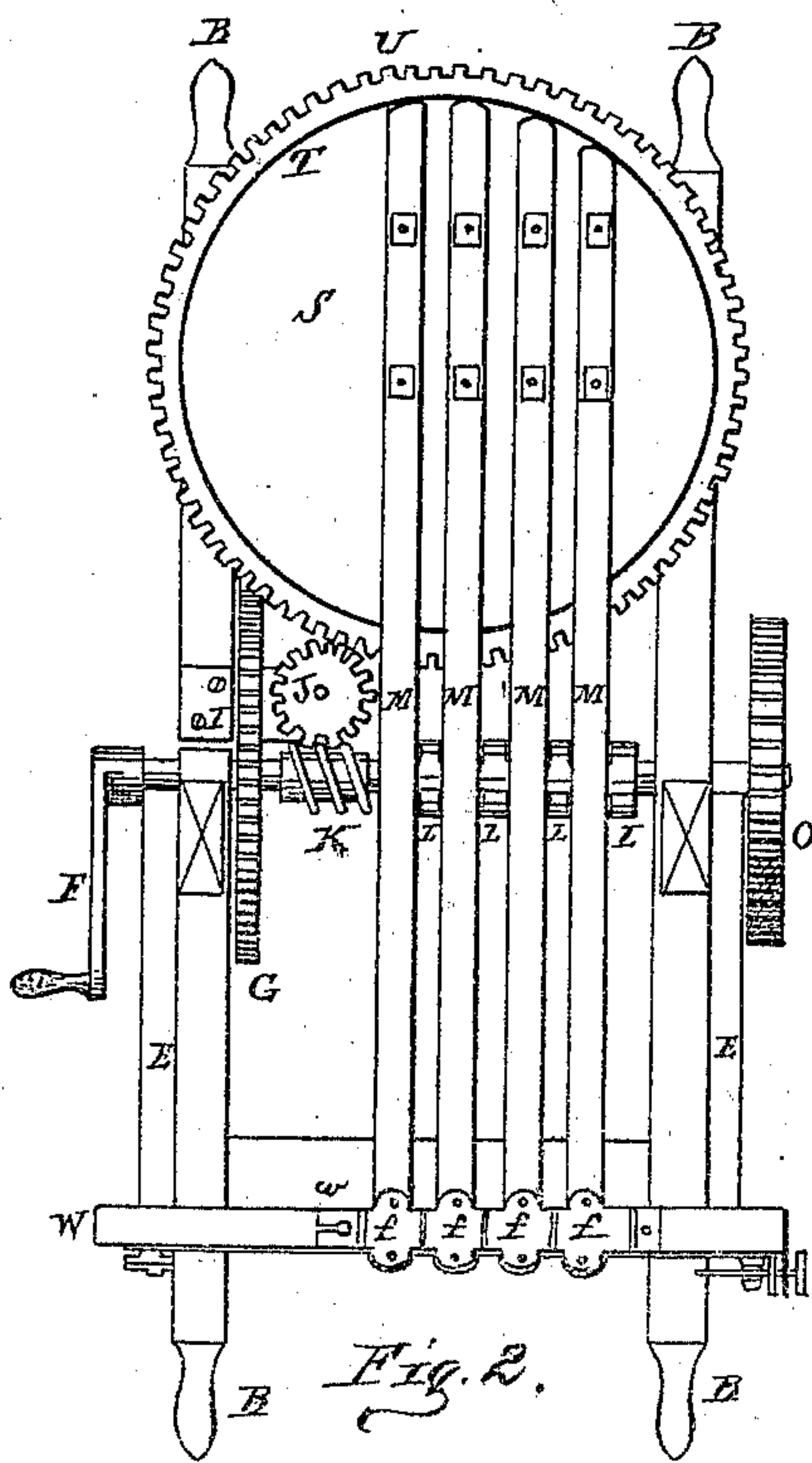
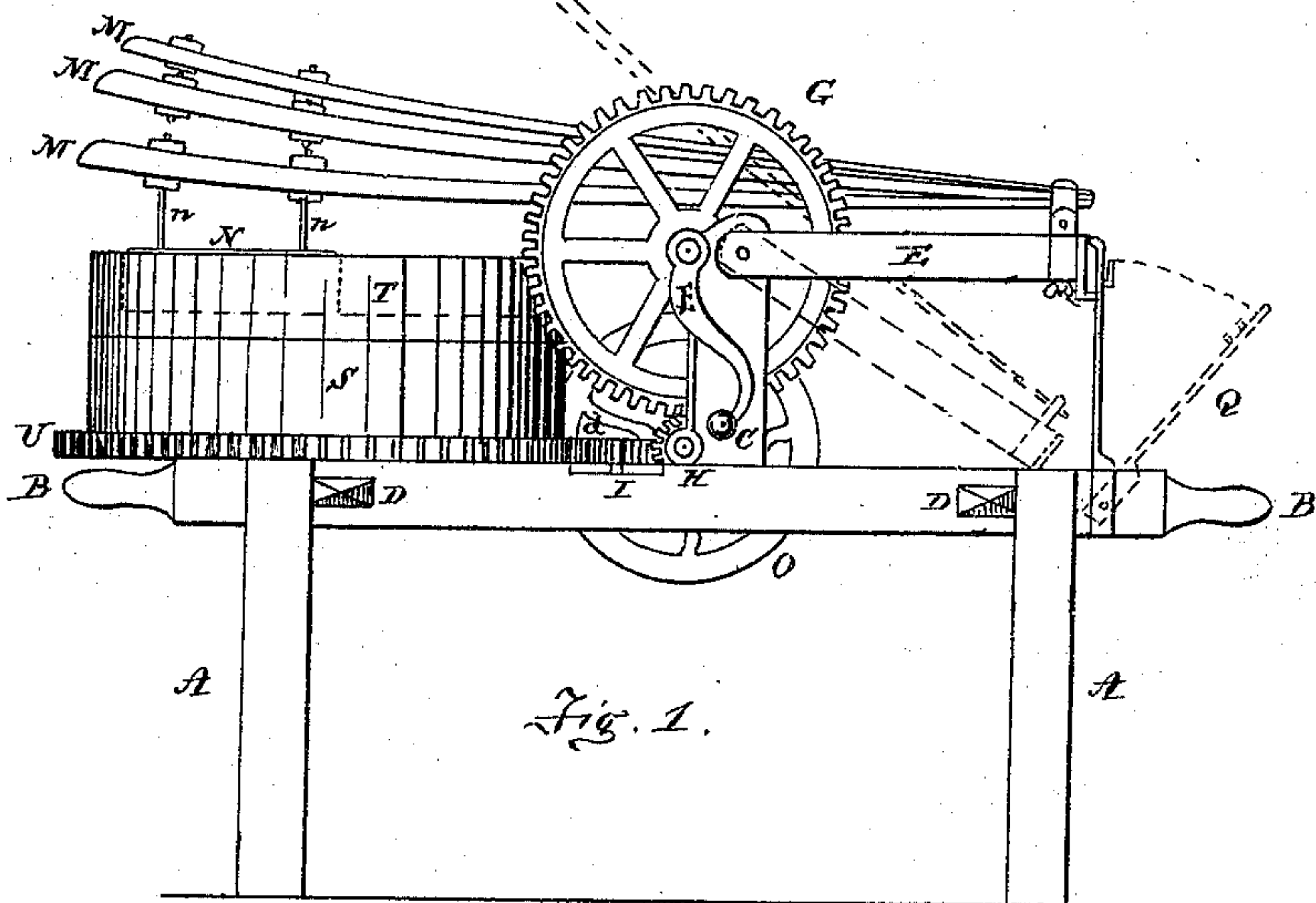


L. HAGEN & D. K. BURKHOLDER.  
Meat-Choppers.  
No. 151,220. Patented May 26, 1874.



WITNESSES.

W. W. Wiley  
Jacob Stauffer

INVENTORS.

Levi Hagen  
D. K. Burkholder



# UNITED STATES PATENT OFFICE.

LEVI HAGEN AND DAVID K. BURKHOLDER, OF LANCASTER, PENNSYLVANIA, ASSIGNORS OF ONE-HALF THEIR RIGHT TO JOHN HORTING AND MARTIN BURKHART, OF SAME PLACE.

## IMPROVEMENT IN MEAT-CHOPPERS.

Specification forming part of Letters Patent No. 151,220, dated May 26, 1874; application filed March 17, 1874.

*To all whom it may concern:*

Be it known that we, LEVI HAGEN and DAVID K. BURKHOLDER, of the city of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Meat-Chopping Machines, of which the following is a specification:

The improvements relate to the manner of adjusting and regulating the force of the choppers, and lifting them from the block, and the combined arrangements of the parts usually found in that class of meat-chopping machines which have a revolving block turned by screw-gear and cutters attached to long horizontal arms.

The accompanying drawings, with the letters of reference marked thereon, with a brief description, will enable any one skilled in the art to make and use our invention, in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a plan view. Fig. 3 is a central and rear vertical cross-section. Figs. 4 are detached portions or parts employed in the adjustments.

We do not deem it necessary to describe the frame A B, revolving block and ring S T, cogs U, and gearing G H O, as such are common, varying mostly in the arrangement and combination of the parts employed.

The four or more flexible long horizontal arms, M, to which the choppers N are fastened by screw-rods and jam-nuts in the usual way, are centrally connected, by pitman-like rods P, with a crank-shaft, on which the cranks L are diversified in their action on the arms M, so as to bring them down in a succession of blows. These flexible arms M are secured at their rear end, and by means of perforated lugs *a'* and caps *f*, by means of a rod which passes through them. The arms E E are hinged by a pivot-bolt to the top of the central upright C of the machine. One of the said supporting lug-plates, *a'*, is provided with an oblong slot, and made adjustable by a headed bolt,

Z, and thumb-screw nut Y, so as to keep the adjoining faces of the hinged caps *f* in close contact, to prevent lateral action in case of wear.

In order to raise the choppers out of the way from the block, as well as to regulate the force of the blow, we affix the following devices to the rear of the machine in connection with the cross-piece W. On each end of the outer face guide-plates *h* are secured by ordinary screws. These guides are boxed out longitudinally for a slide-bar, R, which is provided with an inclined ledge, *r*. There is also a vertical space boxed out in these guides *h* to receive the hinged supports Q. These supporting-bars Q have a pair of inclined lugs, S S, on their inner faces, to receive the inclined ledges *r* between them. Within the vertical guides *h*, and between the outer plates *t t*, stand the arms *a*. The latch *l* confines the slide bar R and supporting-bars Q in said guide-plates *h*. In order to operate the sliding bar R, it is furnished at one end with a lug, *n'*, which is perforated and provided with a screw-thread for a screw, *k*, to work in, which is supported by a plate, *m*, secured at right angles to the sliding bar against the edge of the cross-piece W.

As the supports Q are fixed in their pivot to the frame of the machine, and at their upper end embrace the inclined ledge on the sliding bar, it follows that the cross-piece W, supporting the ends of the chopping-arms M, will rise or fall by the sliding bar being either drawn one way or the other by the adjusting-screw, thereby increasing or lessening the tension or action of the flexible chopper-handles or arms M.

To raise the choppers from the block it is only necessary to raise the latch *l*, when the supporting and regulating bars Q can be drawn out from its guide-chamber in *h*, and turned back to allow the cross-piece W, with its appliances, to drop down on the lower fixed frame. This combined action we call the drop-frame,

which elevates the choppers, and clears the block for being supplied or cleaned during the process of chopping or mincing meat.

The choppers are readily returned into their former position by replacing the supports Q.

The dotted lines, Fig. 1, indicate the action of our drop-frame, which, with the appliances and their arrangement, we deem new in meat-chopping machines.

What we claim in a meat-chopping machine is—

1. The combination of the pivoted drop-frame E W, the adjusting-plates *w a'*, hinged caps *f*, arms M, choppers N, cam-shaft and

pitman P, constructed and operating substantially in the manner and for the purpose set forth.

2. The arrangement of the guide-boxes *h t* on the outer face of the cross-piece W, the drop-frame E W, the horizontal slide-bar R, with its inclined ledge *r*, the vertical bar Q, provided with two inclined ledges, S S, and screw *k*, for the purpose mentioned.

LEVI HAGEN.

D. K. BURKHOLDER.

Witnesses:

W. B. WILEY,

JACOB STAUFFER.