J. MEAHL & A. KWOCZALLA.

Machine for Chopping Meat.

No. 204,355. Patented May 28, 1878.

Fig. 1.

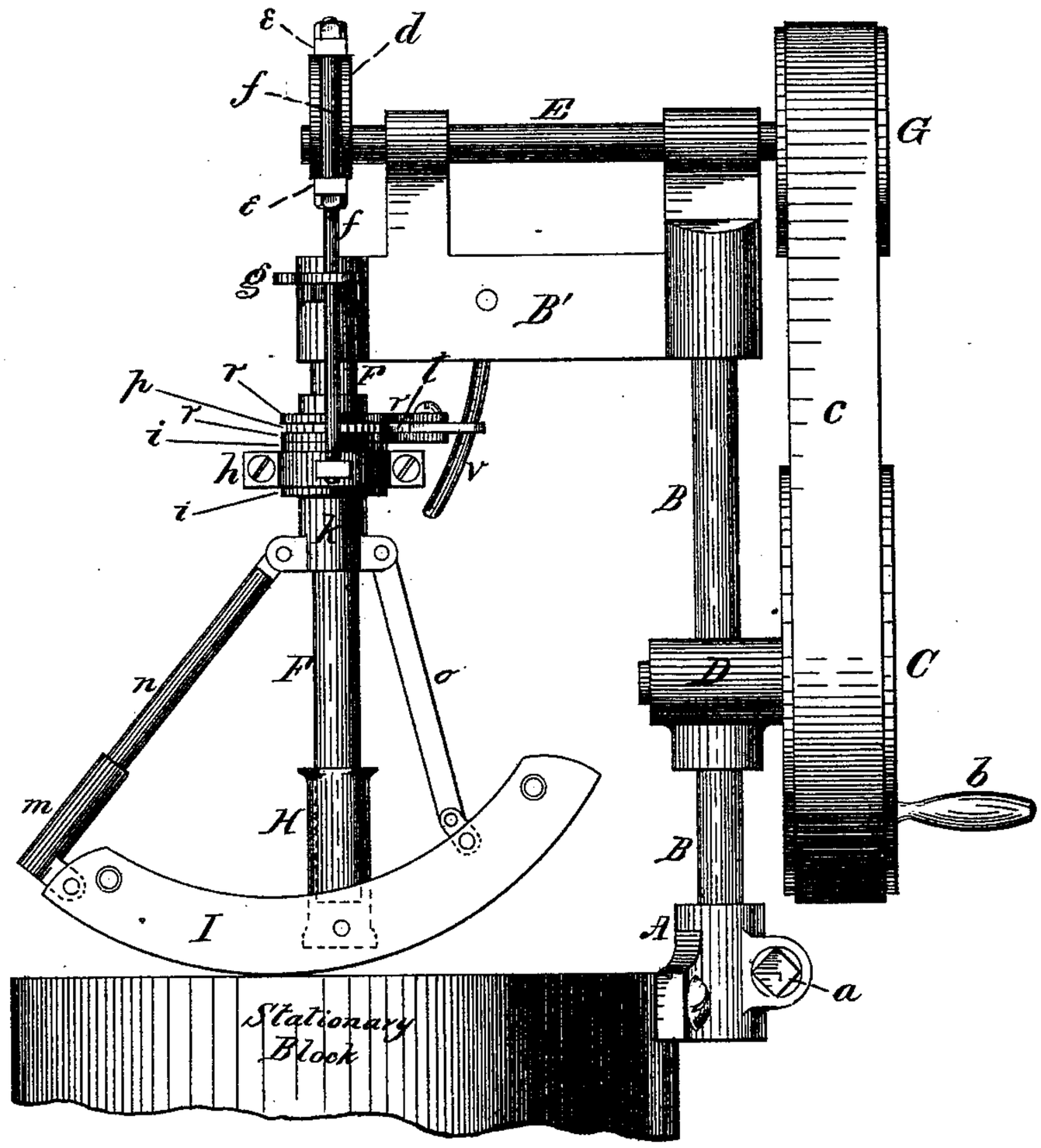


Fig. 2.

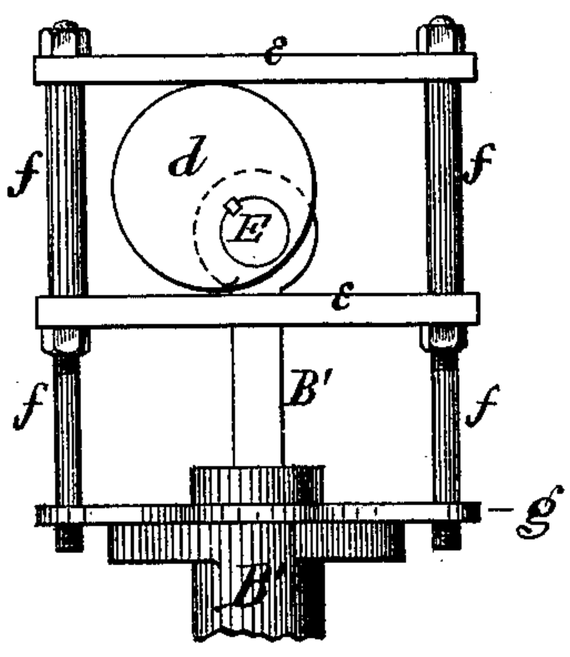
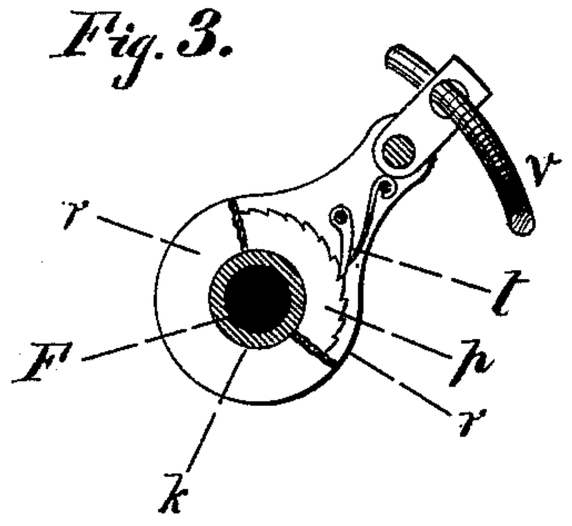


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB MEAHL AND ALOIS KWOCZALLA, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CHOPPING MEAT.

Specification forming part of Letters Patent No. **204,355,** dated May 28, 1878; application filed September 27, 1877.

To all whom it may concern:

Be it known that we, JACOB MEAHL and ALOIS KWOCZALLA, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have made certain new and useful Improvements in Meat-Chopping Machines; and we do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the drawings, which form a part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a front elevation of the cam-movement. Fig. 3 is a plan detail of the feed.

This invention relates to meat-chopping machines; and consists in the construction and combination of parts, substantially as hereinafter fully described and claimed.

Fastened by screws or bolts to an ordinary butcher's block, as shown, is a split swivel-bearing, A, tightened by a set-screw, *a*, passing through its lugs. In this rests a standard, B, which supports the whole device, and, being swiveled at A, is capable of being swung back off the block when not in use, so that the block may be used for other purposes. On the standard is clamped a bearing, D, for the hand-wheel C, which has a handle, *b*, for operating. To the upper end of standard B is attached a horizontal bracket, B′, provided on top with bearings for a shaft, E, and having at that end which projects above the block a vertical guide-rod, F, immovably fixed, and extending downwardly. At the outer end of shaft E is a pulley, G, over which and wheel C passes a belt, *c*, communicating motion from wheel C to pulley G and shaft E. At the inner end of shaft E is keyed an eccentric cam, *d*, which rotates in contact with the top and bottom bars *e e* of a frame, whose side rods *f f* extend below bottom bar *e*, and pass on down through guide-lugs *g* on bracket B′, and are attached below them to the wings of a collar, *h*, which surrounds and lies between the flanges *i* of a sleeve, *k*, sliding on the guide-rod F. Any motion caused in frame *e e f f* by cam *d* is reproduced in sleeve *k* by this means. The lower end of rod F projects loosely into a sleeve, H, and to pivot-pins on this sleeve the knives I are attached in such manner as to be free to rock back and forth, the pins serving to keep the knives to the center. The knives have circular edges, and are rocked as follows: To one end of them is swiveled a sleeve, *m*, and in this slides a rod, *n*, which at its upper end is pivoted to a lug on the sleeve *k;* and pivoted on the opposite side of sleeve *k* is a pitman, *o*, also pivoted to an elbow or fork on the other side of knives I, as shown. If, now, the sleeve *k* rises, the pitman *o* pulls up that side of the knives, which, by means of the pivotal sleeve H, then fall on the other side, being guided by the rod *n* and sleeve *m*. If the sleeve is depressed, pitman *o* forces down that end of knives I and elevates the other, thus producing an alternate rocking movement on the block. The weight of the knives keeps them pressed upon the block sufficiently for cutting meat.

The travel of the knives over the successive portions of the block we effect in this way: A ratchet-wheel, *p*, is keyed on sleeve *k* above flange *i*, and lies between two loose plates, *r r*, which are extended laterally, as in Fig. 3, and between these is pivoted a spring-pawl, *t*, engaging the ratchet *p*. A curved arm, *v*, drooping from bracket B′, passes through an opening or slot in the extension of plates *r r*, and the up-and-down movement of sleeve *k* causes the plates *r* to mount and descend on the arm *v*, which causes the plates to oscillate, and this causes pawl *t* to seize the ratchet and force it around; but the ratchet is keyed to sleeve *k*, and it is attached to pitman *o* and rod *n*, so that thus the knives are regularly moved over the block.

As a modification of our invention, we would suggest that the pitman *o* could be attached by universal joint and guide to a wrist-pin on one or more cutting-disks having circular and central feed; or the circular feed might be attached to the disks, and, by moving them around, cause their rolling contact to cut the meat. Such changes could be effected on this machine by merely attaching the said rolling knife or knives to an arm depending from the plates *r*, which could be given a radial feed also without difficulty.

The machine may be readily applied to any ordinary butcher's block, and any form of

"meat-rock" (particularly the common form, consisting of several circular segments, side by side, which is considered the most perfect of all forms) may be readily applied to the pitman and sliding rod.

We claim as our invention—

1. The combination of the vertical shaft F and the segmental curved knife or knives I, connected thereto, with mechanism, substantially as described, for automatically imparting a rocking and horizontal rotary motion to said knives, substantially as set forth.

2. The combination of pivoted knives I, having alternating motion, with a sleeve, H, and guide-rod F, substantially as described, whereby the knives are self-adjusting.

3. The combination, specifically, of the knives I, sleeve H, rod F, sleeve *k*, slide *m*, rod *n*, and pitman *o*, substantially as described.

4. The combination of sleeve *k*, plate *r*, ratchet *p*, pawl *t*, and curved arm *v*, substantially as specified.

5. The combination of shaft E, cam *d*, frame *e e f f*, guides *g*, and collar *h*, with sliding sleeve *k*, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 17th day of September, A. D. 1877.

JACOB MEAHL.
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Witnesses:
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