

D. H. LINTNER.
Meat-Cutter.

No. 223,810.

Patented Jan. 27, 1880.

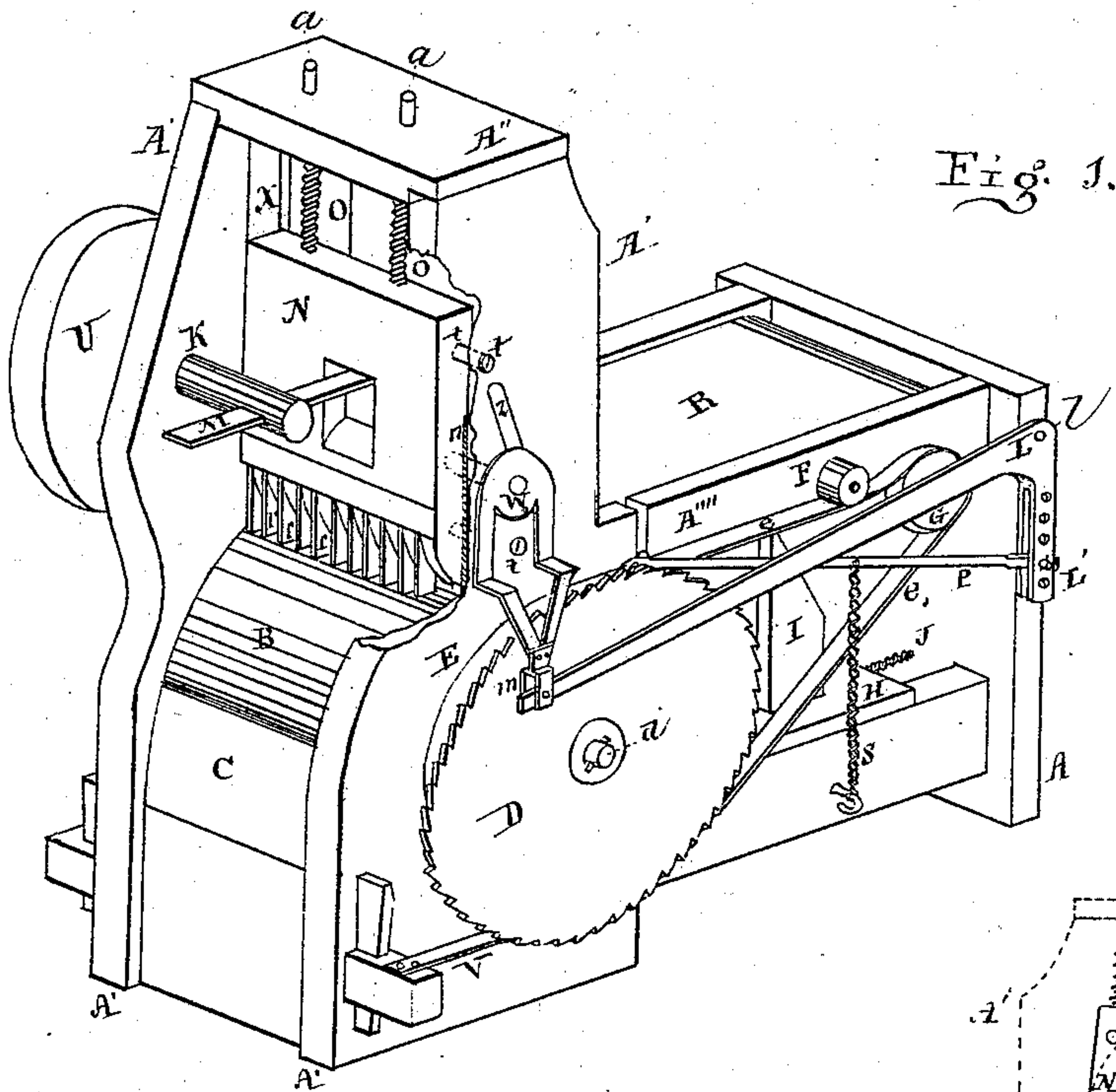


Fig. 1.

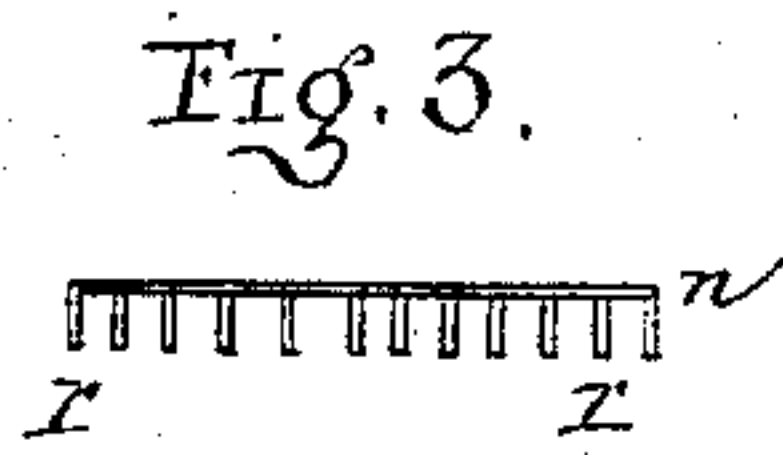


Fig. 3.

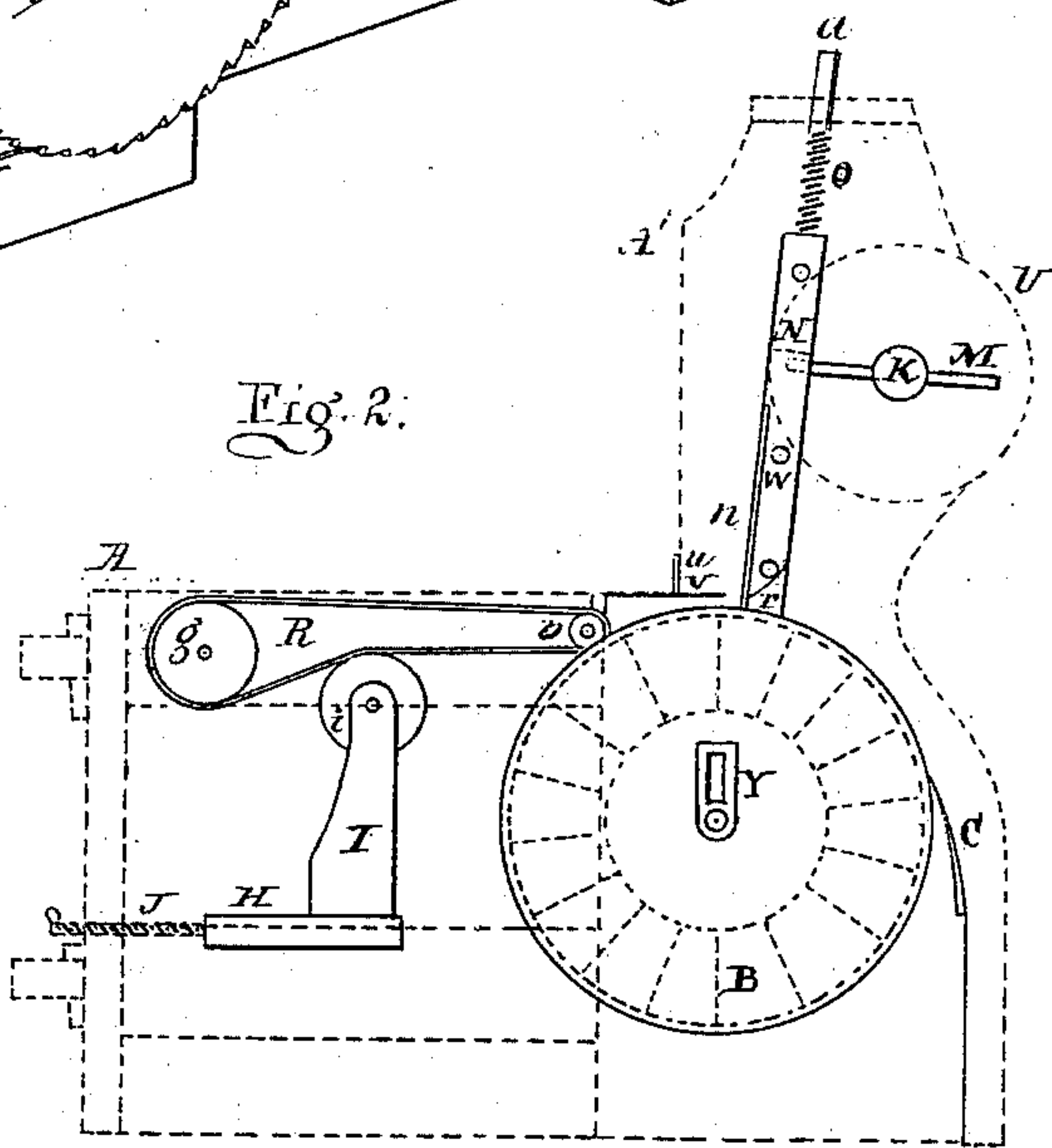


Fig. 2.

WITNESSES.

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DANIEL H. LINTNER, OF MILLERSVILLE, PENNSYLVANIA.

MEAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 223,810, dated January 27, 1880.

Application filed November 8, 1879.

To all whom it may concern:

Be it known that I, DANIEL H. LINTNER, of Millersville, in the county of Lancaster and State of Pennsylvania, have invented certain
5 Improvements in Meat-Cutters, of which the following is a specification.

The object of this invention is to cut thin slices of fatty matter of meat into small square pieces, such as are used in making blood-pud-
10 ding, head-cheese, &c., by butchers, with ease and expedition.

The accompanying drawings, with the letters of reference marked thereon and a brief explanation, will enable those skilled in the
15 art to make and use the same.

Figure 1 represents a perspective view and the arrangement of the parts. The knife-head is shown by breaking out the rear upper portion of one of the upright side pieces of the
20 frame. Fig. 2 is a side elevation to show parts hidden by the frame. Fig. 3 shows the cross-edge of the broad knife and a series of knives at right angles.

In Fig. 1, A, A', A'', and A''' show the end
25 pieces, top, and sides of the frame-work. B represents a revolving block, the outer sections formed of the butt-end of a hard wood on a central core; or the periphery of this block may be covered with gutta-percha or the like
30 to prevent chipping, the knife-head N sliding up and down in slightly-oblique grooves X made on the inner face of the side uprights, A', provided with rods *a* and coiled springs O on their tops, and has an opening centrally for a
35 lifter, M, to raise them up, which latter is, on the shaft K, connected with a handled fly-wheel, U, or belt-pulley, if other than hand-power is applied to turn it.

There is a broad knife, *n*, across the block,
40 on the front and lower portion of the knife-head N. At right angles to the cross-knife *n* is a series of knives or cutters, *r*, (I show eleven,) set at right angles to the cross-knife *n*, and which jointly cut a strip off and divide
45 it into any desired number of square blocks by the knives *r*. The thin slabs previously cut are laid upon the traveling bed R, which carries them to the upper face or periphery of the revolving block B, and feeds them by im-
50 pulses, hereinafter explained, the exact distance for the action of the combined knives to

form the small square pieces desired in rapid succession depending upon the speed the machine is run. There is a cessation of motion in the revolving block at the time the knives
55 perform their cutting, produced by the manner of its gear.

The knife-head N has a bolt, *w*, attached to it, passing outward through a slot, *z*, in A'. This bolt connects, by a hanger at *m*, with the
60 end of a lever-arm, L, having its fulcrum-pin at *l*, where this lever is bent downward at a right angle to form the arm L', having holes for adjusting the pawl P, held in said arm L' by a pivot-bolt. The other end of pawl P ex-
65 tends to and engages the teeth of a large ratchet-wheel, D, a coiled spring, S, preventing its displacement. There is also a check-pawl at V, to prevent back action of the ratchet-wheel. Behind this ratchet-wheel D is a strap-
70 wheel, E, for a belt, *e*, which drives the pulley G and the roller *g*, that gives motion to the endless traveling bed R, which has a roller, *b*, of a small diameter, in front near the convex face of the revolving roller.
75

There is a tension-roller, *i*, on an upright, I, and sliding base H, made adjustable by a screw, J, to keep up the proper tension, as also a belt-tightener, F, in which there is no
80 novelty claimed. So, also, with the adjustment-journal Y, to elevate the block on its shaft *d* as it wears in time. The knife-head N may also be adjusted from side to side by
85 slacking a pair of screws, *t*, on one side and lengthening them on the other side. The end of said screws may be supplied with friction-rollers, or form the guides of the head, if preferable.

A slight movement to the right or left may prevent the forming of grooves by the knives
90 *r*. Practically I find the long knife corrects this tendency to a great degree.

C represents a scraper to clean the block B, Fig. 2. *uv* is a fender of tin plate. The slice passes under *v* to the knives. *u* is a
95 raised edge to confine any portion pushed back and prevent its return to the table R, while the edge of *v* also cleans the broad knife as it rises up.

The operation is readily understood. As
100 the lifter raises the knife-head it also raises the end of the lever L upward and its elbow

end L' inward, causing the pawl P, connected with it, to revolve the ratchet-wheel D by engaging with its teeth. This motion is communicated to the pulleys and belts, bed-rollers, and block or shaft, so that all move simultaneously, and at the end of the stroke, as the knife-head drops down with the spring force when released from the lifter, so that when the knives strike the motion is suspended for the time being. The lifting and alternate motions are thus successively repeated. The motion is so arranged that the feed is adapted to the width of the strip to be cut in square pieces, no matter whether the machine is run with speed or more slowly.

In meat-mincing machines revolving blocks and various kinds of knives and choppers with spring action and lifters are in use.

I am also aware that combined horizontal cutters and a series of knives or cutters at right angles thereto operated in a head sliding horizontally are used—an arrangement I do not claim.

What I claim as novel in machines for cutting meat or fatty materials is—

1. The combination of a revolving block, B, on its horizontal shaft *d* with the reciprocating knife-head N, provided with a cutter or knife, *n*, and series of cutters *r*, operating vertically on the periphery of said roll or block B in the direction of the axis of the same, substantially as and for the purpose specified.

2. The combination of the knife-head N and its cutters, the connection of the headed bolt *w*, hanger *m*, lever L, and arm L', pawl P, ratchet-wheel D, belt-pulleys E G, endless apron or feed-table R, and revolving block B, all actuated simultaneously by the alternate action of the lifter M on its shaft K, the whole arranged substantially as and for the purpose herein set forth.

D. H. LINTNER.

Witnesses:

W. B. WILEY,
JACOB STAUFFER.