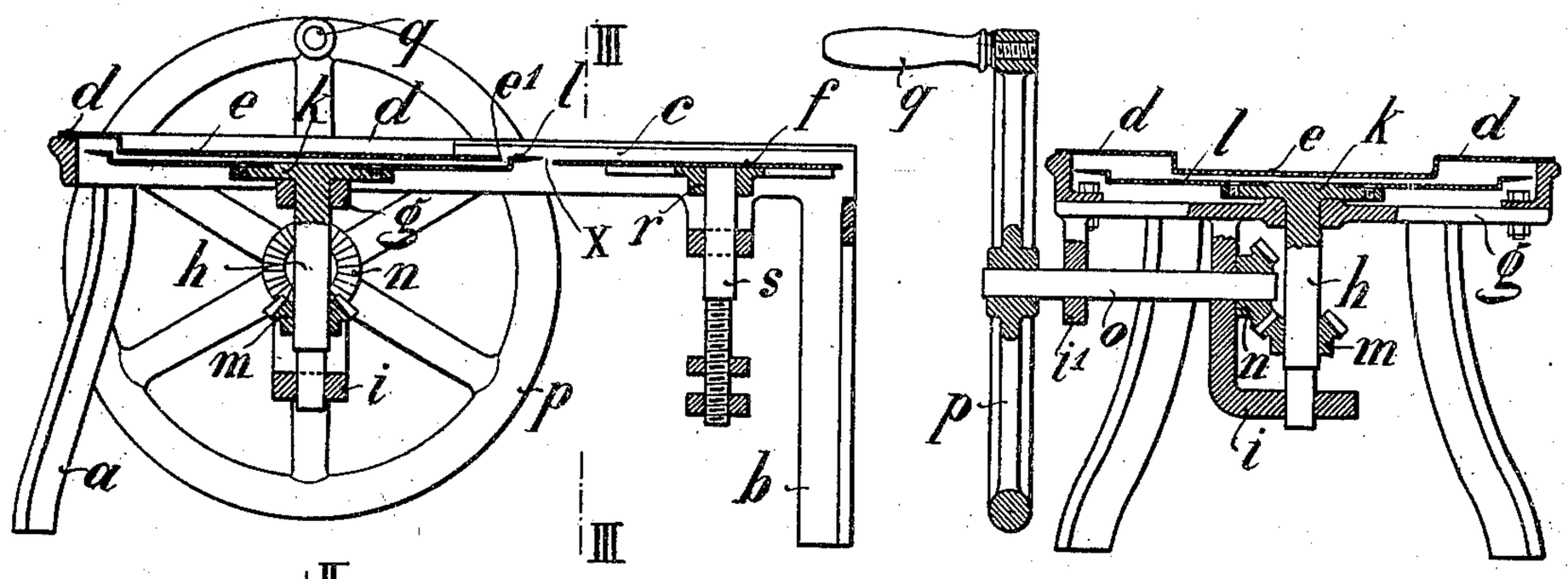
No. 709,539. Patented Sept. 23, 1902.

F. GRAFF.

MACHINE FOR CUTTING MEAT, &c.

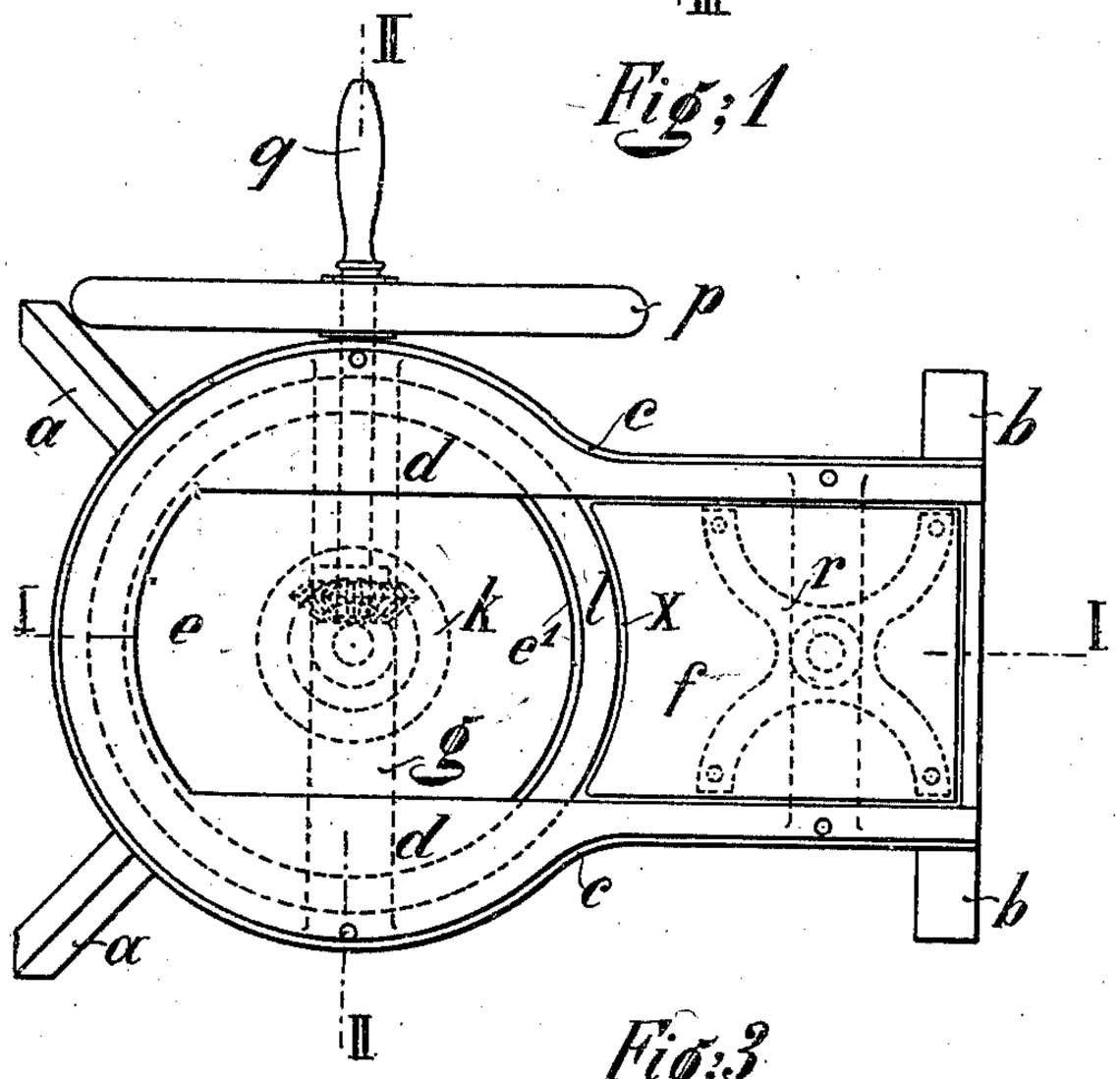
(Application filed May 2, 1902.)

(No Model.)

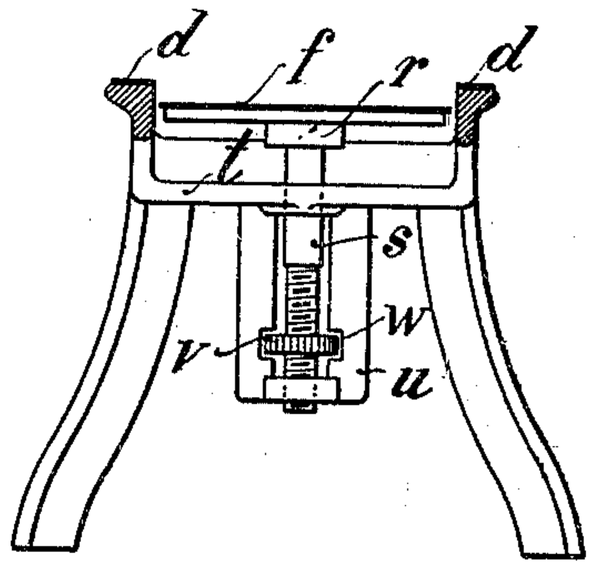


Fig; 1

Fig; 2



Fig; 3



Fig; 4

Witnesses;

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FRIEDRICH GRAFF, OF WITTEN, GERMANY.

MACHINE FOR CUTTING MEAT, &c.

SPECIFICATION forming part of Letters Patent No. 709,539, dated September 23, 1902.

Application filed May 2, 1902. Serial No. 105,667. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH GRAFF, a citizen of the German Empire, residing at Witten, in the Province of Westphalia, Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Machines for Cutting Meat and Like Materials; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in machines for cutting meat, sausages, ham, and the like in thin slices.

The machine consists in the main of a covered circular cutting-knife keyed to a vertical rotary spindle and of which knife only a narrow part is visible which can be reached from the outside, a table opposite this open part of the knife, which can be regulated in height with respect to the cutting edge so as to be able to cut off thicker or thinner slices from the main piece of meat or sausage, serving to support the meat so that it can be pushed over the cutting edge of the knife. The object of this is, as stated above, to produce slices of any desired thickness down to one-sixteenth of an inch and even less, if desired. I attain these objects by the mechanisms shown on the accompanying drawings, in which—

Figure 1 is a central vertical section along line I I of Fig. 3. Fig. 2 is a vertical cross-section along line II II of Fig. 3. Fig. 3 is a top view of the machine. Fig. 4 is a section along line III III of Fig. 1.

The machine consists of a table-like frame *a a b b c c*, which is partly covered by a sheet-iron cover *d d*. A nearly-rectangular part *e* in the middle of this cover and reaching to about the middle of the whole length of the machine is pressed down, the remainder of this part being cut out altogether, so as to give room for a separate covering-piece *f*, the object of which I shall explain hereinafter. The table-frame is circular at one end and rectangular at the other end. At the circular part is fixed to the frame or cast in one piece with it a diametrical cross-bar *g*, which serves as a guide and bearing for a vertical spindle *h*. At its lower end the spindle *h* finds a second bearing or support in a hanging bracket *i*. At its upper end the spindle *h* carries a disk *k*, and upon this disk is screwed or otherwise fixed the circular knife *l*. This knife is of dish shape—that is to say, its central part is pressed down, as best seen in Figs. 1 and 2, so that the real cutting edge forms a raised ring which reaches up exactly to the level of the depressed part *e* of the cover *d*, as seen in Fig. 1, which also shows that only that part of the knife or its cutting edge comes to the surface which reaches beyond the edge *e'* of said depressed part *e* of the cover. To the lower part of the spindle *h* is keyed a bevel-wheel *m*, which is in gear with a similar wheel *n* on a shaft *o*, carried in the bracket *i* and on a bracket *i'*, hanging down from the main frame *c*. At the outer end of this shaft is fixed a fly-wheel *p* with a handle *q*, by means of which the machine can be set in motion.

The separate covering-piece *f* in the rectangular part mentioned above is held upon a cross *r*, fixed at the upper end of a spindle *s*, which is carried in a cross-stay *t* and in the socket of a bracket *u*. The lower part of said spindle is screw-threaded and is provided with a nut *v*, which is held between recesses *w* of the legs of the bracket *u*. Hence it follows that by turning said nut *v* in one way or the other the spindle *s*, and by it the table *f*, is raised or lowered according to the way in which the nut is turned around.

From the description given and from the figures of the drawings the working of the machine will now be easily understood. The raised rim of the knife *l*, forming the cutting edge, is in a level with the recessed part *e* of the table, and only that part of the cutting edge is visible which projects beyond the edge *e'* of said table part *e*. The table part *f*, by means of the spindle *s* and the nut *v*, can be adjusted in height with regard to the cutting edge *l* so as to leave a wider or narrower opening or passage *x* between the cutting edge and the edge of the table *f*. If then by turning the handle *g*, by means of the shaft *o*, the gearing *m n*, and the spindle *h*, the knife *l* is turned around and a piece of meat is pushed over the table *f* toward the rotating knife *l* upon the table part *e*, a slice according to the opening *x* is cut off in the best manner possible and as thin as one may

choose, there being no danger of the fingers or the hands being cut. The slice falls down into a receptacle below the machine. This receptacle is not shown on the drawings.

I am aware that meat-slicing machines with rotating knives have been made, and I do not claim, broadly, such a machine; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a meat-cutting machine, the combination of a frame with a cover depressed in the middle, a circular knife rotating between them, a table *f* which also serves as a gage, means for vertically adjusting said table, and mechanism for rotating the said knife substantially as set forth.

2. In a meat-cutting machine, the combination of a table-like frame with a fixed cover having a depressed middle part, a rotary circular knife arranged between said frame and the depressed part and the said cover, a spindle carrying the said knife, a driving-shaft and gearing for operating the said spindle, a vertically-adjustable piece arranged in proximity to the said knife and serving as a gage, a screw-spindle supporting the said piece, a nut engaging the threads on the latter and a fixed device for contact with the said nut, in order that the burning of the latter may adjust the said piece higher or lower substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRIEDRICH GRAFF.

Witnesses:
OTTO KÖNIG,
F. A. RITTERSHAUS.