2 Sheets—Sheet 1.

E. W. SILVER.

Meat-Chopper.

No. 216,536. Patented June 17, 1879.

Fig. 1.

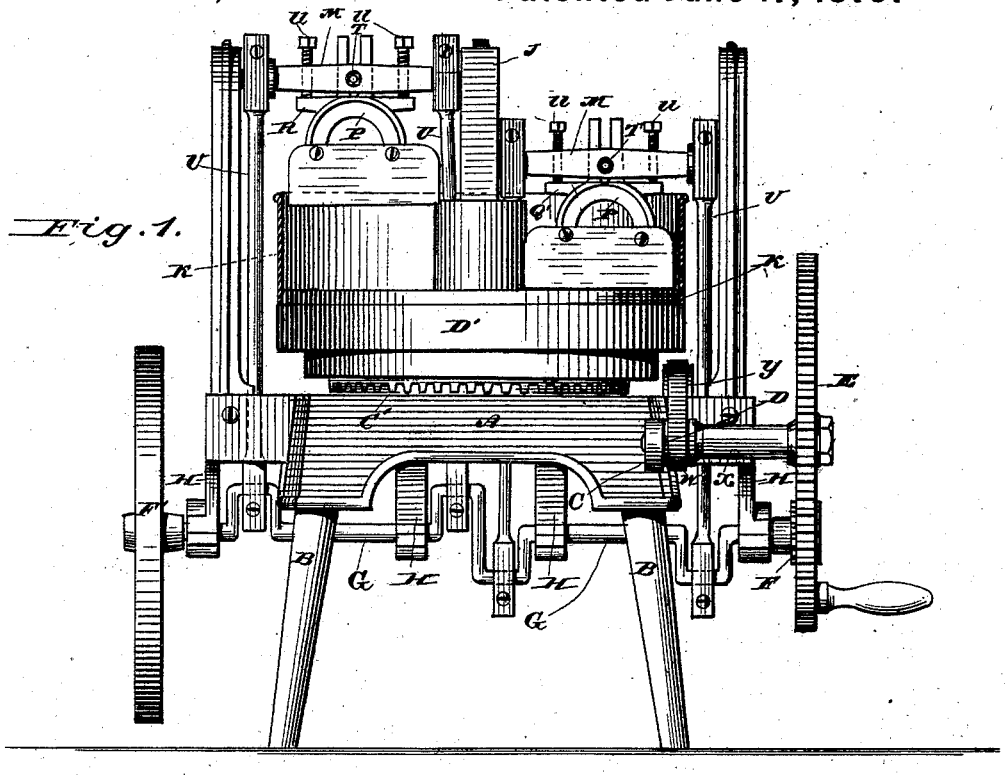
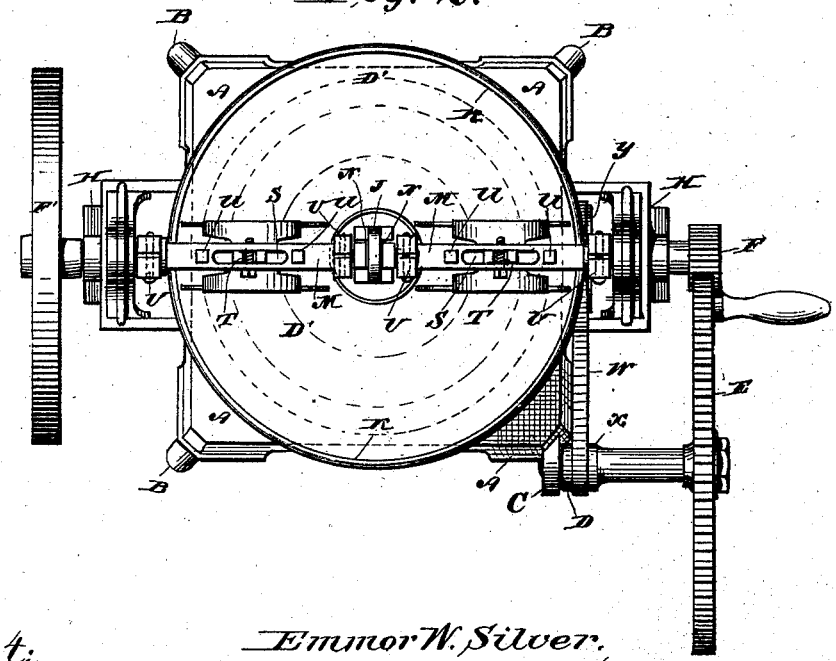


Fig. 2.



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2 Sheets—Sheet 2.

E. W. SILVER.

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Fig. 3.

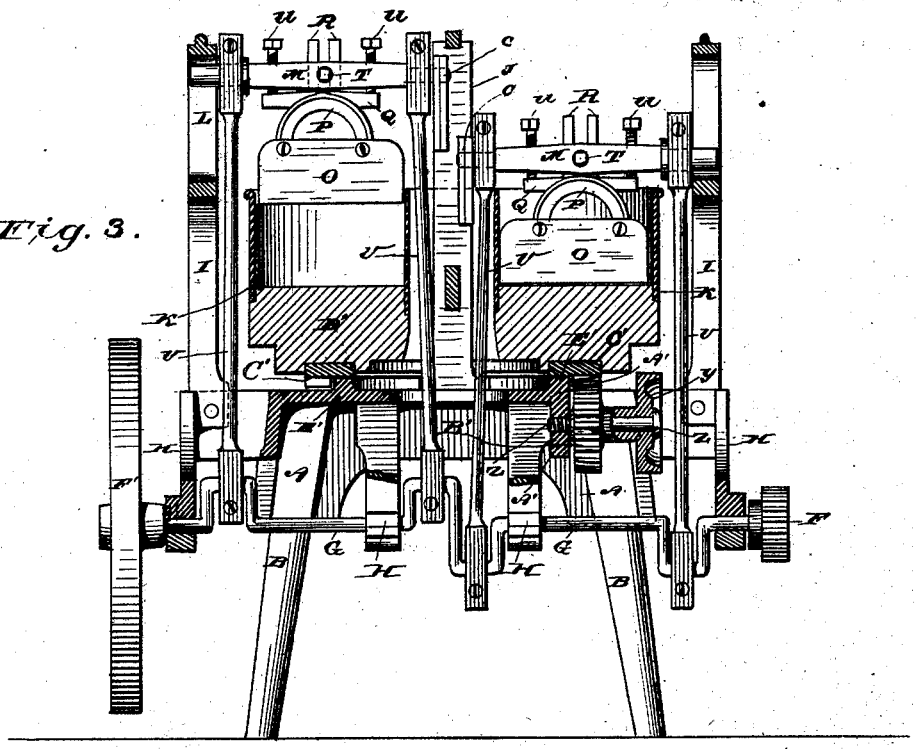


Fig. 4.

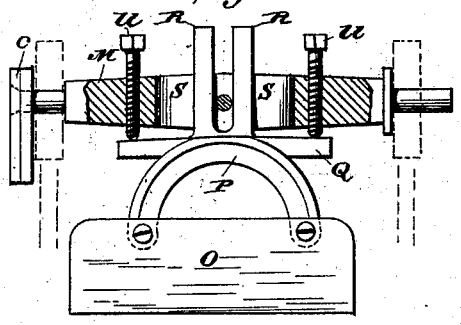
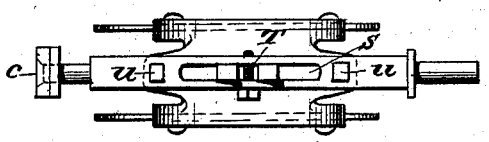


Fig. 5.



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UNITED STATES PATENT OFFICE.

EMMOR W. SILVER, OF SALEM, OHIO, ASSIGNOR TO THE SILVER & DEMING MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN MEAT-CHOPPERS.

Specification forming part of Letters Patent No. **216,536**, dated June 17, 1879; application filed August 1, 1878.

To all whom it may concern:

Be it known that I, EMMOR W. SILVER, of Salem, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Meat-Choppers; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to certain improvements in meat-choppers; and the invention consists in the special construction and arrangement of parts, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation with the hopper in section. Fig. 2 is a top view. Fig. 3 is a central vertical transverse section. Fig. 4 is a longitudinal section through the knife-carrier, and Fig. 5 is a top view of the knife-carrier.

In the drawings, A represents a cast-iron base or table provided with legs B for supporting the same. This table A is formed with a bearing, C, for supporting a spindle, D, upon which is arranged a suitable driving or operating cog-wheel, E. This cog-wheel E meshes with a pinion, F, arranged on one of the outer ends of a crank-shaft, G, held by suitable hangers H, formed on the table A, as shown in Figs. 1 and 3 of drawings.

The table A is provided with two outer guide-bars, I I, and a central double guide-bar, J, the latter passing up through the middle of the hopper K, as shown in Figs. 1, 2, and 3 of drawings.

The outer guide-bars, I, are formed with slots L, in which travel one end of the knife-carriers M. The other end of such knife-carriers is supported in ways N on opposite sides of the central guide-bar, J, as shown in Fig. 2 of drawings.

The end of said knife-carriers is supported in the central guide-bar, and is provided with a guide-block, *c*, (shown in Figs. 3, 4, and 5 of drawings,) to prevent the knives from oscillating when the machine is in operation.

In some cases only one set of cutting-knives is required, and in view of this, when desired, the machine may be provided with only one outer guide-bar, I.

The knives O are secured to a curved frame, P, formed with a horizontal piece, Q, and two vertical pieces, R. These vertical pieces R pass up through a slot, S, in the carriers M, receiving a set-screw, T, passing horizontally through the carrier M, as shown.

The vertical pieces R are held in the slots S by tightening the screws T. The knives are adjusted by screws *u*, passing down through the carriers M and against the horizontal pieces Q. These carriers M are operated by pitmen *v*, which extend down and connect with the crank-shaft G, as shown in Fig. 3 of drawings.

The hopper is operated by a band, W, which extends from the hub X of the operating cog-wheel E to the pulley Y, arranged on a spindle, Z, supported by a piece, A′, of the table A, as shown in Fig. 3 of drawings.

The pinion B′, arranged on the spindle, and rigidly connected with the pulley Y by means of a sleeve, gears with a circular rack-bar, C′, arranged on the bottom of the block D′, as shown in Figs. 1 and 3 of drawings.

The hopper K is supported and travels on a circular rim or flange, E′, of the table A, as shown in Fig. 3 of drawings.

The crank-shaft G has one end provided with a fly-wheel, F′, to balance and make the machine run smoothly.

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

1. In a meat-chopper, a knife, carrier, M, provided with a guide-block, *c*, and slotted, as shown and described, to receive the vertical pieces R of the frame P, a tightening-screw, T, and adjusting-screw *u*, as set forth.

2. The base A, having an open center, and provided with guides J and L, in combination with guide-blocks *c*, pitman *v*, crank-shaft G, and carrier M, provided with cutting device, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EMMOR W. SILVER.

Witnesses:

WALTER F. DEMING,

LUCIEN L. GILBERT.