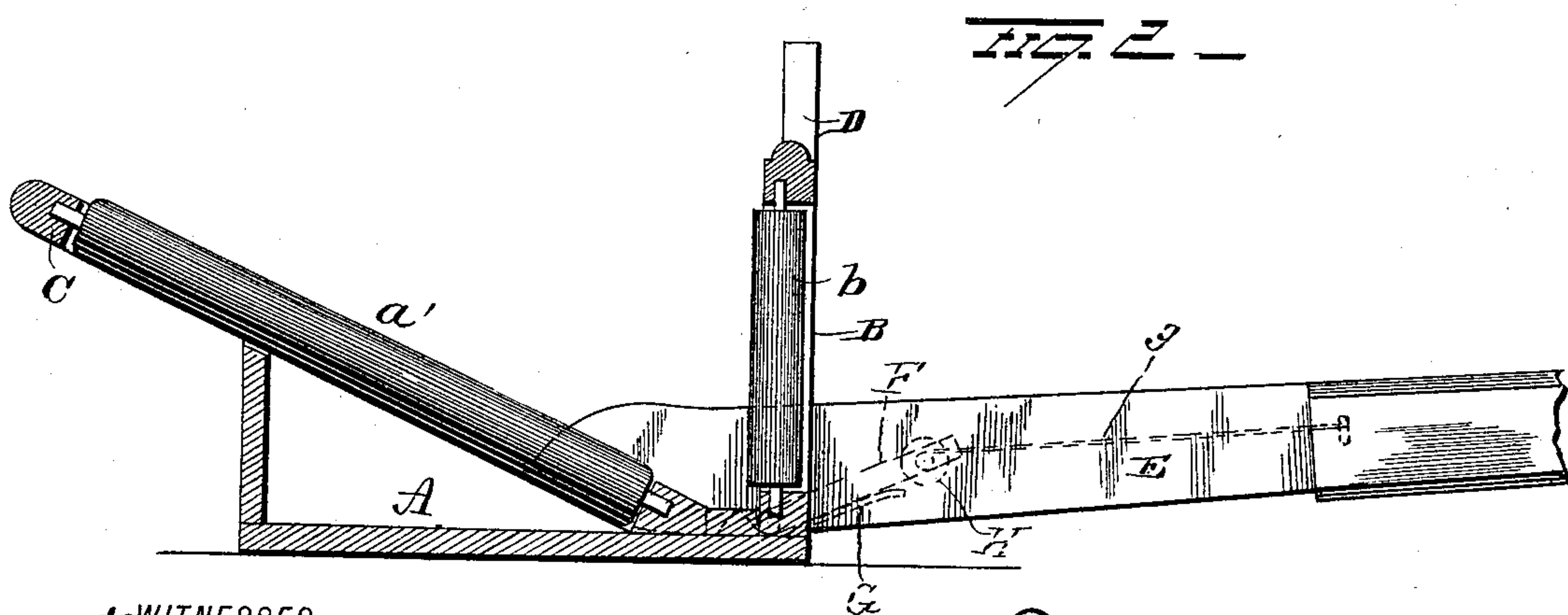
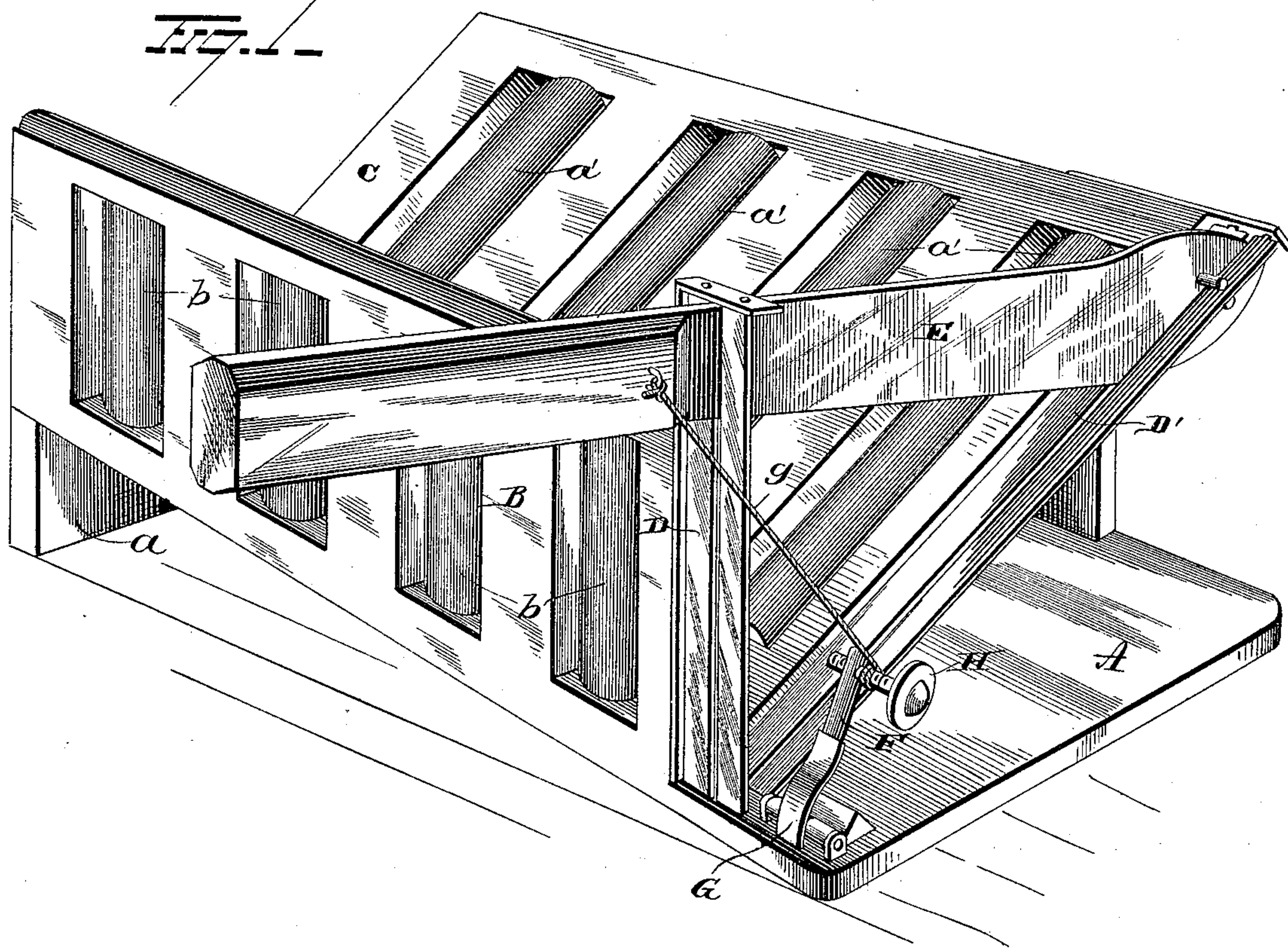


(No Model.)

F. BOËS & H. WINTER.
BREAD AND VEGETABLE CUTTER.

No. 338,819.

Patented Mar. 30, 1886.



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UNITED STATES PATENT OFFICE.

FRITZ BOËS AND HERMANN WINTER, OF HELENA, MONTANA TERRITORY.

BREAD AND VEGETABLE CUTTER.

SPECIFICATION forming part of Letters Patent No. 338,819, dated March 30, 1886.

Application filed December 11, 1885. Serial No. 185,397. (No model.)

To all whom it may concern:

Be it known that we, FRITZ BOËS and HERMANN WINTER, of Helena, in the county of Lewis and Clarke and Territory of Montana, have invented certain new and useful Improvements in Bread and Vegetable Cutters; and we 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.

Our invention relates to an improvement in bread and vegetable cutters.

The object is to provide a simple, effective, and inexpensive machine for slicing bread, vegetables, meats, &c., and more particularly to improve the means for feeding the bread, &c., to the knife, the mounting of the knife, and to provide a gradual stop and rebound for the knife.

With these ends in view our invention consists in certain features of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the cutter in perspective, with knife in elevated adjustment. Fig. 2 is a sectional view with knife in depressed adjustment.

A represents a suitable base, preferably a flat board, supported at one end upon a cleat or legs, *a*, to give it a tilting position declining in the direction of its cutting end. An upright rectangular-shaped frame, B, is secured to the base at its lower edge, and is provided with a series of vertical rollers, *b*, journaled at suitable intervals therein. A second rectangular-shaped frame-work, C, is secured at its lower edge to the base, a short distance from the lower edge of the frame B, and extends from thence obliquely away from the frame B. The frame C is also provided with a series of rollers, *a'*, journaled in the upper and lower rails thereof.

To the corresponding ends of the frames B and C a pair of steel or other hard metal bars, D D', are secured, one pair to each end, the bars being located a short distance apart, sufficient to admit the blade of the knife E loosely between them. The lower ends of the bars D D' are set in sockets either formed in the wooden or other base; or they may be set in

metallic plates secured to the base. Their upper ends are bound together by metallic plates perforated or recessed to receive their ends and secured to the end and top of the frames B and C, respectively.

The knife E may consist of an ordinary carving-knife, or it may be constructed with especial reference to use in connection with the cutter. Its point is secured between the oblique bars D D' by means of pins, bolts, or other guides passing through it or secured to its sides above and below the bars and adapted to have a free sliding bearing upon the bars.

A rock-arm, F, is secured to the base near the end of the frame-work B, and bars D D' attached thereto. The said rock-arm is held automatically in upright adjustment by a spring-bar, G, secured at one end to the base A, and with its free end resting against the arm F. A cord, *g'*, or its equivalent, is attached at one end to the end of the arm F and at the other end to the handle of the knife, in front of the position which the hand would naturally occupy. An adjusting-screw, H, is set in the end of the arm to regulate the length of the cord. As the knife nears the limit of its downstroke, the tension of the spring-pressed arm tends to stop its horizontal movement and at the same time stores up an elastic force, which is exerted, as soon as the downcut is completed, in starting the blade on its upward course. The receptacle for the bread or other article to be sliced, formed by the upright frame B and the oblique frame C, holds the article snugly, the tendency being to slightly wedge it between the two. Its movement toward the knife is, however, rendered easy, since its bearing is entirely or nearly so upon the rollers *b* and *c*, which enable it to be advanced without sliding it on the sides or bottom. The cut of the knife is made by drawing it toward the operator and allowing the hand to drop enough to keep the blade about level.

By making the edges of the upright bars D D' adjacent to the blade of the knife of hard metal—steel, for example—the travel of the edges between them will have a tendency to keep the edge sharp.

In the place of two bars D D', a single metal plate might be employed having a long

narrow slot formed therein, the frame B might be set at an oblique angle with the base, and other slight changes in the form and arrangement of the several parts might be resorted to without departing from the spirit and scope of our invention; hence we do not wish to limit ourselves strictly to the construction herein set forth; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a machine for slicing vegetables, &c., the combination, with a frame diverging from the base upwardly, and knife-guides secured to the ends of said diverging frame, of a knife-blade secured in sliding adjustment within the guides, and a spring-actuated arm connected to the handle of the knife and adapted to gradually stop and automatically start the knife on the return, substantially as set forth.

2. The combination, with a frame having knife-guides at one end thereof, and a knife adapted to rise and fall in said guides with a draw-cut, of a spring-actuated rock-arm connected with the handle end of the knife by a cord, substantially as set forth.

3. The combination, with the base and diverging frame secured thereto and having rollers journaled therein, of two pairs of

parallel metallic bars secured to one end of the diverging frame, and the knife secured between said bars in vertical and longitudinally-sliding adjustment, substantially as set forth.

4. The combination, with the diverging frame, the two series of feed-rollers adapted to crowd the article to be sliced between them and the knife-guides located at one end of said frame, of a knife adapted to rise and fall in said guides with a draw-cut, substantially as set forth.

5. The combination, with a frame, the two series of feed-rollers adapted to crowd the article to be sliced between them and the knife-guides attached to one end of the frame, of the knife secured in the guides, and the spring-actuated rock-arm indirectly connected to the handle end of the knife, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

FRITZ BOËS.
HERMANN WINTER.

Witnesses:

CHAS. BAUCK,
SIMON BOHM.