

UNITED STATES PATENT OFFICE.

KARL FRANZMANN, OF QUINCY, ILLINOIS.

IMPROVEMENT IN SLICING-MACHINES.

Specification forming part of Letters Patent No. 182,430, dated September 19, 1876; application filed August 2, 1876.

To all whom it may concern:

Be it known that I, KARL FRANZMANN, of Quincy, in the county of Adams and State of Illinois, have invented a new and useful Improvement in Slicing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to an improved mechanism for slicing; and consists in the devices hereinafter more fully detailed.

The object of the invention is to provide a convenient device for rapidly and smoothly severing slices of material of any desired thickness.

Figure 1 is a front elevation of a device embodying the elements of the invention. Fig. 2 is a central section of same through the line 1 2 of Fig. 1.

In the accompanying drawings, A represents the rear support of the trough, composed of the table B, having the friction-roller *a* near its front edge, to facilitate the movement of the material to be operated upon, which is confined in place by the sides or guides *b*, provided upon each side of the table, and having at their front lower corners the legs D D', which, with the support A, sustain the device. The front of the table is beveled, and has an upward-projecting edge, secured below which is a plate, E, having an edge similar to the table, and properly separated from the table by an interposed layer of material. These edges assist in preventing the retraction of the material being operated upon. The front edges of the sides and legs are bound with a strip of metal, F, the surfaces of which are in the same plane, and slightly in rear of the plate E. Below the ends of the strips F, at suitable heights to suit the inclination of the knife, are provided the shoulders H, below which, and opposite the strips, are placed the guides I I', between which and the strips the knife operates, the guide I being provided with the loop *d*, to prevent the escape of the knife. From the outer side of the leg D, and firmly secured thereto, projects the standard L, through the outer end of which passes one end of the fixed shaft *e*, to which one end of the coiled spring M is secured, and which passes between the two piv-

ot-stands N, the lower ends of which are traversed by, but movable on, the shaft, whence they project outward and upward, their outer extremities serving as bearings for the bar P, about which the outer end of the spring is coiled, it being confined on the bar between the ends of the pivot-stands.

The bar P may, as in the present instance, be made removable, so that the knife may be taken off for grinding.

The center, or that part of the spring about the bar P, is slotted to receive the end of the knife, having in it the eye *f*, through which the bar P also passes. Beyond the eye *f* the knife R has the arch *h*, beyond which is the cutting-blade *i*, the opposite extremity being provided with the handle *l*, which is preferably curved. The knife in its initial position inclines upward from the bar P at a suitable angle, and rests upon the shoulders H, which are placed and inclined to suit the position of the blade. To the inner side of the leg D' is secured one end of the plate V, inside of which, and in the leg D', is cut the recess *m*, to receive the sliding bar *n*, which extends beyond the front of the device, and is provided with the tubular angular guide *p*, to receive the lower part of the gage W, and provided with the set-screw *t*, to regulate the height of the gage. A set-screw, *u*, passing through the leg, serves to regulate the position of the bar *n*. The gage W extends upward at right angles to the upper surface of the table, and is flattened and bent to a suitable angle, which comes opposite, above, and in front of the table, and as it can be elevated or lowered, as well as moved forward or backward, it serves accurately to determine the thickness of the slice of material to be severed.

In operation, the knife is elevated, the material placed upon the table and pushed forward until it comes in contact with the gage. The knife is now drawn toward the person, which coils the spring M, and gains tension. The knife is now forced downward through the material, and the power holding it somewhat reduced. This permits the spring to operate, giving the knife a downward draw movement in the opposite direction, and severing the slice with a draw-cut.

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

The knife R, in combination with the bar P, spring M, and pivot-stands N, substantially as set forth.

In testimony that I claim the foregoing improvement in slicing-machines, as above de-

scribed, I have hereunto set my hand this 24th day of July, 1876.

KARL FRANZMANN.

Witnesses:

HENRY REUSCH,
EDWARD ORSCHEL.