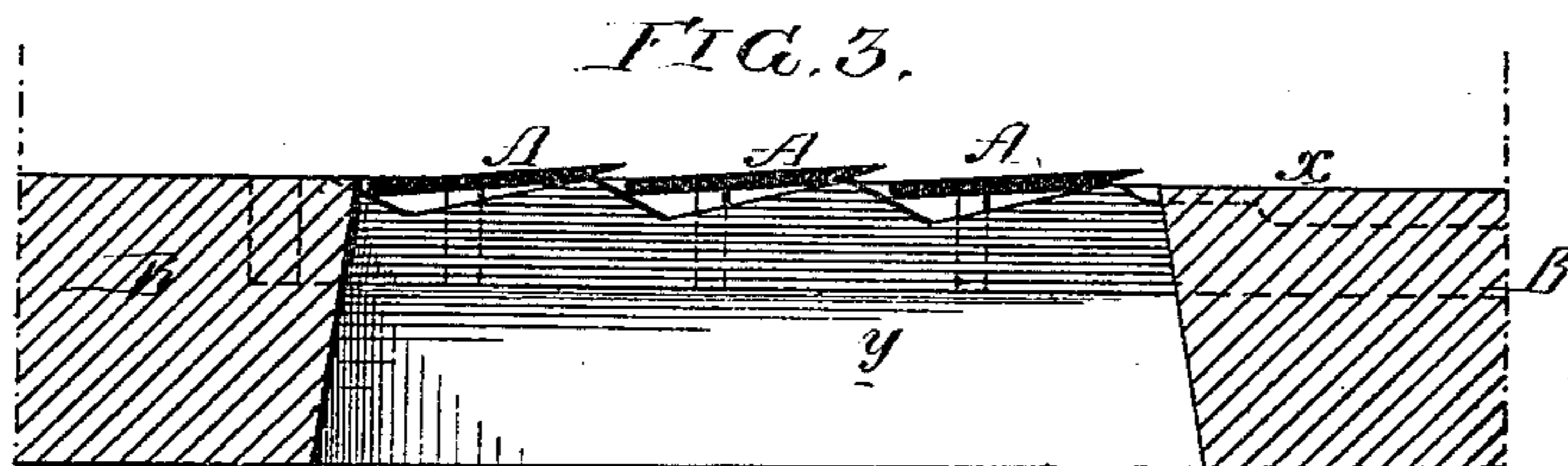
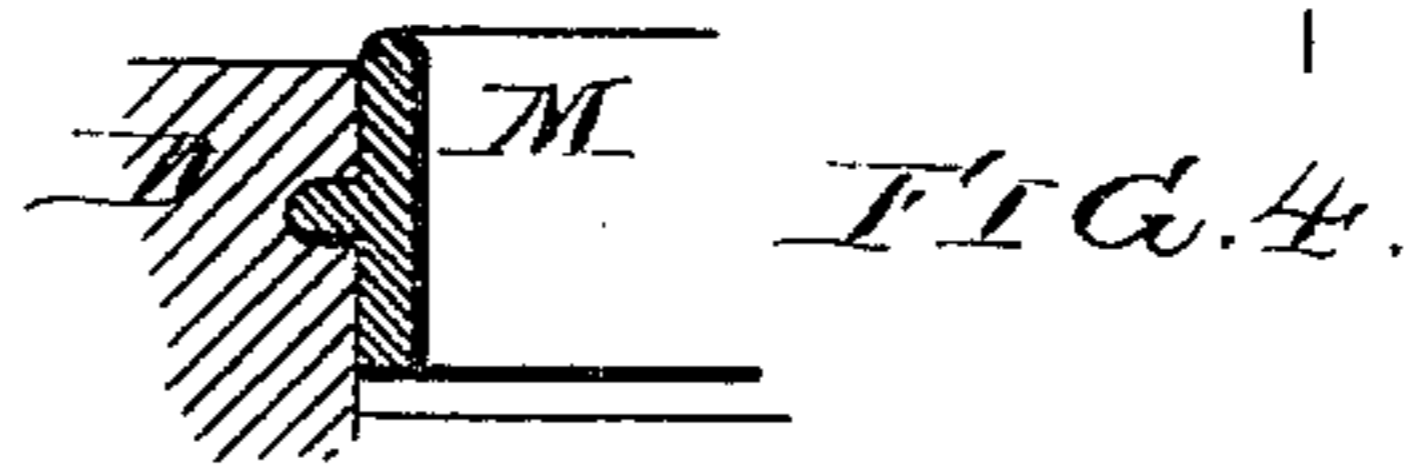
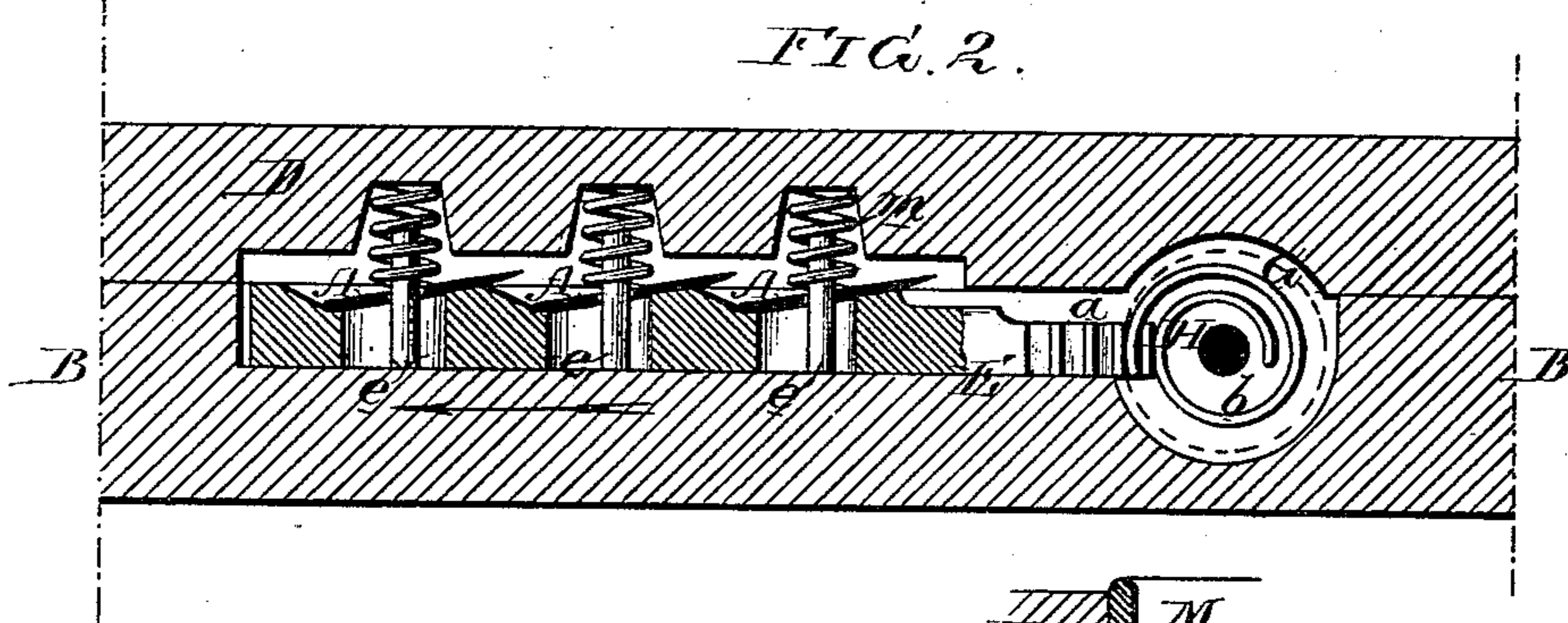
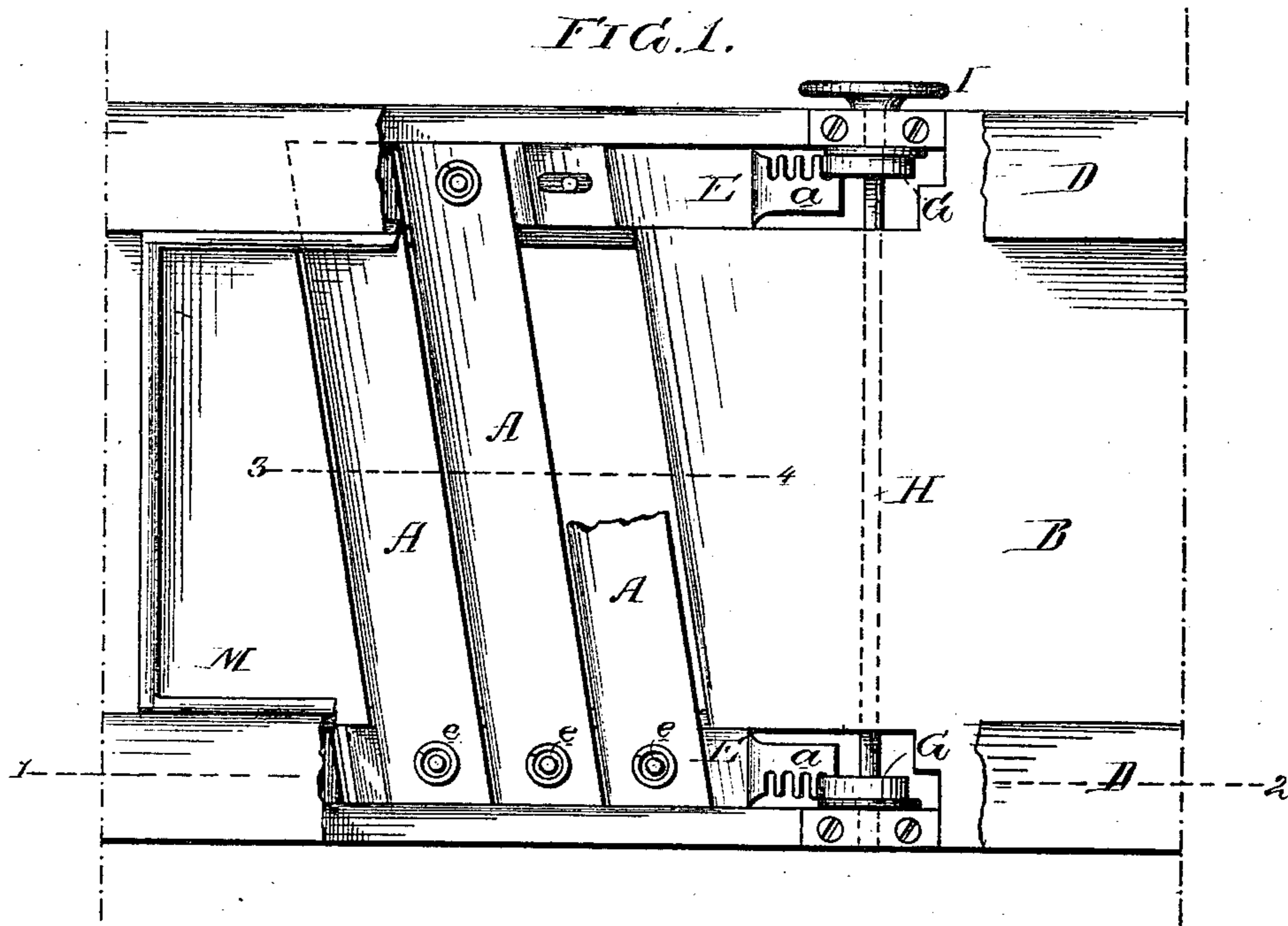


H. E. NITTENGER.
Vegetable Slicing-Machines.

No. 148,740.

Patented March 17, 1874.



Witnesses, Harry Smith
Thomas M. Thrain

Henry E. Nittenger
by his Atty,
Horsum and Son.

UNITED STATES PATENT OFFICE.

HENRY E. NITTINGER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN VEGETABLE-SLICING MACHINES.

Specification forming part of Letters Patent No. 148,740, dated March 17, 1874; application filed January 31, 1874.

To all whom it may concern:

Be it known that I, HENRY E. NITTINGER, of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in Instruments for Slicing Vegetables, of which the following is a specification:

My invention relates to instruments for slicing vegetables, meat, &c., for culinary purposes; and the object of my invention is to readily adjust the instrument for cutting thin or thick slices by knives A, combined with appliances described hereafter, and illustrated in the accompanying drawing, whereby the cutting-edges of the knives can be raised or lowered at pleasure, and retained in any position to which they may be adjusted.

Figure 1 is a plan view of the instrument with portions removed in order to exhibit the adjusting mechanism; Fig. 2, a vertical section on the line 1 2, Fig. 1; and Fig. 3, a vertical section on the line 3 4.

B is a board, to the upper surface of which are secured two strips, D D, one near each edge of the said board, as shown in Fig. 1. Beneath each strip the board B is cut away for the reception and guidance of a bar, E, one end of which is furnished with a rack, and into the teeth of the latter gears a coiled rib or worm, *b*, on a wheel, G, secured to a shaft, H, which extends across the board, and is adapted to suitable bearings on the same, the shaft being furnished with a wheel, I, on manipulating which the opposite bars E E will be moved simultaneously in their recesses in the board, in a direction depending upon that in which the shaft H is turned. Inclined beds are formed on the opposite bars E for the knives A, and through a hole near each end of each knife passes a pin, *e*, projecting from the board B, and through a slot in the bar E, and sufficiently far above the knife to receive a spiral or other spring which is contained in a socket in the strip D, and which, pressing on the knife, keeps it down on its inclined bed. When the sliding bars E are moved in the direction of the arrow, Fig. 2, the cutting-edges of the knives must necessarily be elevated, while a movement of the bars in a contrary direction must insure the

depression of the said cutting-edges. In Fig. 3, for instance, the cutting-edges of the knives have been so depressed to within a very short distance above the surface *x* of the board B, so that on moving the material to be sliced backward and forward in contact with this surface the slices which are severed from it, and which fall through the opening *y* in the board into any suitable receptacle, are very thin; but slices of increased thickness can be readily obtained by moving the bars E in the direction of the arrow, Fig. 2, and thus increasing the height of the cutting-edges of the knives above the surface *x* of the board.

The material to be sliced is, by preference, placed in a frame or bottomless box, M, part of which is shown in Fig. 1, this box having ribs adapted to grooves in the opposite strips D D, as shown in the detached view, Fig. 4, and these grooves maintaining the box at such a height that its lower edge shall not come into contact with the cutting-edges of the knives.

The material to be sliced is placed within this box, and the latter moved to and fro in the guides with a result which requires no explanation.

Different devices may be employed for operating the bars E; but I prefer the combination of the rack on the bars with the worms on the shaft, as the latter not only serve to move the bars, but to retain them and the knives in the position in which they have been adjusted.

I claim as my invention—

1. The combination, in a slicing-instrument, of the transverse shaft H, its worms G G, the bars E, having teeth adapted to the worms, and one or more knives, A, adapted to inclined beds on the bars, all as set forth.

2. The combination of the board B, strips D D, adjustable and slotted bars E E, knives A, retaining-pins *e*, and springs *m*.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY E. NITTINGER.

Witnesses:

WM. REICHMANN,
CHARLES F. KOTZ.