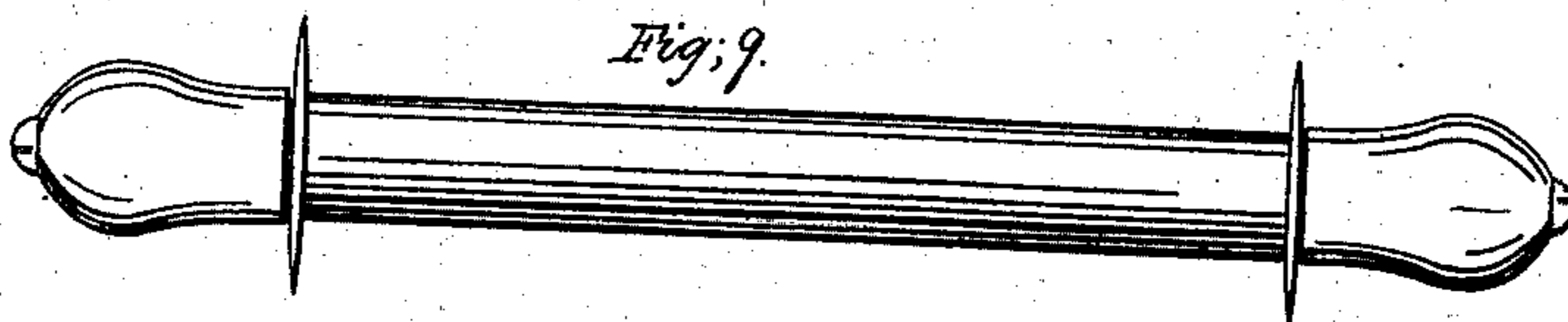
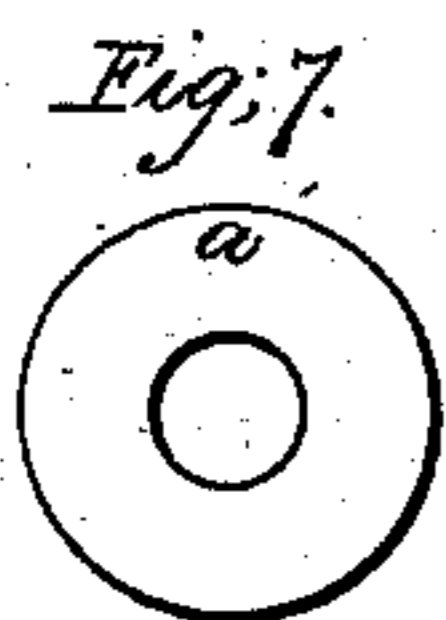
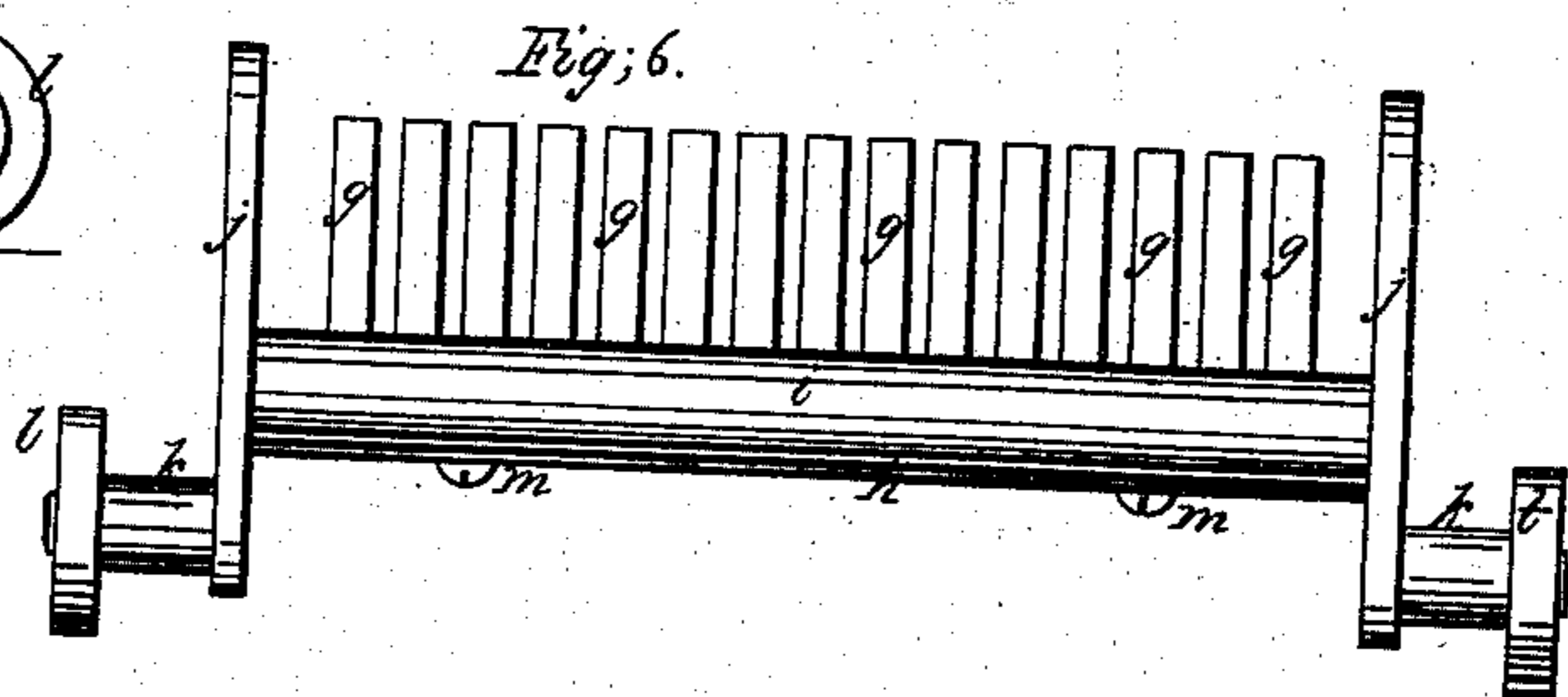
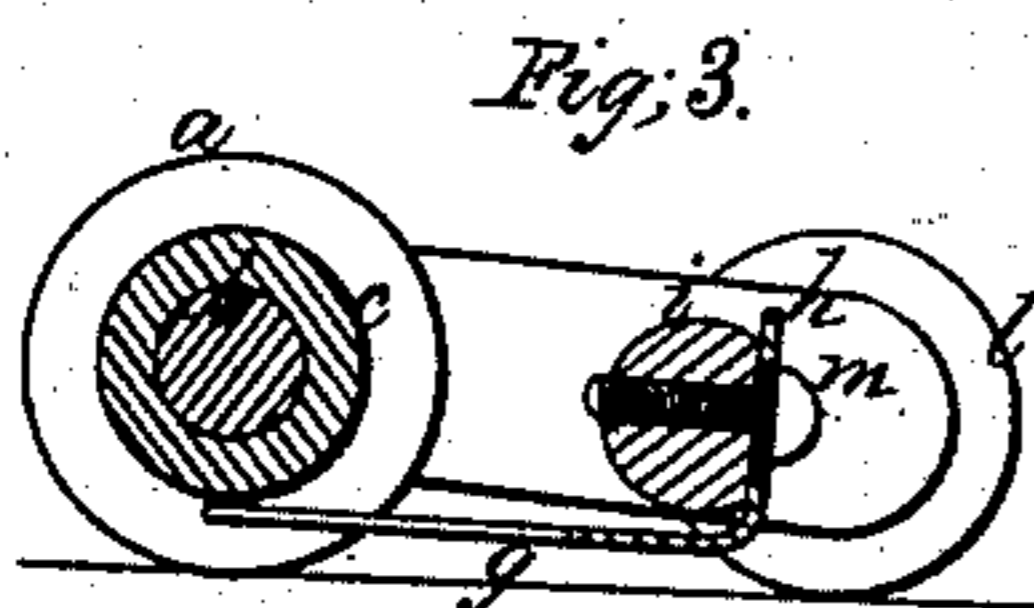
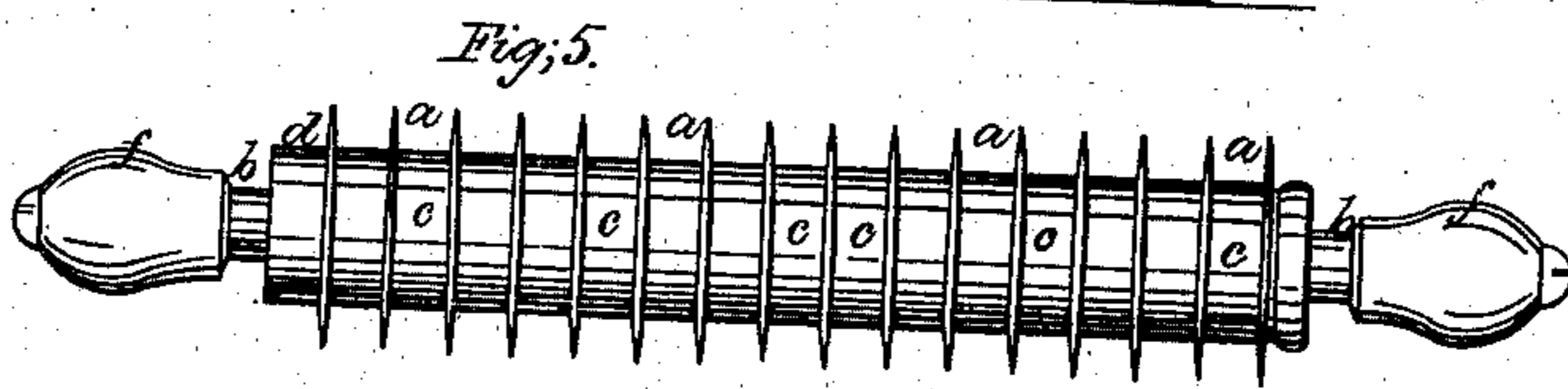
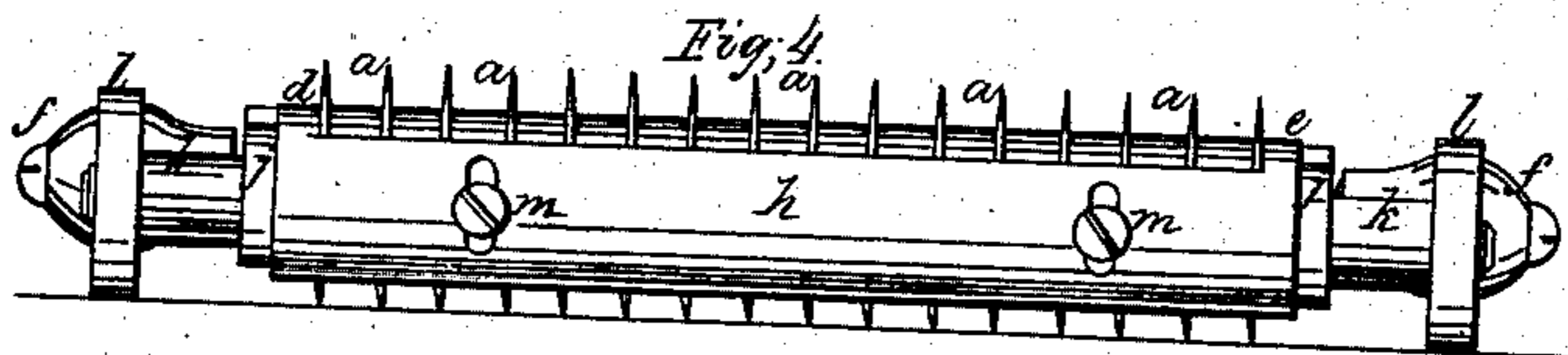
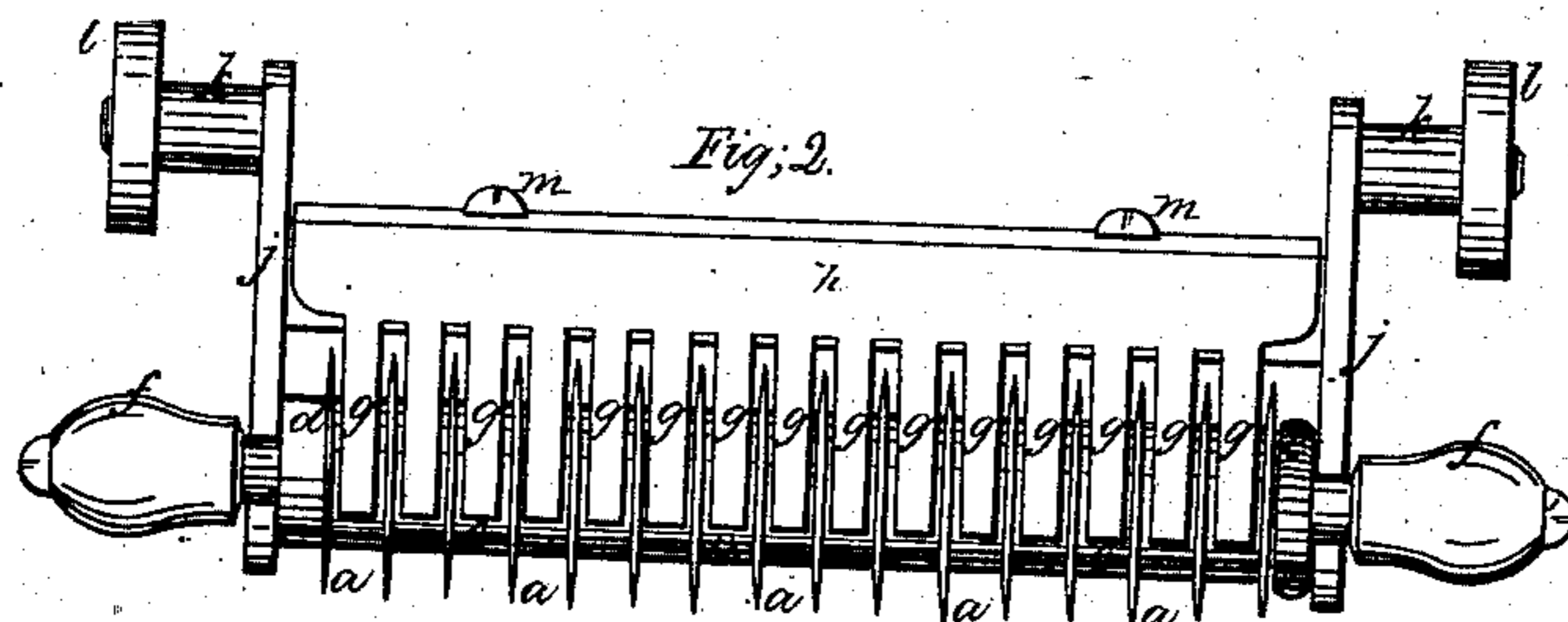
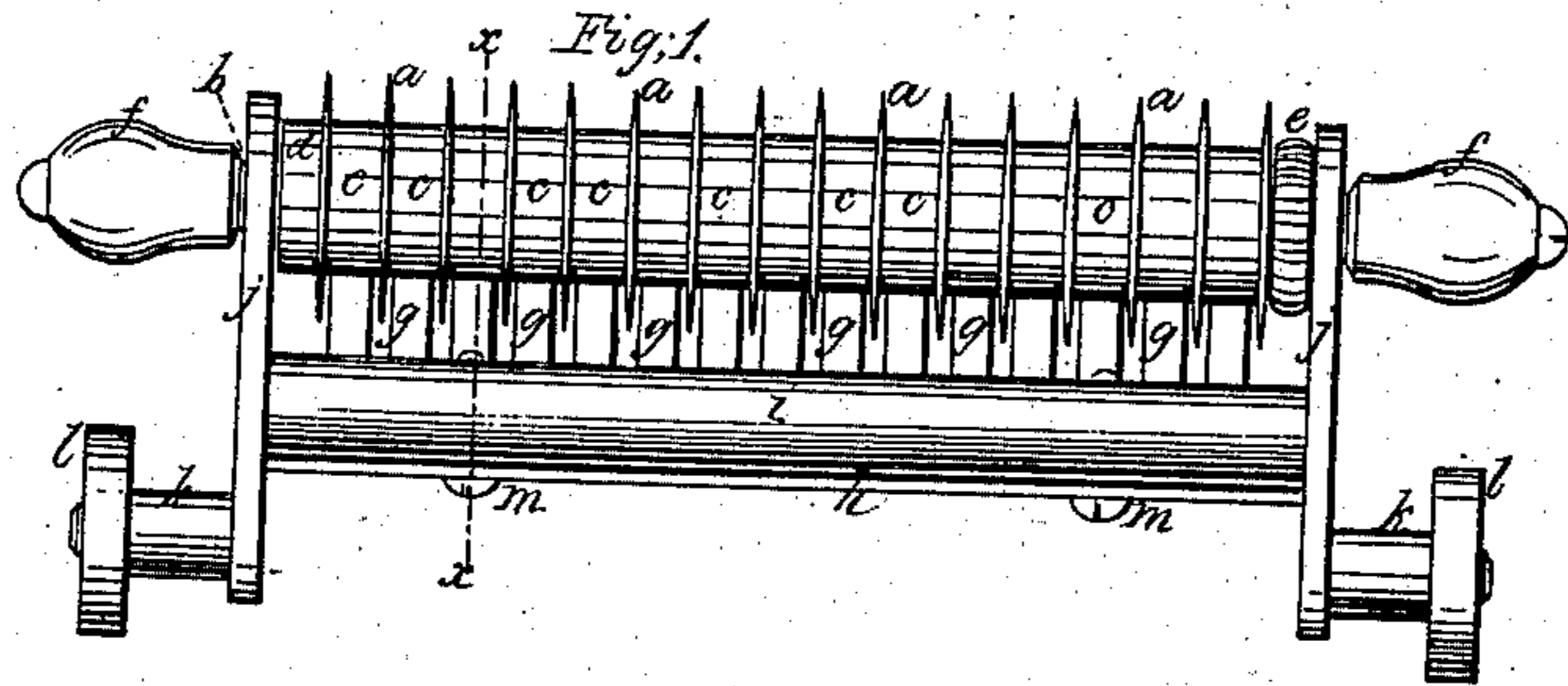


J. W. PEPPER.
Making Confectionery.

No. 7,482.

Patented July 2, 1850.



UNITED STATES PATENT OFFICE.

JNO. W. PEPPER, OF SALEM, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR CUTTING LOZENGES.

Specification forming part of Letters Patent No. 7,482, dated July 2, 1850.

To all whom it may concern:

Be it known that I, JOHN W. PEPPER, of the city of Salem, in the county of Essex and State of Massachusetts, have invented a new and useful Machine for Cutting Block and Stick Lozenges, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a plan of the machine as arranged for cutting square lozenges, the finger-bar being attached to the cutting-axle. Fig. 2 is a view of the same inverted. Fig. 3 is a vertical section of the machine on the line *x x* of Fig. 1. Fig. 4 is rear elevation of the same. Fig. 5 is a view of the circular cutters detached from the finger-bar. Fig. 6 is a plan of finger-bar, fingers, rollers, and hooks. Fig. 7 is a plan of one of the cutters. Fig. 8 is a plan of one of the washers. Fig. 9 is a plan of the cutters for cutting the stick-lozenges into proper lengths.

Similar letters in these several figures refer to corresponding parts.

This machine consists of a number of thin circular steel-plate knives, *a*, for cutting the lozenges, placed on a horizontal axle, *b*, as far apart as the width of the lozenges to be cut, and held firmly at that distance by polished circular washers *c*, placed between them, the outside washer, *d*, at one end resting against a shoulder formed on the axle, and the washer at the opposite end being made in the form of a circular nut, *e*, and screwed against the outside knife, by which they are all crowded firmly together, a screw-thread being formed on a part of the axle corresponding with the nut. On the ends of the axle are handles *f*, by which the axle with the knives are rolled over the sheet of paste. Between every pair of knives is arranged a thin flat steel finger, *g*, nearly the width of the space between the knives in which it is placed, so as nearly to touch the periphery of the washer, said finger projecting from a steel plate, *h*, bent nearly at right angles and secured to a transverse bar, *i*, fastened to two parallel hook-plates, *j j*, hooked to the aforesaid axle, from which hook-plates project outwardly at right angles studs or short axles *k*, on which small wheels *l* turn, for preventing the back of the finger-plate *h* from touching the sheet of paste upon the cutting-board. The fingers *g* project from the finger-plate *h*, in the manner of a flat-toothed steel

comb having oblong mortises in its back, through which are inserted screws *m m*, screwed into the transverse bar, and over whose shanks the plate slides up and down while adjusting the same, and when properly adjusted, so as to bring the points of the teeth between the washers and the sheet of paste to be cut into lozenges, (and the back at the required distance therefrom,) the screws are tightened. The special use of these fingers is to prevent the paste from adhering to the cutters as it is cut, and to keep the lozenges in their proper places upon the board. The particular use of the set-screws *m m* is for setting the finger-plate *h* so as to adapt the machine for cutting any required thickness of lozenges.

To disengage the hook-plates from the cutter-axle, for the purpose of removing the fingers from between the cutters, it is only necessary for the operator to place the handles on the forefingers and the thumbs against the hooks *j j*, and bear upon the latter. The spring-fingers will then bend and the axle will leave the hooks. It is necessary to remove the fingers occasionally in order to clean the knives, and hence the arrangement of the parts must be such as to enable the operator to separate them expeditiously.

Operation: To make block-lozenges, roll the paste with a common roller to any required thickness and width to suit the knives or cutters on a smooth board previously dusted with pulverized starch to prevent sticking. Roll the cutters *a* over the sheet of paste in one direction, which will cut it into as many parallel strips of equal width as there are spaces between the knives. Then roll the knives over the sheet of paste in a direction at right angles to the cuts just made. This will divide the sheet into as many square or block lozenges as will equal the number of spaces between the knives multiplied by the same number. Then remove the trimmings and place the board in a suitable place to dry the lozenges thereupon. It will be apparent that the entire sheet will be cut into lozenges with no other waste than the mere trimmings at the sides, whereas in cutting the round lozenges the waste is very great, extending throughout the entire sheet between and around the several lozenges.

To cut stick lozenges, the cutters must be rolled in one direction only, which will cut the

sheet into parallel sticks of uniform width and thickness. These may then be cut into the required lengths by rolling the two cutters represented in Fig. 9 over the parallel sticks at right angles thereto, said cutters being as far apart as the intended length of the required stick-lozenges.

Having thus described the nature of my invention and improvement, what I claim, and desire to have secured to me by Letters Patent, is—

The adjustable spring-fingers *g*, connected to the two-wheeled car *i j k l*, said car being ap-

pendent to the axle *b* of the revolving cutters, the wheels and the screws that fasten the finger-plate to the transverse bar preventing the finger-plate from touching the sheet of paste during the operation of cutting the lozenges therefrom, as herein fully set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

JOHN W. PEPPER.

Witnesses:

WILLIAM D. NORTHEED,
GEO. F. CHOATE.