

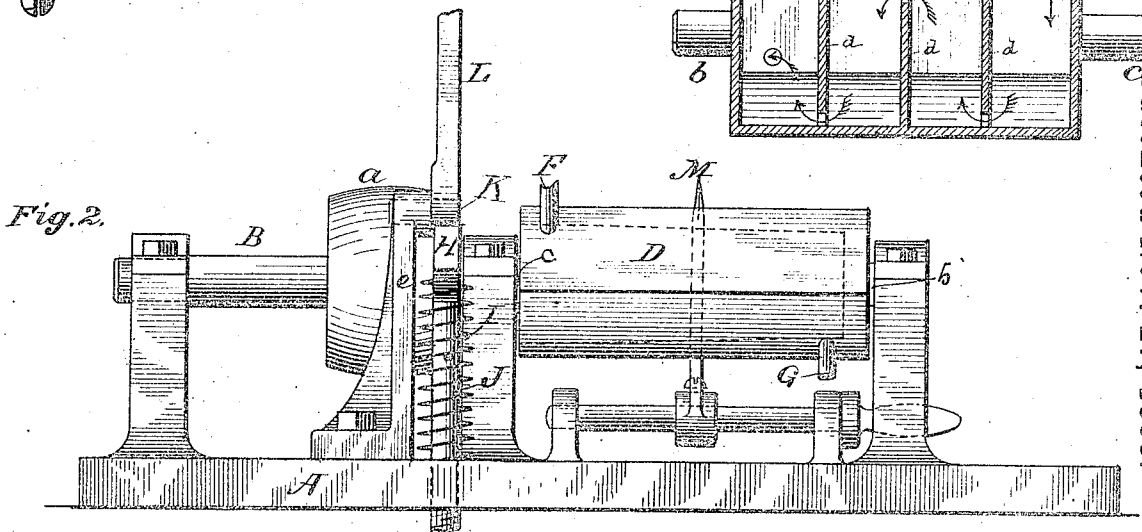
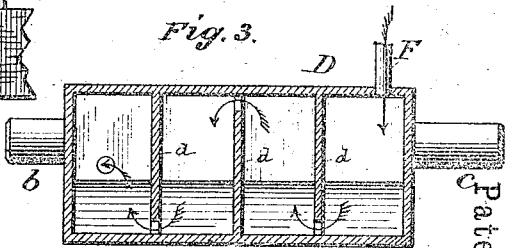
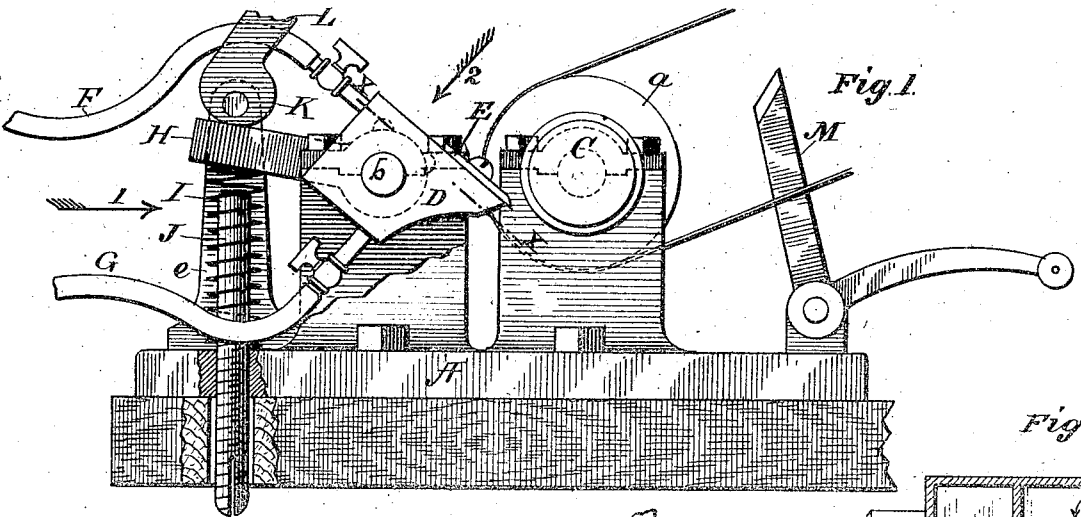
(No Model.)

J. A. EDISON.

MACHINE FOR MAKING PHONOGRAM BLANKS.

No. 393,464.

Patented Nov. 27, 1888.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF LLEWELLYN PARK, NEW JERSEY, ASSIGNOR TO THE EDISON PHONOGRAPH COMPANY, OF NEW JERSEY.

MACHINE FOR MAKING PHONOGRAM-BLANKS.

SPECIFICATION forming part of Letters Patent No. 393,464, dated November 27, 1888.

Application filed May 7, 1888. Serial No. 273,040. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, a citizen of the United States, residing at Llewellyn Park, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Machines for Making Phonogram-Blanks, (Case No. 770,) of which the following is a specification.

As has been made known by my prior applications for patents the phonogram-blank which I prefer to employ is one made entirely of wax or a wax composition in the form of a cylinder having a cylindrical outer surface and a tapering bore. In finishing the outer surfaces of these blanks I have found that the cutting of the wax with ordinary tools at ordinary temperatures is objectionable.

In an application for patent of even date herewith (Case No. 768, Serial No. 273,078) I have described a method of finishing the wax surfaces of phonogram-blanks, consisting in cutting such surfaces with heated knives or cutters.

The object of my present invention is to provide a suitable machine for this purpose.

In the accompanying drawings, forming a part hereof, Figure 1 is an end view of the machine. Fig. 2 is a side elevation looking in the direction of arrow 1 in Fig. 1, and Fig. 3 is a section of the heating-box on line *x x*, looking in the direction of arrow 2 in Fig. 1.

A is a suitable base or table carrying bearings on which the shaft B is mounted. Outside of the bearings is the mandrel C, and between the bearings the pulley *a*, by which the mandrel is rotated. This mandrel C is adapted to receive the cylindrical phonogram-blank made of wax or having a wax-coated external surface. Parallel with the mandrel C is arranged a box, D, having trunnions *b c*, which are mounted in bearings in suitable supports rising from the base A, and is adapted to be swung on such trunnions. Upon the upper forward edge of the box D is secured a cutting-knife, E, which, by the swinging of the box D on its trunnions, is moved toward and away from the mandrel C. The box D is provided with inlet and outlet pipe connections F G, made flexible to permit of the movement of the box D, and having stop-cocks, as shown. These

pipes supply a heating medium—such as steam, hot water, or hot air—to the box D, such medium being caused to have a circuitous route through the box D by means of the partitions *d*, as shown in Fig. 3. To the trunnion *c* of the box D is secured a rearwardly-projecting arm, H, which is pressed upwardly by a spring, I, and is limited in its downward movement by an adjustable stop, J, which may be a screw passing upwardly through the base A. Bearing on the upper side of the arm H, at its outer end, is a cam, K, carried by the end of a hand-lever, L, which is pivoted to a bracket, *e*, rising from the base A. The cam K limits the upward movement of the arm H, and hence limits the extent of withdrawal of the knife E from the mandrel C, which withdrawal is effected by the upward pressure of the spring I, while the adjustable stop J, by limiting the downward movement of the arm H, also limits the forward movement of the knife E. It will thus be seen that by adjusting the stop J the precise position to which the knife E will be advanced by turning the cam K by means of the handle L will be fixed. The heating medium being supplied to the box D and regulated by the stop-cocks, such box will be brought to the desired temperature, which is slightly below the melting-point of the wax or wax composition. The phonogram-blank will be pushed upon the mandrel C, and such mandrel will be started revolving, when by a quick movement of the handle L the heated knife E will be thrown forward against the wax surface of the phonogram-blank, and the blank will be turned true by the combined action of heating and cutting, when the blank will be removed from the mandrel and another substituted in its place.

The machine may be provided with a swinging knife, M, for cutting the phonogram-blanks into two or more lengths; but such a knife is not an essential feature of the machine.

What I claim as my invention is—

1. The combination, with a revolving mandrel, of a heated cutting-tool for turning off the external surface of a wax phonogram-blank mounted on such mandrel, substantially as set forth.

2. The combination, with a turning man-

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drel, of a moving box having pipe connections for supplying it with a heating medium, a knife mounted upon such box, and a handle for moving the box toward and away from the mandrel, substantially as set forth.

3. The combination, with a turning mandrel, of a pivoted box, pipe connections for supplying a heating medium to said box, a cutting-knife mounted upon the box, and a handle for turning said box so as to move the knife toward and away from the mandrel, substantially as set forth.

4. The combination, with a revolving mandrel, of a pivoted box, pipe connections for supplying a heating medium to the box, a knife mounted on the box, a handle swinging said box so as to move the knife toward the mandrel, and a spring turning the box in the opposite direction to move the knife away from the mandrel, substantially as set forth.

5. The combination, with a turning mandrel, of a pivoted box carrying a knife and having pipe connections for supplying it with a heating medium, a handle swinging the box, so as to move the knife toward the mandrel, and an adjustable stop limiting the forward movement of the knife, substantially as set forth.

6. The combination, with a turning mandrel, C, of a swinging box, D, carrying a knife, E, and having pipe connections F G, the arm H, the cam K, turned by handle L, the spring I, and the adjustable stop J, substantially as set forth.

This specification signed and witnessed this 28th day of April, 1888.

THOS. A. EDISON.

Witnesses:

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