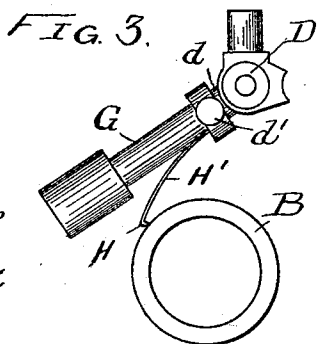
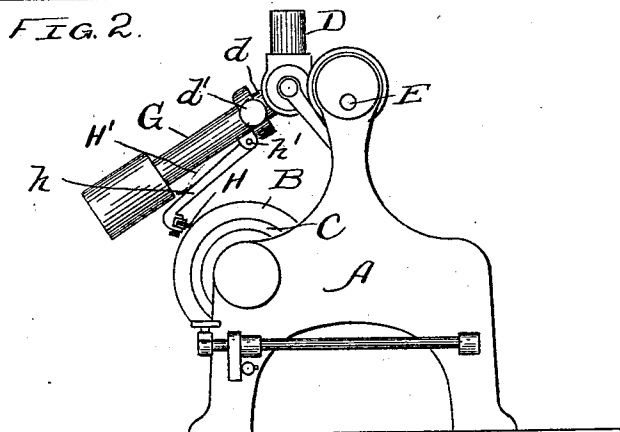
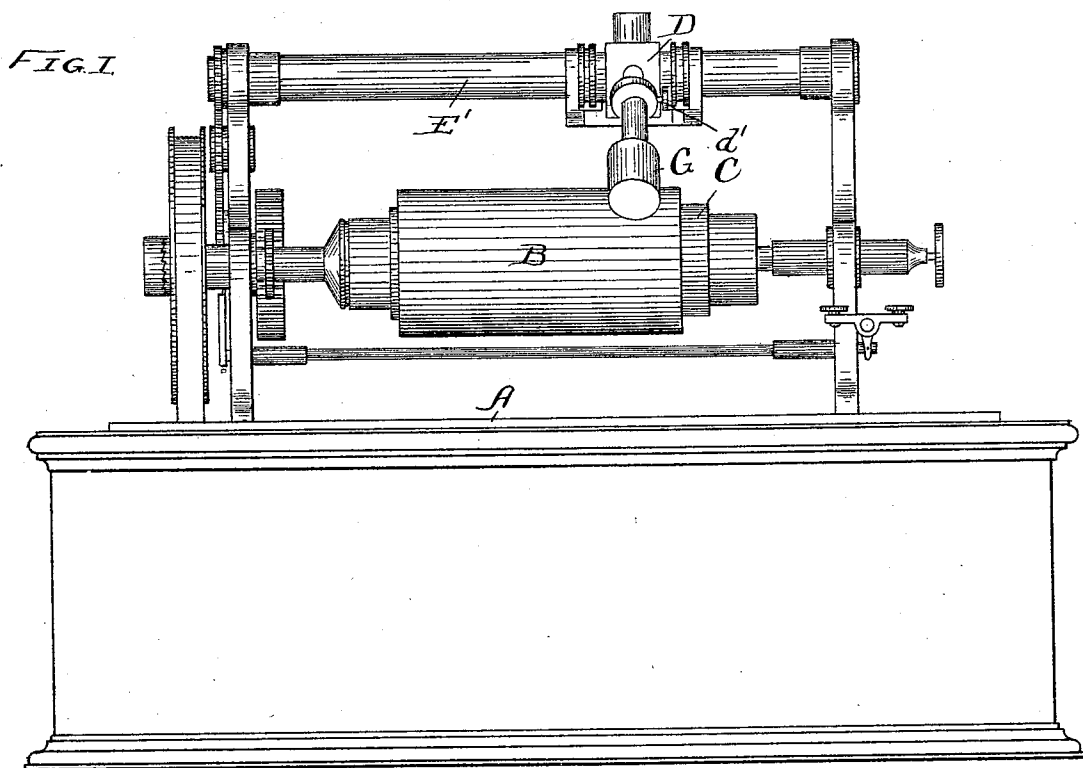


(No Model.)

E. H. AMET.
ERASING ATTACHMENT FOR PHONOGRAPHS.

No. 521,456.

Patented June 19, 1894.



WITNESSES:
Sew. C. Curtis
A. M. Munday

INVENTOR:
EDWARD H. AMET
BY *Munday, Warts & Adenck,*
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWARD H. AMET, OF CHICAGO, ILLINOIS.

ERASING ATTACHMENT FOR PHONOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 521,456, dated June 19, 1894.

Application filed February 10, 1894. Serial No. 499,699. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. AMET, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Erasing Attachments for Phonographs, of which the following is a specification.

My invention relates to improvements in graphophones, phonographs or other machines for recording or reproducing sounds upon cylinders of wax or other analogous material, and more particularly to improvements in devices for paring or renewing the surface of the wax or other cylinder to permit it to be used over and over again.

The object of my improvement is to provide a paring device of a simple and efficient construction which will operate to perfectly pare or smooth the surface of the wax cylinder after it has been once used.

To this end my invention consists in connection with a revolving chuck or holder for supporting and revolving the wax cylinder and a traveling block or trunnion for moving the knife from one end of the cylinder to the other, (the same being preferably the same traveling block or trunnion which, when the machine is in use, moves the needle supporting arm and diaphragm from one end of the cylinder to the other) of a paring knife mounted upon a weighted arm by which it is pressed against the cylinder, there being a spring connection between the knife and the weighted arm, so that the knife may follow any inequalities or irregularities in the true circular shape of the cylinder without producing any injurious vibrations in the weighted arm. The weighted arm is of course movable to enable it to press the knife against the cylinder, and it is preferably pivotally mounted. The paring knife is preferably made in a separate piece from the spring which constitutes the spring connection between the knife and the weighted arm; but the knife and spring may be formed of the same piece of metal, as will be obvious to those skilled in the art. By this means I am enabled to cut a shaving of uniform thickness and of just the required thickness from the cylinder and to leave the surface of the cylinder smooth and continuous, so that it will properly record and repro-

duce sounds to be written or reproduced upon it by the needle.

In the accompanying drawings I have for convenience illustrated my invention as applied to a graphophone of the ordinary type now in use, although it will be readily understood by those skilled in the art that my invention is applicable to any kind of writing or talking machine, wherein a wax or analogous cylinder is employed.

In the drawings, Figure 1 is a front elevation and Fig. 2 an end elevation of a machine or device embodying my invention. Fig. 3 illustrates a modification wherein the knife and the spring connection between it and the weighted arm are in one piece.

In the drawings A represents the frame of the machine, B the wax or other cylinder which is to be pared, C its revolving chuck or holder by which it is supported and revolved, and D the traveling block or trunnion of the graphophone which carries the needle from one end of the cylinder to the other in the ordinary operation of the machine. Connected to the sliding block or trunnion is an arm or sleeve *d* to which the needle carrying arm is ordinarily connected. The sliding block or trunnion D is moved back and forth in the direction of the length of the cylinder by a screw E inside the slotted tube E' in the usual manner. As the construction of these parts is perfectly familiar to those skilled in the art, a detailed description of them is unnecessary to a full understanding of my improvement. Only the end of the screw E is shown in the drawings.

G is a weighted arm adapted to be connected and disconnected by a set screw *d'* with the arm *d* on the trunnion D.

H is the paring knife mounted upon the weighted arm G. The weighted arm G thus serves to press the knife H against the surface of the cylinder with the required force to cause it to cut a thin shaving from the cylinder B as it revolves.

H' is a spring connection or cushion between the knife H and the weighted arm G, in order that the pressure of the movable weighted arm G may be exerted upon the knife H through the spring or cushion H', so that any of the movements of the knife to

and from the center of the cylinder which may be necessary to enable it to follow any irregularities in its shape will be taken up by the spring or cushion H', and thus not be communicated to the weighted arm G. Any vibration in the weighted arm which would tend to produce sharp irregularities in the surface of the cylinder and cause the shaving to be cut too thick or thin at parts and interfere with the operation of the machine in recording or reproducing sounds is thus prevented. The knife H is preferably fixed in an arm h pivoted at h' to the weighted arm G and the spring H' is inserted between the arm h and the weighted arm G, so that the pressure of the weighted arm G is exerted upon the knife H through the spring H'.

In Fig. 3 I have shown a modified construction in which the secondary pivoted arm h is omitted and the knife H made integral with the spring H'.

Instead of employing the traveling block or trunnion D of the sound recording or reproducing machine as a means of moving the knife longitudinally along the cylinder as the latter revolves, the knife may be mounted upon any other suitable traveling block or device, and it will also be understood by those skilled in the art that any suitable chuck or holder for supporting and revolving the cylinder may be employed if desired.

I claim—

1. In a sound writing or reproducing machine, the combination of a revolving chuck or holder for supporting and revolving the wax or other cylinder, of a knife for paring or smoothing the cylinder, a movable weight for pressing the knife against the cylinder, and a spring connection or cushion between the knife and said movable weight, substantially as specified.

2. In a sound recording or reproducing machine, the combination with a revolving chuck or holder for supporting and revolving the wax or other cylinder, a traveling block or trunnion, a weighted arm carried by said traveling block or trunnion, a paring knife carried by said weighted arm, and a spring con-

nection or cushion between the knife and weighted arm, so that the pressure of the weight is exerted upon the knife through the spring or cushion and the knife thus permitted to follow inequalities in the cylinder without producing injurious vibrations of the weighted arm, substantially as and for the purpose specified.

3. In a sound recording or reproducing machine, the combination with a revolving chuck or holder for supporting and revolving the wax or other cylinder, a traveling block or trunnion, a weighted arm carried by said traveling block or trunnion, a paring knife carried by said weighted arm, and a spring connection or cushion between the knife and the weighted arm so that the pressure of the weight is exerted upon the knife through the spring or cushion and the knife thus permitted to follow inequalities in the cylinder without producing injurious vibrations of the weighted arm, said knife being secured to secondary arm h pivotally connected to said weighted arm and the spring acting against said secondary arm h, substantially as specified.

4. The combination in a wax or other cylinder paring device, of a revolving chuck or holder for supporting and revolving the cylinder, with a paring knife, a movable weight for pressing the paring knife against the cylinder, and a spring connection or cushion between the knife and said movable weight, substantially as specified.

5. The combination in a cylinder paring device of a revolving chuck or holder for supporting and revolving the cylinder, of a traveling slide or block, a weighted arm pivotally connected to said slide, a knife or tool for paring or smoothing the surface of the cylinder, and a spring connection between said knife or tool and said pivotal weighted arm, substantially as specified.

EDWARD H. AMET.

Witnesses:

H. M. MUNDAY,
EMMA HACK.