No. 656,366. Patented Aug. 21, 1900.

R. NELLES.

PHONOGRAPH ERASING DEVICE.

(Application filed Jan. 22, 1900.)

(No Model.)

Fig. 1

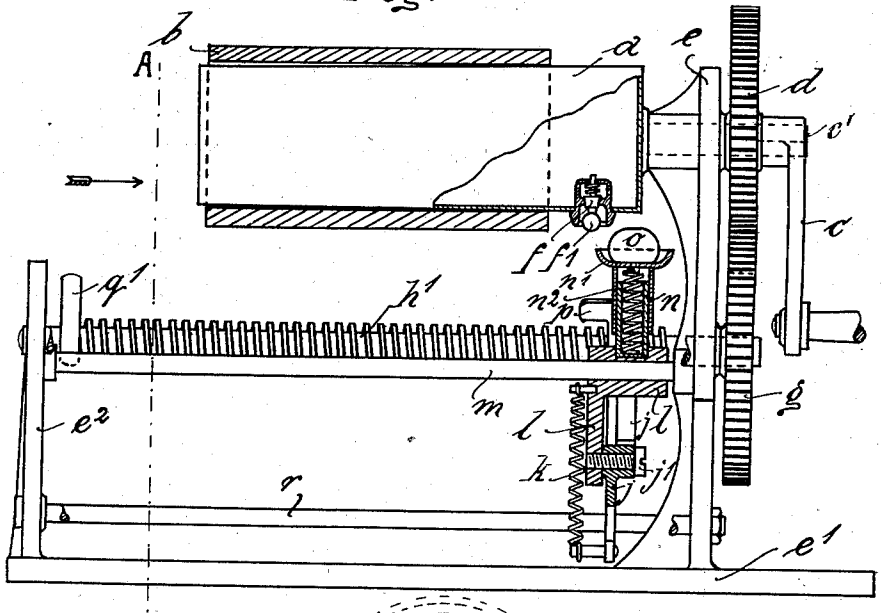
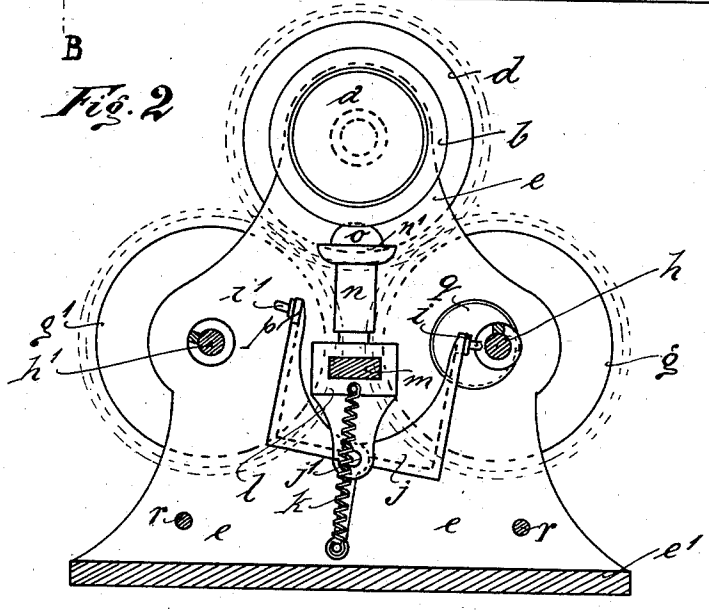


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

RUDOLF NELLES, OF HAMBURG, GERMANY.

PHONOGRAPH ERASING DEVICE.

SPECIFICATION forming part of Letters Patent No. 656,366, dated August 21, 1900.

Application filed January 22, 1900. Serial No. 2,347. (No model.)

To all whom it may concern:

Be it known that I, RUDOLF NELLES, chief steward, a subject of the German Emperor, residing at 48 Pferdemarkt, Hamburg, in the German Empire, have invented new and useful Improvements in Devices for Renovating Phonograph Record-Cylinders and the Like, (for which I have made applications for patents in Germany, filed December 19, 1899, and in Great Britain, filed January 2, 1900,) of which the following is a specification.

This invention relates to an improved device by means of which impressions made upon the outer surface of phonograph-cylinders by the receiving or recording stylus may be effaced and the cylinder rendered fit for the reception of a fresh record.

In order that my invention may be readily understood and carried into effect, I will describe the same more fully with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved device partly in section, the front spindle *h* being omitted; and Fig. 2 is an end elevation of the same, partly in section, taken upon the line A B of Fig. 1.

a designates a conically-formed cylinder serving for the reception of the phonograph record-cylinder *b*, which latter usually consists of a composition of wax and resin or the like. This conical cylinder *a* is caused to rotate by means of a handle *c*, upon the spindle *c'* of which is mounted a toothed wheel *d*, the purpose of which is hereinafter described. The spindle *c'* is rotatably mounted in the upright *e*, which is vertically fixed upon the base-plate *e'*. The cylinder *a* is hollow and serves for the reception of a liquid adapted to act as a solvent upon the substance of which the record-cylinder is formed, said liquid being introduced therein through a valve *f*, which may be pressed back within the cylinder for that purpose, the valve being maintained upon its seat by means of a spring arranged upon its inner side. This valve *f* is furnished with a head or knob *f'*, which projects outside the valve-casing for the purpose of actuating the same. A second upright e^2 is arranged opposite the upright *e*, and in these two uprights spindles *h* and *h'* are mounted in such a manner as to be capable of rotation. These spindles are caused to rotate by means of toothed wheels *g g'*, which are rigidly fixed to the extremity of the spindles *h* and *h'* and gear with the toothed wheel *d*. Pins *i i'*, mounted upon the extremities of a curved or bow-shaped rocking frame *j*, are adapted to be brought into engagement with the spindles *h h'*, this rocking frame *j* being pivoted at *j'* upon the carriage *l*, a spring *k* causing the frame *j* to constantly bear upon one or other of the spindles, one of which latter is provided with a right-hand and the other with a left-hand screw-thread. The carriage *l* embraces the bar or rail *m*, which, together with the bolts *r*, serves to connect the uprights *e* and e^2. Upon the carriage is mounted a yielding support *n*, carrying a cup *n'*, in which is provided a cushion or pad *o*, of suitable absorbent material.

The operation of my improved device is as follows: When it is desired to render a used phonograph record-cylinder fit for the reception of a fresh record, it is first of all placed upon the conical cylinder *a*. The handle *c* is then rotated, which results in the rotation of the cylinder *a* and the record mounted thereon and at the same time reciprocates the carriage under the cylinder through the medium of the intermeshing gear-wheels, threaded spindles, and rocking frame described. By the rotation of the cylinder *a* and the movement of the carriage the pad *o* is brought under the valve *f* and coming into contact with the head *f'* of the latter thereby lifts the valve, and so permits a small quantity of the solvent liquid contained therein—such as, for example, benzin, turpentine, or the like—to flow into the cup *n'* and upon the pad. During the further progress of the carriage the pad, which has become impregnated in this manner, acts upon the surface of the record-cylinder and dissolves the mass of which it is composed sufficiently to completely efface the slight impressions made upon it by the recording-stylus. Upon the opposite extremity of the spindle *h'* to that upon which the gear-wheel *g'* is mounted is attached an eccentrically-mounted disk *q'*, against which a nose or projection *p* on the rocking frame *j*, pivoted to the carriage *l*, strikes when this latter has reached the extremity of the spindle. By this means the rocking frame *j* is reversed or tilted, so that the pin *i'* is re-

moved from engagement with the spindle h' and the pin i is caused to engage with the spindle h. As the spindles h and h' are provided with screw-threads of opposite pitch, the carriage will now be caused to travel in the reverse direction, the pad o continuing to act upon the record-cylinder. Any variations in the thickness of the cylinder are compensated by the spring n^2, which tends to constantly press the pad o against the cylinder.

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

1. In a device of the character described, a liquid-holding cylinder adapted to receive the record, means for permitting the escape of the liquid from said cylinder in small quantities, means for receiving and applying said liquid to the surface of said record, substantially in the manner and for the purpose set forth.

2. In a device of the character described, a rotatably-mounted liquid-holding cylinder having means for permitting the escape of the liquid therefrom and adapted to receive a phonograph-record, in combination with an absorbent pad or the like, adapted to receive the liquid from said cylinder and to apply same to said record, and means for reciprocating said pad, substantially as described.

3. In a device of the character described, a rotatably-mounted liquid-holding cylinder having a valve therein, and adapted to receive a phonograph-record, in combination with a reciprocating absorbent pad adapted to receive the liquid from said cylinder and apply same to the said record, and also adapted to automatically open said valve, and common means for rotating said cylinder and reciprocating said pad, substantially in the manner and for the purpose set forth.

4. In a device of the character described, a rotatably-mounted liquid-holding cylinder having a valve therein and adapted to receive a phonograph-record, a resiliently-mounted pad adapted to receive the liquid from said cylinder and to apply it to said record, means for opening said valve, and means for rotating said cylinder, as set forth.

5. In a device of the character described, a rotatably-mounted liquid-holding cylinder having a valve therein, and adapted to receive a phonograph-record, a resiliently-mounted pad adapted to receive the liquid from said cylinder and apply it to said record and also adapted to automatically open said valve, means for reciprocating said pad in contact with said record.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLF NELLES.

Witnesses:
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OTTO W. HELLMRICH.