P. B. DELANY.

LUBRICATING AND POLISHING PAD FOR TALKING MACHINE RECORDS.

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1,247,232.

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Fig. 1.

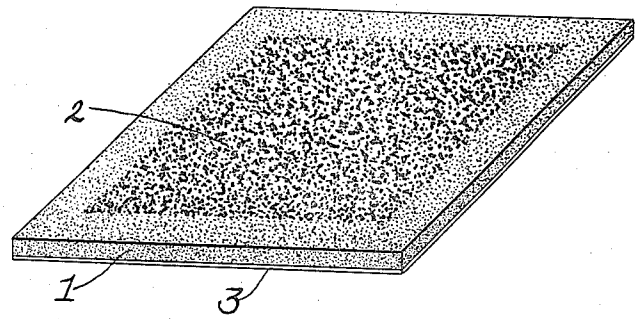
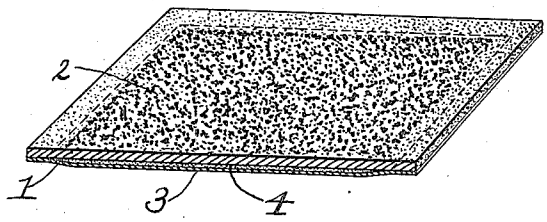


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

PATRICK B. DELANY, OF SOUTH ORANGE, NEW JERSEY.

LUBRICATING AND POLISHING PAD FOR TALKING-MACHINE RECORDS.

1,247,232. Specification of Letters Patent. Patented Nov. 20, 1917.

Application filed March 1, 1913. Serial No. 751,405.

To all whom it may concern:

Be it known that I, PATRICK B. DELANY, a citizen of the United States of America, residing in South Orange, county of Essex, and State of New Jersey, have invented a certain new and useful Improved Lubricating and Polishing Pad for Talking-Machine Records, of which the following is a specification.

This invention comprises a pad of peculiar construction and make up for treatment of talking machine records for the purpose of incidentally removing dust but primarily to polish or smooth and lubricate the surface of the record and lubricate the needle which traverses it.

Figure 1 is an elementary form of this device that experience has demonstrated to be highly efficient; and

Fig. 2, shows a modification.

The device comprises a pad of appropriate soft material adapted to be superficially coated or impregnated with graphite. The pad shown in the drawing may be a piece of felt, plush, corduroy, fustian or other fabric 1 of good quality.

Applied to it is a coating 2 of graphite which is well rubbed into the surface and fibers of the pad and more or less impregnates it. Experience has shown that a pad of this character has such an effect upon the surfaces of the record as to materially improve the quality of the tones and utterances reproduced from the record. The pad is backed by a harder though flexible material 3, such as celluloid, which keeps it in shape and affords a clean and flexible foundation upon which the fingers press when the pad is used. The flexibility of the pad and its back or mounting is an important feature as it insures intimate contact between the pad and the grooves and interstices of the record not attainable with a rigidly mounted pad.

In speaking of a coating of graphite I do not mean that there is to be upon the pad a distinctive layer of graphite but what I do mean is that the graphite appears upon the surface as a discoloration, that is to say, the infinitely fine particles of graphite adhere to the fibers or threads, if such there be, superficially. Such application of graphite to the surface of the pad may be made by rubbing upon it finely flaked or powdered graphite or by rubbing the surface with a block or stick of graphite of fine quality by which I mean fine flaked graphite mixed with a binder and molded into form. Coating and impregnation of materials such as described may I find be most thoroughly done by revolving a stick of graphite in a lathe or other revolving holder and enveloping it with the pad while held in the hand and turning the pad a quarter way at a time for separate treatment until the graphite has been rubbed into it in four directions thus insuring thorough coating or impregnation of the threads of the fabric on all sides to their woof or weave foundation. In this way the particles of graphite adhering to the fabric are infinitely smaller than any possible application from the powdered graphite.

The graphite which is applied to a record, rubbed with a pad prepared as described, is in impalpable condition, and the quantity adhering to the record is exceedingly small. Tests have demonstrated the fact that the surface of the record is finely polished and that although the graphite is practically imperceptible, not rubbing off when the record is handled, it affords a fine lubricant for the needle, insuring perfect reproductions of the sounds recorded.

Another and highly important feature of my invention, shown in Fig. 2, consists of providing a storage supply of the polishing or lubricating material sufficient for a long time and which is gradually supplied to the surface of the pad automatically by the movement of the non-porous back support of the pad when pressed upon by the fingers.

By reason of the pad being of a feltish character, that is composed of fibers intermingled in all possible directions, and as a felt of a fine close texture is required for the proper performance of this invention, the powdered graphite is in no way sifted through the pad but it is forced through the felt by compression and relaxation and the particles of the graphite, in passing through the pad, rub against innumerable fibers and are by abrasion rubbed into an exceedingly fine impalpable condition in substantially the same way that the outside fibers become coated by frictional contact therewith of graphite, as previously described. A similar condition of graphite is found on paper produced by the analogous rubbing operation of marking on paper with a lead pencil.

This stored supply 4 in a powdered state is placed between the central portions of the feltish pad 1 and its back 3, their edges for about half an inch being cemented together so that there can be no escape of the material laterally. This constant and automatic impregnation of the pad with the filtered or screened substance should afford the finest and purest supply of polishing and lubricating material and to a degree closely commensurate with the requirements.

I claim:

1. A pad for the treatment of talking machine records, comprising a piece of felt-like material coated on its polishing side with a dry lubricant in the form of an impalpable powder derived from abrasion of a solid stick of lubricating material, such as graphite, by the pad.

2. A pad for treatment of talking machine records comprising a piece of felt having its fibers coated on its polishing side with a dry lubricant in the form of an impalpable powder derived from abrasion with a solid block or stick of lubricating material and an impervious back piece connected to the felt.

In testimony whereof, I have hereunto subscribed my name.

PATRICK B. DELANY.

Witnesses:
M. F. SMITH,
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