No. 637,933. Patented Nov. 28, 1899.

F. B. HORTON.

HOLDER OR SUPPORT FOR GRAPHOPHONE CYLINDERS.

(Application filed Jan. 20, 1898.)

(No Model.)

FIG. 1.

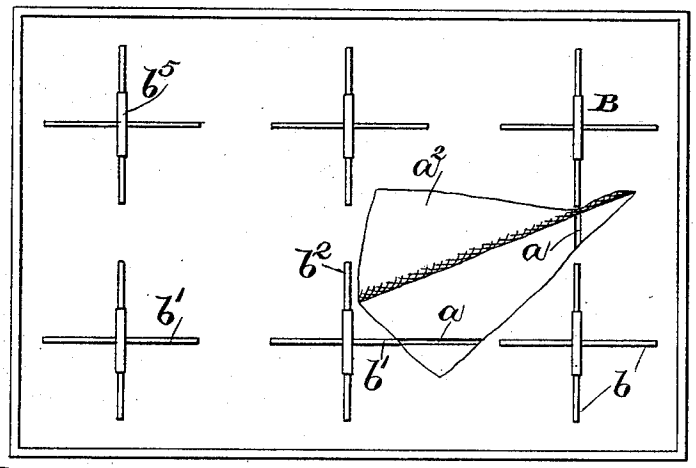


FIG. 2.

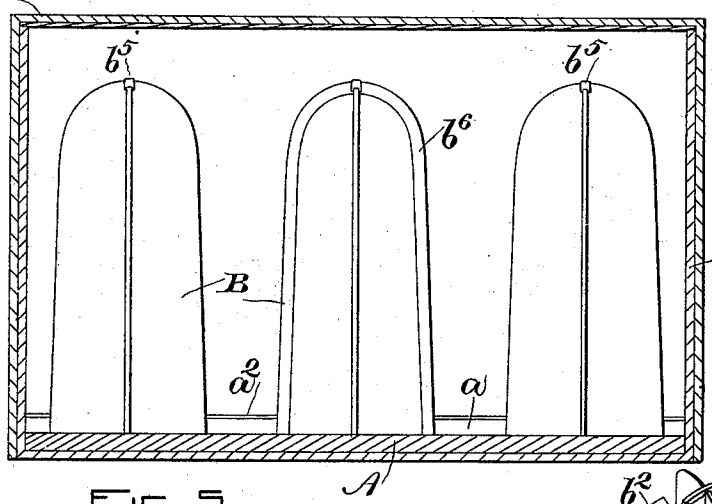


FIG. 4.

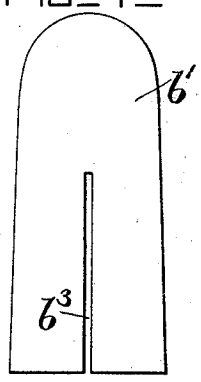


FIG. 5.

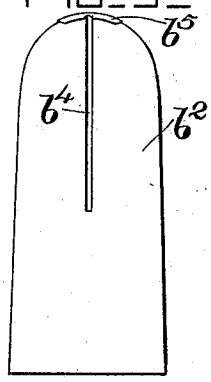
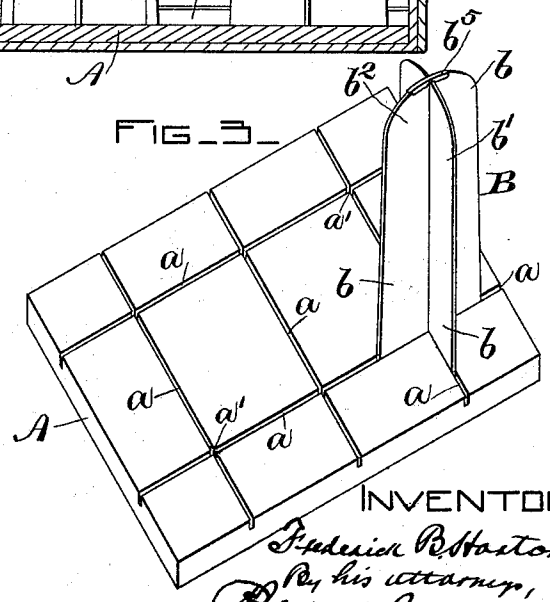


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

FREDRICK B. HORTON, OF LYNN, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO GEORGE W. YOUNG, OF SAME PLACE.

HOLDER OR SUPPORT FOR GRAPHOPHONE-CYLINDERS.

SPECIFICATION forming part of Letters Patent No. 637,933, dated November 28, 1899.

Application filed January 20, 1898. Serial No. 667,181. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK B. HORTON, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Holders or Supports for Graphophone-Cylinders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to standards or supports for graphophone cylinders or blanks; and it has for its object to produce a device which shall be simple in construction and so arranged that it will support the graphophone-cylinders firmly without danger of the surface of said cylinders becoming damaged and whereby said cylinders may be placed on said standard and removed therefrom without the necessity of the fingers of the operator coming in contact with the recording-surface thereof.

To the above end the present invention consists of the devices and combinations of devices which will be hereinafter described and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a plan view of a box or casing with the cover removed, containing a plurality of the supporting-standards, said figure also illustrating a portion of the protective covering of the base detached and turned up to show underlying construction. Fig. 2 shows a longitudinal section through the box or casing with the cover in place. Fig. 3 represents in perspective the supporting-base with one of the standards in position thereon. Figs. 4 and 5 illustrate details of construction which will be hereinafter referred to.

Similar letters of reference will be used to designate corresponding parts throughout the specification and drawings.

In the drawings, A represents the supporting-base, which may be made of any suitable material, and B represents one of the supporting-standards, which is secured to said supporting-base in any suitable manner.

The supporting-base A may be of sufficient size to support a single standard only, or, as illustrated in the drawings, a plurality of the standards B may be secured to such base.

The standards B extend vertically from the base A, and said standards are provided with radial ribs b, which ribs are designed to engage the interior surface of the graphophone cylinders or blanks as said cylinders or blanks are forced down upon the same, as will be clearly understood.

The standards B may be provided with any suitable number of radial ribs b which may be deemed desirable; but as illustrated in the drawings said standards have four such ribs, which are arranged to project at right angles to each other, as clearly shown.

The standards B are firmly secured to the base A, and, as shown in the drawings, the base A is provided with grooves or slots a, which extend longitudinally and transversely along the upper surface of said base, crossing each other at the points a', and in said grooves or slots a at the points where they cross each other the lower ends of the standards B are fitted, the ribs b of the standards B extending along the grooves or slots a from the point or junction a', as clearly shown in Fig. 3, and in order to secure a firm union between the standards B and the base A any suitable adhesive material may be used to secure a close union between the lower ends of the standard B and the grooves a.

The standards B may be made of any suitable thin material, and in practice I have formed the same of stiff paper or cardboard, and the radiating ribs b may be produced by either folding a strip of cardboard and securing the folded portions by cement or a suitable adhesive; but, as shown in the drawings, a simple and convenient way of producing the standard B consists in forming two blanks b' and b^2, said blanks being provided with slots b^3 and b^4, said slots being cut along the longitudinal medial line of each blank and extending inward from opposite ends thereof.

In forming the standard B from the blanks b' and b^2 the blanks are placed at right angles to each other and with the slotted ends in such position that the slot of one blank will engage the unslotted portion of the opposite blank, and in order to secure the blanks b' and b^2 together to form the standard B the

blank b^2 is provided with a clip or bar b^5, which is firmly fastened at its upper end and closes the slot b^4 across the upper end of the blank b'.

The construction as above described comprises a complete and effective support for graphophone-cylinders, which consists of a suitable base and the supporting-standard; but in practice I prefer to cover the upper surface of the base A with a layer of felt or other suitable material a^2, whereby the ends of the graphophone-cylinders which may be forced in contact with such base will be effectually protected from damage. In practice also in order to provide an effective shipping-case for graphophone-cylinders I may secure the base A and the standards B thereon in the bottom of a suitable box or casing C and provide the same with a suitable cover C', the base A being fixedly secured in any suitable manner in the bottom of the casing C, and on the inner surface of the top of the box or casing is secured a layer of felt or other suitable material which will protect the upper ends of the graphophone cylinders or blanks from damage.

The box or casing C and the cover C' may be made of any suitable material, such as light wood or stiff paper.

In the use of the present invention the graphophone cylinders or blanks are forced down over the upper ends of the standards B, whereupon the radial engaging ribs b will engage the inner surface of said cylinders and hold the same firmly in position.

In practice in order to increase the frictional contact between the radial ribs and the inner surface of the cylinders I may cover the outer edges of such ribs with suitable frictional covering b^6, of felt or other suitable material, as clearly shown in the central standard in Fig. 2 of the drawings.

It is to be noted that by constructing the standards B with radial engaging ribs the graphophone-blanks can be placed thereon or removed therefrom without the operator's fingers coming in contact with the record-receiving surface of said blanks. In removing the blanks from the cylinder the operator brings the fingers of one hand into close proximity and inserts them into the upper open end of the blanks and down along the sides of the radial ribs into the longitudinally-disposed finger-receiving grooves and then spreading his fingers to bring them in contact with the inner surface of the blank removes said blank by an upward pull, thus removing the blank without touching the record-receiving surface at all.

Having fully described the construction and mode of operation of my invention, I desire to state that I do not wish to limit myself to the details of construction shown and described; but

I claim as new and desire to secure by Letters Patent of the United States—

1. In a support for graphophone cylinders or blanks, the combination with a supporting-base, of standards projected therefrom, such standards being of substantially the length of the graphophone cylinders or blanks, so as to provide a support for the same throughout substantially their whole length and provided with longitudinally-disposed finger-receiving grooves constructed and arranged to receive the fingers of the hand through the open end of the cylinder or blank, substantially as described.

2. In a support for graphophone cylinders or blanks, the combination with a supporting-base having intersecting grooves along its upper face, of a standard provided with radial engaging ribs, the lower end of said standard fitting in said grooves at the points of intersection of said grooves and secured therein, substantially as described.

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

FREDRICK B. HORTON.

Witnesses:

A. E. WHYTE,

C. KITCHING.