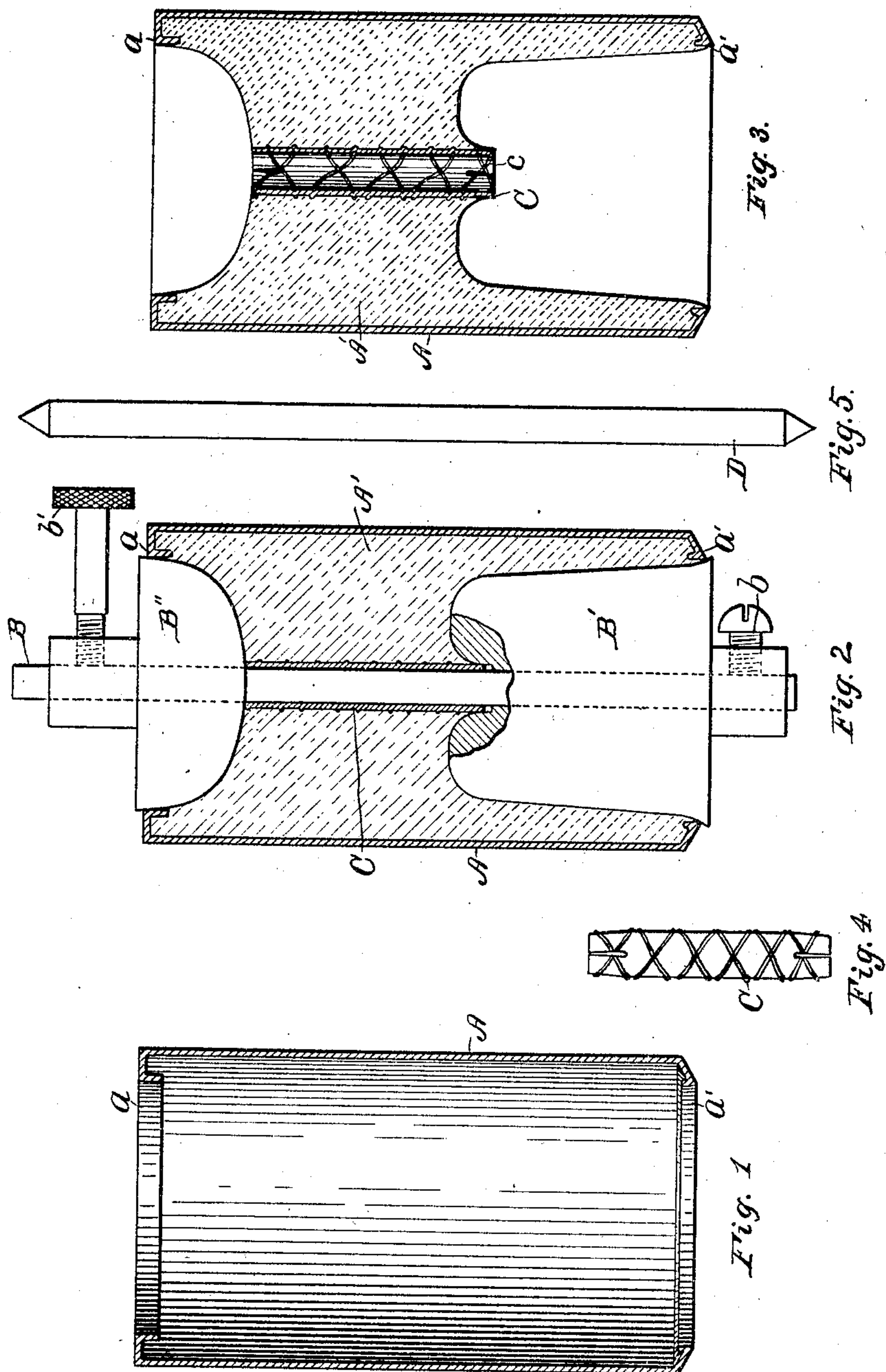


No. 822,485.

PATENTED JUNE 5, 1906.

C. C. SHIGLEY & S. H. PAXTON.  
RECORD ROLL FOR PHONOGRAPHS.

APPLICATION FILED OCT. 26, 1904.



Witnesses:

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Att'y's



# UNITED STATES PATENT OFFICE.

CYRUS C. SHIGLEY, OF HART, AND SHERMAN H. PAXTON, OF GRAND RAPIDS, MICHIGAN.

## RECORD-ROLL FOR PHONOGRAPHS.

No. 822,485.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed October 26, 1904. Serial No. 230,140.

*To all whom it may concern:*

Be it known that we, CYRUS C. SHIGLEY, residing at the village of Hart, county of Oceana, and SHERMAN H. PAXTON, residing at the city of Grand Rapids, county of Kent, State of Michigan, citizens of the United States, have invented certain new and useful Improvements in Record-Rolls for Phonographs, of which the following is a specification.

This invention relates to improvements in record-rolls for phonographs.

The objects of this invention are, first, to provide an improved record-roll for phonographs which will produce loud, distinct, and full tones, which is simple in structure, economical to produce, and durable in use; second, to provide an improved record-roll for phonographs adapted to be used upon a mandrel or shaft of even diameter from end to end.

Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in the following specification.

The invention is clearly defined, and pointed out in the claims.

A structure embodying the features of our invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central longitudinal sectional view through our improved record-roll for phonographs. Fig. 2 is a central longitudinal sectional view through one of our improved record-rolls for phonographs in process of manufacture, a portion of the core B' being broken away to show its construction. Fig. 3 is a central longitudinal sectional view through one of the record-shells A used in the manufacture of our improved record-rolls. Fig. 4 is a side elevation view of the mandrel or shaft sleeve C. Fig. 5 is a side elevation view of a mandrel D, adapted to receive our improved record-roll.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, the outer shell A is formed of celluloid or other suitable composition adapted to receive and retain a pho-

nographic record. This shell is cylindrical in form and is provided with inturned flanges *a* at its ends. The shell A is provided with a backing or filling A' of some suitable plastic material, preferably plaster-of-paris, which is preferred, as it is comparatively light and is adapted to be poured or cast and is also adapted to set or harden at ordinary temperatures.

A mandrel or shaft sleeve C is embedded and retained in the filling or backing material A'. This sleeve is adapted to be slipped upon a mandrel or shaft D, such as is illustrated in Fig. 5. This shaft is of substantially even diameter from end to end, except for its bearing-pivots, so that the record-rolls may be adjusted to any position thereon. The sleeve C is provided with spiral corrugations *c*, which when embedded in the filling material prevent its withdrawal. The sleeve C is slitted at each end, as clearly appears in Fig. 4, and the slitted portion deflected inwardly on the mandrel or shaft D.

Our improved phonograph record-roll as illustrated herein is particularly adapted for use on phonograph-machines such as illustrated and described in Letters Patent to Cyrus C. Shigley, issued May 5, 1903. The same is, however, adapted for use in other relations.

In the manufacture of our improved record-roll the record is first made upon the shell A. A rod-like standard B is provided. We also provide a pair of conical cores B' B'' for the ends of the record-rolls. These cores are provided with central holes adapted to receive the standard B, which effectively centers them in relation to each other. The core B' is secured to the standard B by the set-screw *b*. A thumb-screw *b'* is provided for securing the core B'' to the standard.

In forming our improved record-roll we first secure the core B' upon the standard, which is suitably supported, preferably in an upright position. The sleeve C is then slipped upon the standard and forced down upon the core B''. The filling or backing material A' is then poured or cast into the shell and the core B'' pressed into the same and secured in position by means of the thumb-screw *b'*. The filling material or backing is then allowed to set or harden. By forcing the core B' into position the filling material



is compacted, so that the shell is completely and evenly filled. The flanges *a a'* of the shell are adapted to fit the conical cores, so that the shell is perfectly centered in regard  
5 to the mandrel or shaft sleeve C.

While we prefer plaster-of-paris as backing material, as it is comparatively light and can be readily poured or cast, other materials might be used.

10 Although we prefer to form our improved record-roll as we have illustrated and described on account of its structural simplicity and economy, we are aware that the same may be varied considerably in structural de-  
15 tails without departing from our invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a phonograph-record, the combina-  
20 tion of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a corrugated mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; a suitable plastic ma-  
25 terial molded or cast within said shell about said sleeve; and a mandrel-shaft D, all co-acting for the purpose specified.

2. In a phonographic record, the combina-  
30 tion of an outer shell of celluloid or other suitable material; a corrugated mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; a suitable plastic material molded or cast within said shell about said sleeve; and a mandrel-shaft  
35 D, all coacting for the purpose specified.

3. In a phonograph-record, the combina-  
40 tion of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a mandrel or shaft sleeve having slits therein, said slitted portions being de-  
flected inwardly; a suitable plastic material molded or cast within said shell about said sleeve; and a mandrel-shaft D, all coacting for the purpose specified.

45 4. In a phonograph-record, the combina-  
tion of an outer shell of celluloid or other suitable material; a mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; a suitable plastic ma-  
50 terial molded or cast within said shell about said sleeve; and a mandrel-shaft D, all co-acting for the purpose specified.

5. In a phonograph-record, the combina-  
55 tion of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a corrugated mandrel or shaft sleeve; a suitable plastic material molded or cast within said shell about said sleeve; and a  
60 mandrel-shaft D, all coacting for the purpose specified.

6. In a phonograph-record, the combina-  
tion of an outer shell of celluloid or other  
65 suitable material; a corrugated mandrel or shaft sleeve; a suitable plastic material mold-  
ed or cast within said shell about said sleeve;

and a mandrel-shaft D, all coacting for the purpose specified.

7. In a phonograph-record, the combina-  
70 tion of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a mandrel or shaft sleeve; a suitable plastic material molded or cast within said shell about said sleeve; and a mandrel-shaft  
D, all coacting for the purpose specified.

8. In a phonograph-record, the combina-  
75 tion of an outer shell of celluloid or other suitable material; a mandrel or shaft sleeve; a suitable plastic material molded or cast within said shell about said sleeve; and a  
mandrel-shaft, all coacting for the purpose  
80 specified.

9. In a phonographic record, the combina-  
tion of an outer shell of celluloid or other  
85 suitable material, having inturned flanges at its ends; a corrugated mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; and a suit-  
able plastic material molded or cast within said shell about said sleeve, for the purpose speci-  
fied.

10. In a phonographic record, the combi-  
90 nation of an outer shell of celluloid or other suitable material; a corrugated mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; and a  
95 suitable plastic material molded or cast within said shell about said sleeve, for the purpose specified.

11. In a phonographic record, the combi-  
100 nation of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a mandrel or shaft sleeve having slits therein, said slitted portions being de-  
flected inwardly; and a suitable plastic mate-  
105 rial molded or cast within said shell about said sleeve, for the purpose specified.

12. In a phonographic record, the combi-  
110 nation of an outer shell of celluloid or other suitable material; a mandrel or shaft sleeve having slits therein, said slitted portions being deflected inwardly; and a suitable plastic  
material molded or cast within said shell  
about said sleeve, for the purpose specified.

13. In a phonographic record, the combi-  
115 nation of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a corrugated mandrel or shaft sleeve; and a suitable plastic material mold-  
ed or cast within said shell about said sleeve,  
120 for the purpose specified.

14. In a phonographic record, the combi-  
125 nation of an outer shell of celluloid or other suitable material; a corrugated mandrel or shaft sleeve; and a suitable plastic material molded or cast within said shell about said  
sleeve, for the purpose specified.

15. In a phonographic record, the combi-  
130 nation of an outer shell of celluloid or other suitable material, having inturned flanges at its ends; a mandrel or shaft sleeve; and a



suitable plastic material molded or cast within said shell about said sleeve, for the purpose specified.

5 16. In a phonographic record, the combination of an outer shell of celluloid or other suitable material; a mandrel or shaft sleeve; and a suitable plastic material molded or cast within said shell about said sleeve, for the purpose specified.

In witness whereof we have hereunto set our hands and seals in presence of two witnesses.

CYRUS C. SHIGLEY. [L. S.]  
SHERMAN H. PAXTON. [L. S.]

Witnesses:

ALEXANDER S. PALMER,  
D. O. SPROAT.