

J. W. AYLSWORTH.
SOUND RECORD MOLD.
APPLICATION FILED JAN. 29, 1908.

932,237.

Patented Aug. 24, 1909.

Fig. 1

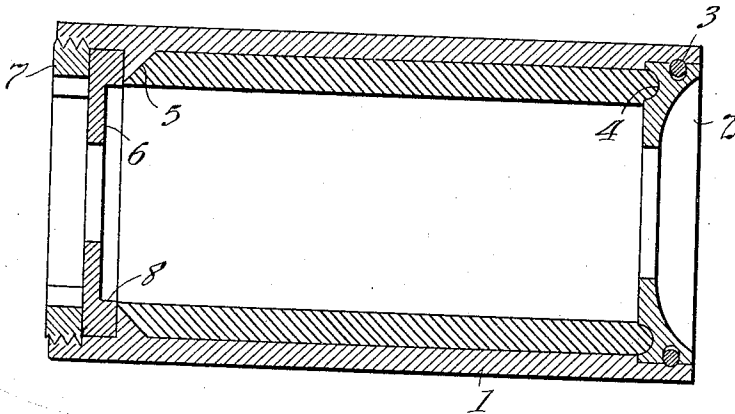
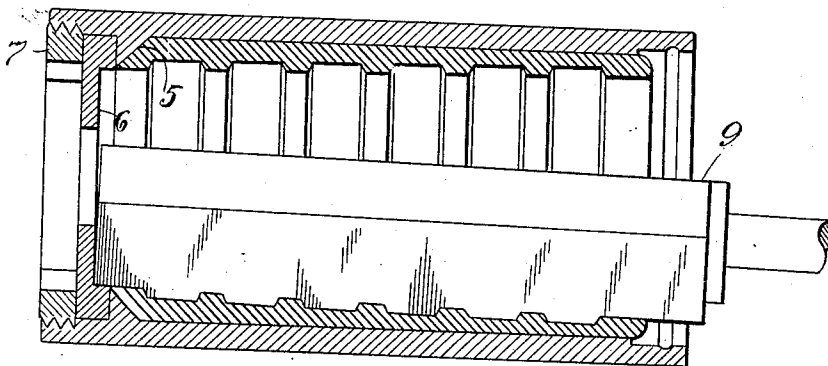


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

JONAS W. AYLSWORTH, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO NEW JERSEY PATENT COMPANY, OF WEST ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SOUND-RECORD MOLD.

932,337.

Specification of Letters Patent. Patented Aug. 24, 1909.

Application filed January 29, 1902. Serial No. 413,167.

To all whom it may concern:

Be it known that I, JONAS W. AYLSWORTH, a citizen of the United States, residing at 223 Midland avenue, East Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Sound-Record Molds, of which the following is a description.

My invention relates to various new and useful improvements in sound record molds, adapted for use in the molding of duplicate records by a spinning process in which the mold is rotated at a high speed and contains a charge of molten material which is distributed over the record surface by centrifugal force. In actual practice, difficulty has been encountered in constructing the ends for the molds in such a way that they will be perfectly tight to prevent the escape of the molten wax-like material, as well as to prevent the entrance of water, which is ordinarily sprayed over the molds to cool the records after the wax-like material has been distributed over the record surface. One of the caps is readily removable so that after the record is formed it may be taken off to permit the record to be removed from the mold after it has contracted diametrically. The other cap forms practically a permanent fixture and considerable trouble has been experienced in connection therewith, for the reason that when the reaming tool is introduced to finish the interior of the record, it is liable to injure the cap and destroy the joint between the cap and the mold. To overcome these difficulties, I make use of the construction hereinafter described and claimed, in which a hardened steel cap is used, which in addition to forming a tight joint at the end of the mold, will also act as a stop or gage for the reaming tool, limiting its position not only longitudinally with respect to the record, but also limiting the movement which the reaming tool shall make to define the thickness of the record and its internal diameter.

In order that the invention may be better understood, attention is directed to the accompanying drawing, forming part of this specification, and in which—

Figure 1, is a longitudinal sectional view of the complete mold; and Fig. 2 a corresponding view of the same with the end cap removed and showing a record formed in the mold and the reaming tool operating thereon.

In both of these views, corresponding parts are represented by the same numerals of reference.

The mold 1, is of any usual construction, being formed on its interior with a negative representation of the desired master. At one end, the mold is provided with a removable cap 2, secured in place by a spring ring 3, engaging a shell or recess in the mold, whereby the cap may be removed by pulling the same outwardly by means of a suitable tool. I do not claim the construction of this cap in the present application, and it will be understood that any other suitable arrangement may be adopted for the purpose. Preferably, the removable cap is provided with an annular recess 4, on its inner face so as to define the corresponding end of the molded record as shown in Fig. 2. Ordinarily the mold 1 is made with a lining of copper and with an outer shell of brass. It is formed with a shoulder 5, in which may be engraved in negative, the name of the selection to be duplicated, and engaging with this shoulder is a cap 6 held in position in any suitable way, as for example, by a ring 7, screwed into the end of the mold. It will be observed that the shoulder 8 of the cap 6, is located slightly within the plane of the inner edge of the shoulder 5. When the reaming tool 9 is therefore introduced within the mold so as to finish the interior of the record, the end of the reaming tool will engage the cap 6, which therefore acts as a gage for limiting the position of the reaming tool longitudinally with respect to the record, and when the reaming tool is then moved diametrically outward, its end will engage the shoulder 8 as shown in Fig. 2, so as to thereby limit such movement and define the thickness of the record, as well as its interior diameter. By making a cap of hardened steel, as explained, it cannot be injured by the reaming tool, while at the same time, it performs the additional function of acting as a gage to the reaming tool, both longitudinally and diametrically.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is as follows:—

1. A cylindrical sound record mold provided with a cap of hard metal formed with an annular shoulder on the inner side thereof, having a cylindrical bore of a less radius than the mold by the thickness of the record

to be formed, adapted to serve as a gage to limit the interior dimensions of the record in finishing the latter, substantially as set forth.

2. A cylindrical sound record mold formed on its interior with a tapered shoulder and provided with a cap of hard metal formed with an annular shoulder which engages the tapered shoulder, and having a cylindrical bore of slightly less diameter than the tapered shoulder, adapted to serve as a gage to limit the interior dimensions of the record in finishing the latter, substantially as set forth.

3. A cylindrical sound record mold formed on its interior with a shoulder having a surface on the inner side thereof adapted to form one end of the record, and a cap of hard metal maintained tightly in engagement with the outer side of said shoulder, and means for securely but removably so maintaining it, substantially as set forth.

4. A cylindrical sound record mold formed on its interior with a shoulder having a surface on the inner side thereof adapted to form one end of the record, and a cap of hard metal having an annular shoulder maintained tightly in engagement with the outer side of said mold shoulder, and means for securely but removably so maintaining it, substantially as set forth.

5. A cylindrical sound record mold formed on its interior with a tapered shoulder, a hardened steel cap maintained tightly in engagement with said shoulder and a threaded ring engaging the cap, substantially as and for the purposes set forth.

This specification signed and witnessed this 21 day of Jan. 1908.

JONAS W. AYLSWORTH.

Witnesses:

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