

Feb. 23, 1932.

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1,846,378

PIN HOLDER FOR PHONOGRAPH RECORDS

Filed May 28, 1930

3 Sheets-Sheet 1

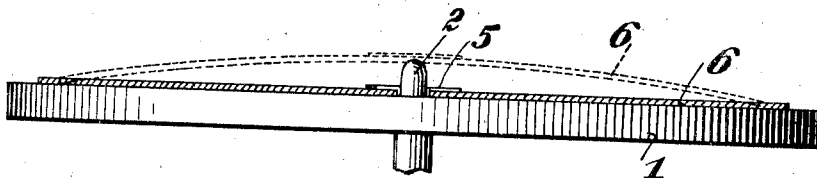


Fig. 1.

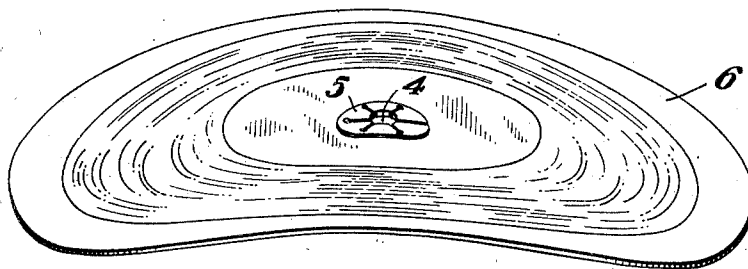


Fig. 2.

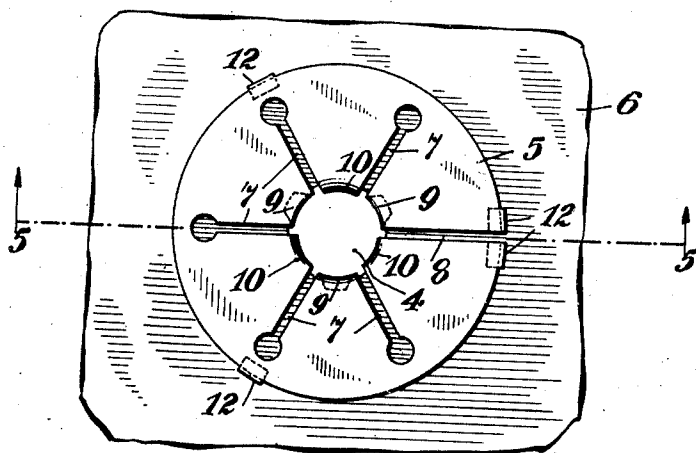


Fig. 3.

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3 Sheets-Sheet 2

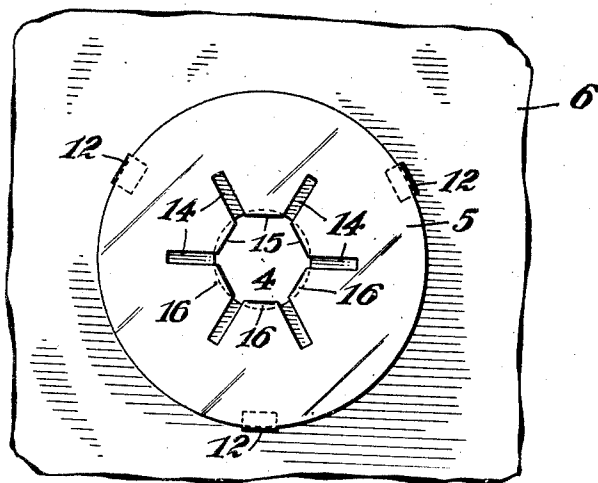


Fig. 4.

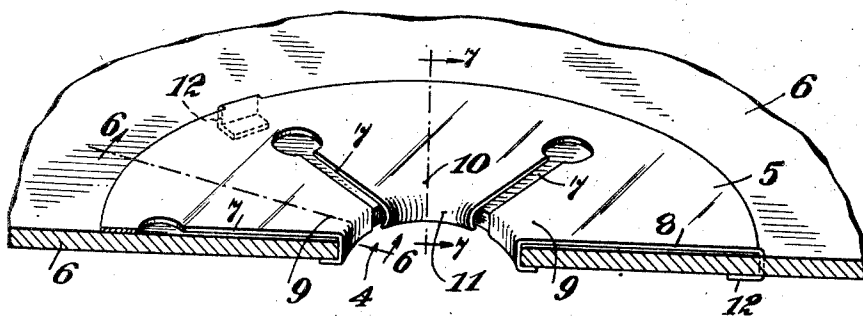


Fig. 5.



Fig. 6.



Fig. 7.

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3 Sheets-Sheet 3

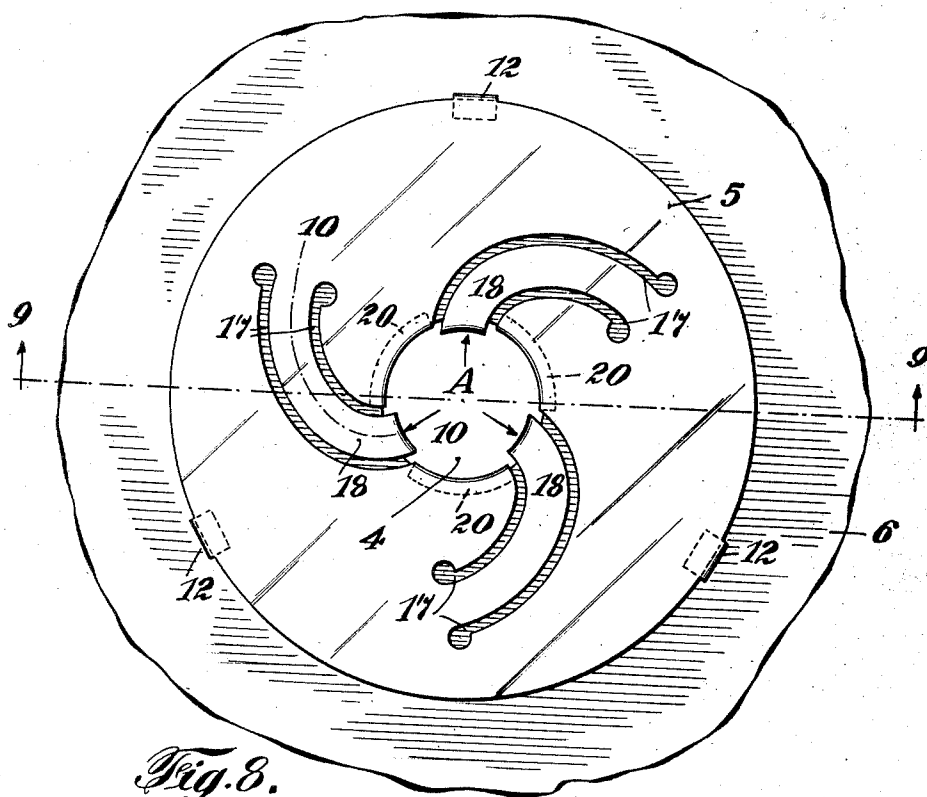


Fig. 8.

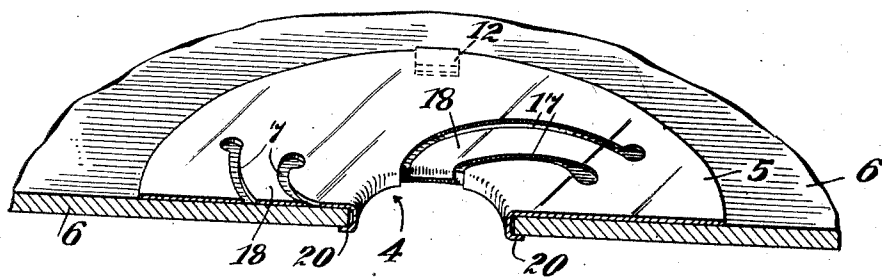


Fig. 9.



Fig. 10.



Fig. 11.

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UNITED STATES PATENT OFFICE

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PIN HOLDER FOR PHONOGRAPH RECORDS

Application filed May 28, 1930. Serial No. 456,426.

The present invention relates broadly to phonograph records and more especially to a centering device for flexible phonograph records.

Phonograph records made on a flexible paper stock base with the record surface coated with record receiving material are light in weight and are relatively flexible. Such records may not lie flat on the phonograph record table, and also in the use of such records there is a tendency of the centering pin on the phonograph record table to wear the opening in the record to such extent that if the record itself is not flat, it may rise from the pin and escape from the table.

In the manufacture of the thin flexible paper body phonograph records, the manufacturer purposely makes the records with a bow or curl therein so that the concave side of the record is opposite to the record surface. When such a bowed record is set on a record table, with the turn table pin clamped by friction in the center opening of the record, the record then lies flat on the turn table. This may be accomplished by making the opening in the record of such size as to frictionally engage the pin. Where this opening is made in the paper record itself, the opening tends to wear as the record applied to and removed from the record table, so that this opening may increase to such size that there is not sufficient friction on the pin to hold the record in place.

The present invention overcomes the difficulties of the prior art by providing a more permanent center member adapted to frictionally engage the pin on the record table and to be of sufficient size and resiliency to withstand repeated applications of the record to the pin without substantial wear on the center member.

Other and further objects of the present invention will in part be obvious from the disclosure herein and will in part be pointed out in the specification hereinafter following.

It is recognized that the present invention may be embodied in structures other than those specifically disclosed herewith so that the disclosure herein is to be understood as illustrative and not in the limiting sense.

Fig. 1 is an elevational view illustrating a flexible record forced from the dotted line position into a flat position on the record table.

Fig. 2 is a perspective view of a flexible record with a bow or curve formed therein.

Fig. 3 is a plan view of one form of center pin holding member, showing the record broken away around the member.

Fig. 4 is a modification of the device shown in Fig. 3.

Fig. 5 is a sectional view taken on line 5-5 of Fig. 3 and illustrating the device in section.

Fig. 6 is a perspective sectional view taken on line 6-6 of Fig. 5.

Fig. 7 is a sectional view taken on line 7-7 of Fig. 5.

Fig. 8 is a plan view of another modification of the invention.

Fig. 9 is a sectional view taken on line 9-9 of Fig. 8.

Fig. 10 is a sectional view taken on line 10-10 of Fig. 8.

Fig. 11 is a sectional view disclosing a slight modification of the form of invention shown in Fig. 10.

Referring now to the drawings and more especially to Figs. 1 and 2, the turn table 1 of a phonograph is provided with a centering pin 2 which passes through a central opening 4 in a pin holder 5, which frictionally engages the sides of the pin so that the flexible record 6 is held flat on the table 1. This flexible record 6 is preferably manufactured with a bow or curve to the record as indicated in dotted lines in Fig. 1 and as illustrated in Fig. 2, so that when the pin holder 5 is pushed down over the centering pin 2, the flexibility of the record tends to hold the edges of the record down on the turn table 1.

The centering pin holder 5 may take various forms, but preferably comprises a substantially flat member provided with friction means adapted to engage the centering pin 2 and one form of the device as illustrated in Figs. 3, 5, 6 and 7 may comprise a substantially flat member formed from sheet metal and slotted to provide flexibility and resilience to the friction tongues. The de-

vice may be provided with slots 7 and with an open cut 8. Preferably alternate sectors between the slots are anchoring members 9 having a portion of their ends extending through the opening 4 in the record and being clinched on the back of the record. The intermediate sectors comprise friction spring tongues 10 preferably having ends 11 which are not clinched to the record. These ends 11 preferably are slightly rounded and extend into the opening 4 a slightly further distance than the ends of the anchoring members 9, so that when the record is pushed down over the centering pin 1, the ends 11 on the pin holder 5 frictionally engage with the sides of the pin and hold the record in place. Anchoring lugs 12 may be provided on the periphery of the member 5 to more securely hold the member in place. The open slot 8 is provided to permit additional flexibility to the action of the member and there is sufficient movement between the lugs 12 and the openings through which they pass in the record to permit the cut 8 to slightly expand when the pin holder is forced down over the pin 2.

Fig. 4 is a construction somewhat similar to that illustrated in Fig. 3 with the exception that the open cut is omitted and in place thereof slots 14 are provided entirely around the opening 4. There is a further exception, namely, that the ends of the anchoring members 15 and also the ends of the spring tongues 16 are substantially straight instead of being curved as illustrated in Fig. 3. This straight end facilitates the manufacture of the device and simplifies the operation slightly.

Figs. 8, 9 and 10 illustrate another form of the invention wherein the pin holder 5 is provided with a plurality of curved slots 17 to form curved spring fingers 18 adapted to yield in the direction of the arrows A of Fig. 9. These spring fingers may terminate as illustrated in Fig. 10 or they may be continued into rounded ends 19 as illustrated in Fig. 11. The ends of these spring fingers 18 extend slightly further into the central opening 4 than do the anchoring members 20 which are intermediate the spring fingers.

The invention as above outlined in various forms comprises a flat member preferably of resilient or spring metal constructed in such manner as to provide flexible engaging fingers adapted to contact with the centering pin of a record table in order to frictionally hold the flexible record in place. The flatness of the pin holding member is important in that it permits the records to be stacked without undue interference with each other.

Having described my invention, what I claim is:

1. In combination, a flexible phonograph record having a pin opening in the center thereof, a flat metal member adapted to surround said pin opening, said member being

provided with slots dividing said member into sectors, the inner ends of certain of said sectors extending through said opening and being clinched on the back thereof to comprise anchors for said member, others of said sectors extending into said opening and comprising flexible spring fingers adapted to engage a record table pin to hold said record in position on said table.

2. An article of manufacture comprising a pin holding device for flexible phonograph records having a pin opening in the center thereof, said device comprising a flat resilient member, means to anchor said member to a flexible phonograph record, said member having resilient tongues lying on the face of said record with the ends of said tongues extending into the said pin opening, and adapted to engage the sides of a record table pin to prevent said record from coming off of said table when said record is in use.

3. In combination, a flexible phonograph record having a pin opening in the center thereof, said record being bowed and normally tending to come off the record table pin of a phonograph when said record is in use, a flat member anchored to the center portion of said record and surrounding said pin opening, friction means from said flat member extending into said opening and being adapted to engage the record table pin to hold said flexible record from coming off said record table when in use.

4. In combination, a flexible phonograph record being bowed in order to establish downward pressure at certain portions of the edge of said record when said record is in position for use on a phonograph record table, said record being provided with a pin opening in the center thereof, and means to hold said record flat on said record table when in use, said means comprising resilient members anchored to the central portion of said record and adapted to engage a record table pin to resist the forces in said record tending to bow up the center of the record when said record is flattened for use on a record table.

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