

Oct. 13, 1959

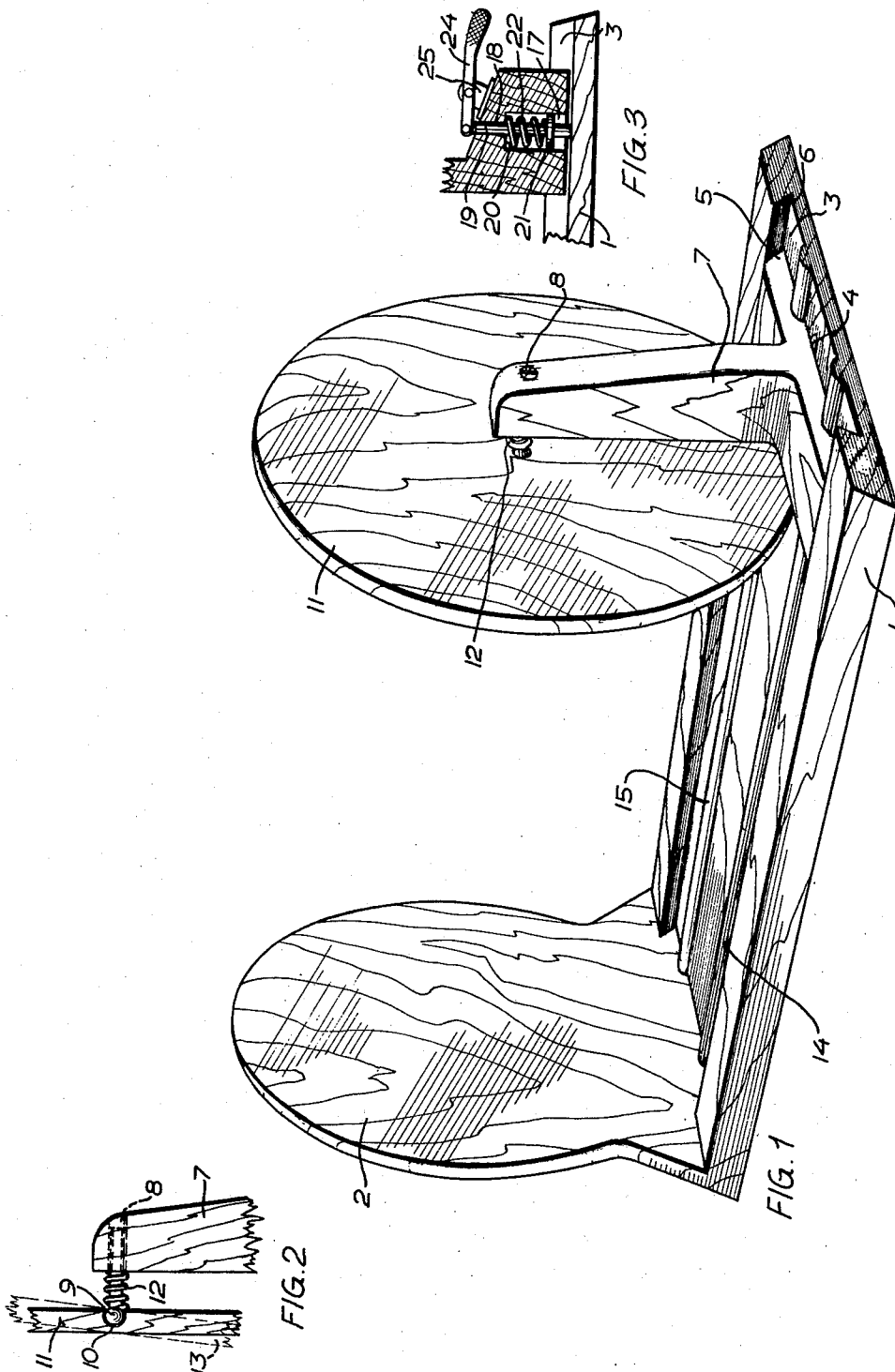
T. G. G. THOWEMAN

2,908,394

RECORD HOLDERS

Filed April 28, 1953

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

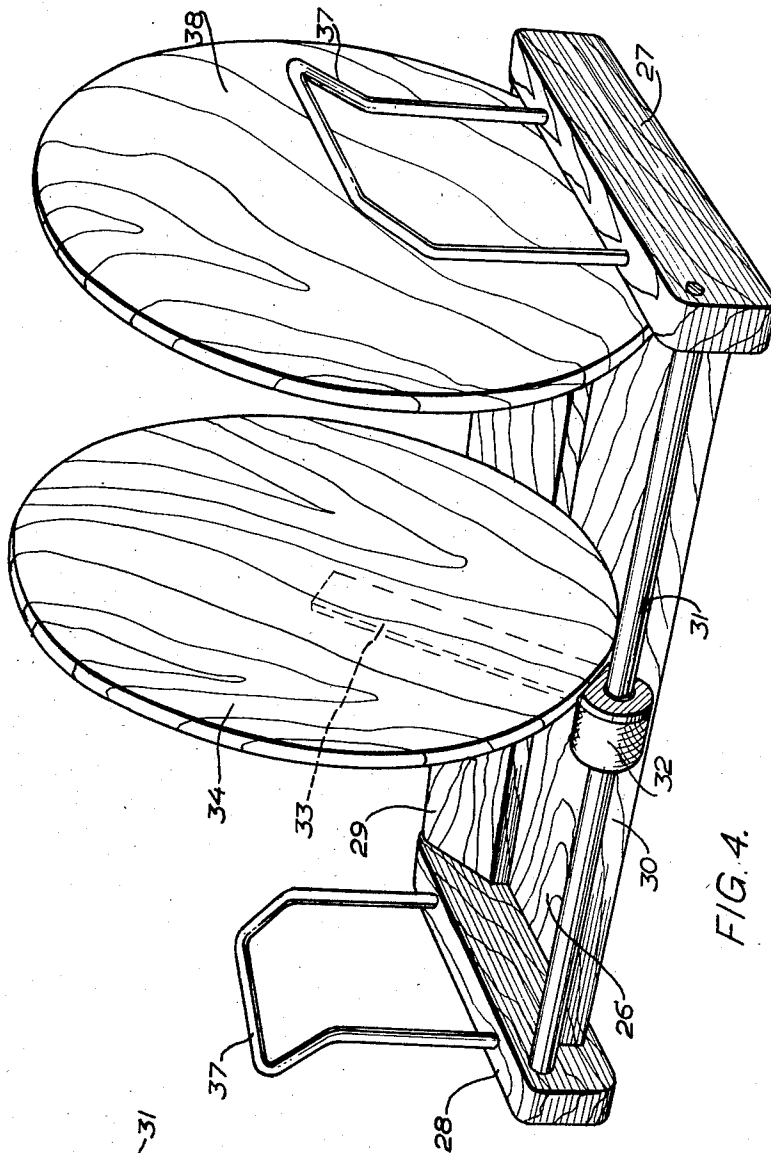


FIG. 4.

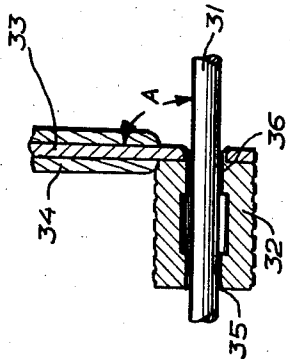


FIG. 5.

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RECORD HOLDERS

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The present invention relates to holders for phonograph records in which the latter are adapted to be kept in a face to face relation without any stationary spacers between the individual records.

A careful investigation of the requirements for obtaining a record holder which is satisfactory in all respects has proved that the records primarily should be kept so as to remain flat or planar even if exposed to varying temperatures and humidity. Consequently it is necessary to provide a device which will effect compression of the records between a pair of backing surfaces, and which in view of the fact that the end records, abutting said surfaces, ought to be protected from getting awry, should extend over essentially all the surface of the record. At least one of said backing surfaces should be movable toward and from the other one along the entire length of the holder, so as to permit holding of an arbitrary number of records in the holder, and in order to ensure that any number of records will be kept pressed together when stored, the movable backing surface should lend itself to being pressed against the records and also permit locking engagement in arbitrary positions of displacement along the entire length of the holder and further capable of being released out of locked position. Furthermore it is desirable that the records when used may be easily found and removed, for which reason the records in such an event should assume an oblique position between the backing surfaces permitting leafing through the records.

If, after leafing through the records, it is again desired to press the records against each other said records occupy more or less inclined positions and since it in all events is necessary to take care that the record located nearest to said movable backing surface, at the beginning of the movement of the latter toward the other backing surface will not be exposed to excessive loads applied against a small area, at least said movable backing surface should be individually movable and/or resiliently accommodative to the surface of said record within certain limits. Such an individually movable backing surface is also of certain importance if self-locking of said surface in arbitrary positions is desired.

The holder for records according to the invention is consequently characterized by the combination of two upright backing surfaces covering substantially the entire surface of the records and between which an arbitrary number of closely placed records are adapted to be kept pressed together in a vertical position when stored, at least one of the backing surfaces being within certain limits individually movably carried by a slide which is unrestrictedly displaceable and lockable in arbitrary positions, of displacement in relation to a guide extending along the entire length of the holder, so as to permit the movable backing surface to accommodate the surface of the nearest record when pressed thereagainst and furthermore in that the holder is provided with two spaced lateral supports extending along the entire length of the

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holder to sustain the records and prevent them from rolling out of the holder unintentionally.

The invention will now be more fully explained with reference to a number of embodiments, diagrammatically shown in the attached drawing, and from which further characterizing features of the invention will be apparent.

In the drawing:

Fig. 1 is a perspective view of one embodiment of a record holder according to the invention.

Fig. 2 is a broken lateral view of a detail of Fig. 1.

Fig. 3 is a broken sectional view of the base portion of the holder of Fig. 1, showing a part of a record resting thereon.

Fig. 4 is a perspective view of a modified embodiment of the holder according to the invention, and

Fig. 5 is a section through a detail of the record holder of Fig. 4.

Referring to Figs. 1-3, reference numeral 1 designates a rectangular base plate, which may be formed of wood. Fixed to one end of the base plate 1 is a backing disc 2, possessing an essentially circular form. Reference numeral 3 designates a dovetail slot in the plate 1, which extends along the entire length of said plate and serves as a guide for a slide 4. Slide 4 may be displaced along the entire length of the slot 3 and is provided with oblique edges 5, cooperating with oblique lateral surfaces 6 of the slot 3.

Extending upwardly from the slide 4 is an upright 7 in the top of which a pin 8, projecting towards the fixed backing disc 2, is axially displaceable in a corresponding bore (Fig. 2). The pin 8 is provided at one end with a ball-formed head 9, accommodating a corresponding fitting 10 in another, circular backing disc 11 so that the backing disc 11 is supported by the upright 7 but is individually movable angularly within certain limits with respect thereto by means of the universal joint thus formed. Between the upright 7 and the backing disc 11 a compression spring 12 is placed around the pin 8, which spring will serve to stabilize the backing disc 11 relatively to the upright 7. In Fig. 2 one of the oblique positions which the backing disc may occupy in relation to the upright 7 is indicated in dotted lines 13.

In the bottom of the slot 3 are arranged two parallel ridges 14 and 15, which extend along the entire length of the slot 3 to serve as lateral supports for records, placed between the backing discs 2 and 11, so as to prevent the records from laterally rolling out of the holder (see Fig. 3). Such lateral supports, extending along the base plate, should always be present although they obviously may be modified as to their form so long as they accommodate the periphery of the records as viewed in a cross-section or form oblique planes therewith. It is preferred that the lower edges of the records be kept free from the bottom surface of the slot 3, so that the records essentially rest only on two points being thereby rigidly retained in a definite position.

In using the holder according to Fig. 1 an arbitrary number of records without spacers are placed between the backing discs 2 and 11, so that the lateral supports 14 and 15 define their lateral position and then the movable slide 4 with the backing disc 11 is adjusted in such a way that the records may be tilted or leafed through between said two backing discs 2 and 11 to permit viewing of the text of the labels on the records and removal of a desired record out of the holder. When the records are not to be used any more the slide 4 is displaced towards the fixed backing disc 2, so that the oblique records are successively aligned between the backing discs 2 and 11 and pressed against each other. In order to avoid injurious point loading on the records during the pressing together of the latter and especially on that record located nearest to the backing disc 11 it is

important that at least one of the backing surfaces, for example, the disc 11 is allowed to cant or shift angularly from the vertical to accommodate the surface of the adjacent record. In order further to improve said effect, as mentioned, the mounting for the backing disc 11 is resilient by means of the spring 12.

When the backing disc 11 is pressed against the records, the resilient mounting of the disc 11 permits the latter to accommodate itself to the initial inclined dispositions of the adjacent records to exert an equally distributed pressure against the latter. When the records are fully compacted between the fixed support 2 and the movable backing disc 11, the resilient and pivotal connection between disc 11 and upright 7 permits the disc 11 to be disposed in a vertical plane parallel to that of support 2, for applying an equally distributed pressure while maintaining the interposed records in vertical positions, while the upright 7 is slightly inclined from the vertical to effect automatic locking of slide 4 in the slot 3 of plate 1 in a manner now to be described in detail. Since the pin 8, where the reaction to the pressing together of the records acts, is spaced a substantial distance from the slide 4 by the upright 7, that reaction will cause tilting of slide 4, particularly if the latter is relatively narrow in the longitudinal direction of the slot 3, and such tilting of the slide 4 will cause the latter to be wedged securely against the lateral surfaces 6 of the slot. During compacting together of the records, the force applied against upright 7 in the direction toward fixed support 2 will compress spring 12 so that, when the records are fully compacted, it is only necessary to release the upright 7, whereupon the compressed spring 12 will effect the tilting of upright 7 and slide 4 for locking the latter as described above, without inducing any corresponding movement of disc 11 away from fixed support 2, so that the interposed records will remain fully compacted. The locking engagement is released merely by pressing the top end of the upright 7 towards the records as the slide is drawn outwardly to restore the upright 7 to its vertical condition which returns the slide 4 to its free condition in slot 3.

The invention may be applied in various ways and in order to make this clear reference is now made to an additional embodiment shown in Figs. 4 and 5. This holder is principally built up in the same way as the one above described but differs therefrom in certain details. The base plate 26 in this case is provided with two end members 27 and 28 having handle bows 37. Glued to the base plate are two parallel, spaced apart slanting or concave ridges 29 and 30, which serve to prevent the records from rolling laterally out of the holder. Fixed to one end 27 is a backing disc 38.

Instead of arranging the slide and the guide in the bottom of the holder such elements are placed at one side of the holder. The guide consists of a rod 31 fixed between the ends 27 and 28. The slide consists of a sleeve 32 freely displaceable on the rod 31. The sleeve 32 carries an arm 33 indicated in dotted lines in Fig. 4, which is concealed within the backing disc 34 (see Fig. 5).

As will be evident from Fig. 5 the sleeve is internally recessed and provides two narrow sliding surfaces 35 and 36 presenting a certain play relative to the rod 31 so that the sleeve may be tilted into locking engagement.

In order to make the backing disc capable of canting to accommodate the inclined adjacent record during initial compression of the records, the arm 33 is made springy. It will then be advantageous if the arm 33 is somewhat inclined, so that the angle A in Fig. 5 is about 85°, in order that before beginning of the real pressing of the backing disc 34, said disc will spring away while accommodating the nearest record, whereupon the final pressure is applied. As the slide approaches the records it will be tilted through the play between the surfaces 35 and 36 and the rod 31 so as to provide for a self-

locking frictional engagement. Said locking engagement has proved extraordinarily safe and requires no additional latch screw in the sleeve 32.

Although the drawing only shows holders in which merely one of the backing surfaces may be displaced to accommodate the records, obviously, both discs may be so arranged. Furthermore it is not necessary to give the discs a round form, since every other form may be applied so long as substantially the whole surface of the records is covered. If desired the effective surfaces of the backing discs may be covered with soft material such as flock, sponge rubber or the like.

The invention is not limited to the embodiments shown and described but may be varied in several respects within the limits of the basic inventive idea.

I claim:

1. In a holder for phonograph records, the combination of a plate for supporting a plurality of phonograph records thereon in upstanding, face-to-face relationship, a fixed end wall at one end of said plate having its plane perpendicular to the plane of said plate, two parallel, spaced apart record supporting ridges extending along the length of said plate for determining the lateral position of phonograph records on said plate, a guide slot of dovetail cross-sectional configuration extending along said plate, a slide member of dovetail cross-sectional configuration slidably fitting in said guide slot with sufficient clearance to permit canting of said slide member relative to said plate for obtaining a frictional locking of said slide member at any position along said guide slot, an upright extending from said slide member, a backing disc member, and means resiliently mounting said backing disc member on said upright at a location off-set relative to said slide member to permit accommodation of the plane of said backing disc member to the plane of an adjacent phonograph record when pressed against the latter and to permit the reaction to the pressure of said backing disc member against the adjacent record to cause canting of said slide member, for locking the latter, when phonograph records on said plate are compacted between said fixed end wall and said backing disc member.

2. In a holder for phonograph records, the combination as in claim 1; wherein said means resiliently mounting the backing disc member on said upright includes a pin extending slidably through the end portion of said upright remote from said slide member parallel to the direction of movement of the latter along said guide slot, universally movable means connecting said backing disc member to said pin, and a compression spring on said pin between said backing disc member and said upright to urge the backing disc member and pin the direction toward said fixed end wall.

3. In a phonograph record holder, the combination of an elongated support for a plurality of phonograph records carried transversely thereon in upstanding, face-to-face relationship, said support comprising two parallel, spaced apart record supporting members extending longitudinally of said support for determining the lateral position of the records thereon and cross pieces interconnecting the respective ends of said supporting members, one of said cross pieces having a fixed end wall extending therefrom, said end wall having its plane perpendicular to said longitudinally extending record supporting members, and means for compacting the records on said support against said fixed end wall and for maintaining a constant pressure on the compacted records during the storing thereof, the last mentioned means including a single guiding rod of circular cross section forming part of said support and extending along the entire length thereof, said rod having its ends fixed to said cross pieces at laterally offset positions relative to the longitudinal center line of said support, a sleeve member encircling said rod and positively guided by the latter for translatory displacement thereon when the axis of said sleeve member and rod coincide and for locking at any location

along the rod when the axis of said sleeve member is canted relative to the axis of the rod, and a backing disc member resiliently mounted on said sleeve member in radially offset position relative thereto and urged to lie in a plane at an oblique angle relative to the axis of said sleeve member so as to spring backwards when accommodated to the plane of an adjacent one of compacted records on said support thereby applying a resilient canting force to said sleeve member for locking the latter on said rod.

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