A. WIEHL.

PHONOGRAPH RECORD RACK.

APPLICATION FILED JULY 14, 1921.

1,402,332.

Patented Jan. 3, 1922.

3 SHEETS—SHEET 1.

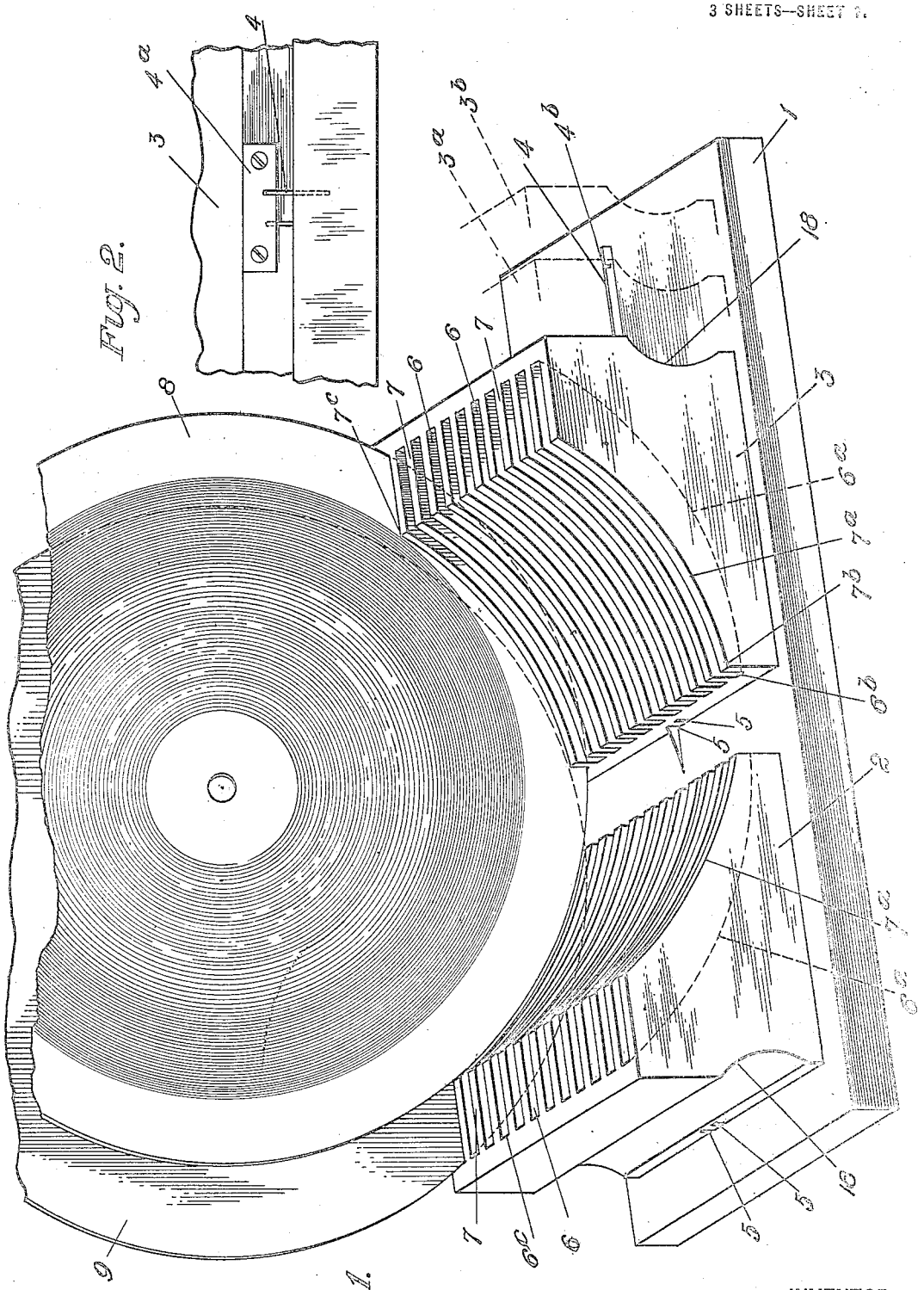


Fig. 2.

Fig. 1.

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3 SHEETS—SHEET 2.

Fig. 3.

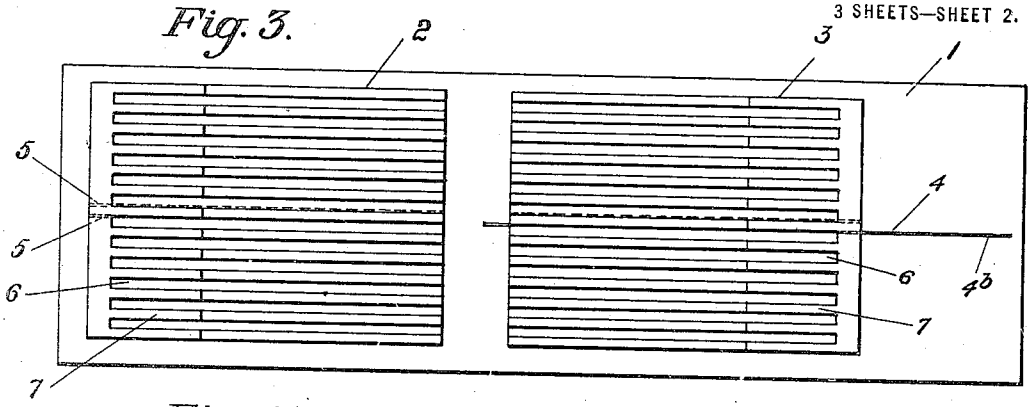


Fig. 4.

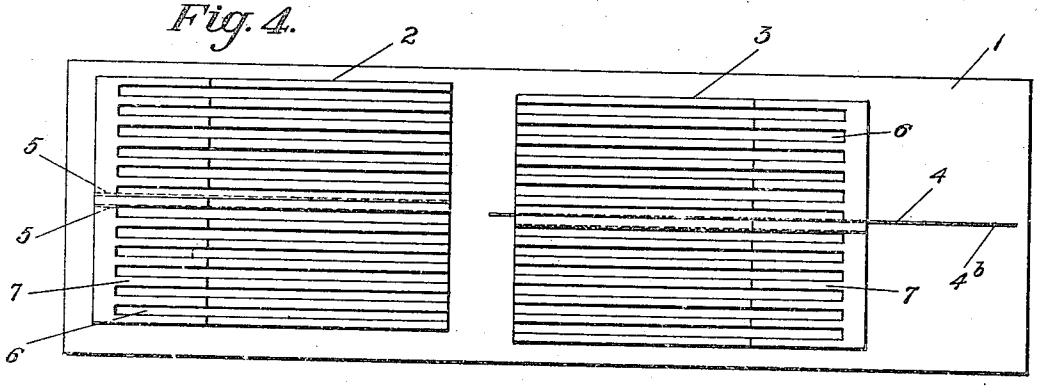
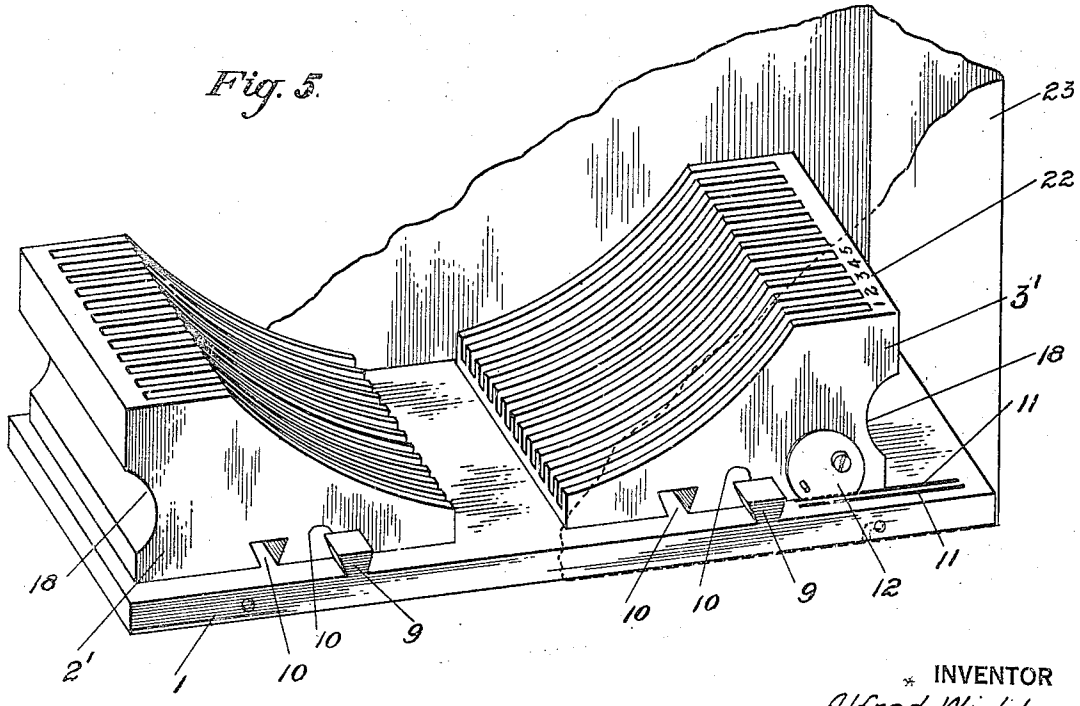


Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 6.

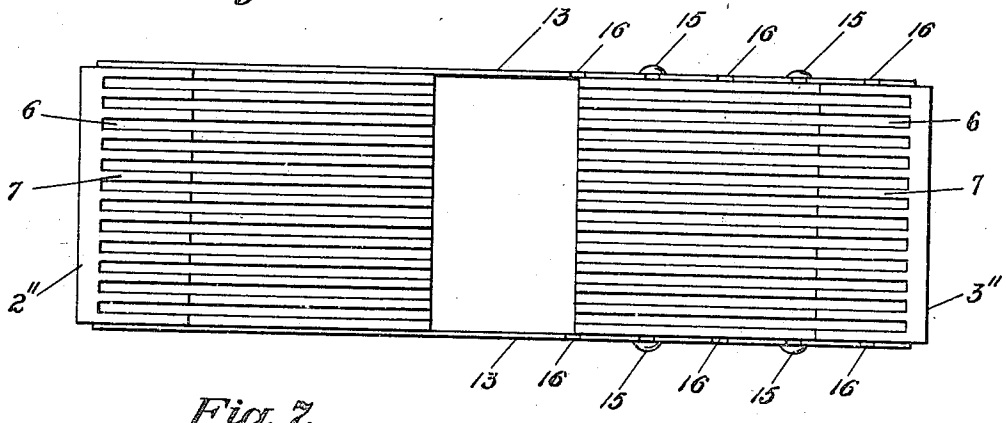


Fig. 7.

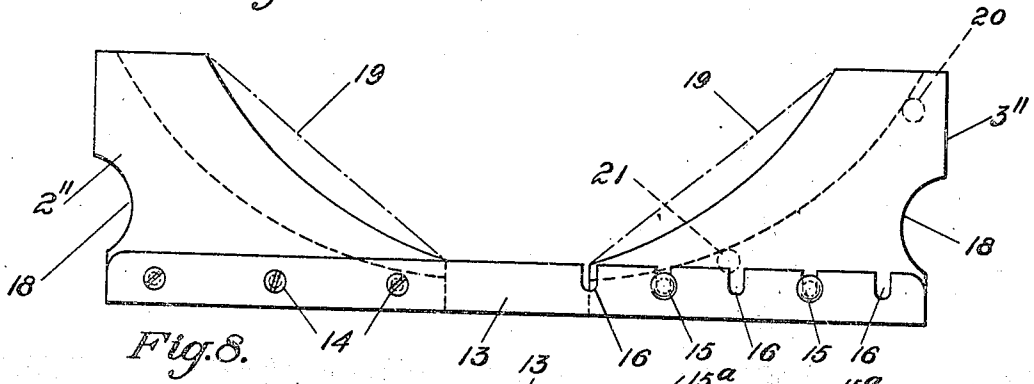


Fig. 8.

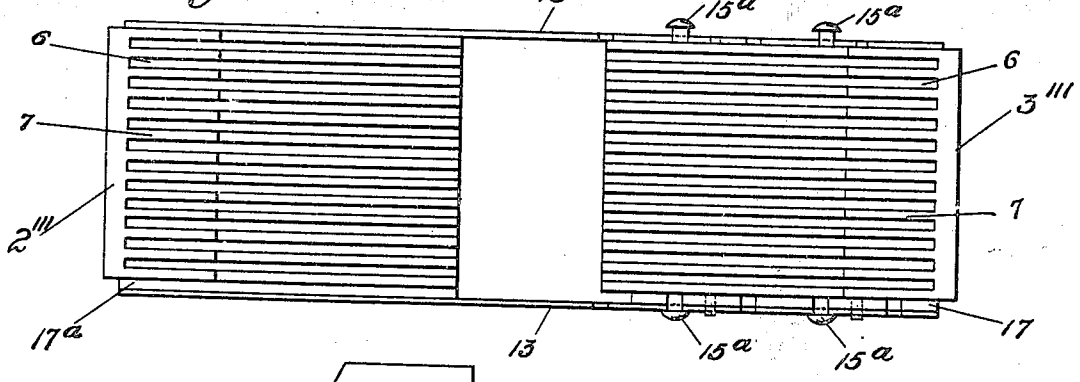


Fig. 9.

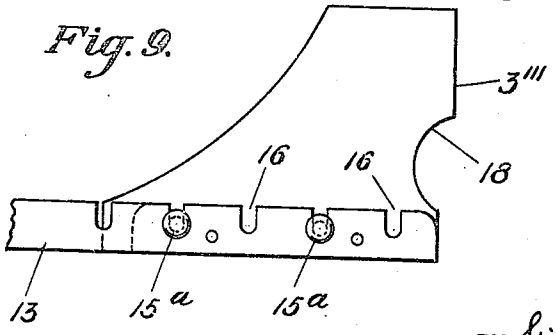
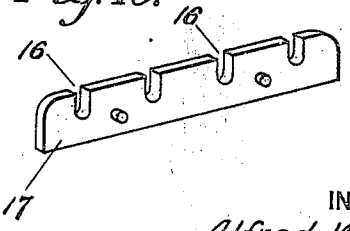


Fig. 10.



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UNITED STATES PATENT OFFICE.

ALFRED WIEHL, OF BROOKLYN, NEW YORK.

PHONOGRAPH-RECORD RACK.

1,402,332. Specification of Letters Patent. Patented Jan. 3, 1922.

Application filed July 14, 1921. Serial No. 484,545.

To all whom it may concern:

Be it known that I, ALFRED WIEHL, a citizen of the United States, residing in the city of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Phonograph-Record Racks, of which the following is a specification, reference being had to the accompanying drawings, illustrative of one particular embodiment of my invention.

My invention relates to racks or stands for filing phonograph record discs, for the purpose of having them readily available, and in particular to support the greatest possible number of record discs in a given space, or conversely to support the greatest number of record discs in the limit of available space.

Among the objects are also the provision of a cabinet, rack or device which may be adjusted to effectually support and properly preserve and safely hold the record discs, also to be adjustable to so support the different sizes of discs in current use, to so support discs that while effecting the greatest economy of space, the adjacent discs may be readily removed as well as readily inserted and in some cases to provide adjustment of the rack whereby a lesser number than the full capacity of the rack may be supported equidistant on the rack with spaces between them.

In the embodiment of my invention the construction provides for a most simple form of construction, great economy in manufacture, and a device which when not used for records, or when shipped in the course of production and sale, will occupy the least possible space. Durability and strength are additional elements of advantage in the practice of my invention.

While capable of being embodied with various modifications, I have illustrated particular forms in the accompanying drawings, in which:

Fig. 1 is a perspective of a rack showing two record discs, fragmentary, in staggered positions.

Fig. 2 is a fragmentary view of an end elevation showing the method of lateral adjustment as seen from the right-hand end of Fig. 1.

Fig. 3 is a plan view of the rack in Fig. 1 with the opposed uprights having their grooves registering in the same plane.

Fig. 4 is a plan view similar to Fig. 3 with one upright in laterally shifted position whereby the groove supporting a record in one upright is in the plane of the wall between grooves in the opposite upright, illustrating double or full capacity by supporting discs in staggered position with no space consuming partition between their sides.

Fig. 5 is a rack in which the grooved uprights are supported by tongue and groove for lateral adjustment locking.

Fig. 6 is a plan view of two discs supporting uprights with interconnecting positioning members.

Fig. 7 is a side elevation of Fig. 6.

Fig. 8 is a plan view of the modified form shown in Fig. 6 with the means of laterally adjusting one upright with respect to the other.

Fig. 9 is a side elevation of half of Fig. 8 showing the notched side member for distance adjustment.

Fig. 10 is a perspective view of a spacer or filler used for lateral adjustment, as shown in Fig. 8.

In the form shown in Figs. 1 to 4, the base 1 has the upright 2 secured in position and the upright 3 shiftable along the base 1, guided by the rail 4 which fits either one of two slots 5—5 in the bottom of the upright. For convenience in manufacture, the bottom of each of the uprights 2 or 3, are similarly slotted, because in all other respects the construction of each upright is identical and 3 is simply the reverse position of 2.

In dotted lines the block 3 is shown in position 3^a and 3^b, showing the regular rack extensible to accommodate different sizes as, for instance, the standard phonograph disks 8″, 10″ and 12″ in diameter, and while the curvature of the periphery of the different sizes varies, the accommodating grooves and walls for supporting the records will either fit exactly to one size, or are so arranged to approximate all sizes sufficiently to effect proper support.

Each of the uprights has grooves 6—6 between which are walls 7—7, with the face or edge of each wall curved as shown at 7^a, and the bottom of each groove curved as shown at 6^a. It will be seen that the curvature would exactly fit only one size of disc edge, but having the proper relation of the bottom 7^b of the wall and the lower end of the grooved bottom 6^b properly arranged with relation to the top end of each groove

6c and the top corner 7c of the wall edges the proper support of the disc is assured with a sufficient section in a groove and abutting the opposed upright to prevent rolling.

The disc 8, as shown in Fig. 1, enters the groove on the right-hand upright and engages the edge of the wall on the left-hand upright while the reverse is the case with disc 9, so that alternate discs project a predetermined distance laterally beyond their neighbor leaving space between the outer edge laterally between adjacent discs to the extent of the thickness of the intermediate staggered disc, or at least the space that has been initially provided to accommodate the thickness of a disc. In this view it is thus seen the two uprights 2 and 3 have their grooves staggered, that is, while all grooves are in parallel planes, the groove in one upright is in the plane of the space or wall in the other upright. This means that the rack will accommodate discs side by side without any intermediate partition and the space between the discs will be only such as is necessary to permit a disc to freely enter the groove.

The registration of the grooves in opposed uprights being controlled by the rail 4, this rail is made thin so that the adjacent slots 5—5 may be formed at a distance apart corresponding to the width of a groove in order that the two alternate positions shall cause the registration in one plane, or the staggering of the opposed grooves in the two uprights. To adjust the distance apart of the two uprights a plate 4a is fastened to the back of the movable upright, such as 3, and three notches, or any desired number, are cut into the rail 4, whereby the block 3 may be slid on the rail, but the registration of the plate 4a with any one of the notches, one of which is shown at 4b, will determine the proper distance of separation of the uprights and will also firmly hold the uprights from being spread apart due to any pressure effected by the weight of the large number of discs contained in the rack.

In the form shown in Fig. 5, the base 1 has transverse rails or tenons 9—9 adapted to enter the mortices 10—10. By having two of these mortices on the base of each block 2′ and 3′, and with only one tenon for each block, three different positions are provided with respect to the separation of the uprights. In this form two slots 11—11 are provided in the base into which a latch 12 may enter, irrespective of the lengthwise shifting of the upright 3′ on the base. By throwing the latch 12 into either one or the other slots 11—11 the exact lateral position of adjustment of block 3a is determined and the block is locked so that its grooves either register in the plane of the grooves on block 2′ or register with the spaces or walls between grooves on block 2′. Block 2′ in the form shown, may have a fixed stop so that its lateral position is set and not adjustable, but for convenience of manufacture both blocks may be made identical, and in use even the slots on opposite ends of the base may be duplicated or not, while one pair of slots serves the purpose of the required adjustment.

In the form shown in Figs. 6 and 7, the two blocks or uprights 2″ and 3″ are made so that their bottom constitutes the base for contact with table or other suitable support, thereby eliminating the additional part such as the base 1 in the other form, and limiting the space required for the rack to the smallest possible area, thereby still further emphasizing compactness and large carrying capacity for the space occupied for this record filing cabinet. Without the base the uprights are held in position by distance bars 13—13 secured by screws 14 to the sides near the bottom of one block or upright, while the other upright or grooved block has studs or screws 15 positioned to snap into or slide into the slots 16—16 on the upper edge of the distance bars 13—13, thereby providing the necessary variable distance positions of the two blocks. Preferably two studs 15—15 are used in order to permit the use of thin, light distance bars 13, and still effect a firm hold between the bars and the block, to insure in particular the alignment in parallelism of the grooves or slots in both blocks.

In this form, and as more particularly shown in Figs. 9 and 10, a filler 17 is provided, of a thickness to accurately space the block 3‴ laterally. This affords a simple means of assembling a standard size of block, with the filler plate 17 on one side or on the other side, as may be desired, to provide alignment of the slot or grooves on both blocks, or to have the grooves on one juxtaposed to the partition wall on the other block. The latter provides the maximum capacity of the rack, which is in fact a utilization of the entire transverse space except for the necessary clearance between the sides of the discs to permit their ready insertion and removal, which latter is readily accomplished by their alternating protrusion at either end of the rack. For facility of manufacture, the block 2‴ may be made of exactly the same width of groove or slot arrangement so that the same identical blocks serve for either end by simple reversing when assembling into the complete rack, in which case a filler plate 17a provides the space allowance on one side which is required for the shiftable filler 17 on the other side. For this shifting it will be noted that studs 15a have the required extra space left between the block side and the underside of the head of the stud, so

as to properly accommodate the shifting, and at the same time a suitable stud may be pressed in or out the short distance necessary to accommodate both positions of lateral adjustment.

The groove at the back of each of the blocks practically forms a handle or finger-hold 18 so that in form shown in Fig. 5 the rack may readily be lifted and transferred, and in the other forms suitable locking of the base and uprights, or between the distance bars and uprights, affords solidity of the whole structure when assembled so that end handles of other forms than the hand-hold 18 add to the convenience of use of the record rack. The uprights or blocks are in reality pillars which may take many forms, and for example the edge of the walls may be as shown at 19, Fig. 7, without any attempt to conform to the curvature of the record periphery, but to provide a stop with suitable relation to effect the purposes heretofore set forth. Also stops may be used as shown at 20 and 21, Fig. 7, being studs passing through the block and providing two points to register with the periphery of the record, so long as a substantial margin of the edge of the record has free entry to a fairly deep extent into the groove or slot, with the slot closely fitting but not binding the record. Wood is preferably used of a character that will not mar the edge of the record when inserted in the slot, but the extent of the arc of the disc rim held by the slot walls is sufficient for stability of the disc in upright position under all conditions of normal use, without the support of the opposite block. The lateral adjustment to provide for the disc fitting into the slot at each end, simply gives greater stability, but makes it possible for a given rack to accommodate half the number of records in an evenly spaced relation, and in such condition the spacing is slightly greater than the thickness of a record so that the edges of adjacent discs may be grasped for removal.

The block top may have numerals or figures opposite each slot as shown at 22, for identification of the records, and various other conditions and modifications may be made for convenience.

At the outer ends of the pillars or blocks artistic configuration may be added or the end of the block may be formed in any style of art or decoration to suit the environment of the use, thereby providing beyond utility a most attractive form of music room or household ornament without in any way detracting from the many advantages involved in the primary features of the structure. Likewise, a casing as indicated in fragmentary form at 23, Fig. 5, may be added to enclose the records to protect them from dust. When desired a plurality of the racks may be set side by side in a drawer or sliding shelf, and one or the other pulled out for service, thereby providing a sub-divided large storage drawer or shelf, within any event the primary element of accommodating substantially twice as many records as is possible in any other form of rack now in use, while still affording ready accessibility for each individual phonograph record and its ready removal, and also the certainty of inserting it without twisting or chance of breakage which is possible in many other forms, unless a substantial fabric or other partition wall is provided which is not alone a dust collector but occupies so much space as to fail in providing the great advantages afforded by the constructions heretofore described. While for economy and facility of manufacture, as well as the conditions required for the preservation of the records in the course of their use and manipulation, wood is the preferable material of which to make the pillars or blocks, and the recently known "balsa" wood of extreme softness affords a most admirable material. Nevertheless, metal or a plastic material may be used and formed with the slots or grooves, and in some cases broader slots may be provided with a thin coating of soft material, but still producing in the finished article the desired sizes and spacing providing the advantages of my invention heretofore set forth. If slots are formed with walls laterally coated, individual sheets may be cut and spacers used with studs or dowels such as 20—21, Fig. 7, or in other ways the pillars or upright blocks may be built up to a form still embodying the advantages of my invention.

From the detailed description, the use of my invention has been made clear, which now summarized comprises the use of a suitable base either separate or comprising the bottom of pillar blocks or uprights, with the opposing faces of the pillars slotted to an extent that will engage a minor portion of the periphery and a deep enough section of the rim of phonograph records to support the disks in vertical position. The positions of disks shown in Fig. 1 illustrate how the records are supported with adjacent records alternately in the groove on one side and abutting the wall between grooves on the other block or pillar. As shown in Fig. 3, the lateral adjustment of the blocks relatively permits adjacent records to engage a slot and a groove on each of the opposite pillar blocks, thereby giving double support but permitting only the accommodations of half the number of discs which would otherwise be accommodated by the alternate relative lateral position of the pillar blocks. The rack or file lends itself to use in many ways, not alone as an individual unit on a stand or any other spare space, or in multi-

ples, or on shelves or in drawers where they may be made individually shiftable units or bodily removable. As used for the maximum advantages, they practically provide storage or filing of record discs stacked practically solid and still with an air space between adjacent discs, and with their edges individually accessible for removal, and held so that their storage or their removal and filing in daily use, involve a perfect protection of the records both as to service and as to support without any strain that would be likely to cause breakage.

The exigencies of the requirements for different use will lead to the adoption of modifications in detail, and I do not confine myself to the particular forms herein shown and described, but what I claim and desire to secure by Letters Patent is:

1. A filing stand for phonograph records comprising a base, two uprights on said base, a plurality of grooves on the opposed sides of said uprights, walls between the grooves slightly greater than the thickness of a record, the base of the grooves and parts of the intermediate wall being formed whereby a record in the groove of one upright will engage the edge of the wall on the opposite upright for lateral support and in predetermined position in the plane of the record.

2. A filing stand for records comprising two separate upright members having their opposed faces grooved slightly greater than the thickness of a record, walls between the grooves, substantially corresponding to the width of the grooves, means for holding the base of said two uprights in fixed distance of separation, and means for shifting and holding one of said uprights in altered lateral position with respect to the plane of the grooves in the other upright.

3. A filing stand for records comprising two separate upright members having their opposed faces grooved slightly greater than the thickness of a record, walls between the grooves substantially corresponding to the width of the grooves, means for holding the base of said two uprights in relative position whereby the grooves in one register with the walls between grooves in the other, and means for laterally shifting and holding one upright in position whereby the grooves in one register in the same plane as the grooves in the other.

4. A filing stand for phonograph records comprising a base, an upright supported thereon and having grooves approximating the thickness of a record and with a grooved botom coinciding with the periphery of a record, extending from the bottom on one side to the top near the other side of said upright, a second similar upright with its grooved face reversed and facing the first upright, means cooperating between one of said uprights and the base whereby the relative position of the opposing grooves on the two uprights may be changed and means cooperating with the base to lock one of the uprights in a plurality of predetermined positions with respect to the other upright.

5. A filing stand for phonograph records comprising a base, an upright supported thereon and having grooves approximating the thickness of a record and with a grooved bottom coinciding with the periphery of a record, extending from the bottom on one side to the top near the other side of said upright, a second similar upright with its grooved face reversed and facing the first upright, means on one of said uprights to engage a member on the base permitting lateral shifting, and a lock adapted to fix said upright in predetermined lateral positions.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses, this 7th day of July, 1921.

ALFRED WIEHL.

Witnesses:
HERMANN F. CUNTZ,
H. MUCHMORE.