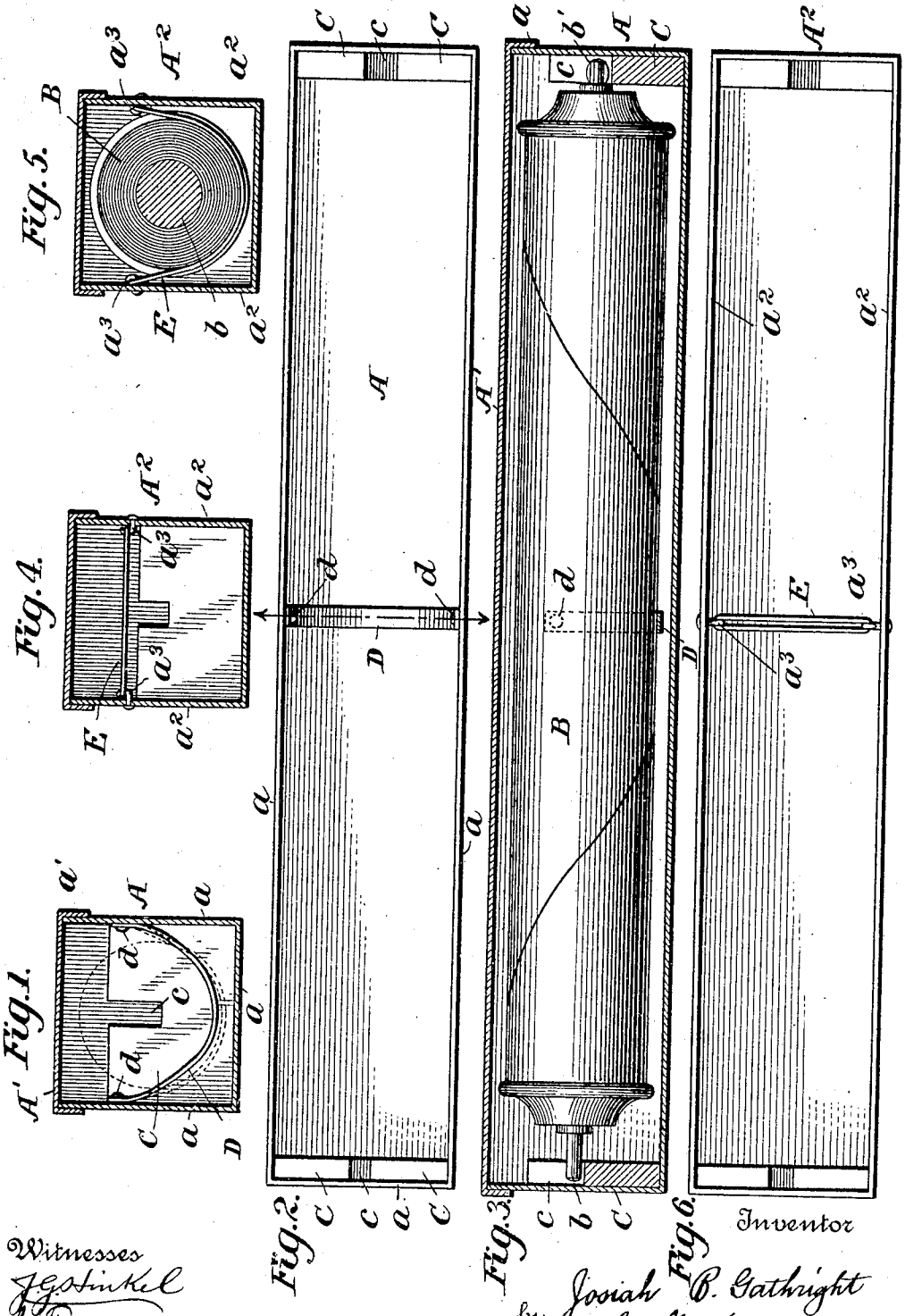
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J. B. GATHRIGHT.

CONTAINER FOR PERFORATED MUSIC ROLLS.

APPLICATION FILED MAY 21, 1906.




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# UNITED STATES PATENT OFFICE.

JOSIAH B. GATHRIGHT, OF LOUISVILLE, KENTUCKY.

## CONTAINER FOR PERFORATED MUSIC-ROLLS.

No. 882,557. Specification of Letters Patent. Patented March 24, 1908.

Application filed May 21, 1906. Serial No. 317,933.

*To all whom it may concern:*

Be it known that I, JOSIAH B. GATHRIGHT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented new and useful Improvements in Containers for Perforated Music-Rolls, of which the following is a specification.

This invention relates to certain improvements in means for preventing the loosening of the coils, or unwinding, of perforated music rolls, used in automatic piano and organ players, and their proper maintenance when the rolls are not in use, and consists in certain peculiarities in the construction and arrangement of parts and in certain novel combinations of elements substantially as hereinafter described and particularly pointed out in the subjoined claims.

It is well known that unless restrained from doing so the coils of perforated music roll when stored in the boxes constituting the container thereof when it is not in use, loosen, in which condition the roll does not track properly and air can find its way between its inner or rear surface and the contiguous surface of the tracker board. Such condition would absolutely destroy any possibility of a proper rendition of the piece. To restrain the tendency of the stored roll to loosen it has been the practice to inclose each roll in an elastic band, which is to be removed when the roll is to be used and replaced thereon after use thereof. But this cannot be practically carried out for any length of time, because of the carelessness of the user, who either misplaces the band or for some other reason neglects to replace it on the roll prior to returning the roll to its box. This is especially true of those persons who rent their rolls from the circulating libraries, instead of purchasing them outright and who, therefore, have no personal interest in the preservation of the rolls and in their being always in perfect condition. Moreover, the life of such bands, when they are made of rubber, is very short. The result is that when a roll is taken from its container or receptacle, and before it is placed in the machine, it must be wound by hand to tighten its coils. This not only soils the roll and is insanitary, and objectionable for said reason, particularly when the roll is circulated from family to family, but, moreover, unless it is carefully and skilfully done the roll will not be properly tightened and any imperfect tightening thereof again results in imperfect tracking. Furthermore, the constant tightening of the rolls by hand wears them out more rapidly than is desirable. Moreover, experience has shown that when a music roll remains in its box for a great length of time suspended by the extreme ends of the spindles only, the shank of the music spool will spring slightly, becoming permanently untrue, causing an irregular and untrue movement when revolved in use.

The purpose of the present invention is to overcome said disadvantages, and thereby preserve the perfect condition of the roll without requiring any care or foresight on the part of the user, and, further, to accomplish said advantageous result by a durable means which can be provided at a nominal cost and will not interfere with the free removal and replaceal of the roll from and into its container. This purpose is well accomplished by the construction illustrated in the accompanying drawings, in which:—

Figure 1 is a transverse section, on the line 1—1 of Fig. 2, through a box or housing for a perforated music roll provided with one very desirable form of my present invention. Fig. 2 is a plan view of the same with the cover removed. Fig. 3 is a longitudinal section, showing a roll supported in place therein. Fig. 4 is a view, partly in end elevation and partly in transverse section, of a modified form of the invention, without the music roll. Fig. 5 is a view similar to Fig. 4, showing the roll supported in the box, and Fig. 6 is a plan view of the housing shown in Figs. 4 and 5, with the cover and roll removed.

The same characters of reference designate the same parts in the several views.

A designates the body and A′ the cover of the usual or any suitable construction of oblong box in which the perforated music roll B is housed. The bodies of such boxes are ordinarily made of paste board and are closed on all sides, except the top, by solid or imperforate side, end and bottom walls, *a*, and they are closed on the top when rolls are housed therein by the cover A′ which is formed with depending flanges, *a′*, to fit over the upper portions of the side and end walls *a* of said bodies.

A particular construction of the box is not essential to the present invention, further than that it is adapted to serve as a housing for a perforated music roll, when the latter is

not in use, which requires merely that it be of proper size for the roll which it is to contain, that it be tight and closed throughout in order to protect the roll as much as practicable against atmospheric influences which cause the roll to expand and contract and thus cause its perforations to imperfectly register with the openings in the tracker board, and that it be provided with a removable cover in order that the roll may be removed from the box for use and replaced therein after use.

As hereinbefore stated the present invention more especially relates to the provision of such housing with means which will prevent the coils of the roll B from reacting on the spool *b* thereof, that is to say, which will prevent the uncoiling or unwinding of the roll while stored in the box, and which means will also render unnecessary the use of a separate detached elastic band in which to embrace the roll, and will keep the spool elements true to shape.

The essential feature of the present invention is the provision of such housing with a transversely extending flexible band made of tape, rubber or other suitable material and adapted in length to form a swing (D or E) which sustains at least a part of the weight of the roll and thereby prevents the coils of the roll from reacting upon the roll-spindle. This swing has its ends secured to the side walls of the housing and bears such relation to the housing and to the perforated roll therein that the roll may be freely inserted into and removed from the housing through the open top thereof.

It is not considered to be necessary, and in some instances, it is not desirable to cause the swing to constitute at all times the sole means for supporting the weight of the roll, and hence the boxes are preferably provided at their ends with pillow blocks or cleats C having apertures *c* adapted to receive the spindles *b'* of the rolls B, or with other apertured means suitable for the purpose.

In the accompanying drawings, I have shown two means suitable to accomplish the purpose of my invention. In some respects I prefer the form shown in Figs. 1, 2 and 3, wherein the swing D is composed of a piece of ordinary fabric-tape, which has its ends *d* secured to the side walls *a* of the housing and extends loosely across said housing. This constitutes a swing which, when the roll is placed in the box, will receive said roll, be tightened by the weight thereof around the inner or under surface of the same and will sustain at least a part of the weight of said roll, without in any wise interfering with the free removal and replacement of the roll. When the pillow blocks C are used, it is desirable to increase the depth of their apertures *c* in order to afford opportunity for the roll to sink to the proper depth to be sufficiently supported by the loop or swing D to accomplish the purpose of the invention.

In Figs. 4, 5 and 6, I have shown a rubber band (E) in lieu of the tape D. The length of this band is such that it is expanded by the weight of the roll supported, or partly supported thereby. Owing to the comparatively short life of the rubber band, it is considered to be very advantageous to so connect the same with the housing that it may be quickly replaced by a new one when it becomes dead or broken. A most convenient way of thus securing it, consists in providing the side walls ($a^2$) of the box ($U^2$) with inwardly projecting hooks $a^3$ over which the ends of the band may be instantaneously looped. This band when depressed under the weight of the roll acts to support the same and to prevent uncoiling thereof in precisely the same manner as does the alternative means, to wit, the tape D, before mentioned.

It is found in practice that a single swing D located across the longitudinal center of the housing, or thereabouts, is sufficient in most cases, and this is regarded as the best location for said swing, owing to the fact that the paper or perforated music rolls B have their free ends tapered to a point, so that if the swing be located nearer either end of the box the free end of the paper will not be engaged therewith. It is to be understood, however, that it will not be a departure from the scope or spirit of the invention to increase the number of such swings or to arrange it or them off the longitudinal center of the box.

From the above it will be seen that I have provided a device which can be applied at nominal cost to the housings of perforated music rolls, and will not interfere in any wise with the free removal of the roll from its housing for use, or its replacement into the housing after use, and which, without requiring any foresight or work upon the part of the user, will act to prevent the loosening or uncoiling of the paper or warping of the spool when the latter is housed, thus securing the ends hereinbefore stated as the purpose of the invention.

Having thus described the invention what I believe to be new and desire to secure by Letters Patent, is:—

1. The combination with a housing adapted to hold a perforated music roll and having a removable cover, of a flexible band arranged in the housing below the cover and adapted in length to form a swing for the roll, whereby the weight of the roll prevents its coils from reacting on its spindle.

2. A box adapted to house a perforated music roll, having a flexible band suspended transversely of the interior thereof and adapted in length to form a swing for the roll, whereby the weight of the roll prevents its coils from reacting on its spindle.

3. A box adapted to house a perforated music roll, having a flexible band suspended transversely thereof and adapted in length to form a swing for the roll, whereby the weight of the roll prevents its coil from reacting on its spindles, and apertured means adapted to receive the spindles of the roll.

4. A box adapted to house a perforated music roll, provided with a rubber band extending transversely thereof and adapted in length to form a swing for the roll, whereby the weight of the roll prevents its coils from reacting on its spindle, and means for securing the ends of the band removably to the side walls of the housing.

5. A box adapted to house a perforated music roll, having its side walls provided with inwardly extending hooks, a flexible band having its ends removably engaged with the hooks and extending transversely of the box and adapted in length to form a swing for the roll, whereby the weight of the roll prevents its coils from reacting on its spindle.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

JOSIAH B. GATHRIGHT.

Witnesses:
E. S. FOOTE,
H. L. EARLEY.