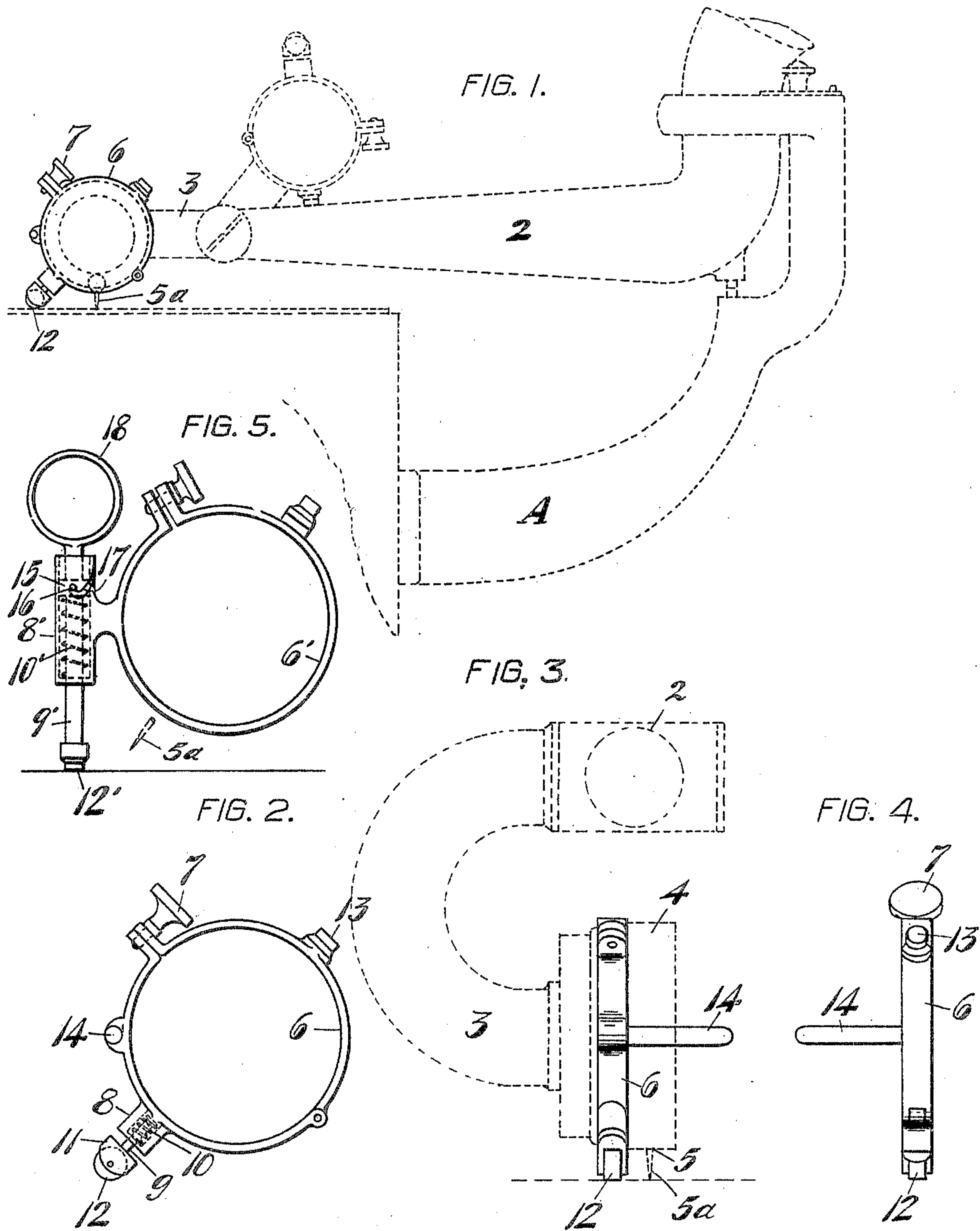


No. 804,477.

PATENTED NOV. 14, 1905.

G. KÖNIGSTEIN.
ATTACHMENT FOR TALKING MACHINES.

APPLICATION FILED SEPT. 15, 1904.



WITNESSES,
Chas. E. Chapin.

Chas. E. Chapin

INVENTOR,
Gabor Konigstein
By *Geo. H. Strong atty*

UNITED STATES PATENT OFFICE.

GABOR KÖNIGSTEIN, OF SAN FRANCISCO, CALIFORNIA.

ATTACHMENT FOR TALKING-MACHINES.

No. 804,477.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed September 15, 1904. Serial No. 224,524.

To all whom it may concern:

Be it known that I, GABOR KÖNIGSTEIN, a citizen of the United States, residing in the city and in the county of San Francisco and State of California, have invented new and useful Improvements in Attachments for Talking-Machines, of which the following is a specification.

My invention relates to an attachment which is especially designed for use upon the movable arms used in gramophones or talking-machines and which arms are swiveled and turnable, so that the points carried thereby conform to the movements of the disks by which the audible sounds are transmitted.

It comprises combinations of parts and details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 shows the application of my improvement, the novel parts being indicated in full lines. Fig. 2 is an end view of my improvement. Figs. 3 and 4 are side views of same. Fig. 5 shows a modification of my invention.

In the present drawings I have only shown a sufficient portion of the machine to illustrate the attachment of my devices.

A is a fixed arm, and 2 is an arm swiveled and turnable thereon. At the outer end of this arm is the U-shaped arm 3, which is swiveled and freely turnable transversely to the end of the arm 2. The free end of the arm 3 carries the ring 4, within which is the needle-carrying socket 5, so placed that when the arm 3 is turned about its swivel so as to engage the record-disk the stylus or needle carried in the socket 5 will rest upon the disk, and through the connections common to this class of machine and not here further described the sounds will be transmitted when the disk is revolved with relation to the contacting point. Considerable difficulty is experienced in the operation of this class of machines, because when a disk is to be removed or for other reason it is desirable to disconnect the pin it is necessary to turn the swivel-arm 3 about its turnable support and swing it back upon the top of the arm 2. When the disk is in place, this swiveled arm is turned to allow the point to rest upon the disk, as before described; but it frequently happens that this freely-turnable arm will slip from the fingers, and if the point drops upon the disk it will break the latter or spoil the matter which is carried by the disk, and when

turned the other way it often drops upon the light tubular arm 2, with the result that the latter will be indented and defaced. It is the object of my invention to prevent such accidents, and in order to effect this I form a ring 6, which has such interior diameter that it will clasp about the rear portion of the ring 4 and may be secured by a thumb-nut or equivalent fastening, as at 7, so that it is clamped firmly upon the ring 4.

At one side the ring 6 carries a tubular socket 8. 9 is a stem slidable in this socket and normally pressed outward by a spring, as at 10. Upon the end of the stem 9 is a head 11, which carries a rubber roller or equivalent soft buffer, as at 12. This buffer is extended downward with relation to the surface upon which the point 5^a rests, and by reason of its extension if the turnable arm should slip or be allowed to drop the rubber would first strike the plate and prevent a severe contact of the point 5^a therewith. As soon as the apparatus is in motion, however, the pressure against the buffer 12 will be sufficient to compress the spring 10 and allow the stem 9 to retract into the sleeve or support 8 sufficiently to allow the point 5^a to properly engage the channels of the disk. Upon the opposite side of the ring 6 is a buffer 13, which is so placed that when the swivel-arm 3 is turned backwardly, as previously described, this buffer will rest upon the top of the arm 2 and will prevent any defacing of said arm by reason of the accidental dropping of the swivel-arm thereon.

In the usual construction of these devices it is customary to turn the swivel-arm 3 by taking hold of the ring 4; but this is somewhat awkward and on account of its size it often causes the dropping of the device, as before stated. 14 is a handle of any suitable description projecting from the side of the ring and in such position as to be easily grasped by the operator, and by the use of this handle such accidents as herein described may be largely prevented.

In Fig. 5 I have shown a modified and in many ways a preferred form of my attachment, since it is designed to prevent the arm 3 being thrown forward violently to cause such a compression of the cushion as would even then allow the point or stylus 5^a impinging injuriously on the record-disk. Accordingly in this case the stem 9', carrying the cushion 12', is slidable in a sleeve 8', arranged to one

side rather than radially, as in Fig. 2, of the ring 6'. An expansion-spring 10' operates between a flange on the inside of the sleeve and a collar 15 on the stem to retract the stem, and the latter carries a pin 16, movable in a V-shaped cam-slot 17 in the sleeve to control the movement of the stem. The upper end of the stem may be provided with a suitable finger-hold 18 to allow its being easily operated. In practice when it is desired to throw the arm 3 forward preparatory to playing a piece the stem is first pushed outward, compressing spring 10' and slightly turning the stem to cause pin 16 to engage in the shorter portion of slot 17. This insures the buffer-cushion 12' coming in contact with the record-disk in advance of the stylus, so that no matter how carelessly or violently the arm is thrown over the sharp metal point cannot injure the record. When the cushion rests on the record, a slight turning movement of the stem by the handle 18 releases the pin, and the spring will act to withdraw the cushion and allow the stylus to engage the record. Each time a record is changed or the arm 3 is lifted the stem is turned to project the cushion outward, and again after the return of the arm to its operative position over a record the cushion is thrown and held out of commission in the manner described.

It is obvious that various other changes and modifications may be made without departing from the principle of the invention, and I do not wish to be understood as limiting myself to the specific construction here shown and described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine of the character described, the combination of a sound-box movable toward and from the record and provided with a stylus, and means operative to engage the record for holding the stylus out of operative engagement therewith said means being shiftable about the axis of the sound-box to disengage the record and permit the latter to be engaged by the stylus.

2. A talking-machine having in combination a sound-box movable toward and from the record, and provided with a stylus, arms by which the sound-box is supported, a device attached to the sound-box and a yielding member carried by the device and engageable with the record to hold the stylus out of operative engagement therewith, said device shiftable about the box as an axis to disengage the record and permit the latter to be engaged by the stylus.

3. The combination with a talking-machine, the swiveled and turnable arm thereof, of elastic cushions or buffers carried by the free end of the turnable arm and adapted to contact respectively with the disk and with the swiveled arm substantially as described.

4. In a talking-machine having a swiveled arm and a point-carrying arm loosely turnable about the outer end of said swiveled arm, a ring detachably secured to said outer end, cushions carried by said ring, one of which rests upon the swiveled arm when the turnable part is thrown back and the other upon the disk when it is turned to direct the point upon the disk.

5. In a talking-machine, a horizontal swiveling arm a second arm swiveled and turnable about the outer end thereof, said arm having a head and a point carried thereby, a two-part hinged ring having a clamping-screw by which it is secured upon the head, cushions carried by said ring, one of which is adapted to rest upon the disk and protect said disk from the point, and the other to rest upon the arm when the head is thrown back, and a handle carried by said ring whereby the movements of the arm and head are effected.

6. In a talking-machine, a horizontal swiveling arm, a second arm swiveled and turnable about the outer end thereof, a head, and a point carried by said head, a record-disk with which said point contacts, a yielding cushion carried by said head and resting upon the disk previously to the contact of the point therewith.

7. In a talking-machine, a freely-movable head and point carried thereby, a record-disk upon which the point is adapted to rest, a tubular sleeve projecting from the head and diagonal with relation to the point, a spring-pressed stem slidable in the sleeve and a yielding cushion carried by said stem.

8. In a talking-machine, the combination with a record-disk, a stylus and the support thereof, of a stylus-support adapted for attachment to the sound-box and shiftable about the same as an axis, and resilient cushion on the stylus-support arranged to engage the record-disk in advance of the stylus.

9. In a talking-machine, the combination with a record-disk, a stylus and the support thereof, said support attachable to and turnable concentric with the sound-box of a resilient cushion on the stylus-support arranged to engage the record-disk in advance of the stylus, and means for moving and retaining said cushion to allow the impingement of the stylus with the disk.

10. In a gramophone, the combination with the record, the stylus and the stylus-support, said support attachable to and turnable concentric with the sound-box of a spring-pressed cushion carried by the stylus-support and arranged to engage the record in advance of the stylus.

11. In a gramophone, the combination with the record, the stylus and the stylus-support, said support attachable to and turnable concentric with the sound-box of a spring-pressed cushion carried by the stylus-support and arranged to engage the record in advance of the stylus.

ranged to engage the record in advance of the stylus, and means to disengage the cushion to allow the stylus to operate on the record.

12. In a machine of the character described, 5 the combination of a record, a sound-box movable toward and from the same and provided with a stylus, a member mounted on the outside of the sound-box and provided with cushion means for holding the stylus out of 10 operative engagement with the record, said member shiftable about the box as an axis to disengage the record and thereby to permit the engagement of the stylus with the record.

13. A gramophone having in combination 15 a record, a stylus to operate thereover, a stylus-support, said support attachable to and turnable concentric with the sound-box and cushion means carried by the support and adapted to contact with the record to hold the 20 stylus out of contact with the record, or to allow it to engage said record.

14. In a gramophone, the combination with the record-disk, the stylus and a stylus-sup-

port, attachable to the ordinary sound-box and turnable about the same as a center of means 25 carried by the support to limit the movement of the stylus toward the record, said means including a spring-pressed stem movable in guides on the support, and means for holding the stem at different positions in said guides. 30

15. In a gramophone, the combination with the record-disk, the stylus and a stylus-support, attachable to the ordinary sound-box and turnable about the same as a center of means 35 carried by the support to limit the movement of the stylus toward the record, said means including a normally retracted spring-pressed part and means for projecting and holding said part in advance of the stylus.

In testimony whereof I have hereunto set 40 my hand in presence of two subscribing witnesses.

GABOR KÖNIGSTEIN.

Witnesses:

ALFRED A. ENQUIST,
S. H. NOURSE.