June 19, 1923. 1,459,640

A. SUBIC

STOP FOR TALKING MACHINES

Original Filed June 18, 1920 2 Sheets-Sheet 1

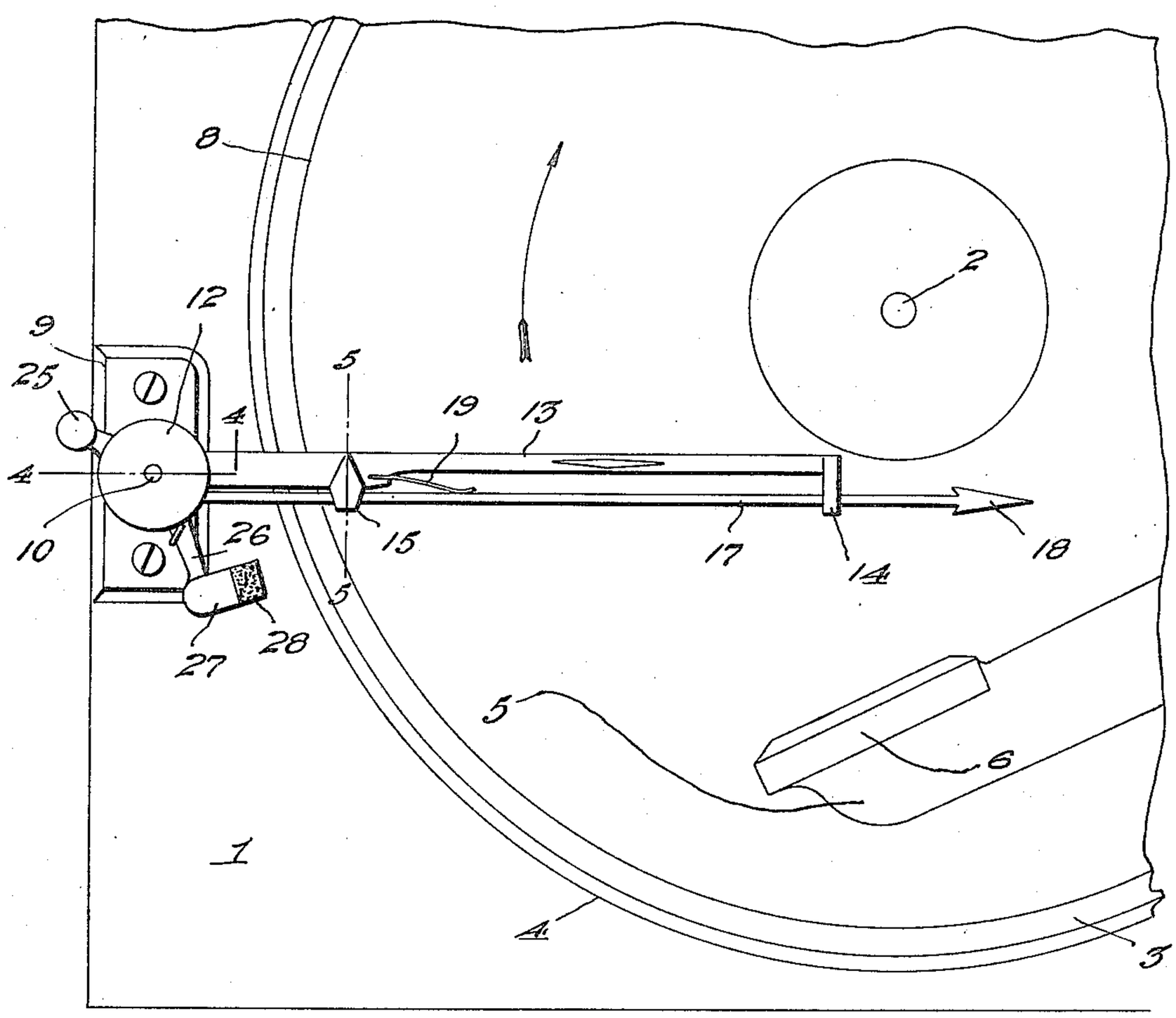

Fig. 1.

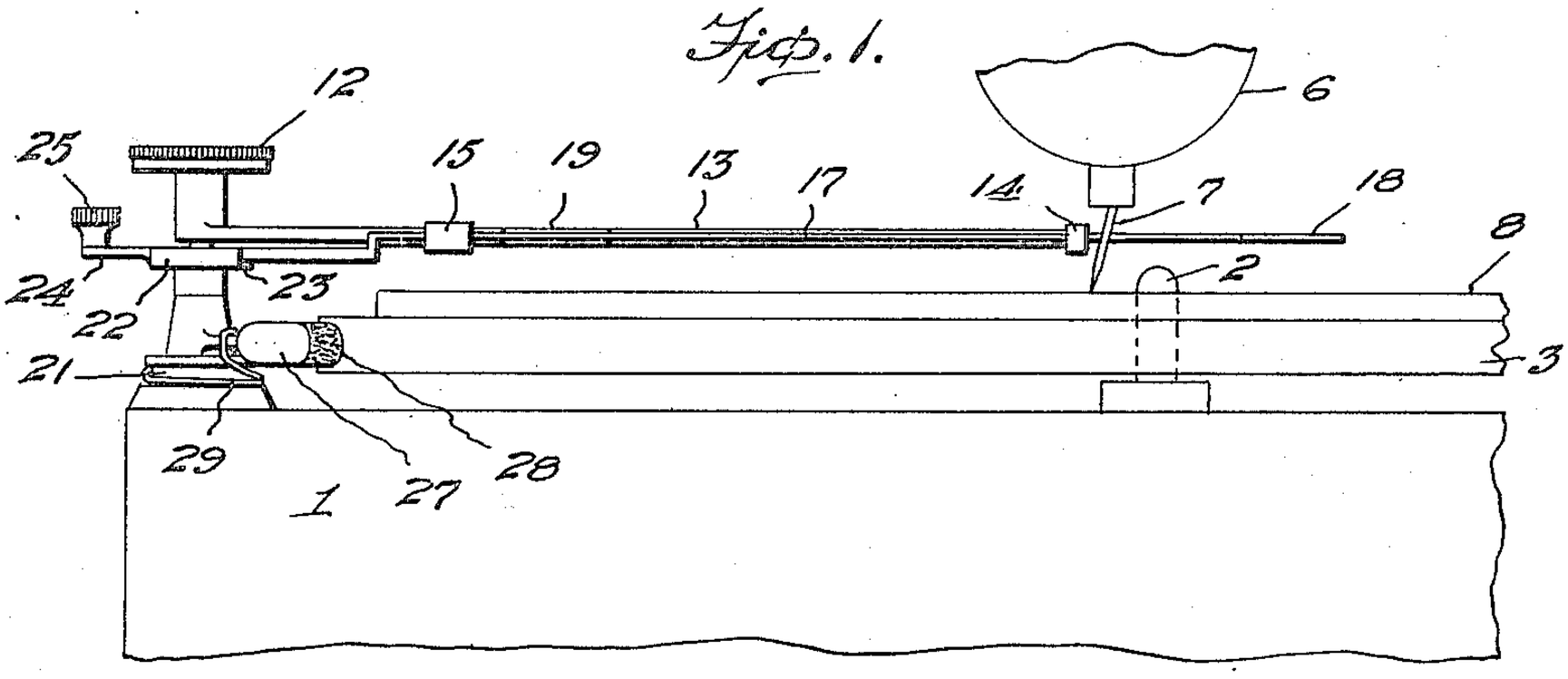

Fig. 2.

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Fig. 3.

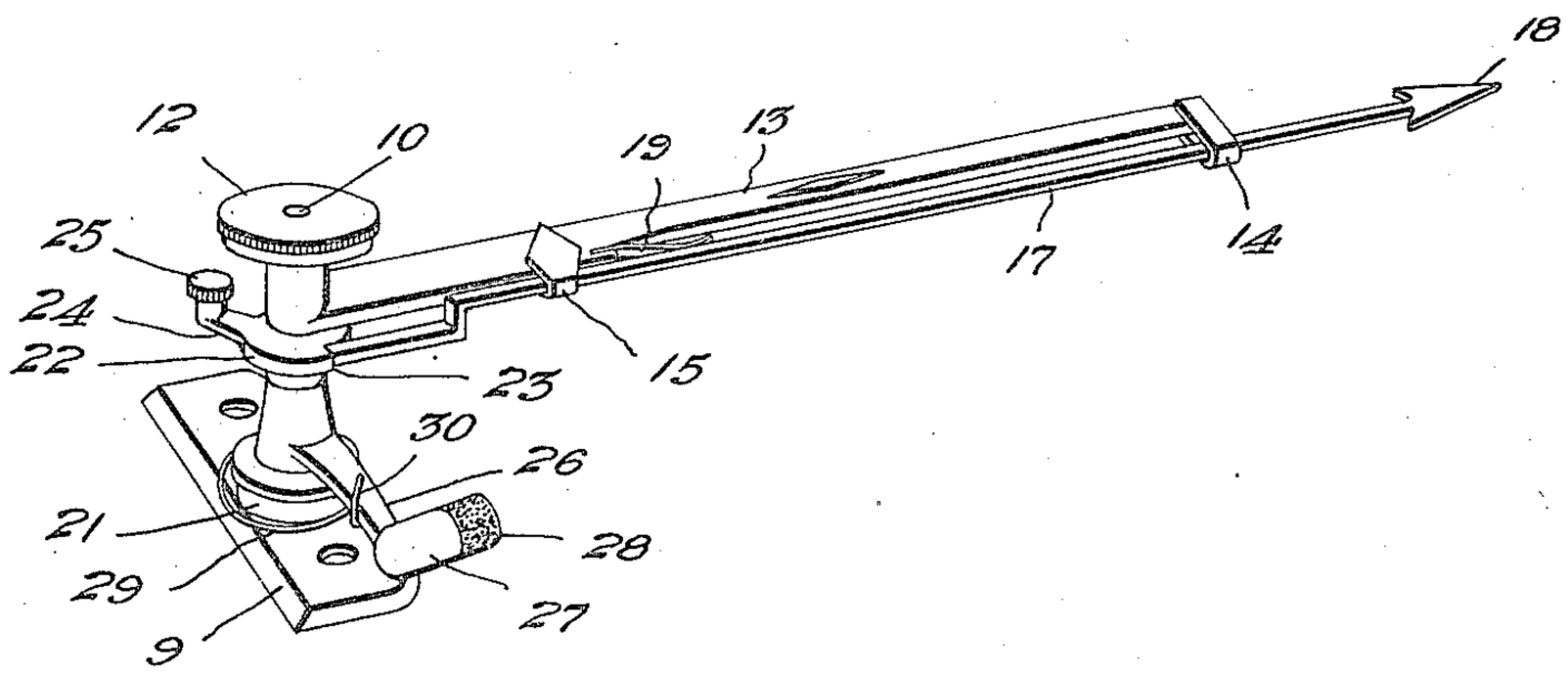


Fig. 4.

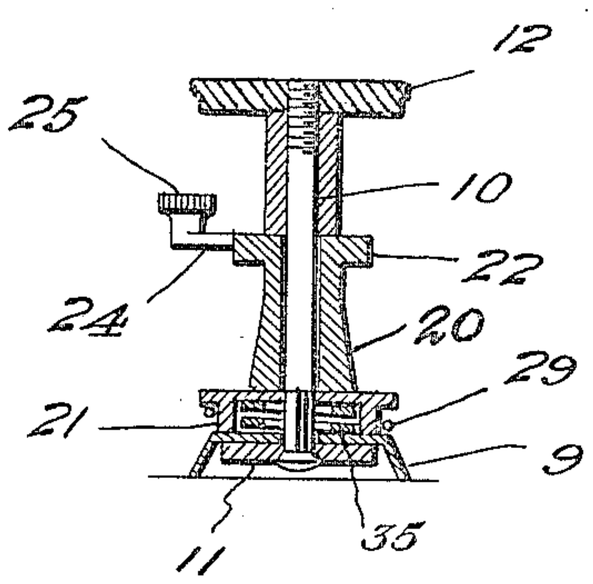
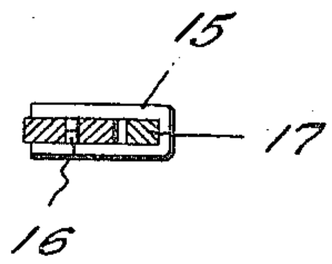


Fig. 5.



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WITNESS:

Anton Subic

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Patented June 19, 1923. 1,459,640

UNITED STATES PATENT OFFICE.

ANTON SUBIC, OF BIG PINEY, WYOMING.

STOP FOR TALKING MACHINES.

Application filed June 18, 1920, Serial No. 389,919. Renewed February 13, 1923.

To all whom it may concern:

Be it known that I, ANTON SUBIC, a citizen of the United States, residing at Big Piney, in the county of Lincoln and State of Wyoming, have invented new and useful Improvements in Stops for Talking Machines, of which the following is a specification.

My present invention has reference to a brake mechanism for talking machines.

The object is to produce a simple device which may be readily attached to the top of the box or case of a talking machine of the record disk type and which includes means actuated by contacting engagement with either the tone arm or the needle carrying box connected with the tone arm, for releasing a brake to permit of the shoe thereof being brought into frictional engagement with the periphery of the turntable and consequently hold the motor for the turntable against further actuation when the reproduction is completed, or at any other point desired.

A further object is to produce an automatic stopping device for talking machines in which a post is secured on the top of the box or case, to one side of the turntable, said post carrying an arm provided with a spring influenced indicator finger, the latter designed to be moved over the record on the turntable to the point where the playing of the record is to be stopped, generally at the innermost convolution of the spiral grooves in the record or disk, the said post being also provided with a turnable spring influenced member having a brake shoe associated therewith and having means controlled by the indicating finger for holding the brake shoe from contacting engagement with the periphery of the turntable, the said indicator finger being in the path of engagement with either the tone arm of the machine or the sound box carried thereby, and such contact moving the finger from latching position with respect to the brake carrying member, and permitting the swinging of the motor to cause the brake shoe to contact with the periphery of the turntable to hold the turntable against further rotation.

A further object is to produce an automatic brake mechanism for the turntables of talking machines which can be applied to the box or case of any construction of such machines without changing or altering any of the parts thereof, one which can be readily set to stop the movement of the turntable at any desired point, and one that is accurate and positive in operation.

The foregoing objects, and others which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and operative arrangement of parts, such as is disclosed by the drawings.

In the drawings:—

Figure 1 is a top plan view illustrating the application of the improvement.

Figure 2 is a side elevation thereof, parts being broken away and parts being in section.

Figure 3 is a perspective view of the improvement detached.

Figure 4 is a sectional view approximately on the line 4—4 of Figure 1.

Figure 5 is a sectional view approximately on the line 5—5 of Figure 1.

Referring now to the drawings in detail the numeral 1 designates the top of the box or case of a talking machine of the disk record type. On the post or shaft 2 that is actuated by the motor (not shown), is the turntable 3. In the present instance the turntable has its periphery reinforced by a steel band 4.

The tone arm is indicated by the numeral 5, the same carrying the sound box 6 to which the needle or stylus 7 is removably attached. The turntable has arranged thereon a record disk 8 that is provided with the spiral grooves in which the needle or stylus travels.

To one side of the point of connection of the tone arm of the box or case 1 is secured my improvement. The improvement comprises a hollow base plate 9 that is screwed to the said box or case. Passing through a central opening in the base plate 9 is a shaft, in the nature of a post 10. On the inner end of the post is a frictional disk 11 that is designed to contact with the base 9 to hold the post from free turning on the said base. If desired the mill-head 12 of the post may have a connection with the disk, so that by

turning the head the frictional engagement between the disk 11 and the base 9 may be regulated.

Carried by the post 10 is an arm 13. This arm, on one of the edges thereof is preferably reduced from its outer end, and its said outer end is provided with a lateral yoke 14. The widened portion of the arm is also provided with a similar yoke 15 that extends in the same direction as the yoke 14. Pivoted, as at 16, in the yoke 15, and guided through the yoke 14, is a rod or lever 17. The lever projects a suitable distance beyond the yoked end of the arm 13 and the outer end of the said lever is preferably provided with an arrow head 18. In the notch in the shoulder provided between the widened and reduced portions of the arm 13 is the flat spring 19. The free end of this spring contacts with the inner edge of the lever 17, and consequently influences the same into contacting engagement with the outer wall of the yoke 14.

On the post 10 directly below the arm 13 is a sleeve 20. This sleeve has its lower portion resting on the flat upper edge of a post 21 that is centrally formed on the base 9. The sleeve 20, at its upper end has a round flange 22 provided with a notch 23, and also provided with an extension in the nature of an arm 24. This arm has at its outer end a stud 25 that provides a handle member whereby the sleeve may be turned on the stem.

On its lower end the sleeve is provided with an arm 26 that has at its outer end an angle socket 27. In the socket 27, and projecting outwardly therefrom, is a compressible brake shoe 28.

Surrounding and secured to the post 21 is a spiral spring 29. This spring has a free offset end 30 that is hook-shaped and that engages the arm 26 to turn the sleeve on the standard and to cause the brake shoe to be moved in the direction of the turntable and to contact therewith. The spring 29 is of sufficient strength to cause the brake shoe to exert a pressure against the periphery of the turntable sufficient to hold the same against turning by its motor.

The arm 13 is turned with the post 10 so that the arrow head 18 of the lever 17 is brought directly in a line with the convolution of the spiral groove in the record disk at a point where the motor is to be halted. This point is generally at the innermost convolution of the grooves in the record disk. When in such position the stud or handle 25 of the sleeve 20 is grasped by the hand of the operator and the said sleeve is turned on the post to permit of the inner end of the lever 17 engaging in the notch 23 in the flanged head 22 of the sleeve. This causes the spring 29 to contract. The record travels in the direction of the arrow in Figure 1 of the drawings, and it will be seen that as the handle of the sound box follows the spiral groove of the record disk the tone arm of the sound box will be brought in the path of contact with the lever 17 when the point is reached at which the motor is to be stopped, and such contact will swing the lever toward the arm 13, bringing the same out of engagement with the notched head of the sleeve and permitting the spring 29 to swing the sleeve on the post, and bring the brake shoe 28 in contacting engagement with the steel band on the periphery of the turntable 4 and prevent the turntable being further influenced by its motor.

In the hollow post 21 there is a spring 35 that exerts a pressure between the base plate 9 and the upper wall of the hollow element 21, thus exerting a frictional engagement between the sleeve 20 and the pivoted end of the arm 13. The portion of the post 10 surrrounded by the spring 35 is squared and is headed at its point of engagement with the friction disk 11, to effectively hold the post against turning.

Having thus described the invention, what I claim is:—

1. A brake for the turntable of a talking machine which is operated by the tone arm of the machine; comprising a post, friction means for holding the post against turning, a pivotally supported spring influenced lever, a revoluble spring influenced brake on the post, latching means between the lever and brake for holding the brake from contacting with the turntable, and the outer end of the lever being in the path of engagement with the tone arm of the machine and designed by such contact to be influenced to release the brake.

2. A brake for the turntable of a talking machine which is operated by the tone arm of the machine; comprising a post, friction means for holding the post against turning, adjusting means for said friction means, a fixed arm on the post, a spring influenced lever pivoted to the arm, a revoluble spring influenced brake on the post, latching means between the brake and lever, and said lever having its outer end in the path of engagement with the tone arm of the machine, and adapted, by virtue of such engagement to be swung upon its pivot to release the brake and permit of the latter contacting with the periphery of the turntable.

3. A brake for the turntable of a talking machine which is operated by the tone arm of the machine, comprising a fixed base member, a post turnable thereon, friction means between the base and post for holding the same against turning, adjusting means for said friction means, a fixed arm on the post having spaced yokes thereon, a lever passing through the yokes and pivoted to the inner yoke, a spring carried by

the arm contacting with the lever, a sleeve revoluble on the post, below the arm and lever, said sleeve having a notched head to engage the inner end of the lever, an operating handle for the sleeve, an offset arm having a socket on the sleeve, a brake shoe in the socket, spring means between the post and the arm of the sleeve for normally turning the sleeve and bringing the brake shoe thereof to a position to engage with the periphery of the turntable when the lever is brought out of engagement with the notched head of the sleeve, and said lever having its outer end in the path of contact with the tone arm for moving the same to such releasing position.

ANTON SUBIC.