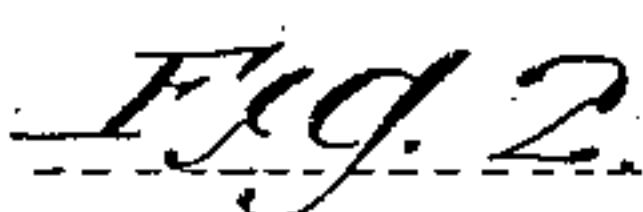


APPLICATION FILED DEC. 28, 1907.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.



Letter of Alter.
A. H. Daehler.

Inventors.
Guadalupe Buena, and
Arthur Edward Burton,
by Anton Ch. Styer, Attorney

G. BUELNA & A. E. BURSON.
BRAKE MECHANISM FOR TALKING MACHINES.
APPLICATION FILED DEC. 28, 1907.

930,038.

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2 SHEETS—SHEET 2.

Fig. 3.

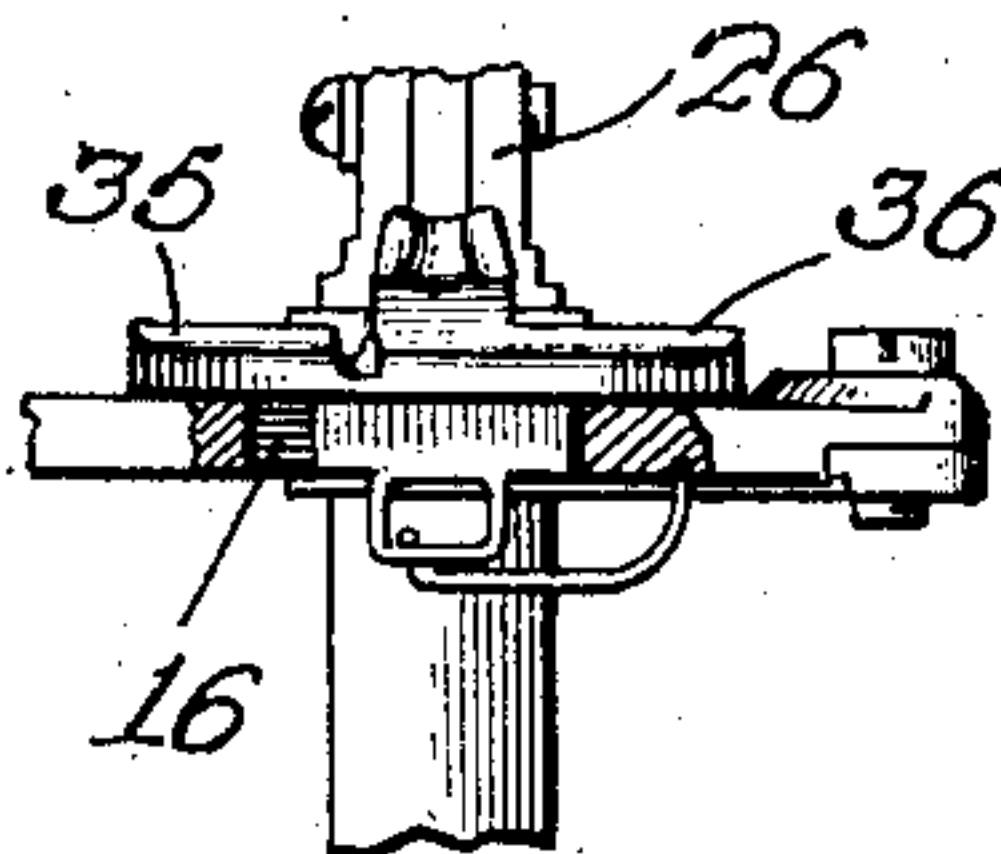


Fig. 4.

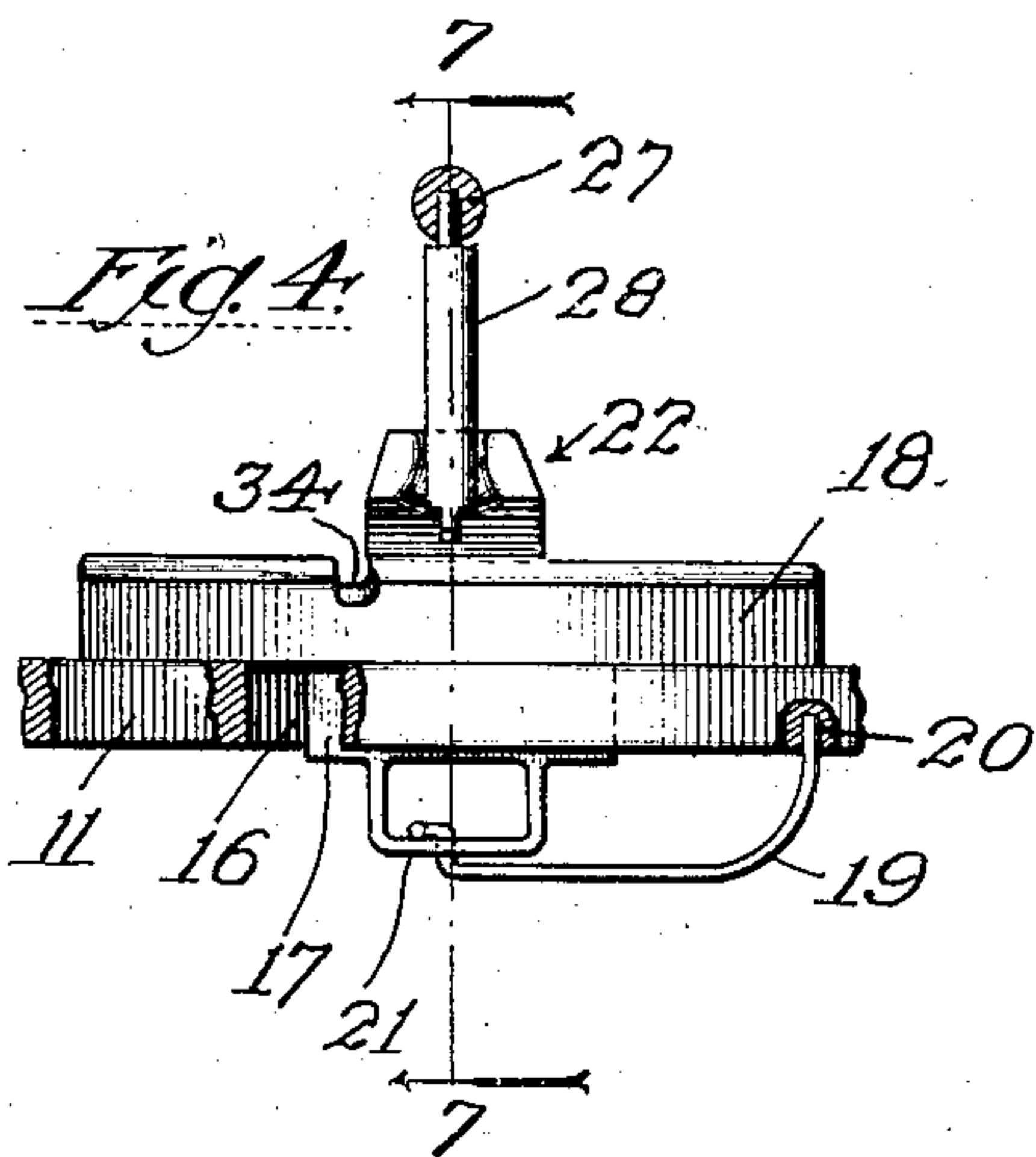


Fig. 5.

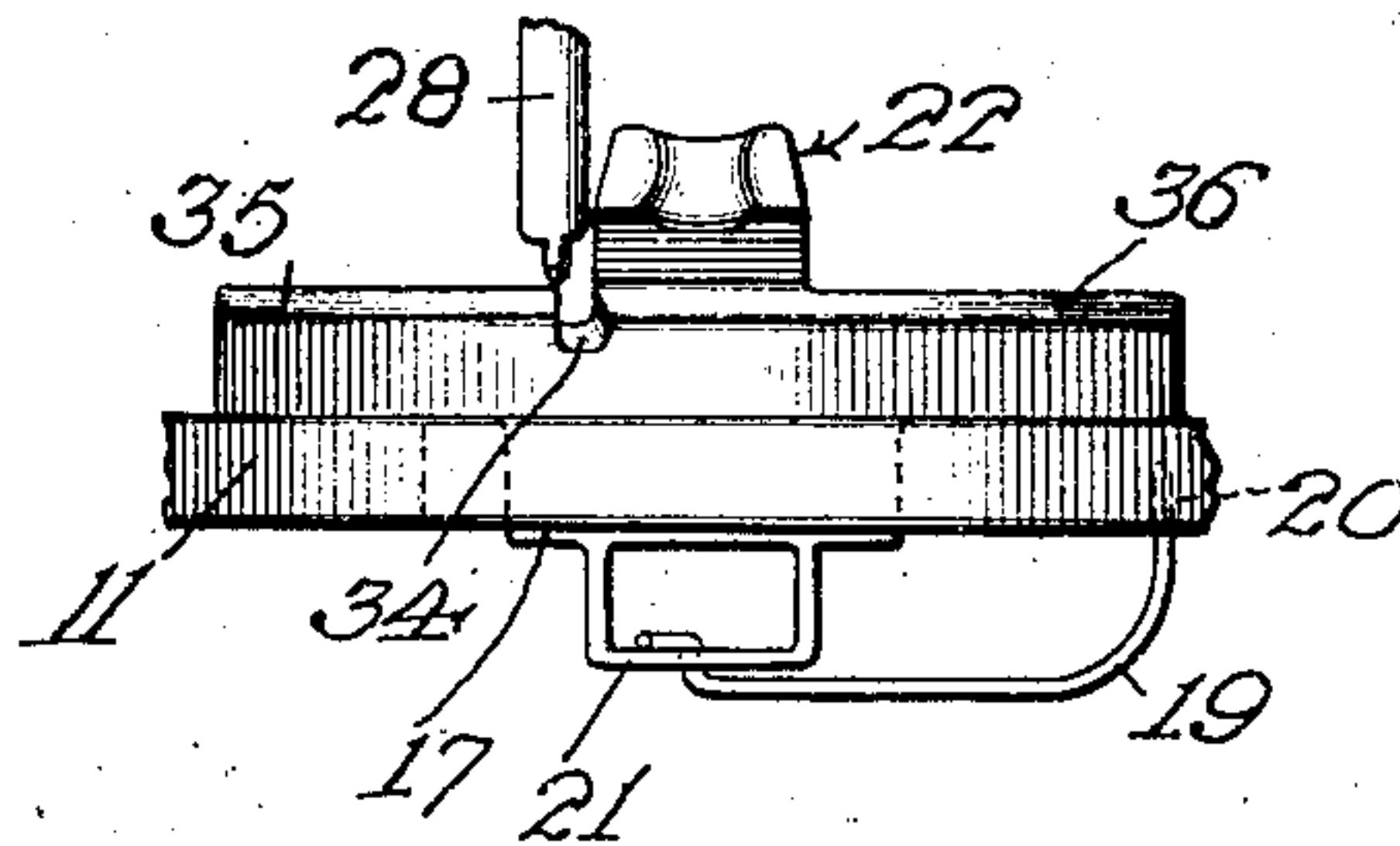


Fig. 6.

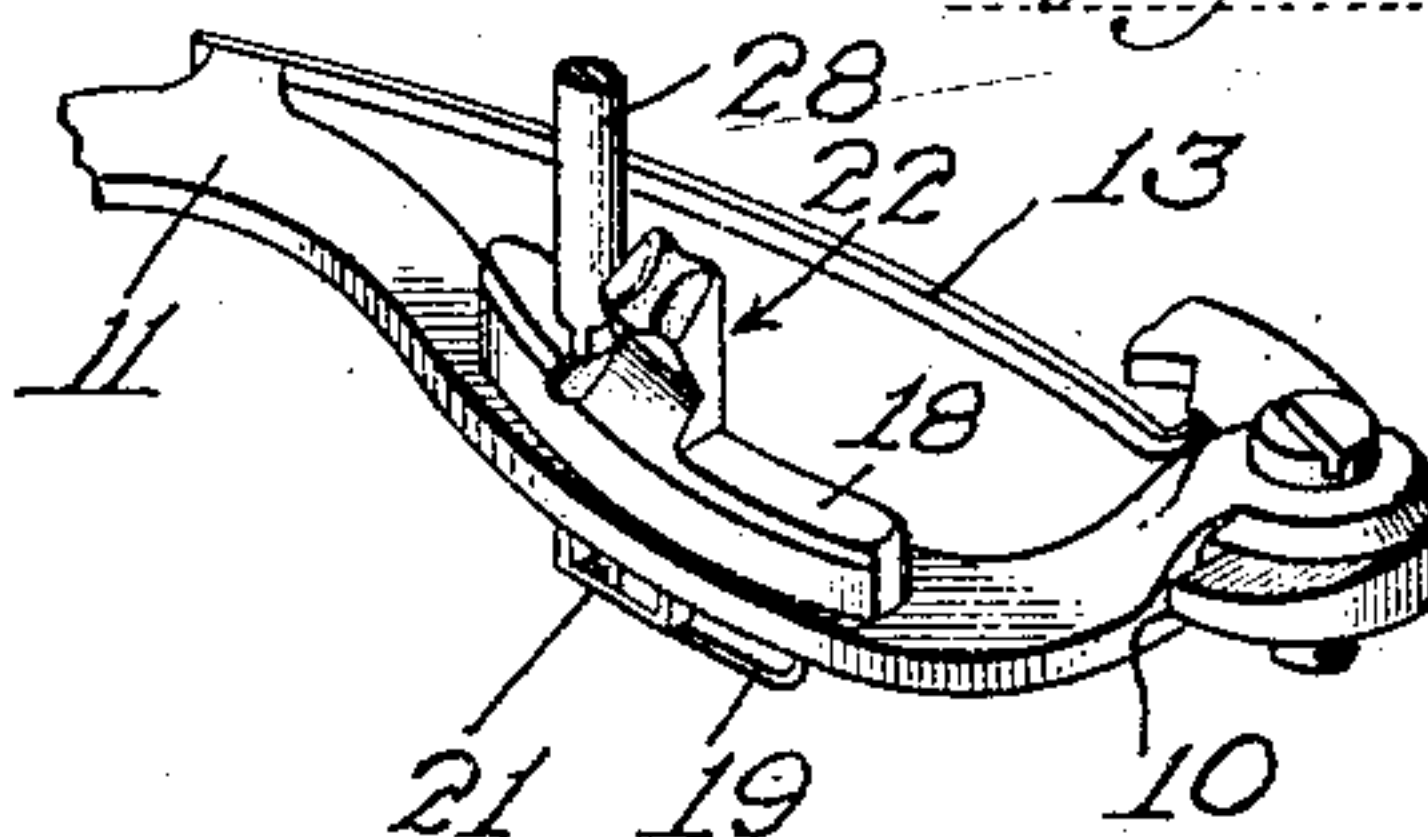


Fig. 7.

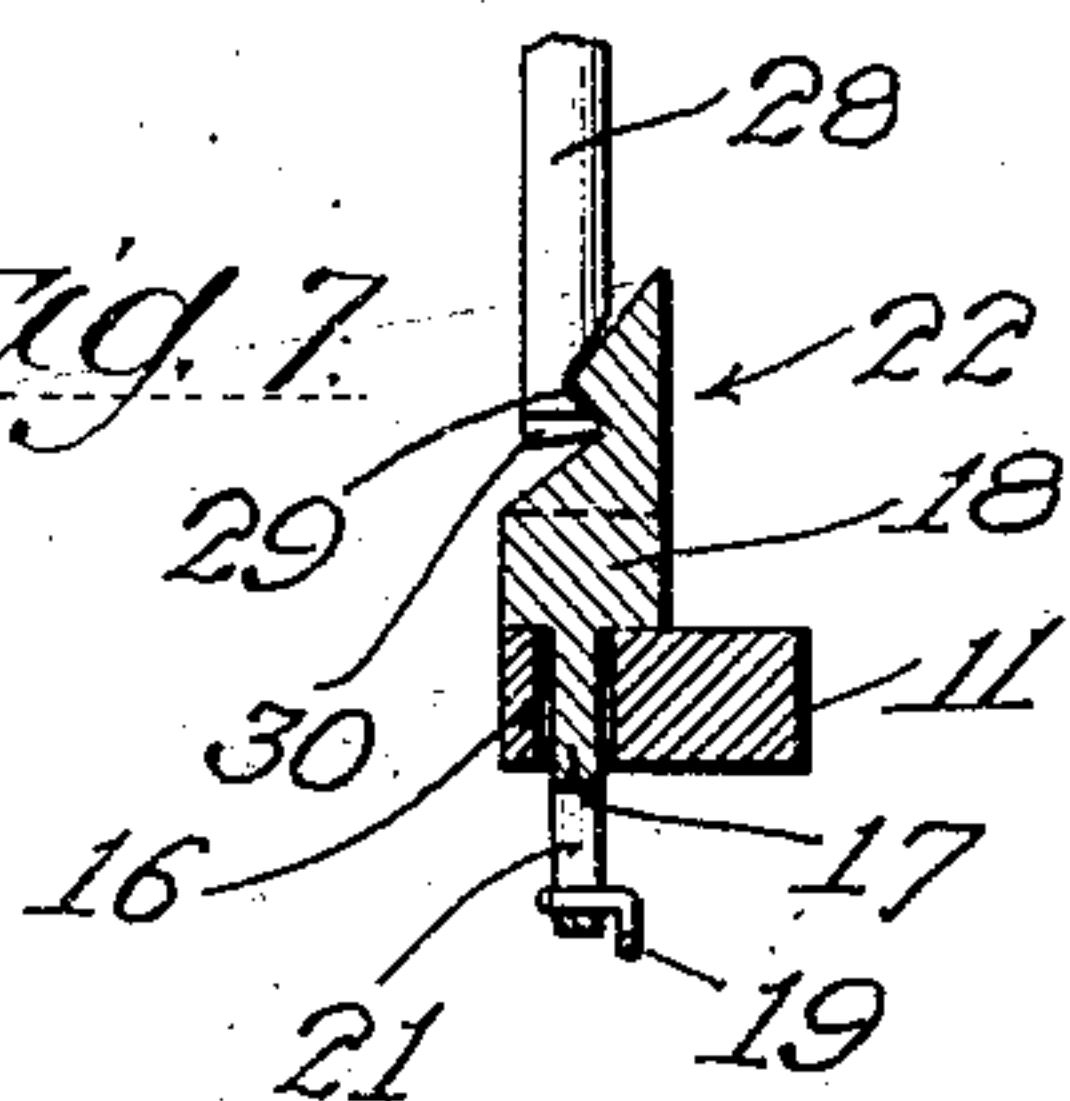


Fig. 8.

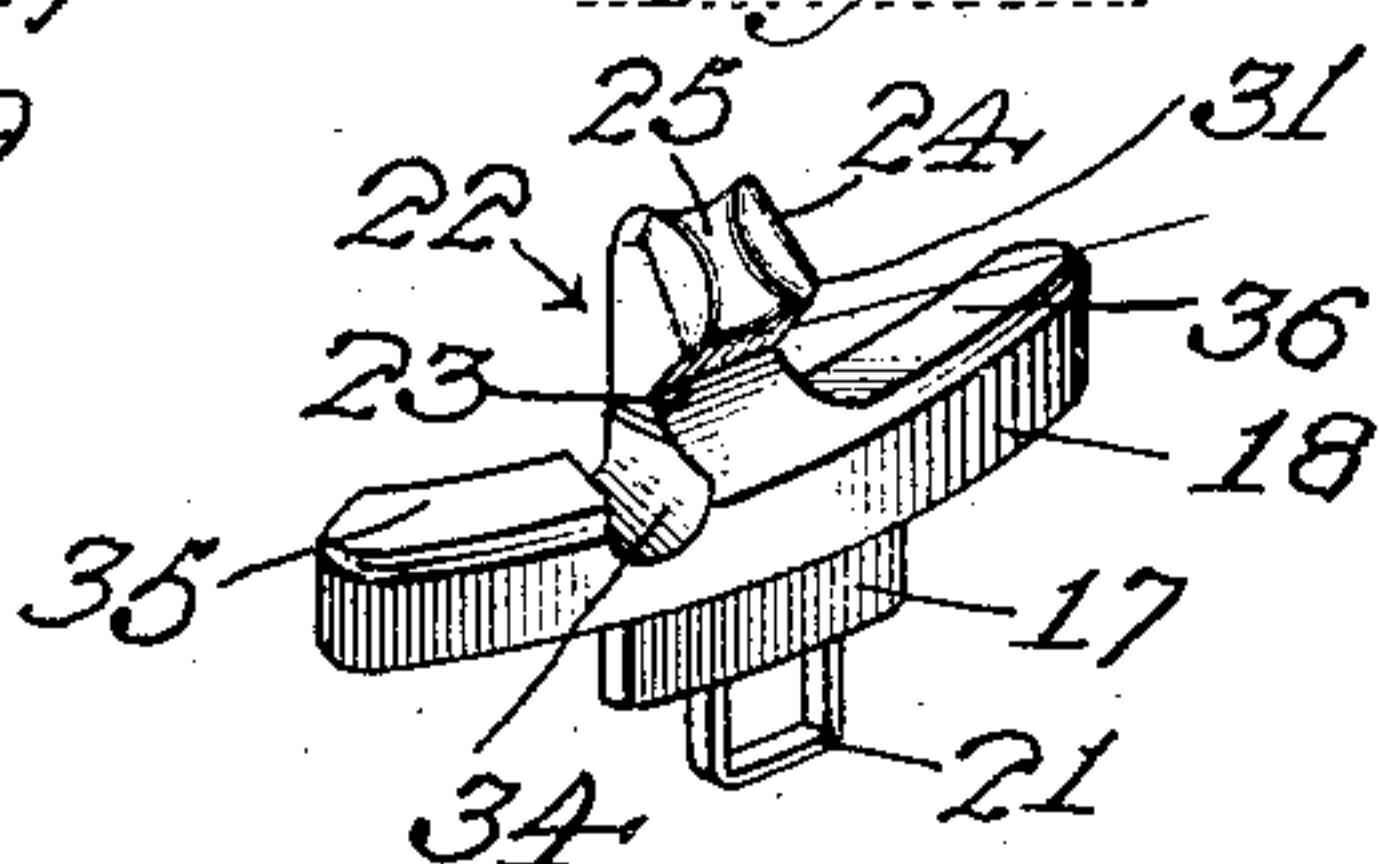
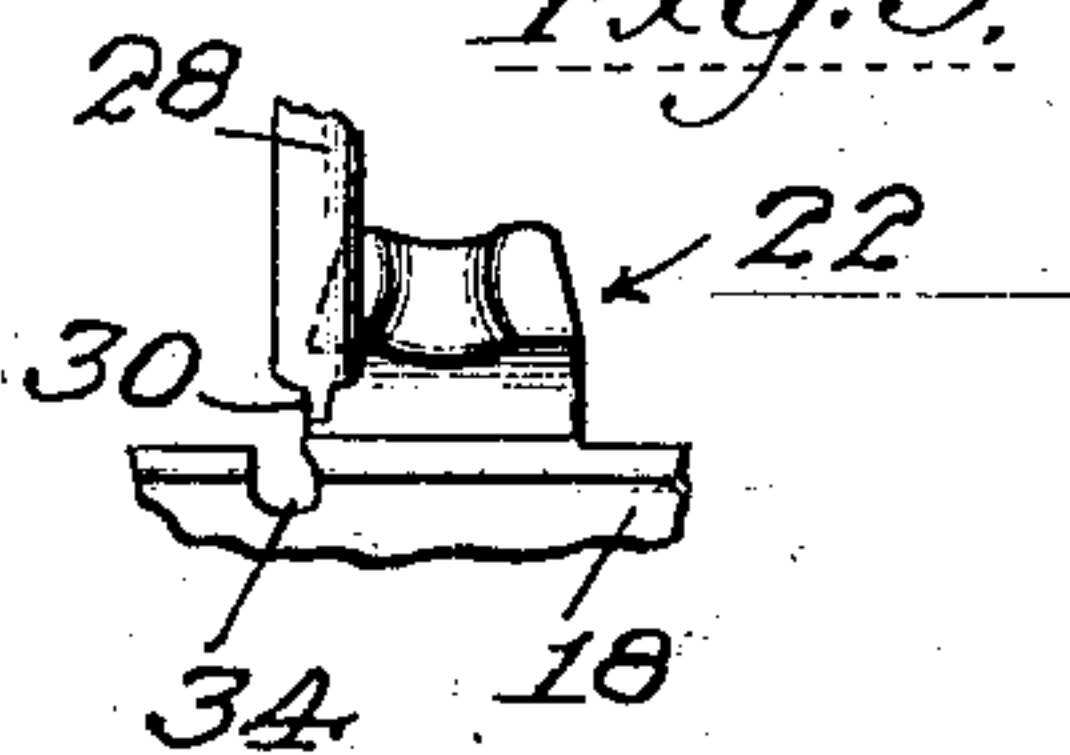


Fig. 9.



Witnesses:

Lute S. Alter,
A. H. Daehler.

Inventors:

Guadalupe Buena
and Arthur Edward Burson
by Anton Gletzer Jr.
John Atty.

UNITED STATES PATENT OFFICE.

GUADALUPE BUELNA AND ARTHUR E. BURSON, OF SANTA BARBARA, CALIFORNIA.

BRAKE MECHANISM FOR TALKING-MACHINES.

No. 930,038.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed December 28, 1907. Serial No. 408,419.

To all whom it may concern:

Be it known that we, GUADALUPE BUELNA and ARTHUR EDWARD BURSON, citizens of the United States, residing at Santa Barbara, in the county of Santa Barbara and State of California, have invented certain new and useful Improvements in Brake Mechanism for Talking-Machines, of which the following is a specification.

10 This invention relates to brakes for talking machines, and has particular reference to braking mechanism for disk talking machines.

One of the objects of this invention is to provide an automatic braking mechanism for disk talking machines, which is actuatable by the movement of the sound box carrier arm instantaneously upon contact, thereby to avoid destruction of the stylus by continued rotation of the disk, and all possible damage liable to be occasioned by the stylus following the path of the waves on the inside of the record, which waves or indentations are usually rough and coarse.

25 Another object of this invention is to eliminate all mechanism hitherto employed for this purpose, for elevating the sound box immediately upon the completion of the reproduction of a record, and to cause the brake to act on the rotating disk carrier synchronously with the completion of the travel of the stylus in the sound waves of the disk.

The invention consists in the features, details of construction and combination of parts as will be described in connection with the accompanying drawings and then be more specifically pointed out in the claims.

35 In the drawings: Figure 1 is a perspective view of our invention applied to a talking machine. Fig. 2 is a fragmentary top plan view. Fig. 3 is a fragmentary detail showing the adjustable slide and spring for preventing same from slipping. Fig. 4 is a fragmentary detail partly in section showing the brake releasing stud in the guide preparatory to setting the same for actuation. Fig. 5 is a similar view showing the position of the brake releasing stud after actuation by the sound box carrier arm. Fig. 6 is a fragmentary perspective showing the brake actuating spring and the position of the brake releasing stud after the brake has been thrown. Fig. 7 is a fragmentary vertical section on lines 7-7-Fig. 4. Fig. 8 is a perspective detail of the adjustable slide and

Fig. 9 is a fragmentary detail showing the position of the brake releasing stud preparatory to releasing the brake.

Specific reference being had to the drawings, 1 designates the motor containing box of a disk talking machine.

2 is a disk record on the disk carrier 4.

5 is a supporting arm secured to the box 1. 6 is a furcation straddling said supporting arm 5 and having integral therewith a post, not shown, over which fits a sleeve 7 arranged to be fixed against movement thereon by a thumb screw 8. A shelf 9 is integrally united with said sleeve 7 and is provided with a shoulder 10. A brake arm 11 is pivotally mounted on said shelf 9, and is provided at the terminus thereof with a brake 12, extending in proximity to the disk carrier 4. Said brake arm 11 is arranged in a direct line with the shoulder 10 on the shelf against which it is designed to abut and limit the movement of the arm, which is normally under the tension of a flat spring 13, one end of which is housed in a socket 14 provided therefor in the shelf 9, and the other end of which engages a grooved projection 15 provided on the brake arm. The brake arm 11 is provided with a curved slot 16 into which is arranged to fit a guide plate 17 made integral with a slide 18 seated upon the brake arm 11. To insure frictional contact between the side 18 and the brake arm 11, we provide a spring 19, one end of which extends in a socket 20 provided in the brake arm, and the other end of which is seated in a stirrup 21 made integral with the guide plate 17. The tendency of the spring 19 is to exert a downward pressure on said slide and thereby prevent accidental slipping or looseness. The slide 18 is curved and provided centrally thereof with an upwardly extending member 22 having a V shaped groove 23. The top 24 of said member is at an angle to the vertical axis of the same and is provided with a groove 25. 26 is a yoke swiveled on said sleeve 7. 27 is a rod pivotally secured in said yoke 26. 28 is a stud carried by said rod and provided with a V shaped groove 29 and a lug 30 at the extremity thereof. Said stud 28 is in a direct line with the apex of the groove 25 and the depression of the rod 27 causes said stud to travel in said groove and said brake arm 11 to be moved against the tension of the spring 13. The continued depression of said rod brings the V shaped

groove 29 of the stud in engagement with the apex 31 of the V shaped groove 23 and of the incline of the top 24 of the member 22, as seen in Fig. 1.

5 On the rod 27 is a trip arm 32 capable of adjustment by set screw 33. This trip arm is arranged to be actuated by the swinging sound box carrier arm at the instant that the stylus has completed its travel in the sound waves of the disk record. On the end of the rod 27 is an indicating finger X for adjusting the brake accurately to regulate the immediate release of the brake at the proper moment.

15 To adjust the brake for operation upon the complete reproduction of a record, the rod 27 is raised to bring the stud 28 in line with the groove 25 of the member 22, and then lowered and depressed until the stud enters the groove 23. Thereupon the rod is shifted to the left or right until it clears the member 22. The stud being then in a position indicated by Fig. 6, the movement laterally of the rod will cause the slide to travel. When the indicating finger on the end of the rod registers with the innermost waves of the disk the lateral movement is stopped, and the rod again raised and depressed so that the stud repeats the same operation as before.

25 When the stud enters the groove 23 the rod is given a lateral movement to the left so that the edge of the stud is barely in contact with the edge of the member 22, as seen in Fig. 9. Consequently when the sound box carrier arm strikes against said trip arm 32 the stud is immediately thrown off the edge of the member and the brake applied. At the same time the lug 30 on the end of the stud enters the slot 34 in the slide which permits the brake arm 11 to act under the tension of the spring.

In case the brake device is not desired to be used the rod 27 may be thrown to one side or the other so that the stud 28 rests on the surfaces 35 or 36 of the slide, thereby to hold the rod out of contact with the surface of the disk, or the rod may be thrown entirely away from the machine, by the swivel connection.

What we claim is:

50 1. The combination with a disk talking machine and a swinging sound box carrier, of a support, a brake thereon, an adjusting means on said brake slidable relatively there-to to adjust the same to varying areas of sound waves, and a tripping member on said

support arranged to be actuated by the swinging sound box carrier.

2. The combination with a disk talking machine, and a swinging sound box carrier, of a support, a spring actuated brake thereon, an adjusting slide on said brake, means engaging said slide for holding said brake in inoperative position, and a combined tripping and adjusting member for actuating said brake, said member being operable by said sound box carrier.

3. The combination with a disk talking machine, and a swinging sound box carrier, of a support, a spring actuated brake on said support, an adjusting slide on said brake, a rod swiveled on said support, and a stud on said rod to engage said slide and hold said brake inoperative, said rod being operable by said swinging sound box carrier to cause said stud to clear said slide and release said brake.

4. The combination with a disk talking machine and a swinging sound box carrier, of a support, a spring actuated brake on said support, a slide on said brake, a rod swiveled on said support, means on said rod to engage said slide and hold said brake inoperative and an arm on said rod to be operated by said swinging sound box carrier to actuate said brake.

5. The combination with a disk talking machine and a swinging sound box carrier, of a support, a spring actuated brake on said support, a slide on said brake, a rod swiveled on said support, a stud on said rod to engage said slide and hold said brake inoperative and an adjustable arm on said rod to be operated by said swinging sound box carrier to actuate said brake.

6. In a sound-reproducing machine having a reproducer and needle or stylus, the combination, with a record-support, of means for stopping the rotation of the same at a predetermined point, said means being provided with a groove-engaging finder for such predetermined point, and said means having a translatory or transverse movement across the record support.

In testimony whereof we affix our signatures in presence of two witnesses.

GUADALUPE BUELNA.
ARTHUR E. BURSON.

Witnesses:

BERTHA BURSON,
J. H. BURSON: