

No. 755,851.

PATENTED MAR. 29, 1904.

W. N. DENNISON.
COMBINED REGULATOR AND BRAKE FOR TALKING MACHINES.

APPLICATION FILED JAN. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig 1.

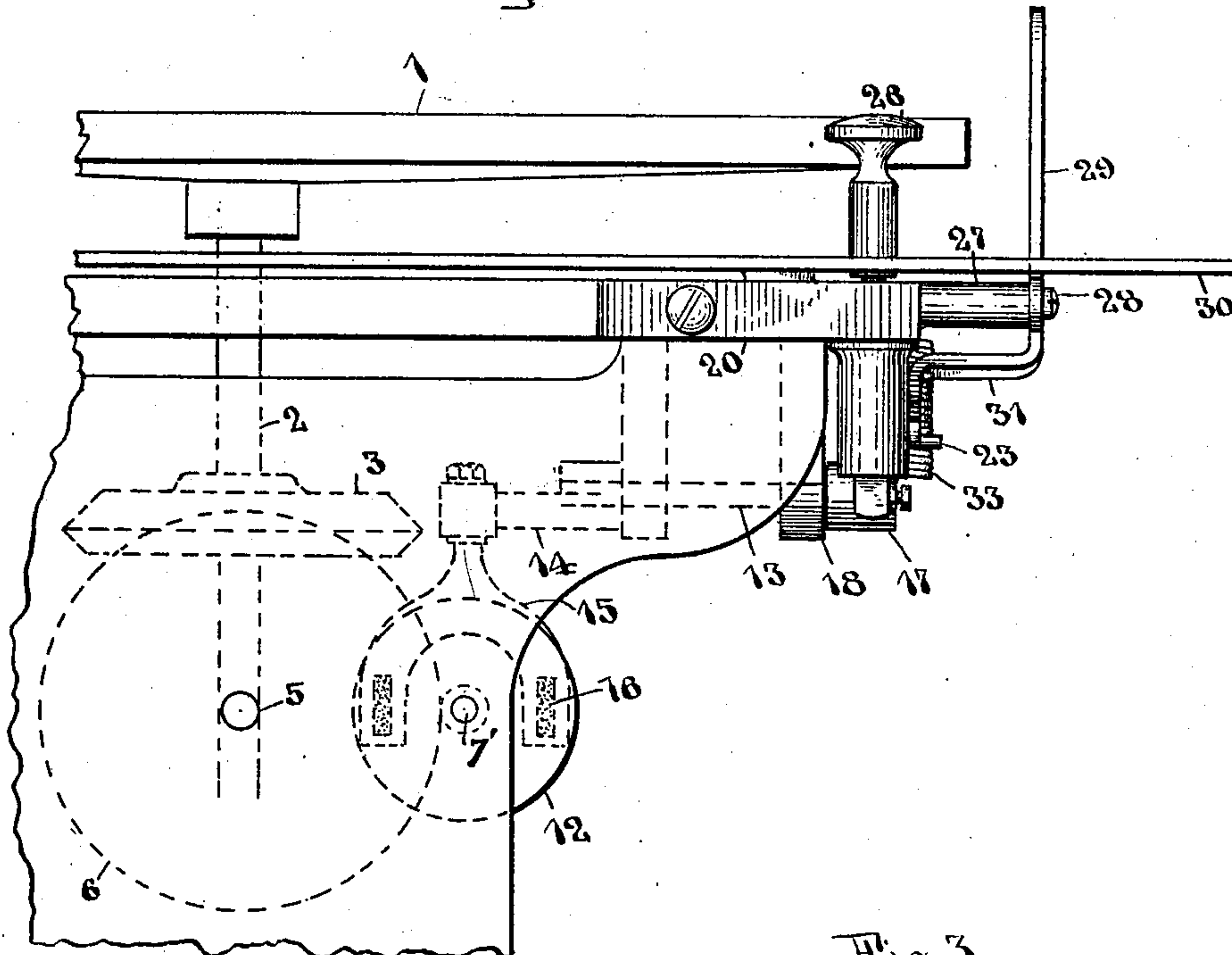
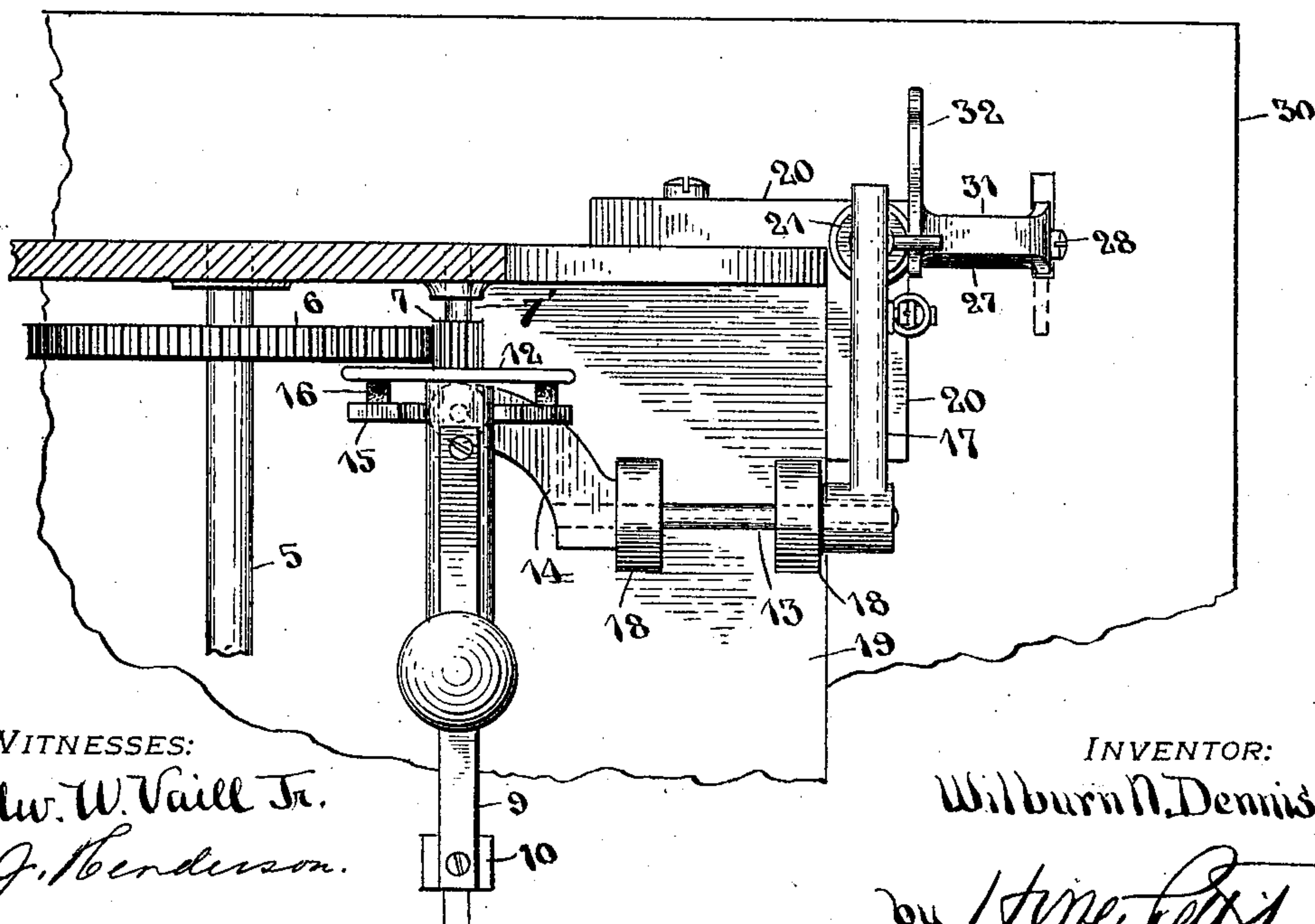


Fig 3.



WITNESSES:
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INVENTOR:
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NO MODEL.

2 SHEETS—SHEET 2.

Fig 2.

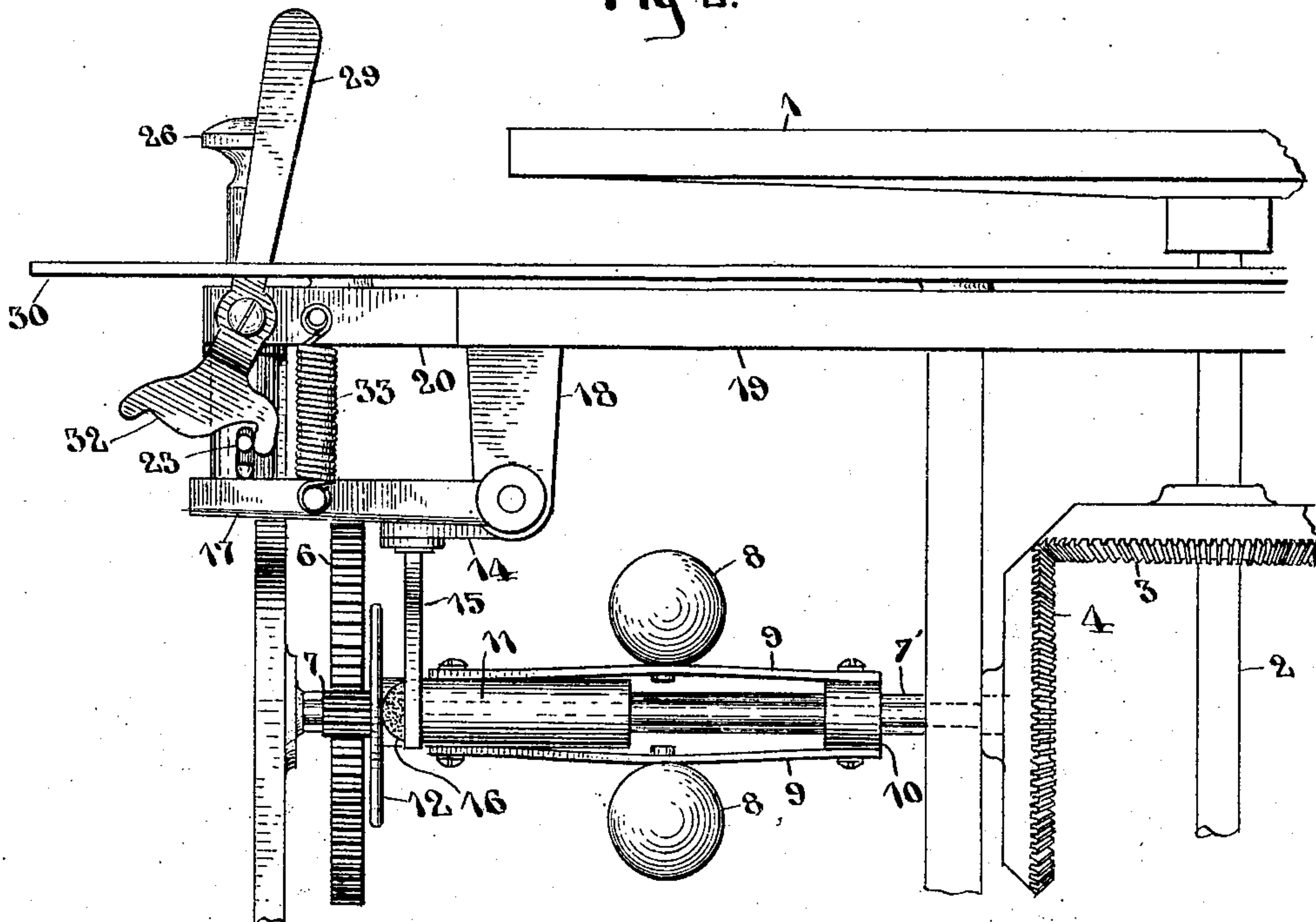


Fig 4.

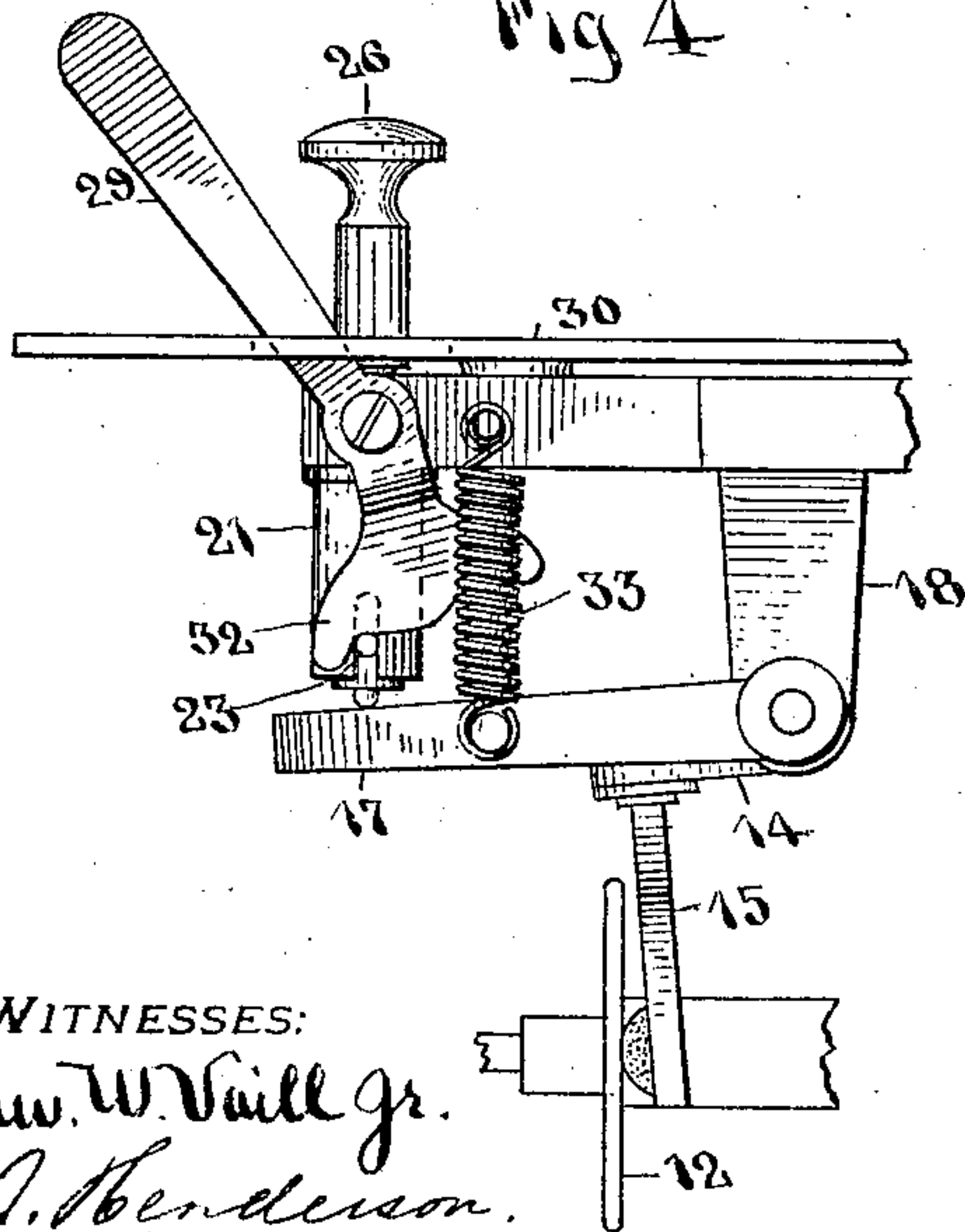
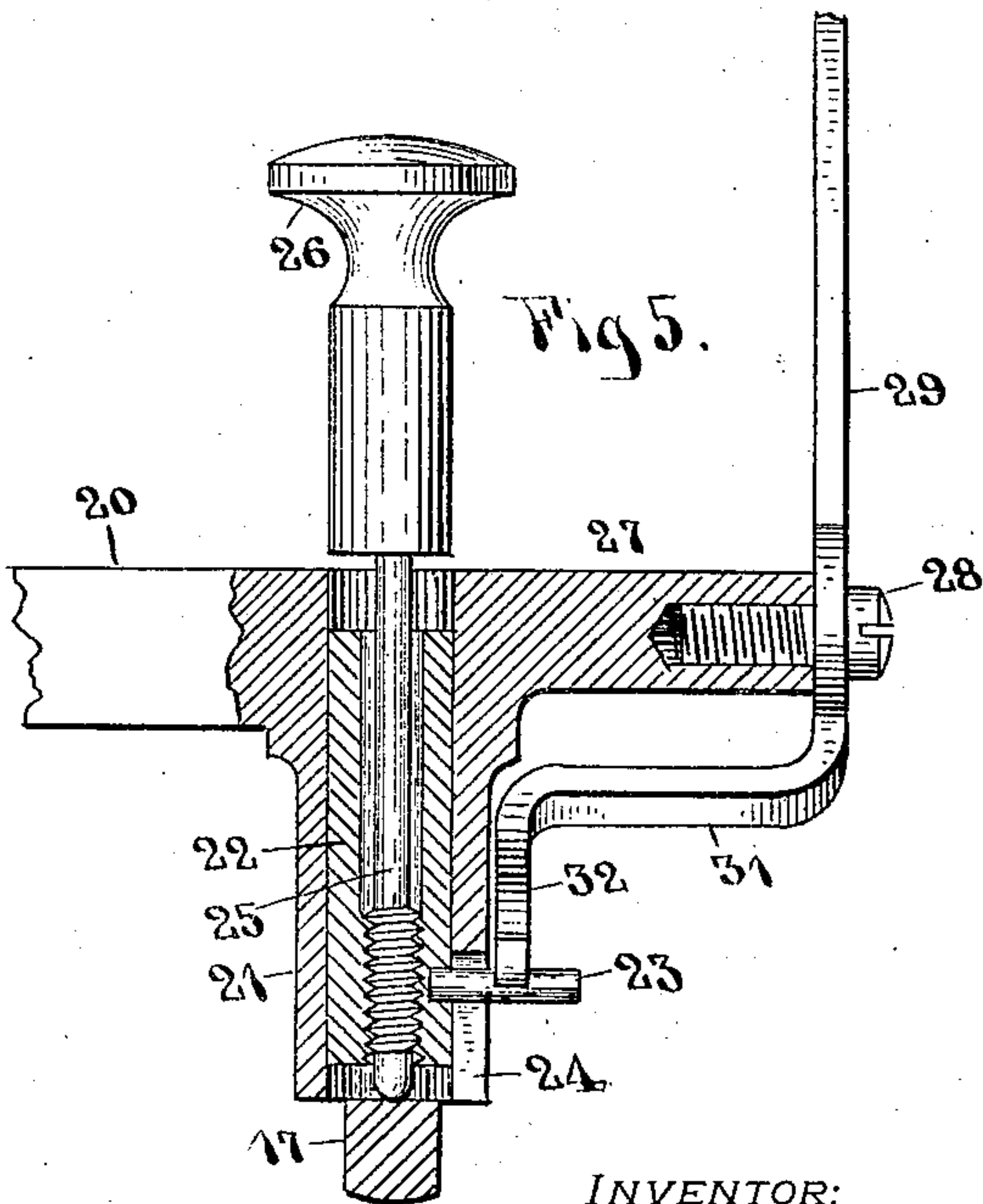


Fig 5.



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UNITED STATES PATENT OFFICE.

WILBURN N. DENNISON, OF CAMDEN, NEW JERSEY, ASSIGNOR TO VICTOR TALKING MACHINE COMPANY, A CORPORATION OF NEW JERSEY.

COMBINED REGULATOR AND BRAKE FOR TALKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 755,851, dated March 29, 1904.

Application filed January 21, 1903. Serial No. 139,884. (No model.)

To all whom it may concern:

Be it known that I, WILBURN N. DENNISON, a citizen of the United States, and a resident of Camden, State of New Jersey, have invented certain new and useful Improvements in a Combined Regulator and Brake for Talking-Machines, of which the following is a full, clear, and complete disclosure.

The object of my invention is to produce a regulator for talking-machines which has in connection therewith a brake for entirely stopping or retarding said machine when changing from one sound-record to another and when not in use; and a further object is to simplify the construction and make the operation more efficient and reliable than heretofore.

Broadly, my invention consists in providing an adjustable regulating screw or pin which may be adjusted between certain limits at any point desired to produce a given speed of the talking-machine motor. Said screw or pin is also made movable independently of the adjusting means, so that the same can be quickly displaced to cause the governor to act as a brake, and thereby retard or stop the machine when it is desired to change from one size of sound-record to another and when the machine is not in use.

For a full, clear, and exact description of my invention reference may be had to the following specification and to the accompanying drawings, forming a part thereof, in which—

Figure 1 is an elevation of my improved regulator and brake. Fig. 2 is another elevation taken at substantially right angles to that of Fig. 1. Fig. 3 is a bottom plan view of my improvement. Fig. 4 is an elevation similar to that of Fig. 2, but showing the brake portion of the device in its inoperative position; and Fig. 5 is a vertical sectional view of the regulating-pin and its supporting parts, showing the relation of the brake-lever thereto.

In the drawings the numeral 1 indicates the usual turn-table of a talking-machine, which is mounted on a vertical spindle 2. This spindle has connection with the spring-motor proper (not shown) and also is connected with

the governor or regulator by means of the gears 3 and 4, the shaft 5, the gear 6, and the gear 7, which is fixed on the shaft 7'. The governor proper consists of the usual parts—namely, the governor-balls 8, carried by the springs 9, which are attached to the fixed and slidable sleeves 10 and 11, respectively, on the shaft 7'. The sleeve 11 carries the usual brake-disk 12.

At right angles to the axis of revolution of the governor-balls 8 is mounted a shaft 13. Said shaft carries at one end an arm 14, to which is pivotally attached the yoke 15, which carries the brake-pads 16, while at the other end of said shaft is attached the radial arm 17. Said shaft 13 is supported in suitable hangers 18, which project downwardly from the under side of the horizontal plate 19 of the motor-frame. At one corner of the plate 19 is fixed an L-shaped piece or bracket 20, which carries at a point adjacent the juncture of its two arms a short tube or hollow cylindrical piece 21. This tube projects downwardly at right angles to the plane of the top plate 19 of the machine-frame, and the opening therein is continued upwardly through the bracket 20, as indicated in Fig. 5. Within the tube 21 is placed a cylindrical sleeve 22, which has an interior screw-threaded portion at its lower end and also carries on the exterior of its lower end a pin or projection 23. The pin or projection 23 is adapted to slide in a vertical slot 24, provided in the lower end of the tube 21, thus keeping said sleeve from turning, while allowing it a vertical movement.

The numeral 25 indicates a screw or pin which has at its lower end a screw-threaded portion corresponding to the screw-threaded portion of the sleeve 22, while at its upper end is carried a head or thumb piece 26.

The bracket 20 is provided with a projection 27, which is adapted to receive at its end a pivot-screw 28. Mounted upon said pivot-screw is a lever 29, the upper end of which forms a handle and projects through the supporting-plate 30, as does also the thumb-piece 26. The lower end of said lever 29 extends inwardly toward the tube 21, as indicated at 31, and then is bent downwardly to form a cam

32. This cam 32 is arranged adjacent the pin 23, carried by the sleeve 22, in such a manner that the different parts of said cam will contact said pin as the lever is moved from one position to another, the parts of said cam being of different radii in respect to the axis of the pivot 28. A spring 33, one end of which is attached to the bracket 20 and the other end to the arm 17, is provided to keep said arm 17 in a normally raised position.

The operation of my device is as follows: Supposing the turn-table 1 to be revolving and the parts to be in the position indicated in Fig. 4 and it is desired to regulate the speed of the motor and of the turn-table, the thumb-piece 26 is turned to the right or left, according to whether it is desired to cause the motor to go more slowly or at a higher speed. By turning the thumb-piece 26 the lever 17 is adjusted, and through its connection with the brake-pads 16 the latter are allowed to rest more or less forcibly in contact with the brake-disk 12. When it is desired to stop the motor, and therefore the turn-table, the lever 29 is moved toward the right from the position indicated in Fig. 4. This allows the pin 23 to move to the lower part of the cam 32, as shown in Fig. 2, and therefore permits the sleeve 22 and the pin 25 to be forced upwardly by the action of the lever 17 and spring 33. The spring 33 is strong enough to overcome the action of the governor-balls, and therefore forces the brake-pads 16 against the brake-disk 12, which causes sufficient friction to stop the rotation of the governor. When it is again desired to start the machine, the lever 29 is moved back into the position shown in Fig. 4.

This construction is also particularly adapted for use with talking-machines where records of different size are used. It is only necessary in changing from a record of small size to one of a larger size to move the lever 29 part way of its full movement, thereby allowing the pin 23 to rest upon a lower part of the cam 32, which immediately without further adjustment of the screw gives the required speed. The required speed may therefore be produced by moving the lever 29 a certain fraction of its throw.

Having thus described my invention, what I claim, and desire to protect by Letters Patent of the United States, is—

1. A combined regulator and brake, comprising, a governor, variable means for regulating the speed of the governor, and separate means for moving the parts of said regulating means to cause the same to act as a brake.

2. A combined regulator and brake, comprising, a governor, variable means for regulating the speed of the governor, and separate means for moving said variable means and for limiting the movement thereof to cause the same to act as a brake.

3. A combined regulator and brake, comprising, a governor, a rotatably-adjustable

part for regulating the speed of the governor, connections between said rotatable part and the governor, and means for moving said adjustable part to stop or retard the rotation of the governor.

4. A combined regulator and brake, comprising, a governor, a screw for regulating the speed of the governor, connections between said screw and governor, and means for moving said screw longitudinally to stop or retard the rotation of said governor.

5. A combined regulator and brake, comprising, a governor, an adjusting-screw for regulating the speed of the governor, connections between said screw and governor including frictional contacts, and means for moving said screw longitudinally to increase the pressure between said contacts to stop or retard the rotation of the governor.

6. A combined regulator and brake, comprising, a governor, an adjusting-screw for regulating the speed of the governor, connections between said screw and governor, and means supporting said screw for moving the same longitudinally to stop or retard the rotation of said governor.

7. A combined regulator and brake, comprising, a governor, an adjusting-screw for regulating the speed of the governor, connections between said screw and governor, a slidable sleeve within which said screw is mounted, and means for moving said sleeve longitudinally to stop or retard the rotation of said governor.

8. A combined regulator and brake, comprising, a governor, an adjusting-screw for regulating the speed of the governor, connections between said screw and governor, a slidable sleeve within which said screw is mounted, a fixed sleeve for holding said slidable sleeve, and means for limiting the movement of said slidable sleeve within said fixed sleeve to stop or retard the rotation of said governor.

9. A combined regulator and brake, comprising a governor, an adjusting-screw for regulating the speed of the governor, a slidable sleeve within which said screw is mounted, connections between said screw and governor including frictional contacts and means for moving said sleeve longitudinally to increase the pressure between said contacts.

10. A combined regulator and brake comprising a governor, an adjusting-screw for regulating the speed of the governor, a slidable sleeve within which said screw is mounted, a fixed sleeve for holding said slidable sleeve, an arm adapted to rest against the end of said fixed sleeve and said screw, connections between said arm and said governor including frictional contacts, means for forcing said arm toward said fixed sleeve and a cam-lever for moving said slidable sleeve longitudinally.

11. A combined regulator and brake comprising a governor, an adjusting-screw for

regulating the speed of the governor, a slid-
able sleeve within which said screw is mount-
ed, a fixed sleeve for holding said slidable
sleeve, having a longitudinal slot therein, a
5 pin carried by said slidable sleeve and adapted
to work in said slot a pivoted arm adapted
to rest against the end of said fixed sleeve
and the end of said screw, connections be-
10 tween said governor and said arm including
frictional contacts, means for forcing said arm

toward said fixed sleeve, and a cam-lever con-
tacting with said pin for moving said slidable
sleeve longitudinally.

In witness whereof I have hereunto set my
hand this 20th day of January, A. D. 1903.

WILBURN N. DENNISON.

Witnesses:

EDW. W. VAILL, Jr.,

CHAS. K. BENNETT.