

No. 869,749.

PATENTED OCT. 29, 1907.

J. C. STUCKEY.  
STOP MECHANISM FOR TALKING MACHINES.

APPLICATION FILED APR. 24, 1907.

2 SHEETS—SHEET 1.

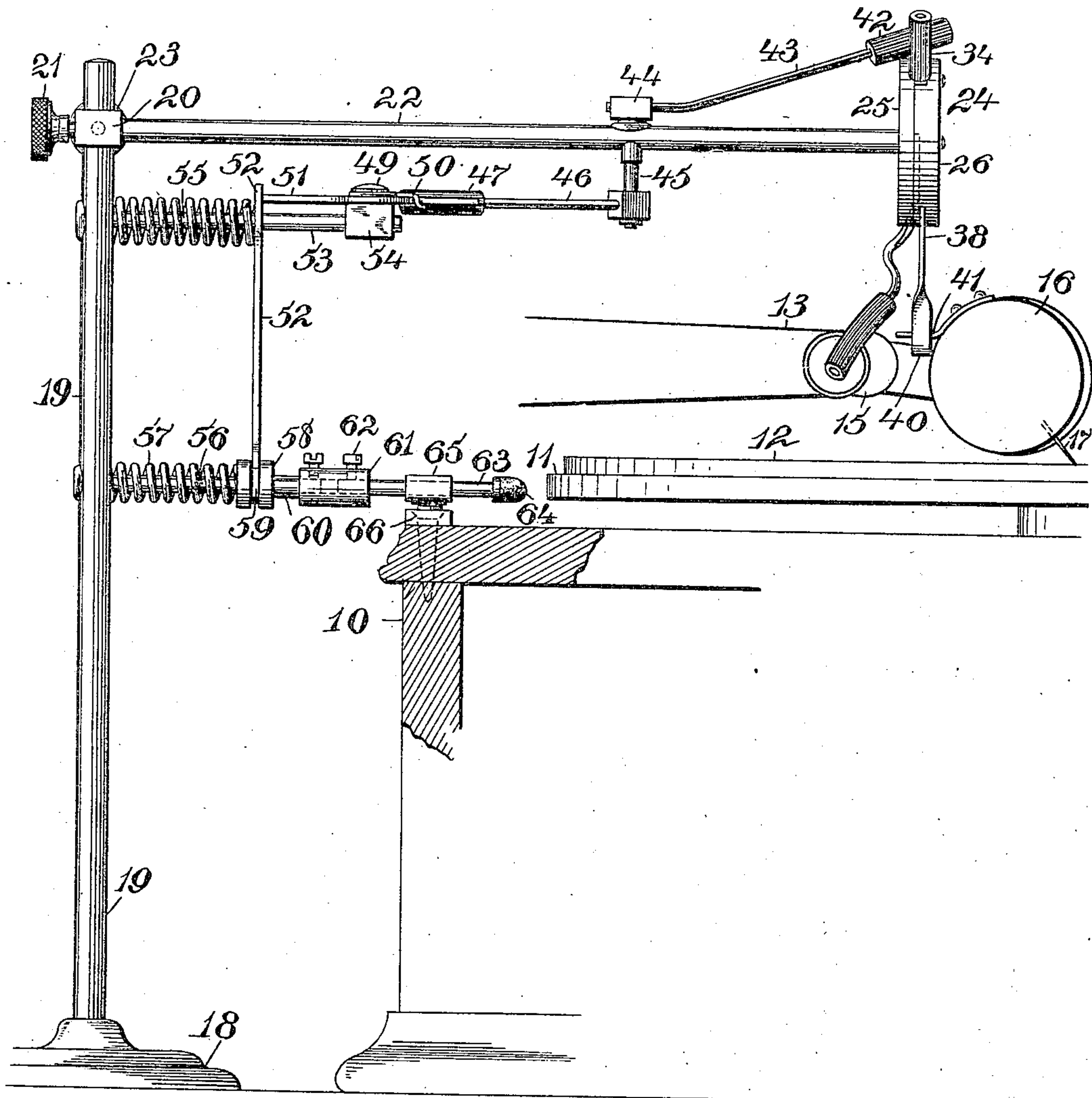


Fig. 1

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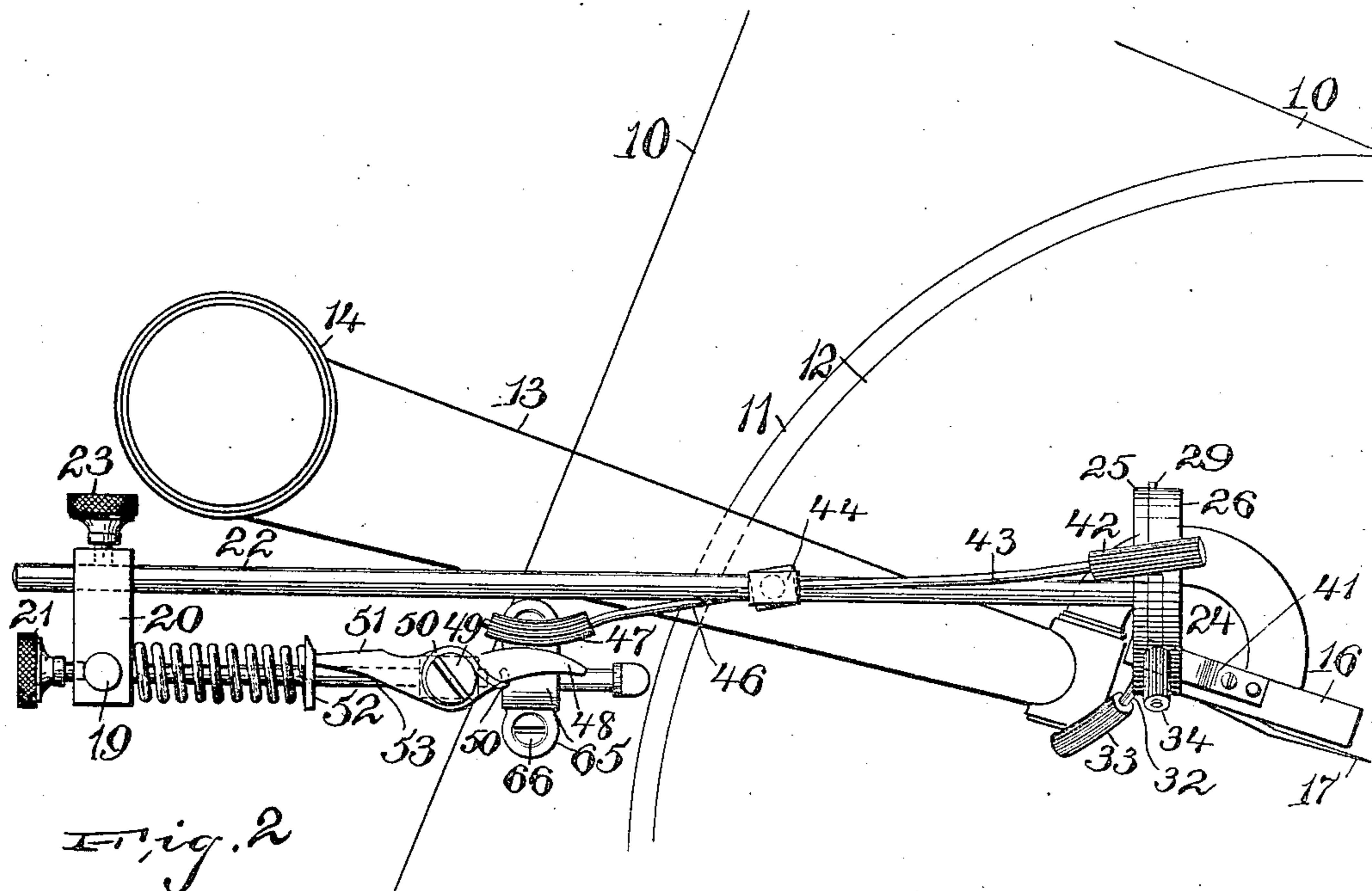


Fig. 2

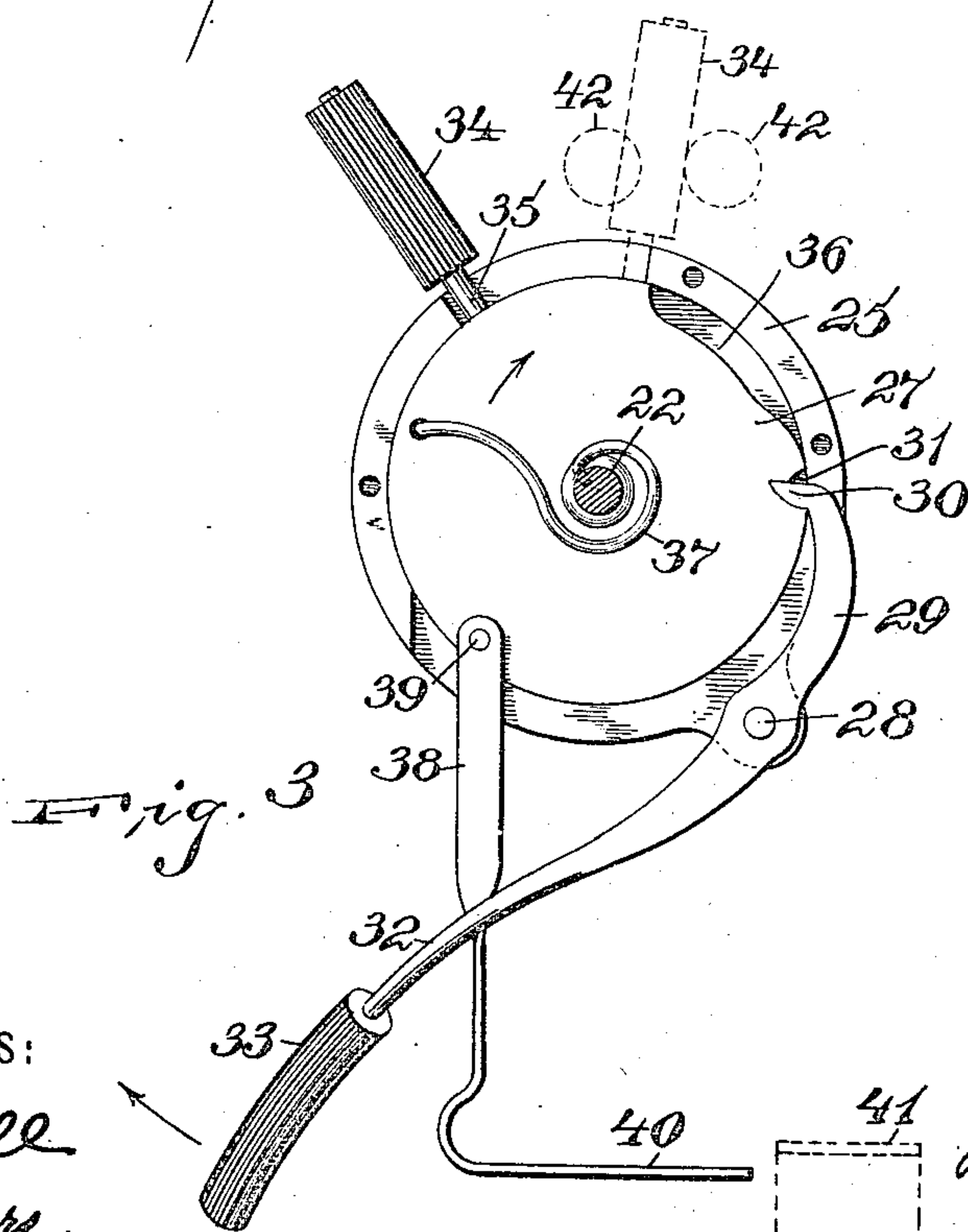


Fig. 3

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# UNITED STATES PATENT OFFICE.

JOHN C. STUCKEY, OF ELIZABETH, NEW JERSEY.

## STOP MECHANISM FOR TALKING-MACHINES.

No. 869,749.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed April 24, 1907. Serial No. 369,898.

To all whom it may concern:

Be it known that I, JOHN C. STUCKEY, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Stop Mechanism for Talking-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a device to be placed along side of a talking machine, and preferably along side of a disk machine, and is designed to provide a means for lifting the needle, with its sound box, from the record on the completion of the record, and is adapted to be adjusted before the record is started so that when the proper time arrives the device will be operated to lift the needle out of engagement with the disk.

Another object of this invention is to provide a device of this kind that operates a brake so that when the needle is lifted, the machine is automatically stopped so that if the operator is absent from the machine when it completes its record, the machine will stop and the needle is lifted away from the record and there is no further reproduction of any sounds. This device saves considerable winding, as the record will not rotate any more than is necessary to complete the reproduction. There is wear and tear saved on the works of the machine, and a better exhibition of the machine can be given with this automatic stoppage of sound on the mechanism.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a side view of my improved device showing its relation to a talking machine, and Fig. 2 is a top view showing a portion of the machine and its relation to the device. Fig. 3 is a face view of the tripping mechanism that releases the machine to stop the rotation of the disk, and also the means for lifting the sound box and the needle from the record.

I show, in the drawings, any usual form of talking machine 10 employing a rotating plate 11 that carries the record disk 12. In conjunction with this machine is employed a swinging arm 13 pivoted at 14; as is usual in this class of machines, and the usual sound box 15 is arranged on the end of the swinging arm or tube 13. As is usually mounted by means of a U-shaped tube, is arranged a reproducer 16 having a needle 17 projecting therefrom and adapted to rest on the record disk 12. In machines of this kind the needle is started on the groove of the record, near the periphery of the record disk, and it travels inward following the groove, and when it arrives near the center of the machine the record stops and the needle then runs on, and there is no

way of stopping the machine except through a manual manipulation.

In my device, however, when the sound box 15 has arrived at a point that brings the needle 17 to the end of the record groove, it is adapted to engage a mechanism to stop it. To support the mechanism for stopping the talking machine, I have devised a suitable base 18 with the vertical post 19, on which is arranged a block 20 that can be rotatably adjusted or adjusted vertically, and fastened by means of a set-screw 21. Projecting horizontally from the block 20 is a rod 22 adjustably secured by means of a set-screw 23, and on the outer edge of the rod 22 is mounted the tripping mechanism 24. This mechanism consists of two circular plates 25 and 26 which has mounted between them on the rod 22, a disk 27. Pivoted at 28, intermediate of its ends, is a lever, one end of which, 29, has a nose 30 that enters a detent 31 in the periphery of the disk, and the other end 32 of the lever projects downward therefrom and may be provided with a soft covering 33 which is preferably made of a ribbed elastic tubing.

The portion 33 of the lever 32 is the part that is engaged by the sound box 15 when it reaches its limit of movement, this being engaged at the proper time because before the record is started, the mechanism is shifted by means of the set-screws 21 and 23, so that by trial it is seen that the needle 17 is exactly at the end of the reproducing groove. Thus when the proper time arrives, and the record is in operation, when the needle arrives at the point where the record stops, the sound box presses over on the portion 33 of the lever 32, the tooth 30 is drawn out of the detent, and the disk 27 is snapped around by the spring 37 in the direction of the arrows shown on the disk in Fig. 3, and the strip 38, pivoted at 39, is at once drawn upward along with the hooked portion 40, which in the meantime has been placed under a strip 41 fastened to the reproducer by reason of the reproducer's side movement, and the reproducer is thus in a position to be lifted, and when the above described tripping takes place, the hook 40, cooperating with the plate 41, lifts the reproducer so that its needle is clear of the record.

A cut-away portion 36 is supplied on the disk so that when the disk is in its operated position, after lifting the reproducer, in other words before it is set, it allows the tooth 30 to occupy the position shown in Fig. 3, so that it does not bear on the outer periphery of the disk 27, and the portion 33 of the lever 32 is in the proper position for operation, when the apparatus is adjusted before it is started and the tripping will take place at the proper time. If this cut-away portion were not present, the nose would rest against the outer periphery of the disk 27, and when the apparatus was set the portion 33 would be enabled to drop, slightly, by reason of the nose entering the detent, and the record would be stopped before its completion. Projecting



from the disk 27 is a stud 35 carrying a soft covering 34, and when this stud is operated, by means of the disk being tripped, it hits a soft covering 42 on the end of a rod 43, mounted by means of a block 44 on a pivot 45. This rod 43 is thus violently thrown in one direction, and the corresponding movement of the rod 46 is caused, and its soft covering or end 47 engages the end 48 of a lever which is pivoted by means of the screw 49 and is normally held in position by a spring 50, which spring, however, is weak and only sufficient to prevent the lever from having an absolutely free movement. The other end of the lever has a nose 51 that is adapted to be thrown into and out of engagement with the bar 52. Thus when the mechanism is tripped, as before described, the end 47 of the rod 46 throws the lever by engaging its end 48, and the nose 51 is thrown out of engagement with the latch plate 52 which is mounted on a shaft 53, and a spring 55 throws the latch plate 52 over along the shaft 53, which shaft also supports the block 54 for holding the pivotal support 49. Below the shaft 53 and parallel thereto is a rod 56, and a spring 57, on the rod, bears against a slotted collar 58 in which the end 59, which is preferably forked, fits so as to move it in unison therewith, and by means of a coupling 61 and a screw 62, the shaft 63 is thrust forward, and the end 64 frictionally engages the periphery of the rotating plate 11 to stop the machine. The rod 63 is arranged in a bearing 65 that is secured by suitable screws 66 to the box of the machine 10.

This apparatus provides a quick and noiseless stopping of a talking machine, when the reproduction of a record is complete, and the reproducing needle is removed from the record at the same instant, not damaging the needle and providing for no unnecessary scratching on a record, the device being set before the record is started by moving the needle over to the point where the record stops, and adjusting the tripping lever against the sound box, and then when a record is started the above described operation causes a prompt cessation of all sound when the record is through.

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

1. In combination with a disk talking machine having a swinging sound box and a pivoted reproducer, of a support having a brake thereon, a tripping mechanism on the support to be operated by the sound box, means operatively connected with the tripping mechanism for lifting the reproducer, the tripping mechanism being adjustable in its relation to a record on the machine, and an operative connection between the tripping mechanism and the brake to cause the brake to stop the machine when the reproducer is lifted.

2. In combination with a disk talking machine having a swinging arm with a sound box thereon, and a reproducer pivoted in the sound box, of a support, a tripping mechanism mounted on the support, a lever connected with the tripping mechanism and adapted to be engaged by the sound box, a hook operated by the tripping mechanism for lifting the reproducer, the tripping mechanism being adjustable in its relation to a record on the machine, a brake on the support adapted to stop the machine, and means for operating the brake when the reproducer is lifted.

3. In combination with a disk talking machine having a swinging arm with a sound box thereon, and having a pivoted reproducer, of a support, a tripping mechanism on the support, means for manually setting the tripping mechanism,

the tripping mechanism being adapted to be engaged by the sound box, a hook adapted to engage the reproducer to lift it when the tripping mechanism is tripped, a brake, a latch to lock the brake in an inoperative position, and a releasing means for the brake to cause it to operate, and means for operating the releasing means when the tripping mechanism is tripped.

4. In combination with a disk talking machine having a swinging sound box and a pivoted reproducer, of a support, a tripping mechanism on the support to be operated by the swinging mechanism, and means connected with the tripping mechanism for lifting the reproducer.

5. In combination with a disk talking machine having a swinging arm with a pivoted reproducer thereon, of a support, a tripping mechanism on the support, a lever projecting from the tripping mechanism and adapted to be engaged by the swinging arm, a stud for manually setting the tripping mechanism, a hook connected with the tripping mechanism and to be raised when the mechanism is tripped, a spring operated brake, a latch, means for locking the brake in its inoperative position, and an operative connection between the locking means of the brake and the stud of the tripping mechanism, whereby the brake is operated when the tripping mechanism is tripped.

6. A device of the kind described comprising a support, a horizontal rod projecting therefrom, a tripping mechanism on the end of the rod, a lever projecting therefrom, a lifting hook attached to the tripping mechanism, means for manually setting the tripping mechanism, a spring operated brake on the support, a latch on the brake, means for locking the latch in its inoperative position, a lever swinging to unlock the latch and being operated by the tripping mechanism when it is tripped, in combination with a plate on the reproducer of a talking machine adapted to be attached to the reproducer of the machine and to be lifted by the lifting hook, and a swinging arm to engage the tripping lever.

7. In a device of the kind described, a support having a rod projecting therefrom with a tripping mechanism on its end, a tripping lever projecting therefrom, parallel rods projecting from the support, a latch sliding on the rods, springs on the rods to actuate the latch in one direction, a reciprocating brake on the lower rod, a pivoted lever on the upper rod and arranged to engage the latch to lock it in its inoperative position, swinging arms pivoted on the upper rod of the machine and having one end adapted to engage the lever, the other pivoted arm being operated by the tripping mechanism.

8. In a device of the kind described, a tripping mechanism comprising a casing, a spring actuated disk therein, a tripping lever having a tooth to engage the disk, a detent in the disk to receive the tooth, a stud projecting from the disk for manually setting the tripping mechanism, and a hook suspended from the disk.

9. In a device of the kind described, a tripping mechanism comprising a casing, a spring actuated disk therein having a detent in its periphery, a tripping lever pivoted on the casing and having a tooth to enter the detent of the disk, and a hook suspended on the disk.

10. In a device of the kind described, a tripping mechanism comprising a casing, a rotatable disk arranged in the casing and having a detent in its periphery, a spring to automatically operate the disk, a tripping lever having a tooth thereon for entering the detent of the disk, a stud for manually manipulating the disk to set the tripping mechanism, and a hook suspended from the disk.

11. In a device of the kind described, a support, a horizontal rod projecting therefrom, means for rotatably, perpendicularly and horizontally adjusting the rod, and a tripping mechanism on the end of the rod to be tripped by and adapted to lift up the reproducer of a talking machine.

In testimony, that I claim the foregoing, I have hereunto set my hand this 23d day of April 1907.

JOHN C. STUCKEY.

Witnesses:

WM. H. CAMFIELD,

E. A. PELL.