

May 9, 1933.

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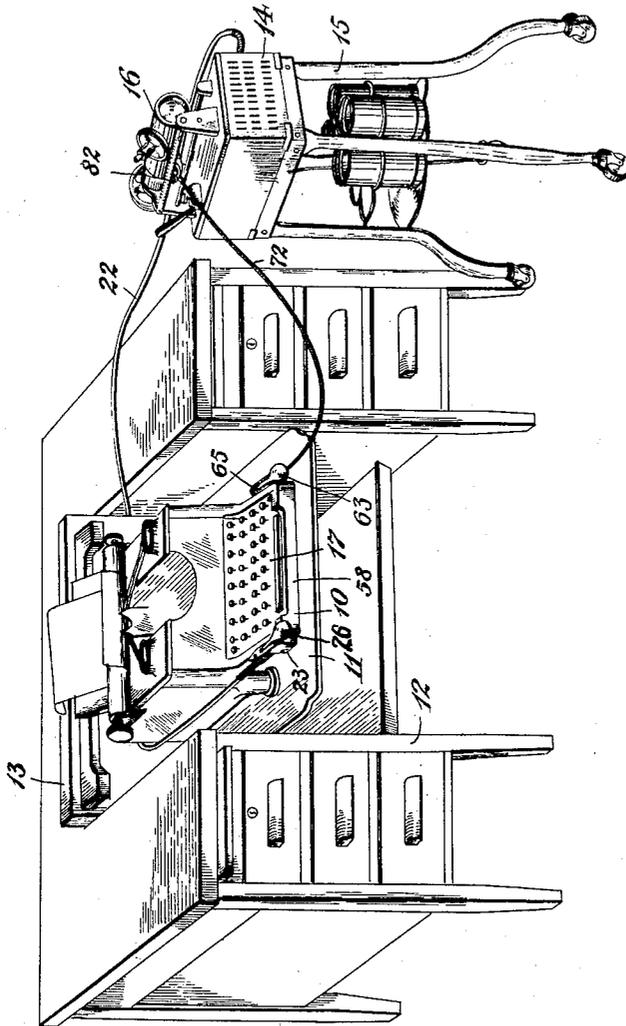
1,908,264

CONTROL DEVICE FOR PHONOGRAPHS, ETC

Filed Feb. 28, 1925

2 Sheets-Sheet 1

Fig. 1.



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Fig. 3.

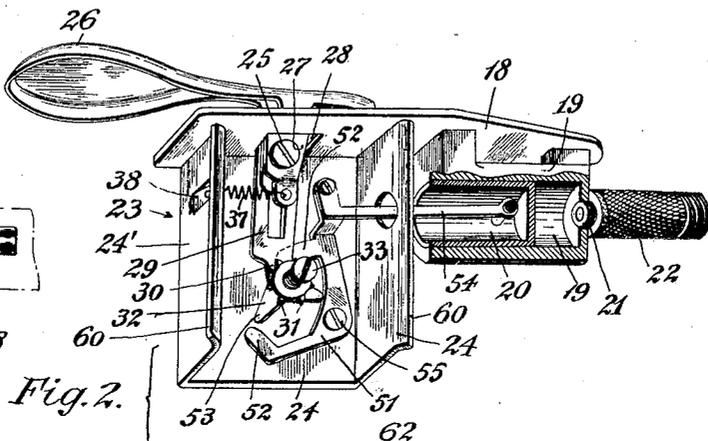
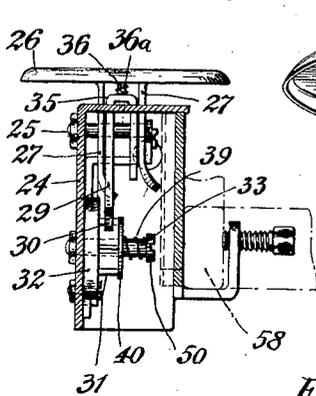


Fig. 2.

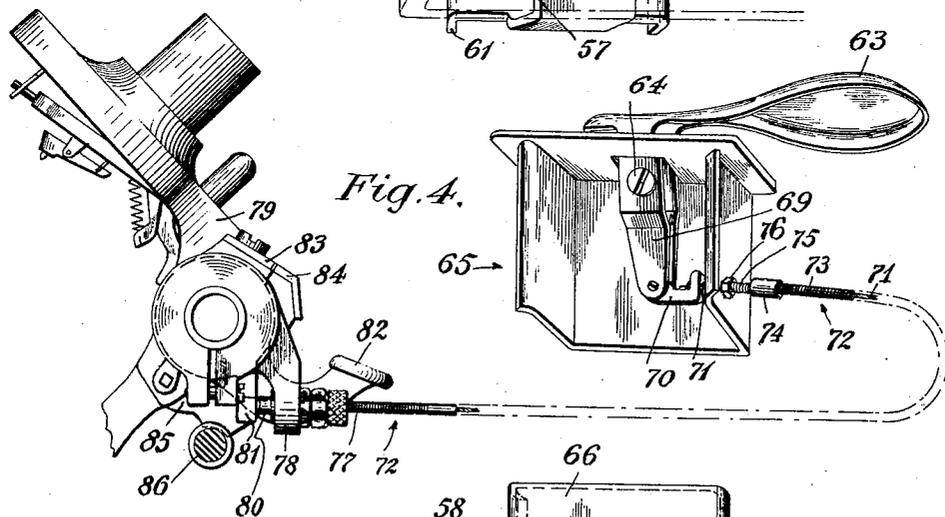
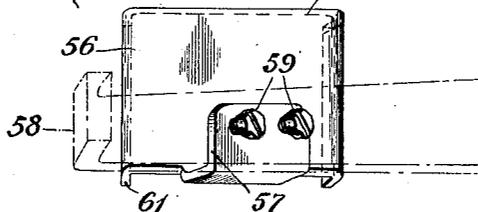
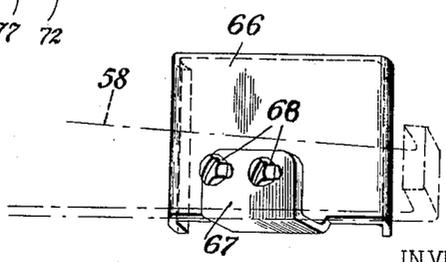
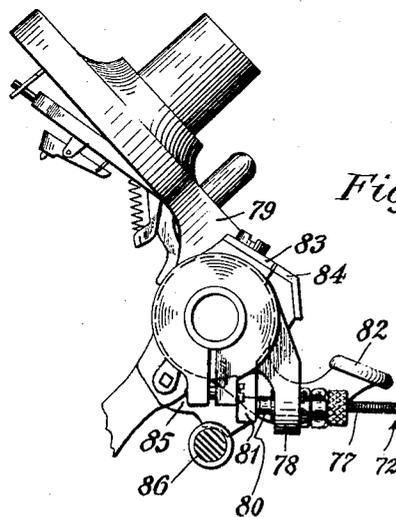


Fig. 4.



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## UNITED STATES PATENT OFFICE

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## CONTROL DEVICE FOR PHONOGRAPHS, ETC.

Application filed February 28, 1925. Serial No. 12,438.

This invention relates to office equipment, and more particularly to attachments for typewriters and commercial phonographs, whereby the latter may be controlled from the former.

In the use of the commercial phonograph for recording and subsequently reproducing dictation which is to be transcribed by a typist, the phonograph is usually placed at the side of a typewriter desk, so that the sound reproduced may be conveyed to the typist by a suitable sound-transmitting tube and will be in accessible position to enable the typist to manipulate the phonograph, to remove and replace records thereon, and do such other work as may be necessary. In spite of the close proximity of the phonograph to the typist, it is somewhat annoying and time-consuming for the typist to turn away from the typewriter to manipulate the phonograph.

Accordingly, the present invention provides means whereby the phonograph may be controlled from the typewriter without making it necessary for the typist to remove her hands from the key-board of the machine.

An object of this invention is to provide means adapted to be mounted on a typewriter for controlling a phonograph, which means may be disconnected from the typewriter by a simple operation to allow the typewriter desk to be closed.

Another object is to provide an improved connection between an operating device mounted on a typewriter and the part on the phonograph which it is adapted to operate.

And a further object is to provide a phonograph operating device by which a rocking operating movement of an operating lever will cause a reciprocating movement of another part to operate a controlling device.

More generally stated, an object of this invention is to provide improved remote controlled devices for commercial phonographs which are simple in construction, durable in operation, conveniently used and which can be made at relatively small costs.

In the accompanying drawings which il-

lustrate one form of the invention as exemplary thereof—

Figure 1 is a perspective view of a typewriter desk, showing the typewriter thereon, a commercial phonograph at the side of the desk and the remote controlled devices of the present invention in their operative positions upon the typewriter and the commercial phonograph.

Fig. 2 is a perspective view, partly in section of one of the remote-control devices showing it disassembled with the operating part removed from the part secured to the typewriter.

Fig. 3 is a transverse section of the device shown in Fig. 2 with the parts connected.

Fig. 4 is a schematic view of another remote-control device of the present invention for performing another function, showing the operating part removed from the part secured to the typewriter frame, and showing the connection between the removable part and the phonograph, this device, in the form shown in the drawings, being adapted to operate the back-space mechanism of the phonograph.

In these drawings, the typewriting machine 10 is mounted upon a table 11 of a desk 12, which is so constructed, that the table 11 tilts backwardly while the cover 13 swings over the opening through which the typewriter extends when in use.

The commercial phonograph 14 is usually provided with a stand 15 for supporting it on the floor at a height substantially equal to the height of the typewriter desk 12. The stand 15 may be placed in any desired position with respect to the typewriter desk, according to the convenience of the operator. But, it usually is arranged as shown in the drawings, so that the typist may easily reach the machine to remove and replace the record 16 or to otherwise manually control the mechanism of the phonograph, such as the stop-and-start mechanism, back-space mechanism, etc.

Now, according to this invention, in order that the typist may control the stop-and-start mechanism and back-space mechanism and other mechanisms if desired, of the

phonograph, without turning from the typewriter or removing her hand from the keyboard 17 thereof, there is provided manually operable devices adapted to be connected to the typewriter frame and which connect with and operate mechanism of the phonograph 14.

One of these devices is shown in Figs. 2 and 3. It is adapted to operate the clutch mechanism of the phonograph to stop-and-start the same while the transcribing is being accomplished. This device comprises a plate 18 which has secured thereto a cylinder 19 containing a piston 20 and having an open end adapted to receive a nozzle 21 of a flexible hose 22, which reaches to a suitable connection on the phonograph 14. When the piston 20 is moved to the right, as seen in Fig. 2, the air in the cylinder 19 is expelled and forced through the tube 22. At the phonograph end of this tube, the air impinges against a piston which operates the clutch mechanism to make it effective. When the clutch mechanism is to be made ineffective to stop the phonograph, the piston 20 is moved in the opposite direction, thus withdrawing the air from the piston in the phonograph, and moving the clutch to inoperative position.

The plate 18 preferably forms part of a housing 23, which has a side 24 in which is mounted a bolt 25 carrying an operating lever 26. This lever is made large enough to be engaged by the heel of the typist's hand and has a pair of depending ears 27 pivotally engaging the bolt 25 and extending through a hole 28 in the plate 18, provided for this purpose. Between the ears 27 there is loosely mounted upon the bolt 25 for vertical movement, a pawl 29 having a single tooth 30 adapted to engage ratchet teeth 31 on a cam wheel 32 pivotally mounted on a bolt 33 secured in the side plate 24 of the frame. The pawl 29 is connected to the lever 26 for rotation therewith by means of one of the ears 27 of the operating lever passing into a slot provided in the pawl 29. A spring 36 located between a bent portion 35 and the lever 26 and guided on a pin 36a in the lever causes the pawl to be normally pressed into operative position to engage the teeth 31.

When the key-lever is depressed, the pawl 29 is rocked with it, and this causes the cam wheel 32 to receive one increment of movement, and when released, the lever 26 returns to normal position under the influence of a spring 37 fastened at one end in one of the ears 27 of the lever 26 and having its other end fastened in an ear 38 bent inwardly from the housing 23. During the rising movement of the key, the tooth 30 of the pawl 29 rides idly over the ratchet teeth 31 of the cam wheel 32 because the spring 36 between the pawl and the lever 26 yields. The cam wheel 32 is not dragged backward-

ly by this return movement of the pawl 29, because it is frictionally held against movement by the pressure of a spring 39 encircling the rod 33 and located between a washer 40 of the cam wheel and a head 50 on the bolt 33.

The cam wheel 32 is caused to positively operate and control the movement of the piston 20 by means of a follower 51, having a pair of arms 52, one of which is always at the top portion of one of the cams 53 thereon, while the other arm is always at the bottom portion of opposite cams 53. The follower 51 is connected to the piston 20 by a pitman 54, and is pivotally mounted on a bolt 55 in the end 24 of the housing 23. When the cam wheel 32 is moved step-by-step by the repeated operations of the lever 26, its cams 53 first move the follower in one direction and then another; one operation moves the follower so as to move the piston 20 to the right as seen in Fig. 2, while the subsequent operation moves the piston to the left, as seen in Fig. 2.

In operation, the typist depresses the lever 26 to listen to the dictation of the phonograph and begins to typewrite. When the dictation is transmitted to her faster than she can write, she again depresses the lever 26 to stop the phonograph, while she continues typewriting what she has already heard.

The housing 23 which as above stated comprises a top plate 18 and a side plate 24 also has end plates 24' within which is embraced the operating mechanism above described. This housing has a cover-plate 56 secured to it and having a bracket 57 formed integral therewith adapted to embrace the frame 58 of the typewriter adjacent the key-board 17. The bracket 57 and cover-plate 56 may be secured to the frame by means of screws 59 which when tightened, impinge against the inside of the surface of the frame 58 and firmly hold the plate to the frame.

It is preferable that the cover-plate 56 be detachably connected to the housing 23, so that at the end of the day, or at any time when the operator desires to close her desk by bringing the cover 13 over the opening in which the typewriter is located, the housing 23, with its connected parts and operating lever 26, may be separated from the cover-plate 56 to be placed upon the phonograph. The tube 22, thus being out of the way, allows the desk to be closed.

To enable this to be done easily and yet to provide a secure connection between the housing 23 and the cover-plate 56, the edges 60 of the ends 24' of the housing 23 are bent outwardly while the cover-plate 56 is provided with inwardly bent edges 61 between which the outwardly bent edges 60 of the housing may slide, see Figs. 2 and 3. When the housing 23 is slid onto the cover-plate

56, the top-plate 18 rests upon the upper surface 62 of the cover-plate.

To operate the back-space mechanism of the phonograph from the key-board 17 of the typewriter, there is provided another lever 63, similar to the lever 26 above described, which is pivotally mounted on a bolt 64 secured in a housing 65, similar to the housing 23. This housing 65 also has a separable cover-plate 66 and a bracket 67 with screws 68 by means of which the bracket may be secured to the frame 58 of the typewriter at the side opposite to that at which the lever 26 and housing 23 are mounted.

The lever 63 is provided with depending arms 69 pivotally carrying between them a head 70 secured to the internal element 71 of a Bowden-wire 72 whose outer element 73 is secured to a sleeve 74 bolted to the end of the housing 65 by a screw 75 and a nut 76.

When the lever 63 is depressed, the inner element 71 of the Bowden-wire is moved relatively to the outer element by reason of its connection to the arms 69 of the lever 63 through the block 70. And, when the lever 63 is released and allowed to rise, the inner element 71 of the Bowden-wire 72 again moves back to its normal position.

At its other end, the Bowden-wire 72 has its outer element 77 secured to a bracket 78, fixed to the sound-box carriage 79 of the phonograph, while its inner element is provided with a plunger 80 in position to engage an arm 81, secured to the back-space key 82 of the phonograph, which is provided on the machine for manual operation, and which it would otherwise be necessary for the typist to operate directly had not the provision above described been made.

The construction of the back-space mechanism of the phonograph forms no part of the present invention, but is fully disclosed in the patent to Macdonald #1,030,740 June 26, 1912, to which reference should be had for a more complete understanding of the same. Suffice it to say, that the depression of the back-space key-lever 82 moves a pawl 83 into engagement with a stationary rack 84, and through a wedging action, forces the carriage backwardly a predetermined extent, having previously raised the feed-nut 85 from the feed-screw 86 to permit this movement of the carriage.

It will thus be seen that the present invention provides simple and convenient means whereby the operator may control the phonograph without removing her hands from the key-board 17 of the typewriter 10, and that such means may be disconnected from the typewriter frame at will for any purpose particularly to allow the typewriter desk to be closed and to allow the phonograph to be moved to another desk if desired. It should also be noted that the levers 26 and 63 are so shaped and positioned, that the

heels of the typist's hands may be brought to bear directly upon them when it is desired to operate them.

It will also be noted that since the back-space key-lever 82 may be manually operated by direct contact with the typist's fingers, this mechanism may be controlled selectively directly from the phonograph or from a distance therefrom.

Having described the invention, what is claimed as new, and for which it is desired to obtain Letters Patent, is:

1. A remote control device for phonographs comprising manually-operable means, supporting means therefor adapted to be secured to a typewriter frame, and means for separably mounting the manually-operable means on the said supporting means adapted to permit of the removal thereof without the use of tools.

2. A remote control device for phonographs comprising manually-operable means; a housing for said means; and a clamp separably connected to said housing and adapted to be secured to a typewriter frame, said clamp having a slip joint connection with said housing.

3. A remote control device for phonographs comprising manually-operable means; a support therefor; a bracket removably connected to said support by means of a slip joint; and clamping means carried by said bracket for securing said bracket to a typewriter frame.

4. A remote control device for phonographs comprising stop-and-start mechanism therefor; a manually-operable part located at a distance from the phonograph and having a pneumatic piston; means for operably connecting said pneumatic piston to the clutch mechanism of the phonograph; and means operated by the successive manipulation of said manually-operable part for alternately moving said pneumatic piston in opposite directions to control starting and stopping the phonograph.

5. A remote control device for phonographs comprising manually operable means located at a point remote from the phonograph; power transmitting means connected to said manually operable means and extending to the phonograph; a support adapted to be detachably secured to a typewriter frame; and means for detachably connecting said manually operable means and power transmitting means to said support, said last-named means permitting said manually operable means to be removed by hand without the use of tools.

6. A remote control device for phonographs comprising in combination, a pneumatic cylinder, a flexible tube connected to said cylinder at one end and at the other end secured to a pneumatic actuating device on the phonograph; a bracket; means for se-

curing said bracket to a support remote from the phonograph; and means for detachably mounting said cylinder on said bracket.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 24th day of February, 1925.

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JOHN E. RENHOLDT.

5 7. A remote control device for phonographs comprising, in combination, a cylinder and piston; power transmitting means connected to said cylinder and extending to said phonograph; a finger-piece; and means  
10 operated by the finger-piece for causing said piston to be moved alternatively inwardly of and outwardly from the cylinder upon each successive manipulation of the finger-piece.

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15 8. A device of the nature described comprising a cylinder and piston; a finger-piece; means positively operated by the finger-piece for causing the piston to be locked in its innermost position in said cylinder; and  
20 means also positively operated by said finger-piece for releasing said lock and moving said piston to its outermost position in said cylinder.

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25 9. A device of the nature described comprising a cylinder and piston; a piston having a stop position and also a start position with respect to said cylinder; a finger-piece; means positively operated by the finger-piece for locking said piston in start position; and  
30 means also positively operated by said finger-piece for returning said piston to its stop position.

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35 10. A device of the nature described comprising a cylinder and piston; a lever for controlling the movement of the piston; a cam wheel for operating said lever; and a  
finger-piece for operating said cam wheel.

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40 11. A device of the nature described comprising a cylinder and a piston; a lever controlling the movement of the piston; a cam operating said lever and movable step-by-step to alternately cause the position of the  
45 piston to be shifted from one extreme to the other in said cylinder; a finger-piece; and means operated by the finger-piece for moving said cam step-by-step.

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50 12. A remote control device for phonographs comprising, in combination, a finger-piece; a device in which the finger-piece is movably mounted; a bracket adapted to be secured to a supporting means remote  
from the phonograph; and a sliding connection between said bracket and said device for supporting the finger-piece.

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55 13. A remote control device for phonographs, comprising a manually operated device; and supporting means for said device adapted to be removably secured in a rigid  
60 manner to a typewriting machine frame and having a slip connection with said manually operated device whereby the latter may be readily attached to and removed from the supporting means, and when attached to  
65 said supporting means be held in rigid operative relation to the keyboard of said typewriting machine.

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