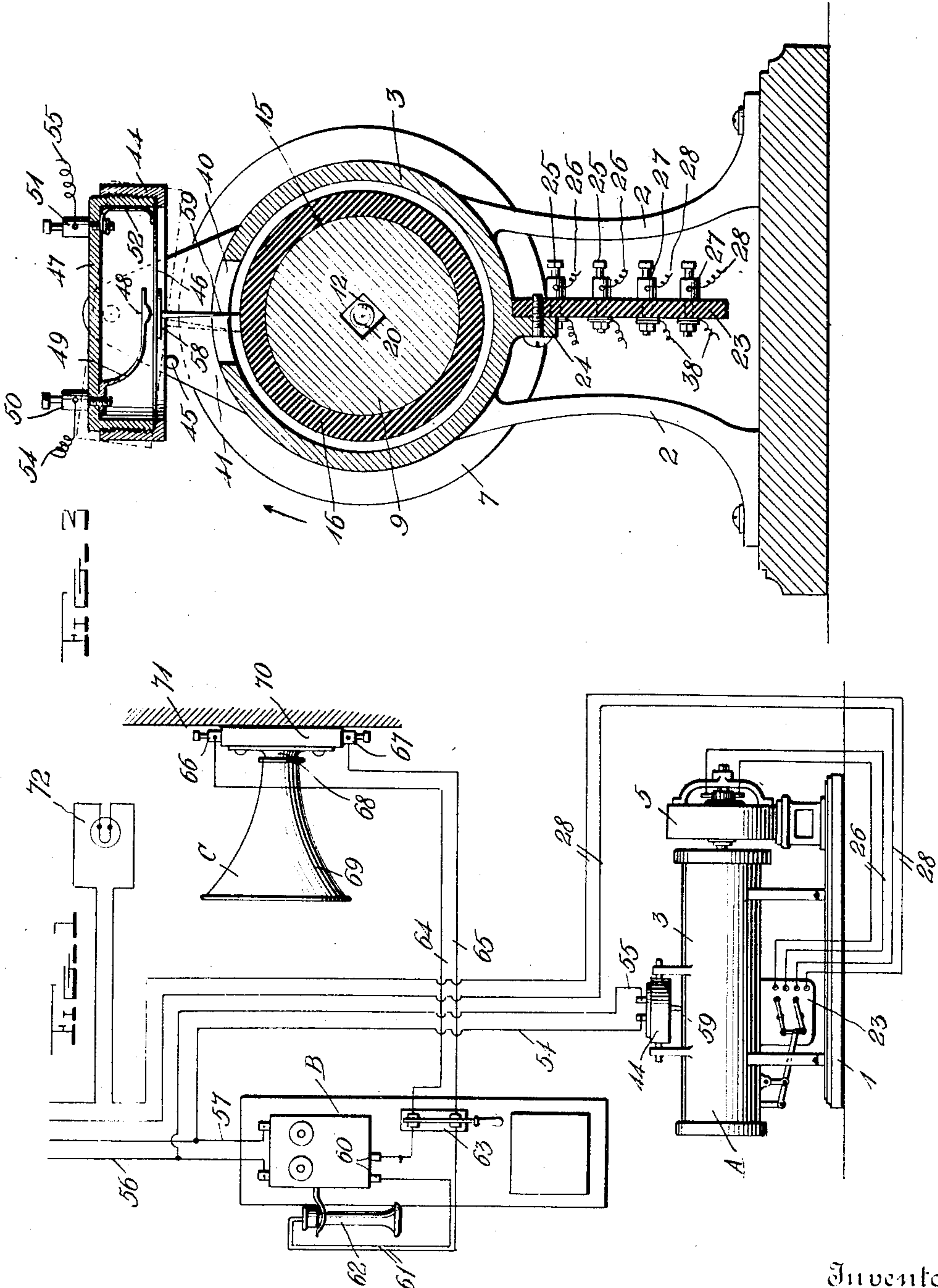


A. HATCHETT.
 PHONOGRAPH ATTACHMENT FOR TELEPHONES.
 APPLICATION FILED NOV. 4, 1907.

898,642.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.



Witnesses
 C. H. Giesbauer.

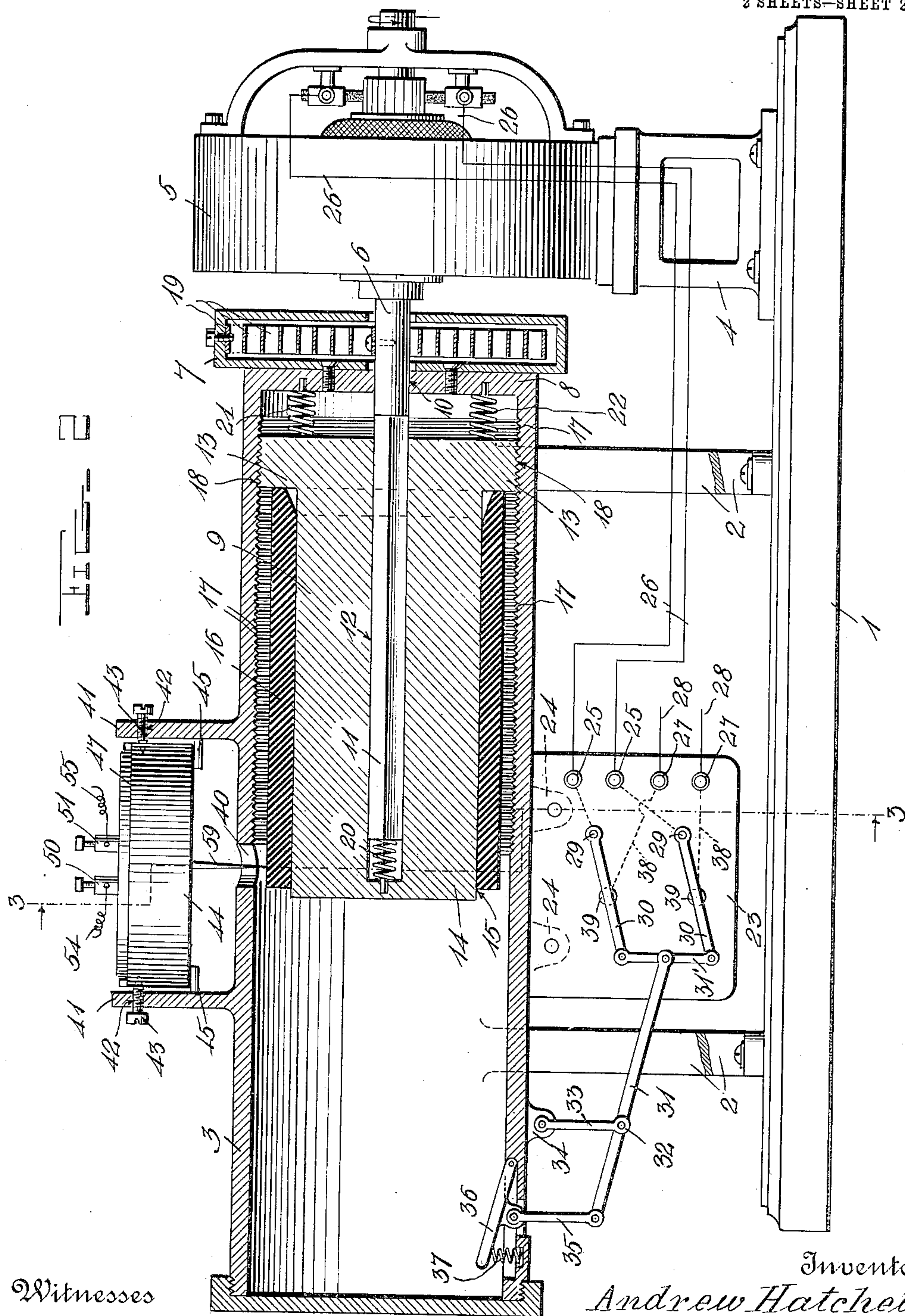
Inventor
 Andrew Hatchett
 By *A. B. Wilson & Co.*
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UNITED STATES PATENT OFFICE

ANDREW HATCHETT, OF LOUISVILLE, KENTUCKY.

PHONOGRAPH ATTACHMENT FOR TELEPHONES.

No. 898,642.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed November 4, 1907. Serial No. 400,625.

To all whom it may concern:

Be it known that I, ANDREW HATCHETT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Phonograph Attachments for Telephones; and I do 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.

This invention relates to attachments to telephones, and has for its object to provide a device which will automatically deliver a message to a telephone when its subscriber is absent.

Another object is to provide a device of this kind by which the operator at the central telephone station may start to operating a phonograph which will deliver a message to the telephone at one station, as for instance, the home of a subscriber, which message will be received by a person at another station.

Another object is to provide a device which will magnify the sound received by the ordinary telephone, and which may be used in combination with the talking device mentioned.

Herein is described an embodiment of my invention which illustrates the essential features of my invention. In this description I have mentioned minute details, but I do not limit myself to these, but reserve the right to make such changes in the details of construction as fall within the spirit and scope of the invention.

In the annexed drawing, forming a part of this specification and in which like reference characters refer to like parts throughout the several figures,—Figure 1 shows my complete device in combination with an ordinary wall telephone, the electrical connections being shown diagrammatically; Fig. 2 is a longitudinal section through the phonograph attachment, the motor being shown in elevation; Fig. 3 is a cross sectional view shown on the line 3—3 of Fig. 2.

As shown, my device consists of a phonograph A, an ordinary telephone B, and a sound magnifying receiver, each of which will be explained below, and all electrically connected with each other and with the central telephone station, as shown.

The phonograph A is shown in detail in Figs. 2 and 3, and comprises a base 1 on which is supported by means of pairs of legs 2, 2, an outer supporting cylinder 3, and a pair of legs 4 on which is supported a motor 5. This motor may be wound for either direct or alternating current, is of usual construction and therefore not fully described, and is provided with bearings for a shaft 6 to support its rotating parts. Said shaft is continued through a spring casing 7, the closed end 8 of the outer cylinder into an inner rotating cylinder 9. Said shaft 6 has a bearing, as at 10, in the end of the outer cylinder, and has a squared reduced portion 11 slidably and nonrotatably receiving a similarly squared axial opening 12 in the inner cylinder 9. The inner cylinder 9 is provided with a threaded flange portion 13 and a reduced portion 14, forming a cylindrical receiving portion 15 for the record cylinder 16. The outer cylinder 3 for more than half its length at the motor end is provided interiorly with screw threads 17, cooperating with threads 18 on the outside of the flanged portion 13.

Within the casing 7 and surrounding the shaft 6 is a coiled spring 19 rigidly connected to said shaft 6, and the periphery of said casing 7. This spring is wound in opposition to the motor 5 and is wound up when the motor rotates the cylinder 9. This rotation causes the cylinder 9 to travel away from the motor until the motor current is cut off, when the spring 19 unwinds, rotating the inner cylinder in the opposite direction, moving the whole toward the motor until the motion is limited by the springs 20, 21 and 22.

An automatic switch may be provided to inform central to cut off the current from the motor when the outward limit of movement of the inner cylinder 9 is reached. This automatic switch is mounted on a base 23 to the lugs 24 at the bottom of the outer cylinder 3. This base is provided with binding screws 25 to receive wires 26 from the motor 5, and with binding screws 27, 27 to receive the motor line wires 28, 28. Connected by concealed wires with the screws 25, 25, are the pivot points 29, to which are pivoted the contact strips 30, pivotally connected and held in parallelism by an insulating connecting strip 31, to an intermediate point of which is connected a lever 31 pivoted as at 32 to a support 33, pivoted to a lug 34 on the

bottom of the outer cylinder 3. To the end of the lever 31 is a link 35 connecting a trigger 36, pivoted at the bottom of the end of the cylinder 3. A spring 37 holds said trigger yieldably at its upwardly inclined position. The screws 27 are connected by concealed wires 38 with the contacts 39. As shown in Fig. 2, the strips 30 are in contact with the contacts 39, completing the circuit between the motor line wires and the phonograph. When the record cylinder 16 reaches its outward limit of movement, it presses downwardly the trigger 36, which by means of the lever 31 and link 35 shifts the strips 30 away from the contacts 29, thus breaking the motor circuit and causing it to extinguish a glow-lamp 72 at the central office, thus informing central to cut off the current from the motor circuit. If central does not cut off the current immediately, the cylinder 9 will leave the trigger 36 by action of the spring 19, in which case, the current will be restored to the motor. This operation will repeat until central cuts the current off the motor circuit, and the flickering of the lamp caused by the making and breaking of the circuit will attract the attention of central.

About midway of the upper part of the outer cylinder 3 is an opening 40 elongated in shape in a direction transverse to the longitudinal length of the cylinder. On each side of said opening are spaced lugs 41, perforated as at 42 for the reception of pins 43, projecting laterally from the transmitter case 44. On the inside of said spaced lugs are inward projections 45, adapted to limit the pivotal movement of said transmitter case in one direction. Within said transmitter case is clamped a diaphragm 46 by means of an inverted cup 47, screwthreaded into the diaphragm case 44. Said cup contains there-within a contact 48, mounted on the spring strip 49 connected to the binding screw 50.

Another binding screw 51 has electrical connection with the diaphragm 46, as by means of a wire 52. Said binding screws 50 and 51 receive wires 54 and 55, which connect with the line wires 56 and 57 of the telephone B.

Fastened to the lower part of said diaphragm 46, is a needle plate 58, to which is attached the diaphragm needle 59. The diaphragm box 44 is thus pivoted in order that when the record cylinder 16 is rotated in the direction of the arrow shown in Fig. 3, the record cylinder will tend to move the needle 59 in the direction of said arrow and hold the diaphragm box against the projection 45, and thus vibrate the diaphragm 46.

When the record cylinder is rotated backward in the direction reverse to said arrow, it will tend to carry the needle backward to a position shown by the dotted lines, at the same time moving the diaphragm box away from contact with the lugs 45, thus permit-

ting the needle 50 to rest loosely on the record cylinder without injury to either.

The telephone B is provided with binding screws 60, as is usual with telephones, to receive the connections 61 of the telephone receiver 62. In a series with said connections is a knife switch 63, mounted on the base of the telephone, as shown. Connected to each terminal of said knife switch are the wires 64, 65, connecting the same to binding screws 66, 67 on a transmitter 68. This transmitter is of the usual watchcase form, and is provided with a sound magnifying horn 69, and is mounted on a base of non-conducting material 70, which may be attached to a wall or other support as 71. The telephone wires 56 and 57 are connected to the usual binding posts of the telephone B.

The operation of my device is as follows: When a person desires to speak to the subscriber using this device, he calls up the central office in the usual way and the operator at central attempts to call up the subscriber. On receiving no response, the operator connects the telephone of said person with the telephone of the subscriber and operates the switch, sending a current over the motor line wires 28, 28. This current operates the motor 5, which, in turn, rotates the rotating parts of the phonograph in the direction indicated by the arrow of Fig. 3, thus causing the telephone to transmit over the line wires 56, 57, by means of the transmitter 44 any message which has previously been talked in the phonograph. This message may be received by said person by means of the receiver 62 in the usual manner, but if the sound transmitted is not loud enough, said person opens the knife switch 63, thus throwing the receiver 68 in series with the receiver 62. The receiver 68, by means of the horn 69, magnifies the sound so it can be easily understood by the said person. When all of the message has been received, the inner cylinder 9 has reached its outer limit of movement, and the trigger 36 is tripped, breaking the electrical connection between the strips 30 and the contacts 39, thus informing central to cut off the current from the motor 5. After the current is thus cut off the coiled spring 19 reacts and rotates the cylinders 9 and 16 backwardly until the position as shown in Fig. 2 is reached, the inward movement of the cylinder 9 being arrested by the springs 20 and 21, thus preventing any shock to the moving parts.

I have shown my device provided with the sound magnifying receiver 68 and the automatic switch designated by reference characters 25 and 36. However, I do not wish to limit myself to the use of these, as the same may be omitted if preferred; neither do I wish to limit myself to the specific form of transmitter shown, as any of the usual forms may be substituted.

Other details of construction can be changed without departing from the scope of the invention.

What I claim is:—

5 1. In combination, a telephone line and a transmitter for the same, a phonographic record to vibrate said transmitter, a motor to move said record in one direction, and a spring to return said record to its original
10 position.

2. In combination, supporting parts, a phonographic record adapted to rotate in two directions, both forward and backward, a diaphragm box pivoted so that its needle
15 will contact said record when the same is rotating in one direction, so that the diaphragm will be vibrated, said box being so pivoted that when the record is rotated in the other
20 direction the needle will pass lightly over said record.

3. In combination, a transmitter, a connecting line, a plurality of receivers, one of said receivers being adapted to magnify sound and being adapted to be thrown in or

out of circuit with the other at will, a phono- 25 graphic record to vibrate said transmitter, a motor to move said record in one direction and a spring to move it in the other, a transmission line to operate said motor, and an automatic switch to stop said motor when 30 one limit of movement of said cylinder is reached.

4. In a device of the class described, a motor, having an angular shaft projecting therefrom, a phonograph having an inter- 35 nally threaded cylindrical outer casing, and an inner cylinder having an outwardly projecting threaded flange to engage the threads of said casing, and having an angularly, longitudinally extending opening adapted to 40 snugly receive said shaft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREW HATCHETT.

Witnesses:

H. D. ROBB, Jr.

HARRY B. IRVING.