

No. 804,431.

PATENTED NOV. 14, 1905.

E. A. REYNOLDS.
TELEPHONE INSTRUMENT.

APPLICATION FILED AUG. 19, 1904.

2 SHEETS—SHEET 1.

Fig. 2

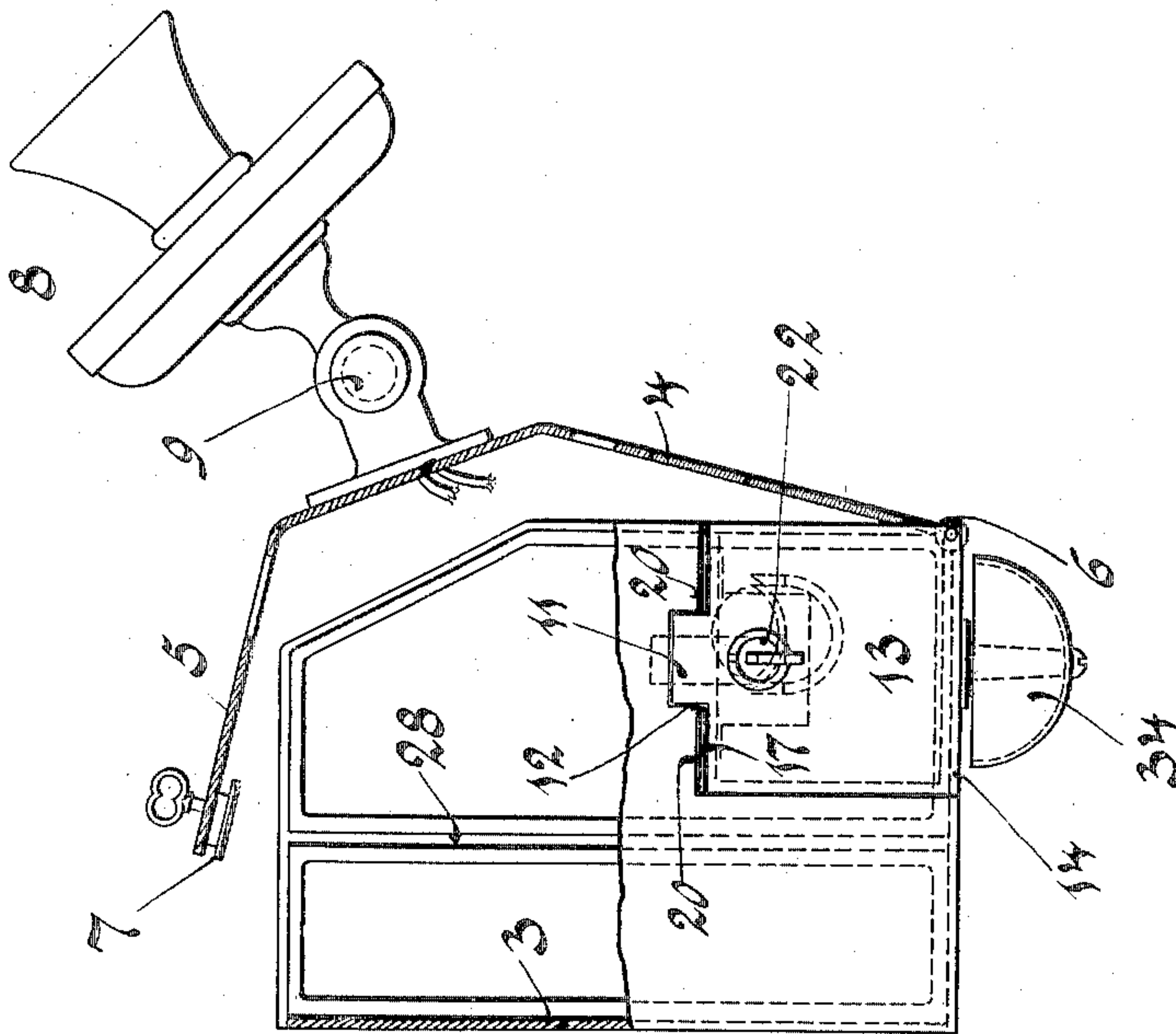
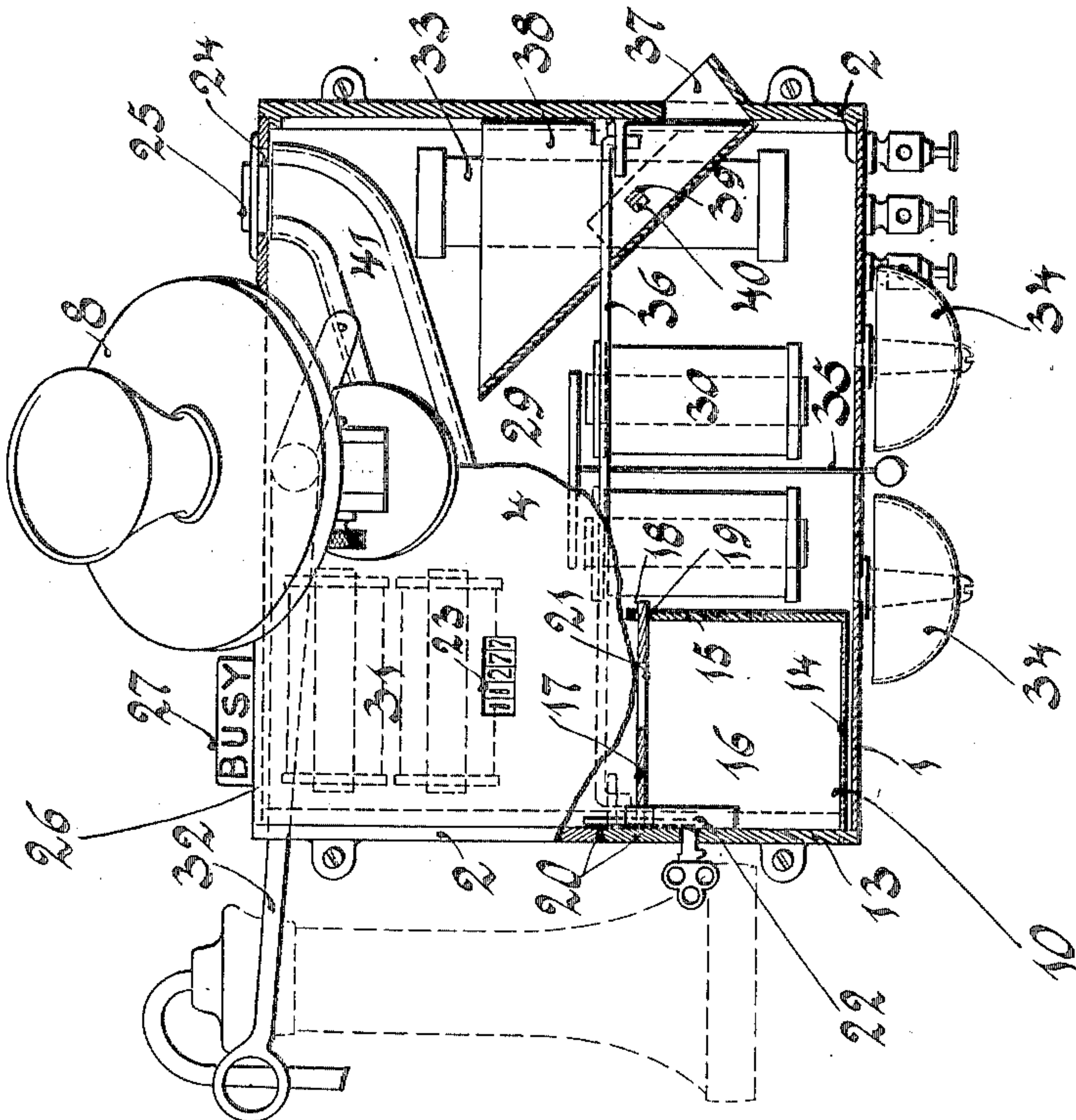


Fig. 1



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2 SHEETS—SHEET 2.

Fig. 5

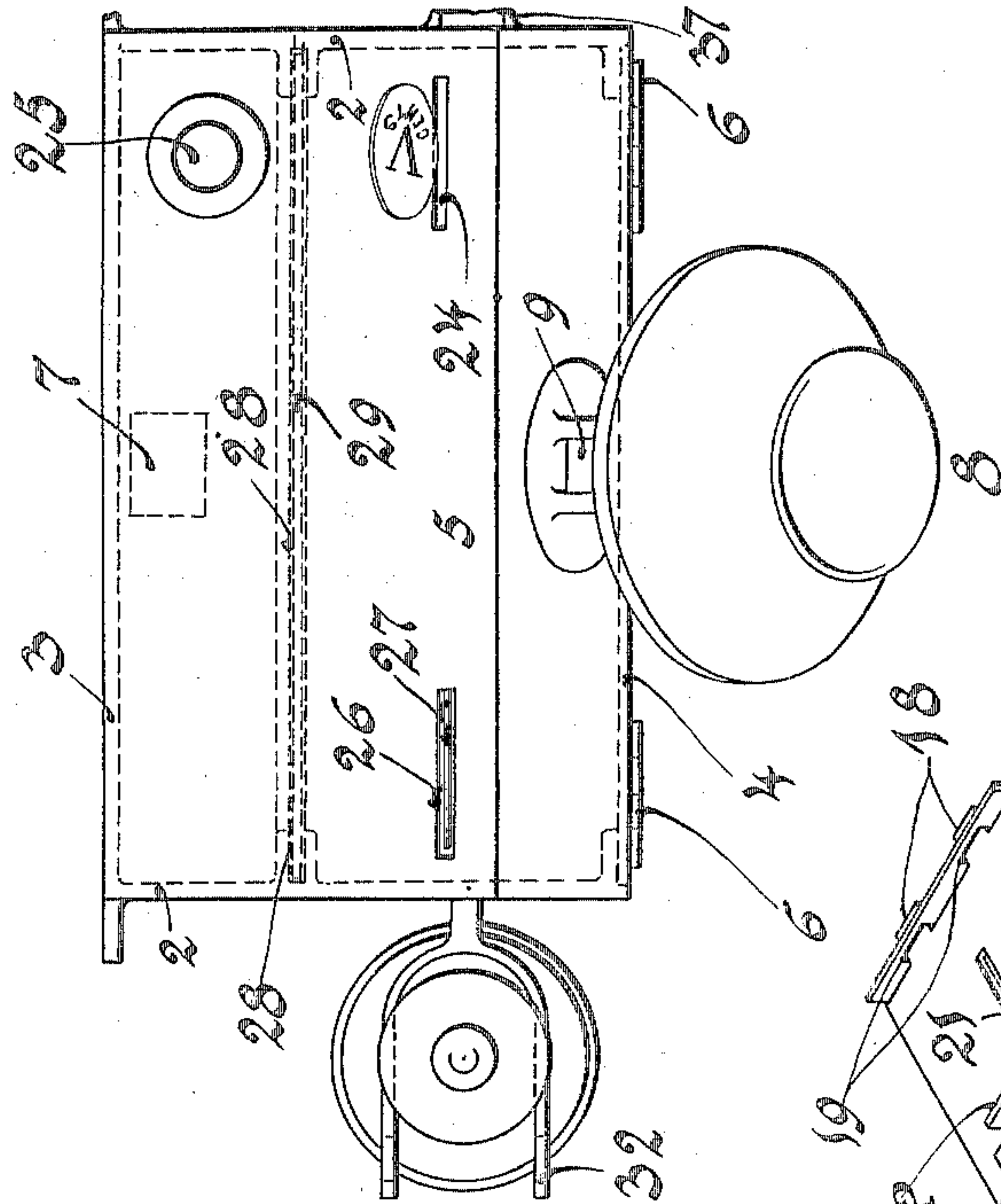


Fig. 6

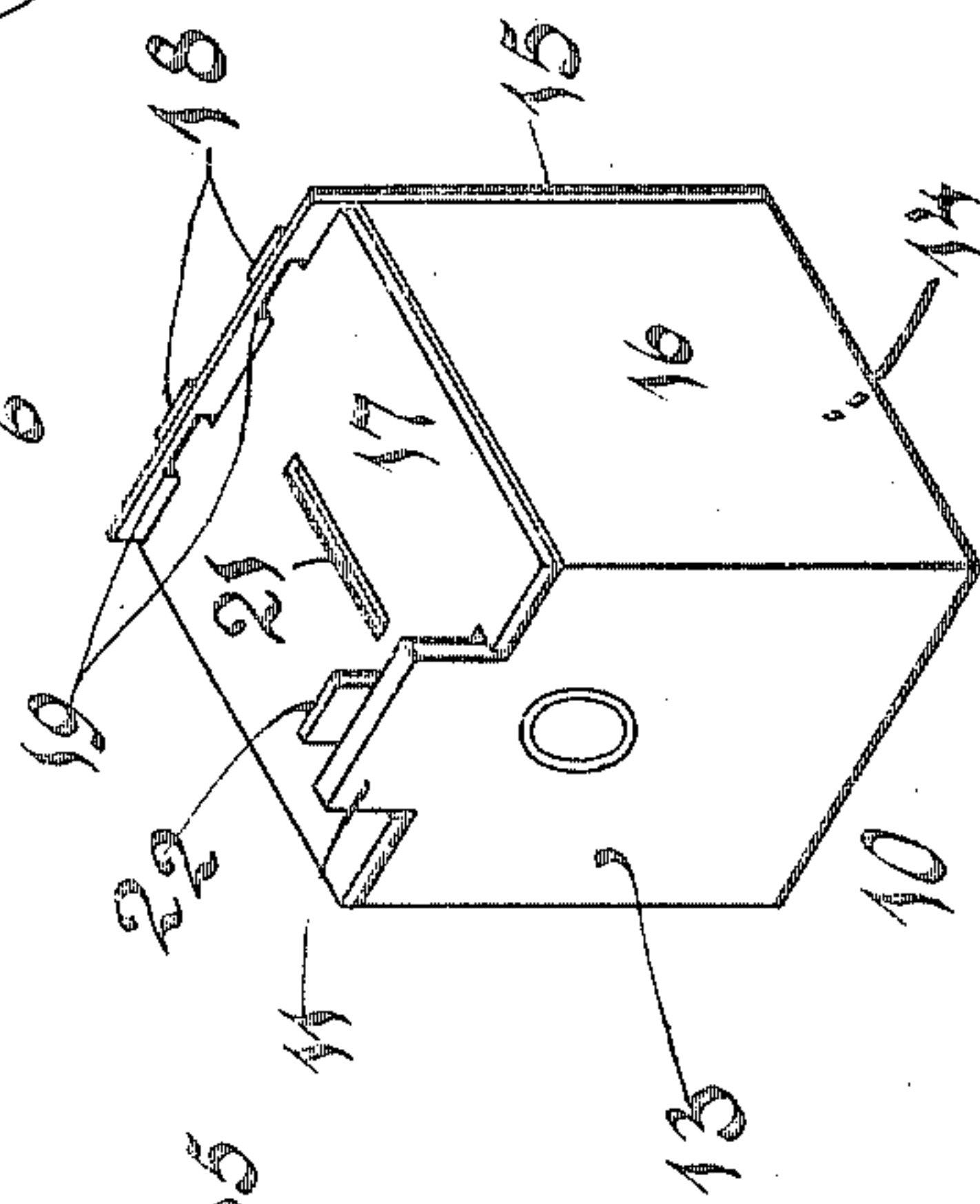


Fig. 4

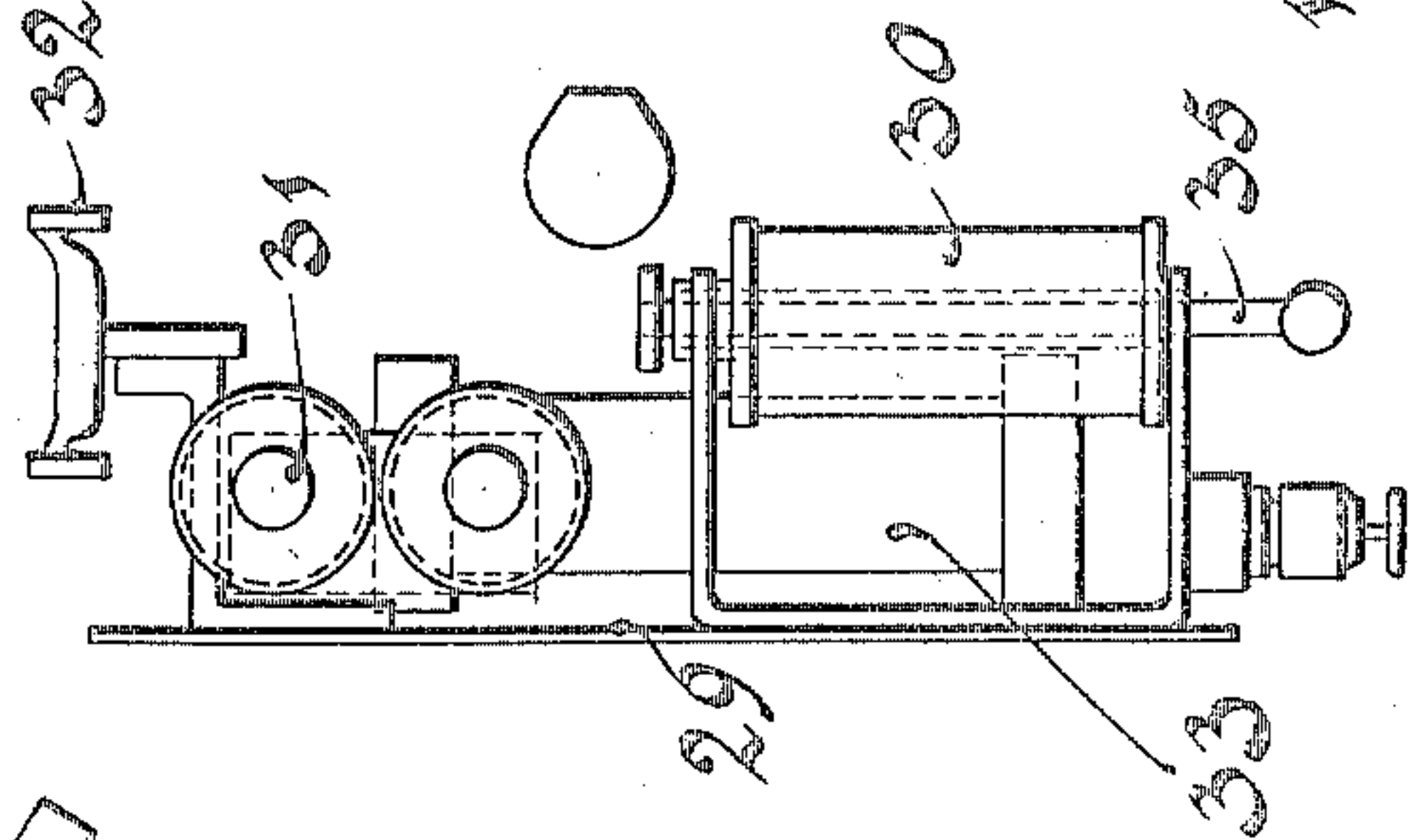
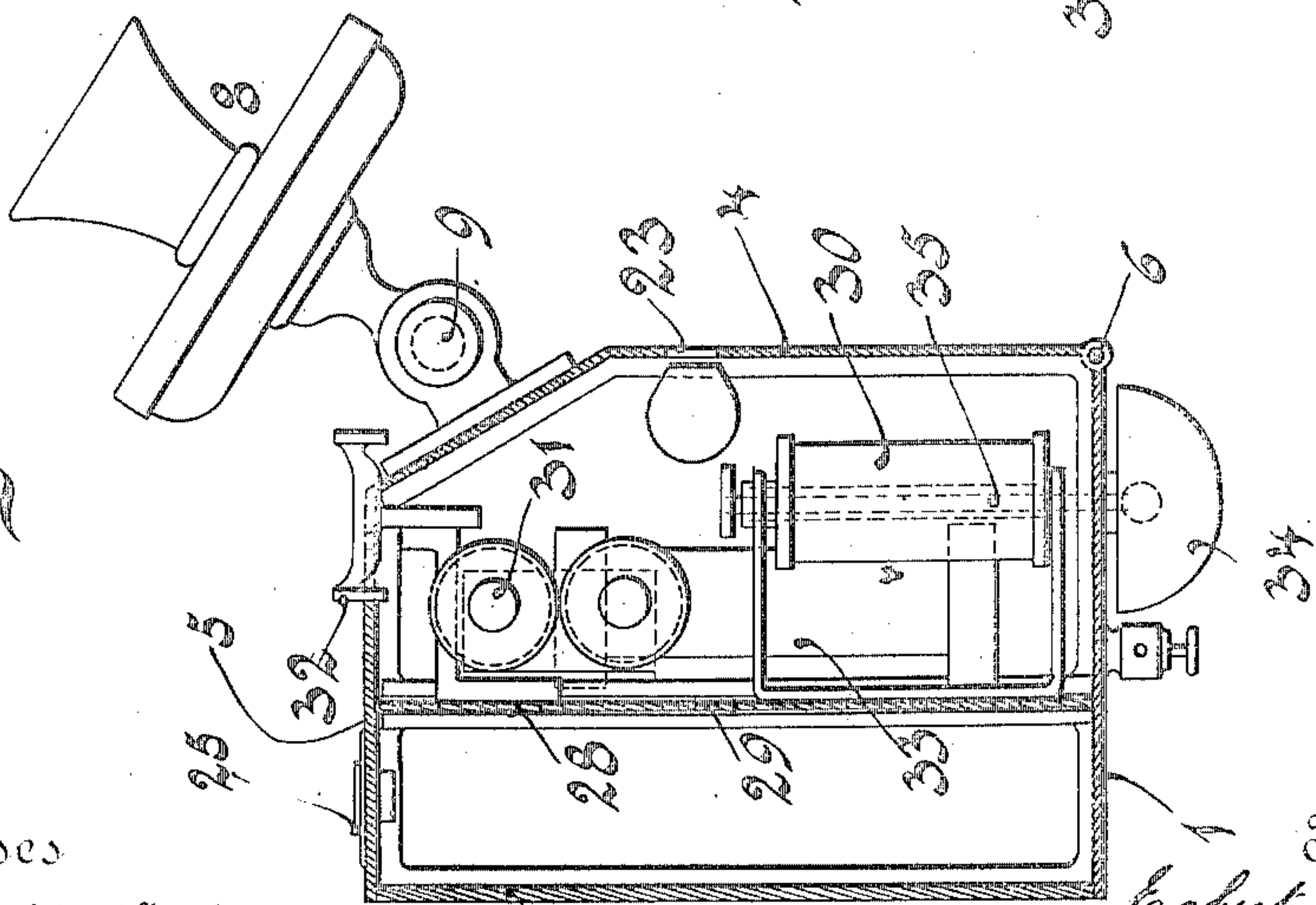


Fig. 3



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UNITED STATES PATENT OFFICE.

EGBERT A. REYNOLDS, OF NEW YORK, N. Y., ASSIGNOR TO IRON TELEPHONE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF SOUTH DAKOTA.

TELEPHONE INSTRUMENT.

No. 804,431.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed August 19, 1904. Serial No. 221,364.

To all whom it may concern

Be it known that I, EGBERT A. REYNOLDS, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Telephone Instruments, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in telephone instruments, and particularly in cases or boxes therefor.

My invention consists in an improved form of box or case adapted to contain all the apparatus necessary for a complete coin-controlled party-line telephone instrument. Specifically I provide a metallic case having fixed back, sides, and bottom, and hinged front and top, said case having a removable diaphragm so located as to divide the interior valve into two parts and arranged as a complete support for the ringer-coils, the privacy device, the telephone hook and switch, the induction-coil, and other elements of the instrument, said diaphragm arranged to slide in a suitable guideway, so that it may be readily removed by the mere opening of the hinged portion of the case and upon removal to carry with it all the said elements, whereby they may be readily removed or replaced, or whereby, if it should be desired, an entire new telephone set may be replaced for the old set without removing or changing the box or case in any manner.

To these ends my invention consists in certain novel details of construction and combination of parts, as will be hereinafter fully set forth.

I will now proceed to describe an instrument embodying my invention and will then point out the novel features in claims.

In the drawings, Figure 1 is a view in front elevation of a telephone instrument embodying my invention, certain portions of the same being broken away in order to illustrate other portions. Fig. 2 is a view, partly in side elevation and partly in central transverse section therethrough, with certain portions removed. Fig. 3 is a view in central vertical section through the instrument, showing the diaphragm and parts supported thereby in position in the casing. Fig. 4 is a view of the diaphragm and parts supported thereby removed from the casing. Fig. 5 is a top

view of the instrument. Fig. 6 is a detail view of a money-safe employed removed from the instrument.

The instrument shown herein comprises a casing having a fixed bottom 1, sides 2, and back 3. The front 4 and top 5 are secured together and are hinged at 6 to the bottom 1. In Fig. 2 the front and top, constituting the door of the machine, are shown as partially open. In Fig. 1 the same is closed. A suitable lock 7 may be provided by which the front 4 and top 5 may be securely locked in position with respect to the main portion of the casing. The transmitter 8 is carried by the front 4, being suitably connected thereto, as by a hinged or pivoted connection 9, in a manner as will be readily understood by reference to the drawings. A money-safe 10 is located in the lower left-hand side of the casing, resting upon the bottom 1. The front of the money-safe is fitted to a cut-away portion in one of the sides 2 of the casing, forming when in position a continuation of the said side 2. The upper edge of the front of the money-safe is provided with a projection 11, which fits a corresponding recess 12 in the side 2 of the casing, whereby the safe will be prevented from being removed through the front of the instrument when the front door is open. The money-safe comprises the front 13, before referred to, a bottom 14, a rear wall 15, and sides 16, all secured together. A top or cover 17 is loosely fitted thereto, the rear end of the cover 17 being provided with lugs 18, arranged to enter recesses 19 in the upper end of the rear wall 15 of the safe. When the safe is in position, the front edge of the top 17 is retained in position by an abutment 20 in the side wall 2 of the casing, while the lugs 18 at the rear thereof hold such part of the top 17 from movement, whereby the said top 17 can only be removed after the safe as a whole has been withdrawn from its position in the casing. The top 17 has a coin-slot 21, through which it will receive coins from the apparatus in the casing during the operation of the machine. A lock 22, carried by the front 13 of the money-safe, is arranged to engage the side wall 2 of the casing to retain the money-safe in position during the normal operation of the machine. By the foregoing it will be seen that the money-safe may be withdrawn without opening the front of the machine, while opening of the front of the machine will in no

wise permit the withdrawal of the money-safe except it be unlocked and removed in in the usual manner. The front door 4 of the machine has an opening 23 therein, through
 5 which the amount registered upon a counter within the machine may be read, and the top 5 has an opening 24 for the reception of coins, another opening 25 for the reception of an electric push-button forming a part of the interior mechanism, and an opening 26 for the
 10 reception of a "busy-signal" 27. The side walls 2 of the casing are each provided with a slideway 28, arranged for the reception of a diaphragm or slide 29. The diaphragm or
 15 slide may be freely inserted in place through the open top of the machine along the guideways 28 and as freely removed therefrom. This diaphragm 29 is arranged to carry all the working parts of the telephone, which include
 20 ringer-coils 30, privacy device 31, telephone-hook 32, busy-signal 27, coin-chute 41, induction-coil 33, &c. The bells 34 belonging to the ringing device are secured to the bottom 1 of the casing; but the clapper 35 is mount-
 25 ed upon the diaphragm 29, as are the coils operating same. When now it becomes necessary to obtain access to the various parts in the instrument for the purposes of repair, adjustment, or replacement, it is only necessary
 30 to unlock the top and front 4 and 5 by manipulation of the lock 7, when the front and top may be swung down out of the way, entirely exposing the parts carried by the diaphragm 29. In order now to obtain more
 35 complete access to these parts, the diaphragm may be lifted bodily out of place, carrying with it all the various elements going to make up the complete telephone instrument. If
 40 the damage is too extensive to be readily repaired, an entire new set may be replaced for the set removed and may be immediately inserted without any change, repairs, or alterations being necessary to the casing.

In order to add to the rigidity of the structure, I have employed a brace-rod 36, which
 45 extends from and between the two sides 2 2, whereby they are held securely together against any tendency to spring apart. One of the sides 2 is provided with an opening 37,
 50 through which return-coins may be removed, and a return-coin chute 38 is also provided, such return-coin chutes being sprung into place after the diaphragm 29 has been insert-

ed and retained in such place by means of a projection 39 thereon, which is arranged to
 55 enter an orifice or recess 40 in the diaphragm or a part carried thereby. It will be noted that the various parts carried by the diaphragm 29 are all arranged on the front face
 60 thereof, so that they are contained within the front one of the two chambers into which the casing is divided by the diaphragm. The rear chamber may be occupied by the condenser, usually employed in the ringing-circuit of this type of instrument. 65

It will be seen that by my invention I have provided a compact form of box or case in which all the elements necessary for a complete party-line coin-controlled telephone instrument may be received and that I have
 70 provided means whereby all the working parts may be very readily removed.

What I claim is—

1. In a telephone instrument, the combination with a box or casing comprising a fixed
 75 back, bottom, and sides, and a cover constituting the front and top portions, hinged to the fixed portion, the sides having oppositely-arranged vertical guideways open-ended into the top portion of the opening closed by the
 80 hinged portion, and a diaphragm fitted to slide in said guideways, and removable through said opening, said diaphragm dividing the casing into two compartments, of telephone elements supported by said diaphragm. 85

2. In a telephone instrument, the combination with a box or casing comprising a fixed
 back, bottom and sides, a top and front portion secured together and hinged to the main
 90 fixed portion, and a removable diaphragm fitted to the main fixed portion dividing the casing into two compartments, of telephone elements, including a telephone-hook, induction-coil, ringer-coils and a clapper supported
 95 by said diaphragm and removable therewith, bells secured to the main portion of said casing at the exterior thereof, and a transmitter secured to the hinged portion of the said casing, substantially as set forth.

In witness whereof I have hereunto set my
 100 hand this 15th day of August, 1904.

EGBERT A. REYNOLDS.

Witnesses:

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 D. A. REYNOLDS.