

W. O. BECK.
WATCHCASE RECEIVER.
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1,026,196.

Patented May 14, 1912.

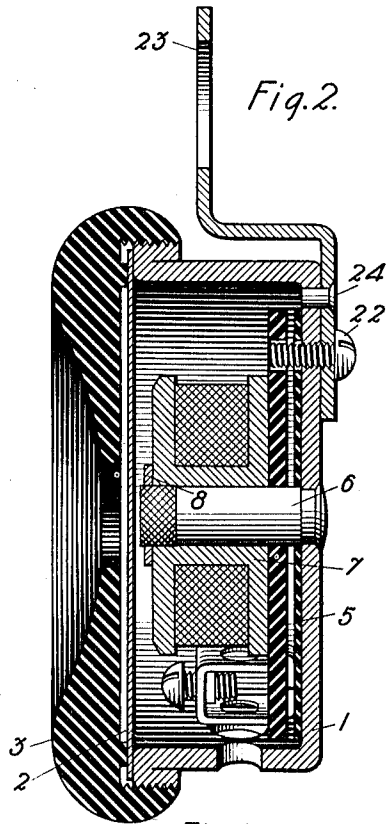


Fig. 1.

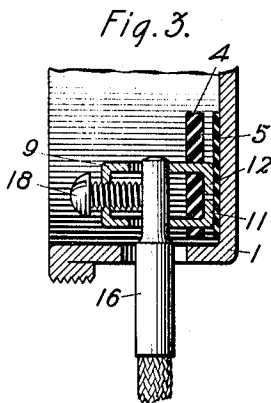


Fig. 3.

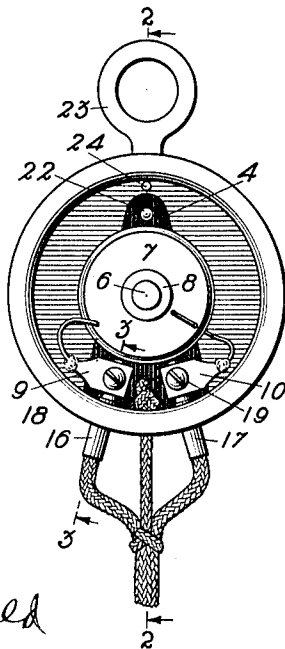
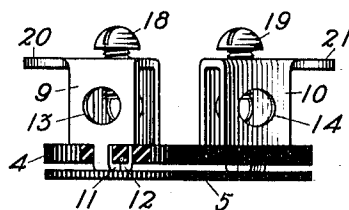


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM O. BECK, OF WEEHAWKEN, NEW JERSEY, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF ILLINOIS.

WATCHCASE-RECEIVER.

1,026,196.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM O. BECK, citizen of the United States, residing at Weehawken, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Watchcase-
5 Receivers, of which the following is in full, clear, concise, and exact description.

This invention relates to telephone receivers of the watch case type and has for its object to provide in association with such receivers an improved and simple binding post and mounting therefor which shall be entirely inclosed within the casing.

10 Briefly my invention comprises, in a telephone receiver, the particular form of binding post; the manner in which it is attached to its mounting plate; and the method of securing the mounting plate within the casing, together with the provision of a common
20 device which insures the stability of the mounting plate and secures the usual supporting eye to the exterior of the case.

One of the features of my invention relates to the combination of parts whereby the terminals of the magnetizing winding or helix may be secured to the binding posts and the binding posts to their supporting
25 segment before the parts are assembled within the casing.

The invention will be particularly described by reference to the accompanying drawings, wherein—

35 Figure 1 is a plan view of a telephone receiver constructed in accordance with my invention with the earpiece removed; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; and Fig. 4 is a side view showing
40 the method of securing the binding posts.

The same figures refer to corresponding parts in the several views.

The casing 1 is annular and may be formed in any suitable manner, preferably
45 punched from sheet metal. In the present embodiment of my invention, the casing acts as the permanent magnet and is therefore formed of mild sheet steel, the core 6 being permanently secured to the bottom of the casing, and the peripheral edge of the casing being folded back upon itself outwardly and threaded, thus providing a substantial
50 seat for the diaphragm 2 and clamped there-to by the rubber earpiece 3.

55 The binding posts, 9, 10 are punchings of

U-form with solder lugs 20, 21 for the helix terminals and screw connections 18, 19 for the tips 16, 17 of the incoming conductors which are led through openings in the side of the casing in line with openings 13, 14 in
60 the binding posts. Each binding post 9, 10 has a number of teeth or prongs 11, 12, by which it is attached in an upright position to a mounting of insulation 4, the teeth being forced through the insulation mounting
65 from the upper side and clenched on the lower face. This binding post mounting has an opening by which it is loosely fitted over core 6 and held against a second section of insulation 5 by the bobbin 7 which fits
70 loosely over the lug, and rests upon the mounting 4, a washer 8 driven over the knurled end of the core 6 serving to securely hold the insulating sections and coil in place. Both insulating plates 4 and 5 are segmental
75 as shown, with their lower edges curved correspondingly with the interior of the casing to make a snug fit. To prevent the segments from turning about the core 6 as an axis, a screw 22 inserted from the outside
80 enters holes in said segments, the same screw serving also to attach the usual supporting eye 23 to the exterior of the casing. A pin 24 is driven through the eye above screw 22 and into the casing to prevent lateral move-
85 ment of the eye.

By this construction the binding posts may be secured to the segment 5 and the helix terminals secured to the solder lugs 20, 21 before the parts are placed in the casing.
90 Furthermore, it is possible by merely removing the washer 8 from the knurled end of the core 6 to remove all of the parts from the receiver shell. This does away with fastening screws or bolts for the various
95 parts and the advantage is obvious.

Having thus described my invention, I claim:—

1. A telephone receiver having a shallow annular casing, a segment of insulation
100 mounted in said casing, binding posts carried thereby, a core projecting from the bottom of the casing and extending through an opening in said insulation, and a coil adapted to slip over said core into engage-
105 ment with said insulation, said coil having its terminals secured to said binding posts.

2. A telephone receiver having a shallow annular metallic casing, a segment of insulation mounted in said casing, binding posts
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carried thereby, a core projecting from the bottom of the casing and extending through an opening in said insulation, and a coil adapted to slip over said core and clamp said
5 insulating segment to said casing, said coil having its terminals soldered to said binding posts.

3. In a watch case receiver, a casing, a segment of insulation within said casing,
10 binding posts carried thereby, an electromagnet within said casing, and a supporting eye, said eye being secured to the exterior of said casing by a pin which projects through said casing and into said insulation
15 segment.

4. In a telephone receiver, the combination with an annular casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over said core,
20 an insulating segment adapted to slip over said core, binding posts carried by said segment to which the terminals of said helix are connected, and a single means for clamping both said helix and said segment in said
25 casing.

5. In a telephone receiver, the combination with an annular casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over said
30 core, an insulating segment adapted to slip over said core, binding posts carried by said segment to which the terminals of said helix are connected, and removable clamping means engaging said core to secure said
35 helix and said insulating segment in said casing.

6. In a telephone receiver, the combination with an annular metal casing, of a core secured to the end wall of said casing, a
40 magnetizing winding adapted to slip over said core, an insulating segment adapted to slip over said core, binding posts secured to said segment to which the terminals of said helix are connected, said binding posts having clamping means extending through said
45 insulating segment, a second insulating segment adapted to be interposed between the

wall of the casing and said first mentioned segment, and means engaging said core to secure said helix and insulating segments
50 within said casing.

7. In a telephone receiver, the combination with an annular metal casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over said
55 core, an insulating segment adapted to slip over said core, binding posts secured to said insulating segment to which the terminals of said helix are connected, a second insulating segment interposed between said first
60 mentioned segment and the end wall of said casing, means engaging said core for securing said helix and said segments in said casing, and means for holding said segments against rotation around said core.
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8. In a telephone instrument, the combination with an annular metal casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over
70 said core, an insulating segment adapted to slip over said core and having an opening near one end thereof, binding posts secured to said segment to which the terminals of said helix are secured, a second
75 insulating segment interposed between said first mentioned segment and the end wall of said casing, said second segment having an opening adapted to be brought into alignment with the opening in said first mentioned segment, means engaging said core to
80 secure said helix and said segments in said casing, a suspending member for said instrument, and a screw for securing said suspending member to said casing, said screw passing through the end wall of said casing
85 and entering the aligned openings in said segments.

In witness whereof, I hereunto subscribe my name this 8th day of August A. D. 1910.

WILLIAM O. BECK.

Witnesses:

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