

Oct. 18, 1938.

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2,133,468

WALL TELEPHONE SET

Filed March 1, 1935

2 Sheets-Sheet 1

FIG. 1

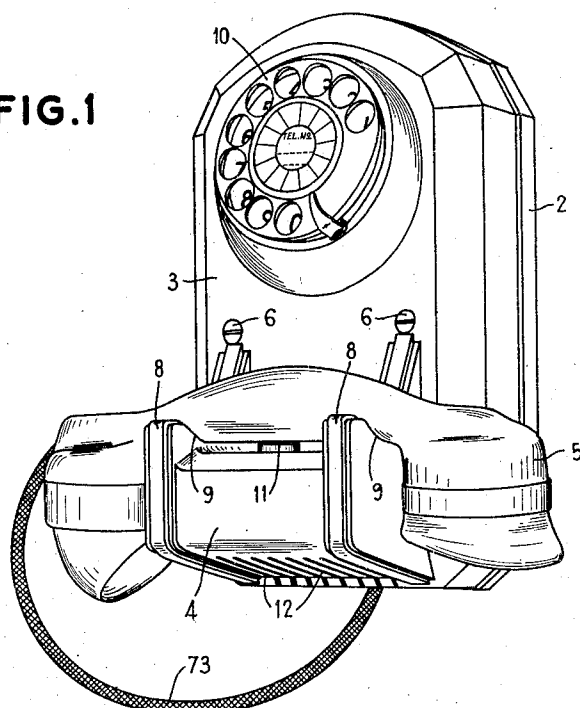
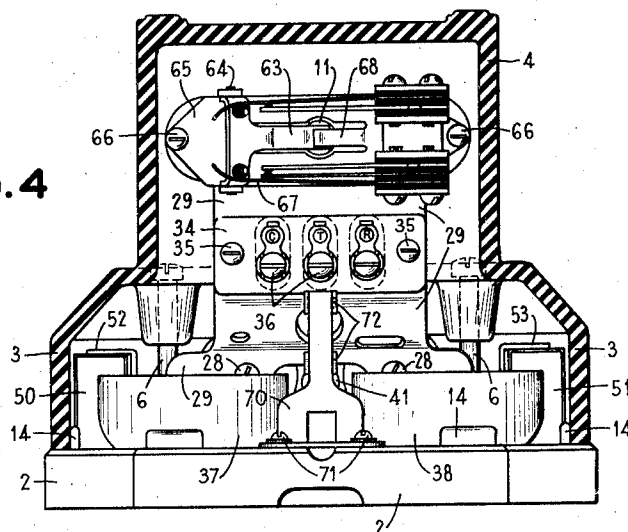


FIG. 4



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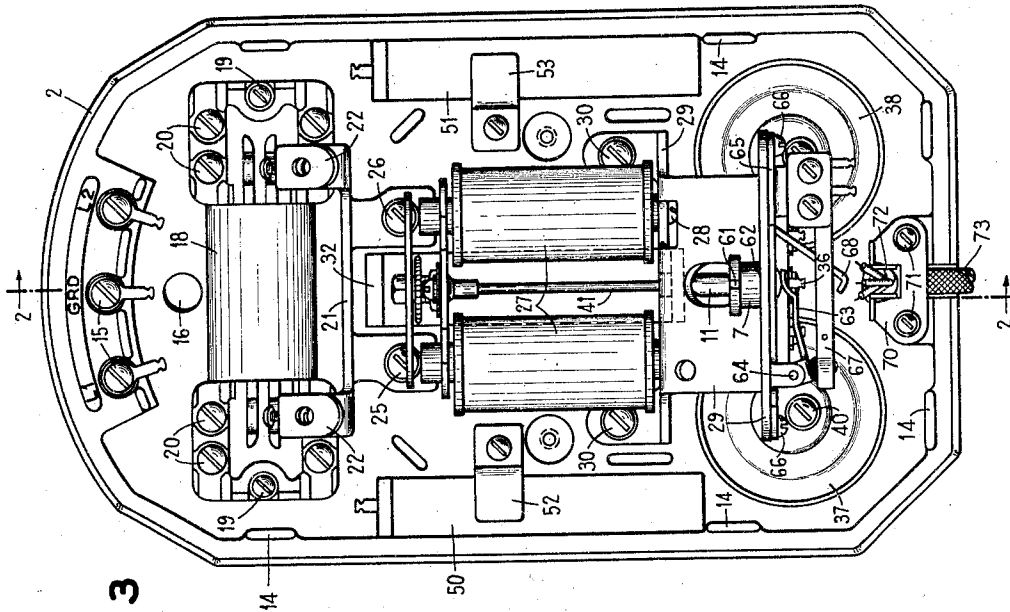


FIG. 3

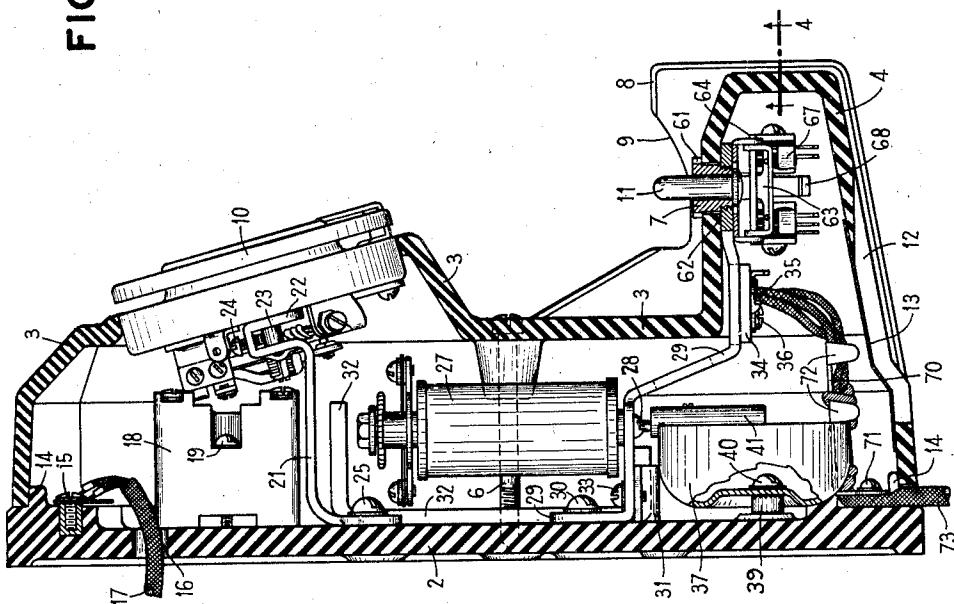


FIG. 2

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WALL TELEPHONE SET

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Application March 1, 1935, Serial No. 8,817

14 Claims. (Cl. 179-100)

This invention relates in general to wall telephone sets and the principal objects of the invention are to design an improved wall telephone set having a pleasing appearance, one that is simple in construction, and in which the various parts are easy to assemble and readily accessible for replacement or repair.

A further object is to arrange the various parts of the telephone set on the base plate so as to utilize the least possible space to the best advantage. Another object is to mount all the pieces of apparatus on the base plate and none on the cover thereby rendering all parts accessible at one time when the cover is removed from the base.

A particular feature of the invention concerns the mounting arrangement of the switching contacts and the operating member for controlling them. A further feature is directed to a common mounting bracket for supporting the ringer apparatus, terminal block, the switching contacts and their operating member. An additional feature concerns the cover for the telephone set which is arranged to support the handset on a projecting portion below the calling device and in which the sound openings for the ringer are formed in the bottom of the projecting portion. Another feature concerns the manner in which the calling device is supported so as to protrude through an opening in the cover directly above the induction coil. A cord holder for the telephone cord presents a number of advantages over previous types of holders.

Other features of the invention will become apparent from the following description together with the accompanying drawings which show a proposed embodiment by way of example.

Fig. 1 represents a perspective view of the complete wall telephone with the handset in position;

Fig. 2 is a side view with the base and cover shown in cross section;

Fig. 3 is a full front view of the base and apparatus with the cover and calling device removed; while

Fig. 4 is a bottom view of Fig. 2 with the cover in cross section.

The oblong base 2 and the cover 3 are each moulded into the shape disclosed from some well known plastic substance or phenolic condensation product. This material lends itself well to the many irregular shapes desired, it presents excellent insulating properties and is structurally strong enough to support the apparatus mounted directly on it. The cover 3 has a shelf portion 4 formed on its lower end for the accommodation

of the handset 5, while an opening at the upper end of the cover permits the calling device 10 to protrude through the cover. A pair of extensions 8-8 on the shelf 4 holds the handset 5 in correct position so as to act on the operating member or button 11. The extensions 8-8 have outwardly curved surfaces 9-9 upon which the handset rests so that the handset upon being taken into use may be lifted off the shelf 4 with a forward movement instead of an upward vertical movement in which case the fingers of the person grasping the handset would come into contact with the calling device 10. The bottom side of shelf 4 is provided with a plurality of parallel spaced slots 12 covered with a piece of insect proof cloth 13 (Fig. 2) to provide sound openings for the ringer gongs. The cover 3 is held in place on the base by means of the pair of long screws 6 and by means of bushing 7 around the operating plunger 11. In order to remove the cover all that is necessary to do is loosen the screws 6 from the base and by means of a special tool inserted in the notches 61 of bushing 7 the bushing is turned out of the shelf 4 and the cover can be lifted off the base, exposing all of the apparatus mounted thereon. In order to properly center the cover 3 on the base 2 a number of spaced lugs 14 are formed near the outside edges of the base 2.

The apparatus mounted and supported on the base 2 will now be pointed out in detail with particular reference to Fig. 3. At the top of the base a number of terminals 15 are arranged for the connection of the line wires 17 which enter the telephone set through the hole 16 (Fig. 2). The induction coil 18 is supported in a horizontal position on the base by means of screws 19. The spool heads of this coil are made of insulating material and carry a plurality of terminals 20 for the cross-connection of a number of the internal wires of the telephone.

Immediately below the induction coil 18 an irregular shaped metal bracket 21 is fastened to the base by means of screws 25 and 26 engaging a pair of extensions of the bracket. At its other end the bracket 21 has a pair of U-shaped extensions 22 having holes therein engaged by the pair of lugs 23 on the well known type of calling device 10 for supporting the same. The screws 24 in the extension 22 engage the lugs 23 and securely hold the calling device 10 on the bracket. Referring to Fig. 2 it is seen that the calling device protrudes through an opening in the cover 3 and therefore is not disturbed when the cover is removed. The wiring connections between the

calling device and other pieces of apparatus can be permanently made, but in order to render the terminals 29 on the induction coil spool heads more readily accessible, the calling device may be removed from bracket 21 by merely loosening up screws 24. It is noted that the calling device 19 occupies a space immediately above the induction coil 18 and between the spool heads, thereby conserving the amount of space required.

Centrally located on the base is the ringer assembly including the ringer coils 27 which by means of screws 28 is securely attached to an irregular shaped bracket 29. At its lower end bracket 29 has a pair of extensions which secure it to the base by means of screws 30. The permanent magnet 32 for the ringer is fastened to bracket 29 by means of a strap 31 and screws 33 at a point near the base 2. On the lower side of bracket 29 an insulating block 34 is attached by means of screws 35 (Fig. 4). This block 34 carries a number of terminals 36. The switching mechanism mounted on the end of bracket 29 will be described hereinafter. Small holes on the bracket 29 provide means for tying the conductors extending between the pieces of apparatus.

At the lower end of base 2 and in a position below bracket 29 the pair of ringer gongs 37 and 38 are mounted by means of posts 39 and screws 40 which engage the gongs eccentrically so that they can be set correctly to be actuated by the clapper 41 of the ringer coils 27 (Fig. 2). A pair of condensers 50 and 51 are supported on opposite sides of the base and on each side of the ringer mechanism by means of clips 52 and 53 which are secured to the base.

The switching mechanism of the telephone is mounted on the end portion of the bracket 29. It comprises a metal plate 65 secured to bracket 29 by screws 66 at each end. A pair of ears on the plate 65 provide a support for the pivot pin 64 for hinging the lever 63 which is provided with a pair of insulated bushings for actuating the two sets of switching springs 67. A stop 68 is formed out of plate 65 to limit the movement of lever 63. The tension stored in the switching springs holds the lever 63 in its uppermost position when the weight of the handset 5 is removed from the operating button 11. This button 11 which controls the operation of the lever 63 moves inside the bushing 7 (Fig. 2) which bushing in turn is threaded into the bracket 29 and has a shoulder 62 to limit the extent to which it is turned into the bracket. The bushing 7 clamps the bracket 29 tightly to the shelf portion 4 of the cover so that by removing the bushing the cover may be taken off. The switching springs 67 are properly adjusted and their operation under control of button 11 clearly observed before the cover 3 is put in place as seen in Fig. 3. The arrangement is such that the bushing 7 is threaded into the bracket 29 until stopped by the shoulder 62. The button 11 is then manipulated to move lever 63 and springs 67 are adjusted to the required tension after which the bushing 7 is unscrewed and the cover put in place. The cover being secured to the base, bushing 7 together with the button 11 is then inserted in the hole in the top of shelf 4 and screwed to bracket 29 again, thereby clamping the bracket to the shelf. The cover being not quite as thick as the length of the shank of bushing 7, the correct adjustment of the springs is maintained.

At the lower end of the base 2 a cord holder 70 is attached by screws 71. It provides a means for securely tying the handset cord 73 where it

enters the base and also by means of the ears 72 prevents the individual wires of the cord which extend to the terminals 36 of terminal block 34 from interfering with any of the apparatus of the set such as the gongs 37 and 38 or clapper 41.

From the foregoing it is seen that all of the telephone apparatus is mounted on the base where it is easily accessible upon removal of the cover. The individual parts are supported and arranged in relation to each other on the base so as to utilize the least possible space to the best advantage. To this end, for example, the bracket 29 serves as a support for the ringer, terminal block, switching springs and their operating mechanism. In addition it provides a means whereby the cover with its shelf is secured to the base. Further advantages not particularly pointed out will be readily apparent.

Having described the invention, what is considered to be new and is desired to be protected by Letters Patent will be set forth in the following claims.

What is claimed is:

1. A wall telephone set comprising a base plate and a cover therefor vertically disposed, a hollow shelf portion protruding horizontally from said cover, switching springs, a bracket supported at one end on said base and having its other end extending into the hollow shelf, said switching springs mounted on said other end and lying wholly within the hollow shelf, and a handset supported in a horizontal position by said shelf actuating said switching springs.

2. A wall telephone set comprising a base portion for supporting telephone apparatus thereon including ringing mechanism, a cover for said base and said apparatus having a shelf portion for supporting a handset horizontally, a switching member extending from the top of said shelf and engaged by said handset, said shelf having a plurality of sound openings in the bottom for said ringing apparatus.

3. In a wall telephone set including a handset, a base portion having telephone apparatus supported thereon, a cover for said base having a shelf portion formed thereon, said shelf portion having a pair of cradle members for supporting said handset horizontally, said cradle members shaped so that said handset may be removed from said shelf with a forward movement, and switching springs in said shelf between said cradle members actuated by said handset.

4. In a wall telephone set including a handset, a cover and a base, a shelf portion formed on the lower end of said cover for supporting said handset in a horizontal position, a calling device supported on said base and protruding through an opening on the upper end of said cover, said shelf arranged to support said handset so that it can be removed in a forward direction and without interfering with said calling device, and switching springs mounted on said base and extending into said shelf operated by said handset.

5. In a wall telephone set having a mounting base, the combination of telephonic apparatus supported thereon comprising an induction coil positioned on the upper portion, ringer gongs on the lower end, a condenser on each of the sides between the coil and gongs, means supporting a calling device directly above said induction coil, means supporting a ringer mechanism centrally on said base surrounded by said other apparatus, and a cover on said base covering all of said pieces of apparatus except said calling device.

6. In a telephone set having a mounting base,

- the combination of telephonic apparatus supported thereon comprising an induction coil positioned on the upper portion, ringer gongs on the lower portion, a condenser on each side of the base between said coil and gongs, a calling device, a bracket mounted below said induction coil and supporting said calling device directly above said induction coil, ringer mechanism, a second bracket mounted above said gongs and supporting said ringer mechanism centrally on said base, a terminal block and switching mechanism supported on said second bracket directly above said gongs, and a cover on said base enclosing all of said apparatus except said calling device.
7. In a telephone set having a mounting base, the combination and arrangement of telephonic apparatus supported thereon comprising an induction coil on the upper end and ringer gongs on the lower end, a condenser along each side, a calling device, a bracket secured below said induction coil supporting said calling device directly on top of said induction coil, ringer mechanism, a second bracket projecting outward from said base and secured thereto above said gongs for supporting said ringer mechanism centrally of said base, a terminal block and switching mechanism supported on said second bracket, and a cover on said base completely covering said apparatus except said calling device and having a shelf at its lower end into which said second bracket and said switching mechanism extends.
8. In a wall telephone set having a base and a cover, the combination of telephonic apparatus supported on the base of the set comprising an induction coil, condenser and ringer gongs directly supported on the base, a pair of brackets supported on the base and extending outwardly therefrom, a calling device supported on one of said brackets, ringing mechanism, a terminal block and switching mechanism supported on the other bracket, said cover having a shelf portion on its lower end covering the switching mechanism and an opening at its upper end for the calling device to extend through, and means for supporting said cover on said base.
9. In a telephone wall set including a handset, a base plate providing means for supporting a plurality of pieces of telephone apparatus including switching mechanism, a cover for said apparatus having a shelf portion for supporting said handset and enclosing said switching mechanism, an operating member for said switching mechanism extending through said shelf in operative relation to said handset, and means for supporting said cover on said base, said supporting means including a bushing for holding said operating member.
10. In a telephone wall set including a handset, a base plate supporting a plurality of telephone apparatus mechanisms including switching mechanism, a cover for said telephone apparatus having a shelf portion extending therefrom forming a support for said handset and enclosing said switching mechanism, a bracket secured to the base and having one end extending into the shelf and supporting said mechanism therein, an operating button for said switching mechanism on said shelf in operative relation to said handset, a bushing for slidably supporting said operating button in said shelf, said bushing engaging said bracket for thereby securing said cover on said base.
11. In a wall telephone set including a handset, a base plate for supporting telephonic apparatus thereon including switch operating mechanism, a cover for said telephonic apparatus having a shelf covering said switch operating mechanism and forming a support for said handset, an operating button for said operating mechanism extending through said shelf into operative relationship with said handset, a bushing around said operating member in which said member slides, said bushing clamping said shelf to said switching mechanism to hold said cover in place, and means on said bushing enabling said switch mechanism to be properly adjusted before said cover is clamped in place.
12. In a wall telephone set as claimed in claim 11 a set of switching springs controlled by said switch mechanism, and means whereby said switching springs are properly adjusted before said cover is clamped to said base by inserting said bushing and said operating member in position without the cover.
13. In a telephone set including a handset unit, a base plate, telephone apparatus supported on said base, a cover secured to said base plate and enclosing said telephone apparatus, a shelf portion formed integral with said cover and protruding from the front thereof to serve as a support for the handset, and a pair of cradle members formed integral with the shelf and the cover for holding the handset in position on the shelf.
14. In a telephone set including a handset unit, a base plate, telephone apparatus including a calling device supported by said base, a cover secured to said base and enclosing all of said telephone apparatus except the calling device, a shelf portion formed integral with said cover at one end thereof for supporting said handset, cradle members formed integral with said shelf portion and said cover for holding the handset in position on the shelf, said cover formed square at the end conforming to the shape of said shelf portion while the other end is rounded off to conform to the shape of the calling device.

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