

No. 828,835.

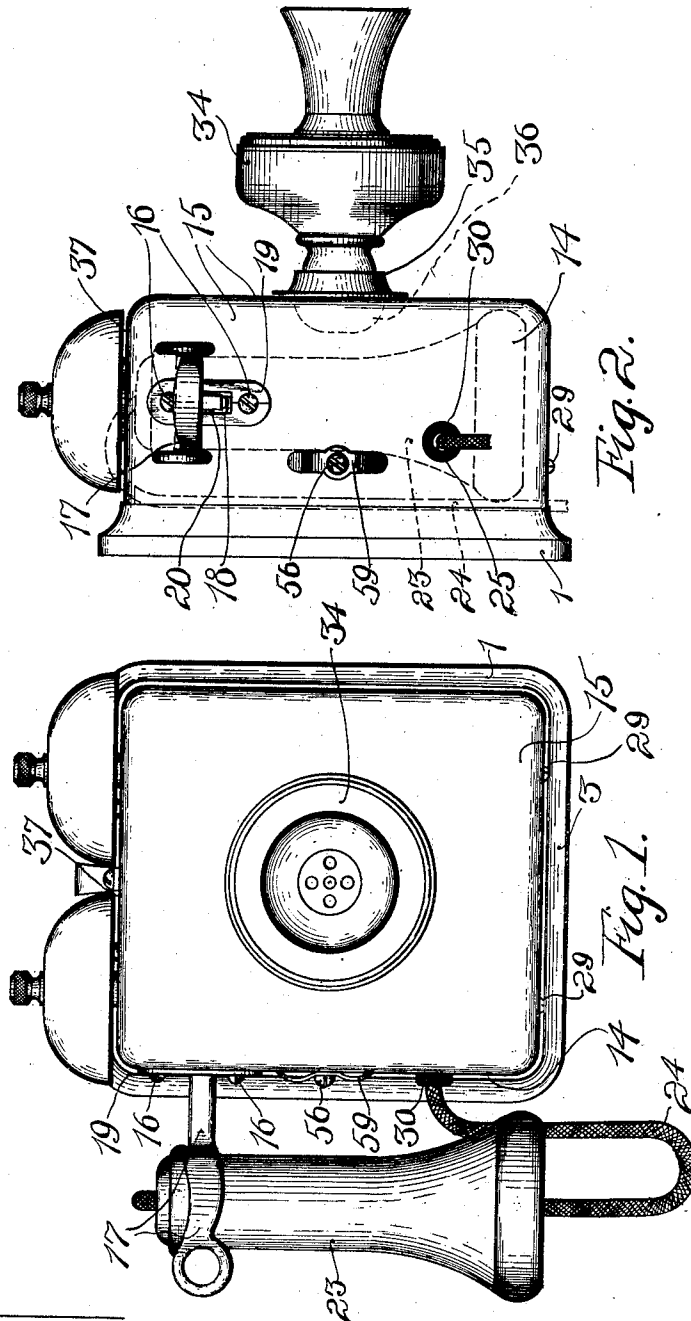
PATENTED AUG. 14, 1906.

J. A. BIRSFIELD.

WALL SET.

APPLICATION FILED FEB. 13, 1905.

2 SHEETS—SHEET 1.



Witnesses:

Arthur H. Boettcher,
Charles J. Schmidt.

By

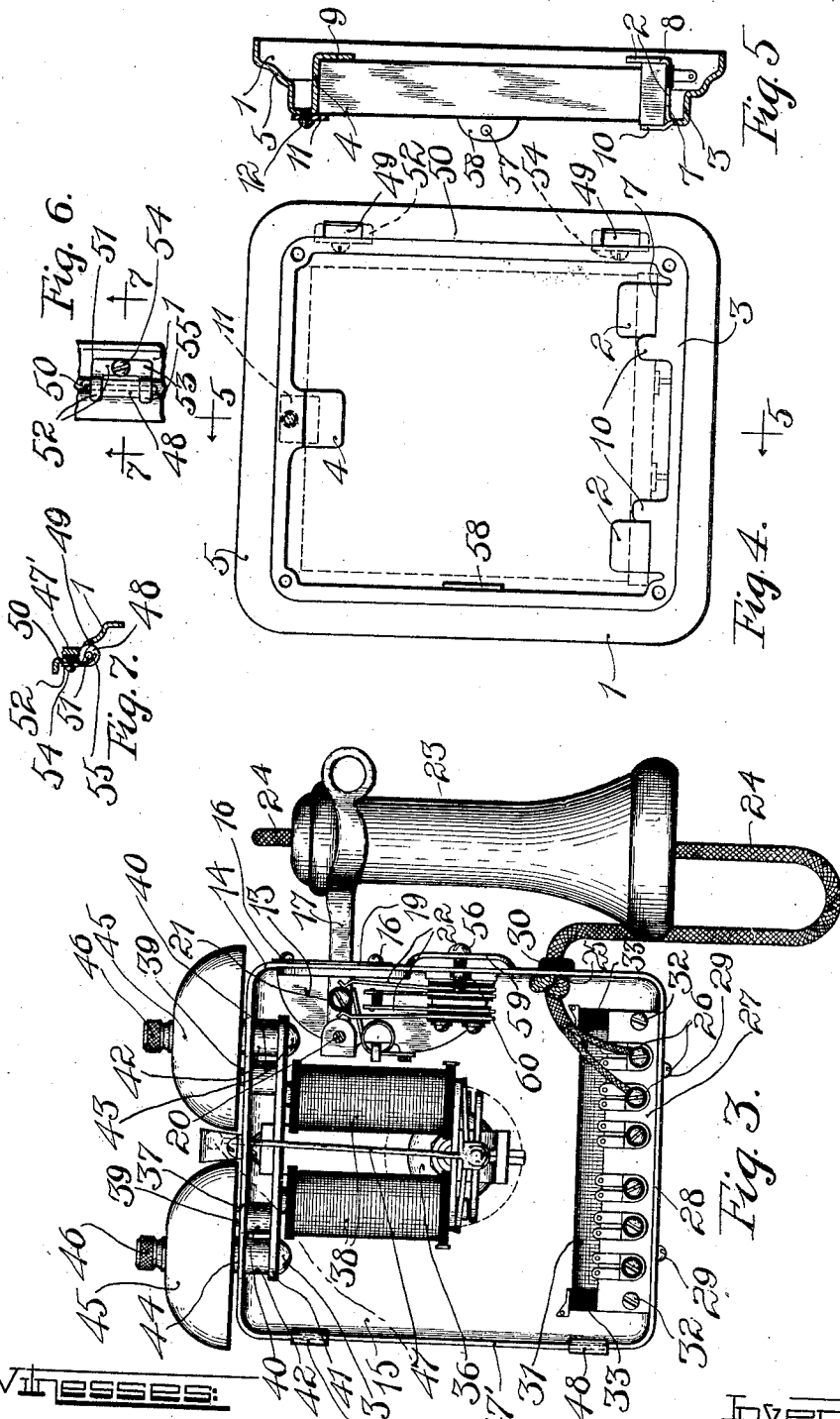
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UNITED STATES PATENT OFFICE.

JULES A. BIRSFIELD, OF ROCHESTER, NEW YORK, ASSIGNOR TO STROMBERG-CARLSON TELEPHONE MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

WALL SET.

No. 828,835.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed February 13, 1905. Serial No. 245,528.

To all whom it may concern:

Be it known that I, JULES A. BIRSFIELD, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Wall Sets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to telephone wall-box sets; and its object is to provide a wall-box constructed wholly of metal in which all of the parts are accessible for repairs and readily removed from the box without requiring the removal of the wall sets from the wall on which it is secured.

In the accompanying drawings I have illustrated a wall-box which may be formed of metal stampings or of thin metal castings. I have also shown an improved arrangement of the parts therein, the condenser only being secured in the base of the box and readily removable without removing the base from the wall, while the other telephonic apparatus is secured in and on the cover, being thus very readily accessible to inspection and repairs.

In the drawings, Figure 1 is the front elevation view of the wall-box. Fig. 2 is a side elevation view thereof. Fig. 3 is a rear elevation view of the cover detached from the base, showing the arrangement and connection of the telephonic apparatus. Fig. 4 is a front elevation of the base alone. Fig. 5 is a vertical sectional view of the base, taken on line 5 5 of Fig. 4. Fig. 6 is a detailed detached view of hinging means employed, and Fig. 7 is a sectional view taken on line 7 7 of Fig. 6.

Like reference characters refer to like parts in various figures.

The base of the wall-box may be stamped from sheet material in the form of a rectangular frame 1, the rear of which may be open to secure lightness. This base serves merely for the support of the condenser, and a supporting projection 2 extends rearwardly and upwardly from either side of the lower wall 3 of the base. A similar projection 4 extends rearwardly and downwardly from the upper wall 5 of the base. The condenser is thus

supported on the base 7 of the lower projections and rests against the vertical portions 8 and 9, respectively, of the lower and upper projection, the condenser thus forming the rear wall of the base. To secure the condenser in position, projections 10 extend upwardly from the front edge of the lower wall and disposed before the condenser, while before the upper edge of the condenser a small plate 11 is secured to the upper wall 5 by means of a screw 12. To insert the condenser, the lower edge thereof is placed between the vertical walls 8 and the projections 10 and is then swung rearwardly against the vertical wall 9 of the upper projection, the plate 11 being then secured in position, and the condenser is thus locked to the base and at all times may be readily removed therefrom without removal of the base from the supporting-wall. The receiver-hook and switch mechanism are mounted on a block 13 secured to the side wall 14 of the cover 15 by means of screws 16. The receiver-hook 17 extends through an opening 18 in the wall 14 and may be surrounded by an escutcheon-plate 19. The receiver-hook is pivoted at 20 and provided with an actuating-button 21, adapted for actuating the switch mechanism 22 as the receiver 23 engages or is disengaged from the hook. The cord 24 from the receiver passes through an opening 25 in the wall 14, and the various conductors thereof connect with terminals 26, mounted on the terminal block 27, which is secured to the lower wall 28 of the cover by means of screws 29. The opening 25 may be provided with an insulating-bushing 30. The induction-coil 31 is supported from the terminal block 27, screws 32 passing through the terminal block and engaging the end plates 33 of the induction-coil.

From the front of the cover extends the transmitter 34, connected with the cover by means of a supporting-arm 35, which may be of the form as described in my copending application, Serial No. 245,525, filed February 13, 1905, the cover for this purpose being provided with a depression concave chamber 36.

To the top wall 37 of the cover ringer

mechanism is secured. The electromagnet 38 of this ringer mechanism is secured by means of screws 39, passing through the wall 37 and engaging studs 40, secured to the yoke-piece 41. Stud 42, secured to the ends of the yoke by screws 43, extend upwardly through openings 44 in the wall 37 and at their outer ends support bells 45, secured thereto by means of thumb-screws 46. Hammer 47 of the bell also extends upwardly through the wall 37 between the bells 45.

The rear edge of the side wall 47' has hinged members 48, which upon application of the cover to the base pass through openings 49 in the side wall 50 of the base, as best shown in Figs. 6 and 7. The hinge-pins 51 pass through the hinged members 48 and rest against the inner side of the wall 50. To lock the pins in position, clamping spring-frames 52 are provided. The body portion 53 of these spring-clamps is secured to the wall 50 by screws 54, while the spring ends 55 thereof engage the corresponding hinge-pin at either side of the members 48 and press the hinge-pins against the wall 50, thus securing them in position. To bodily remove the cover from the base, it is only necessary to loosen the screws 54, whereupon the pins may be drawn from the members 48 and the cover removed.

I also provide a lock for locking the cover to the base. This lock is in the form of a screw 56, passing through the wall 14 of the cover for engagement with the threaded opening 57 in the lug 58, extending from the corresponding base-wall. A leaf-spring 59 engages under the head of the screw and against the wall 14, tending to withdraw the screw. The action of this spring, however, is limited by a collar 60, secured to the screw at the other side of the wall 14. The locking-screw is thus prevented from falling from the cover, and the combined action of the spring and collar hold the screw at all times in a line with the threaded opening 57, the spring also serving to prevent the screw-threads from striking the threads of the opening as the cover is closed, thereby preventing injury to the threads. To lock the door upon closure thereof, the screw-driver, engaging the screw, is pushed inwardly, and upon turning thereof the screw will catch the threads, and the cover will be locked to the supporting-base.

I thus provide a very light and at the same time very durable wall-box frame in which the various apparatus are arranged to be readily accessible and removable for inspection or repairs and without necessitating the removal of the wall-box from the wall, to which it is secured. I do not wish, however, to be limited to the exact construction of the

box and the arrangement of the parts thereof as herein shown, as changes may very readily be made without departing from the spirit of invention.

I claim as new and desire to secure by Letters Patent—

1. In a telephone wall-box, the combination with a base-frame secured to a supporting-wall, of a cover for said base-frame, a condenser in said base-frame, projections extending rearwardly and upwardly from the lower wall of said base-frame for supporting of condenser, a projection extending inwardly and downwardly from the upper wall of the base-frame for supporting the condenser, and removable means for locking said condenser in said supporting projections, said condenser forming the rear wall of the base-frame.

2. In a telephone wall-box, the combination with a rectangular supporting-base shaped intervally from sheet material, of a cover for said base, a condenser in said base-frame, shelves integral with said frame extending rearwardly and upwardly from the lower part thereof for receiving and supporting the lower end of the condenser, a projection integral with the frame material extending inwardly and downwardly from the upper part thereof to receive and support the upper part of the condenser, projections extending upwardly from the lower wall of the base-frame for locking the lower part of the condenser in position, and a removable extension from the upper part of the base-frame locking the upper part of the condenser in position, said condenser forming the rear wall of said base-frame.

3. In a telephone wall-box, the combination with a base for engaging a supporting-wall, of a cover for said base, said base being in the form of a rectangular band of sheet material, shelves extending from the lower wall of the base for supporting and retaining the lower end of a condenser to be contained in said base-frame, projections from the upper wall of the base-frame for receiving the upper end of the condenser, projections from the lower wall of the base-frame for locking the condenser to the shelves, said rectangular band, said shelves and said projections being stamped integrally from sheet material, and a removable projection engaging the upper wall of the frame for retaining the condenser in the upper projection.

4. In a telephone wall-box, the combination with a base-frame for engaging a supporting-wall, of a cover for the base-frame, said base-frame being in the shape of a rectangular shell of sheet material, a condenser contained in said base, shelves extending rearwardly and upwardly from the lower wall of the rectangular shell for receiving the con-

denser, projections extending upwardly from the lower wall of the rectangular band and disposed before the lower end of the condenser, a projection from the upper wall of the shell
 5 extending inwardly and downwardly for receiving the upper end of the condenser, said shelves and projections being stamped integrally with the rectangular shell, and a removable projection engaging the upper wall
 10 of the base and extending downwardly to lock said condenser within said base-frame, said condenser forming the rear wall of said base-frame.

5. In a telephone wall-box, the combination with a base-frame for attachment to a supporting-wall and for receiving a condenser, of a cover for said base-frame, said base-frame being in the form of a shallow rectangular casing, means for inserting or removing
 20 the condenser from the front of the base-frame, means for locking said condenser in said base-frame, openings through a side wall of said casing, hinge members extending from the cover-wall and passing through said
 25 openings, hinge-pins extending through said hinge members and disposed against the inner wall of said casing, and clips for securing said pins in position.

6. In a telephone wall-box, the combination with a base-frame for attachment to a supporting-wall, of a cover for said base-frame, said base-frame being in the form of a shallow rectangular casing and adapted for the reception of a condenser only, means for
 30 inserting and withdrawing said condenser from the front of the casing, means for locking said condenser in said casing, openings through a side wall of said casing, hinge members extending from the corresponding wall
 40 of the cover and into said openings, hinge-pins passing through said hinge members and disposed against the inner side of the casing-wall when the cover is in position, and clips secured to the casing-wall and engaging
 45 the hinge-pins at either side of the hinge members for securing said pins in position.

7. In a telephone wall-box, the combination with a base-frame for attachment to a supporting-wall, of a cover for said base-frame, openings through a side wall of said
 50 base-frame, hinge members on said cover extending through said openings, hinge-pins having separable engagements with said hinge members and disposed against the inner side of the supporting base-wall when the
 55 cover is in position, and clips secured to the base-wall and engaging the hinge-pins for holding said hinge-pins in position.

8. In a telephone wall-box, the combination with a supporting-base frame for attachment to a supporting-wall, said supporting-base being in the form of a rectangular shell adapted for the reception of a condenser only,

a cover for said base-frame, openings through a side wall of said casing, hinge members extending from the corresponding wall of said
 65 cover and passing through said openings, hinge-pins for separable engagement in said hinge members, said hinge-pins being disposed against the inner side of the casing-wall when the cover is in position, clips secured
 70 to the casing-wall and engaging the hinge-pins at either side of the corresponding hinge member for normally securing said pins in position, and screws for securing said clips to
 75 said casing-wall, loosening of said screws allowing withdrawal of the hinge-pins whereby the cover may be readily removed from the base-frame.

9. In a telephone wall-box, the combination with a supporting-base for attachment to a supporting-wall, said base being in the form of a rectangular casing adapted for the reception of a condenser only, means for allowing
 80 said condenser to be inserted and removed from the front of the base, a cover for said base, a transmitter extending from the front wall of said cover, a receiver-hook extending from the exterior through an opening
 85 in said side wall for engagement with said mounting-block, switch mechanism secured to said mounting-block for actuation by said switch-hook, an electromagnet mechanism within said cover secured to the upper wall
 90 thereof, bells for actuation by said electromagnet mechanism disposed at the outside of said top wall, a terminal block secured within the cover to the lower wall thereof, and an induction-coil resting on the lower
 95 wall of the cover at the interior thereof secured to said terminal block, said cover and base being each formed integrally of thin metal.

10. In a telephone wall-box, the combination with a base for attachment to a supporting-frame, said base being in the form of a thin rectangular shell of metal and adapted for the
 105 reception of a condenser only, means allowing said condenser to be removed and inserted from the front of the base, a cover for said base formed integrally of thin metal, openings through a side wall of said base, hinge
 110 members extending from the corresponding wall of the cover and passing through said openings, hinge-pins passing through said hinge members and disposed against the inner side of the base-wall, clips secured to the
 115 base-wall and engaging the hinge-pins to hold said pins in position against said base-wall, a lug extending from the opposite side wall of the base and having a threaded opening, a
 120 screw passing through the corresponding cover-wall for engaging said threaded opening, a spring interposed between the screw-head and the cover, and a collar secured to the screw at the inside of the cover.

11. In a telephone wall-box, the combination

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tion with a base in the form of a shallow rec-
tangular metallic casing adapted for the re-
ception of a condenser only, of a cover hinged
to one wall of said base, a lug extending from
5 the opposite wall of said base and provided
with a threaded opening, a screw passing
through the corresponding wall of the cover
for engaging said threaded opening, a spring
59 engaging under the head of the screw and
10 resting against the cover, and a collar 60 se-

cured to the screw at the inside of the cover,
said cover being also formed of thin metal.

In witness whereof I hereunto subscribe
my name this 9th day of February, A. D.
1905.

JULES A. BIRSFIELD.

Witnesses:

CHARLES J. SCHMIDT,
LEONARD W. NOVANDER.