

July 8, 1941.

F. S. CORSO

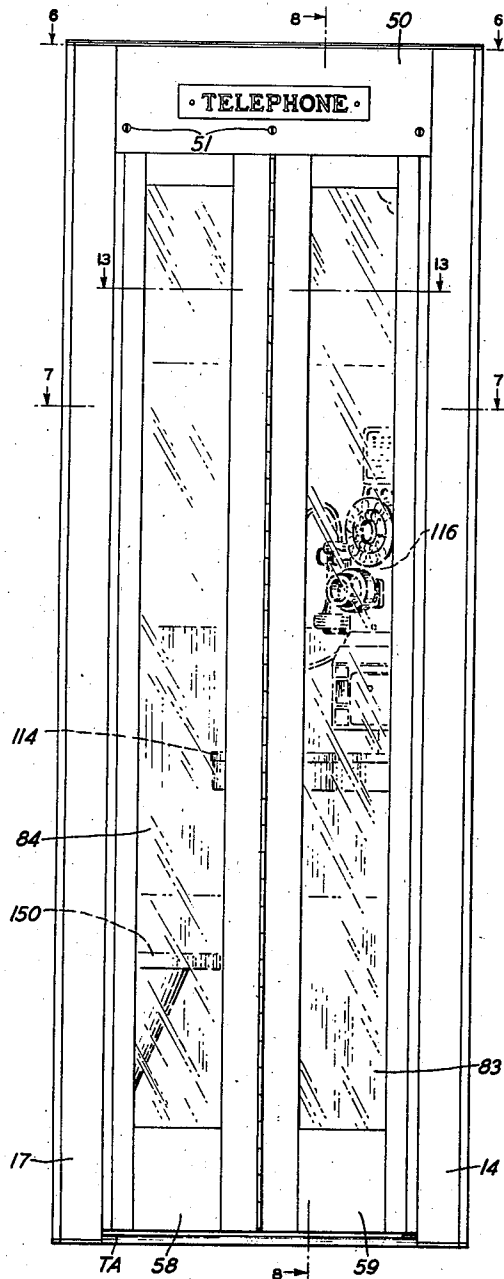
2,248,810

TELEPHONE BOOTH

Filed Oct. 24, 1939

7 Sheets-Sheet 2

FIG. 5



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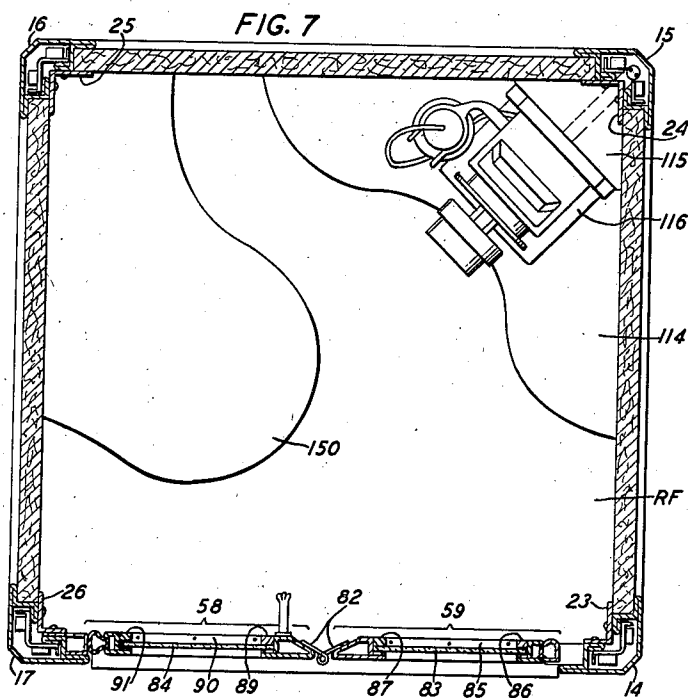
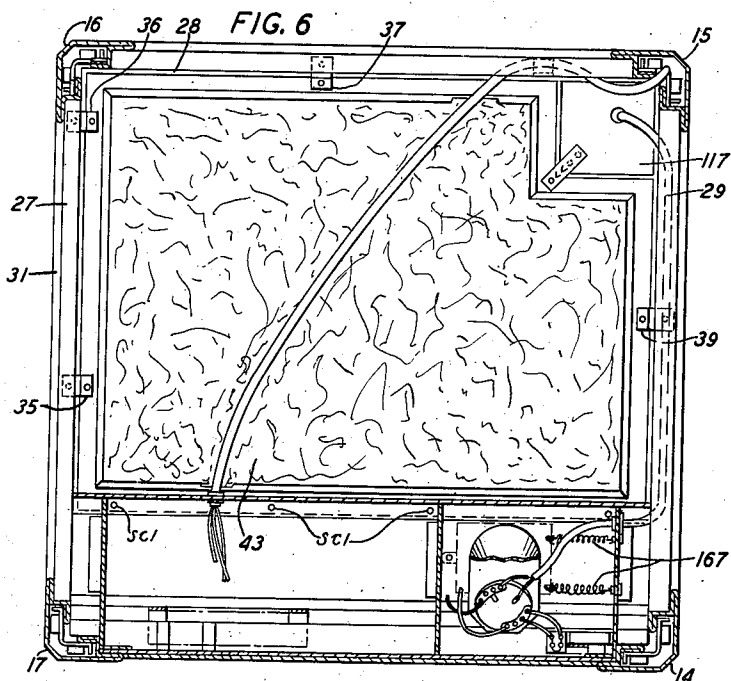
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Filed Oct. 24, 1939

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TELEPHONE BOOTH

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FIG. 8

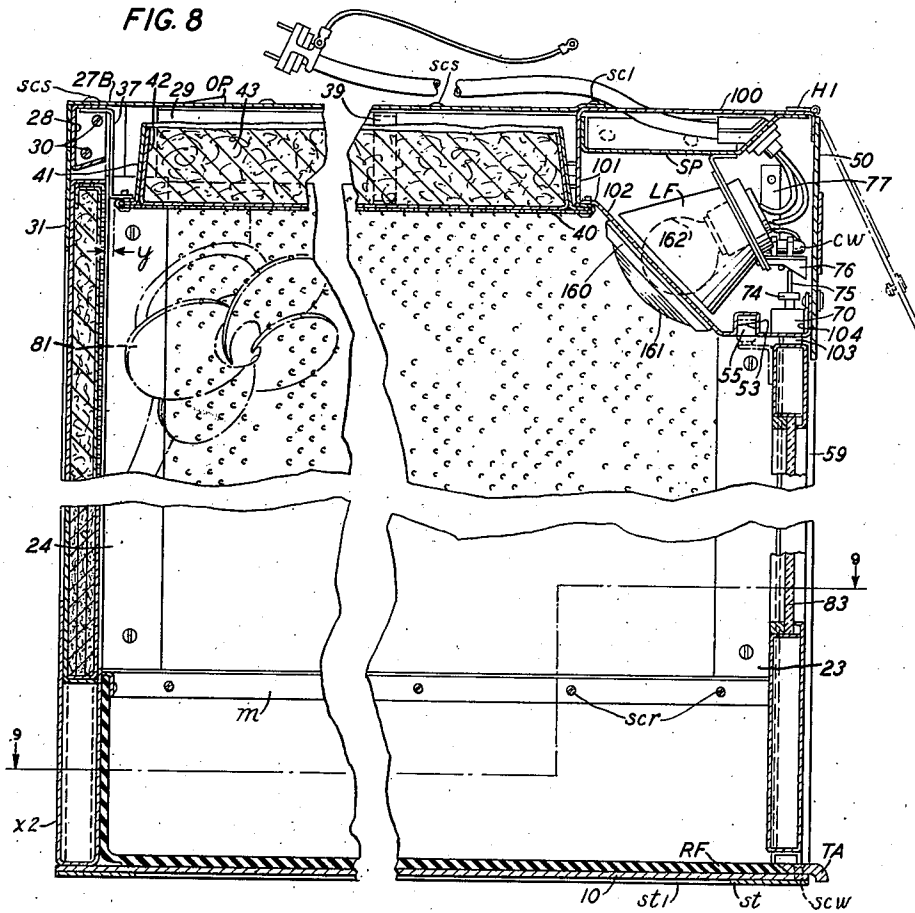
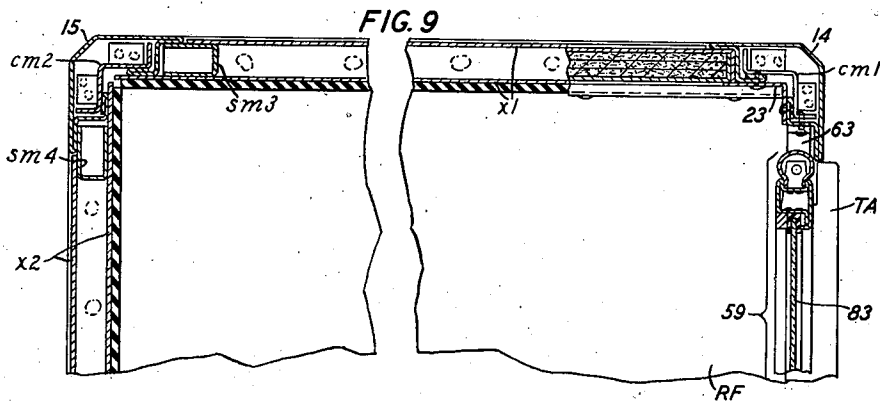


FIG. 9



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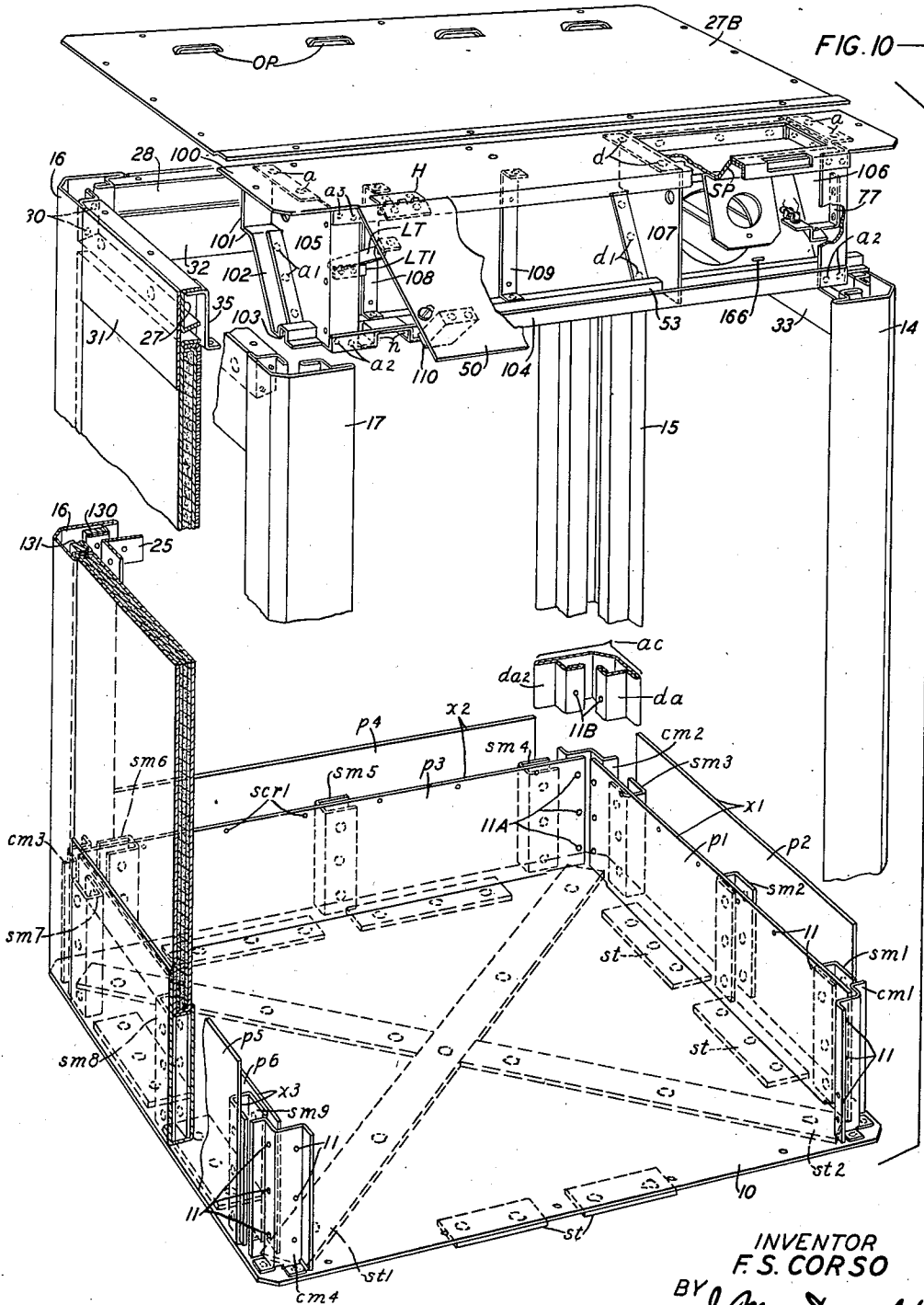
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TELEPHONE BOOTH

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7 Sheets-Sheet 5



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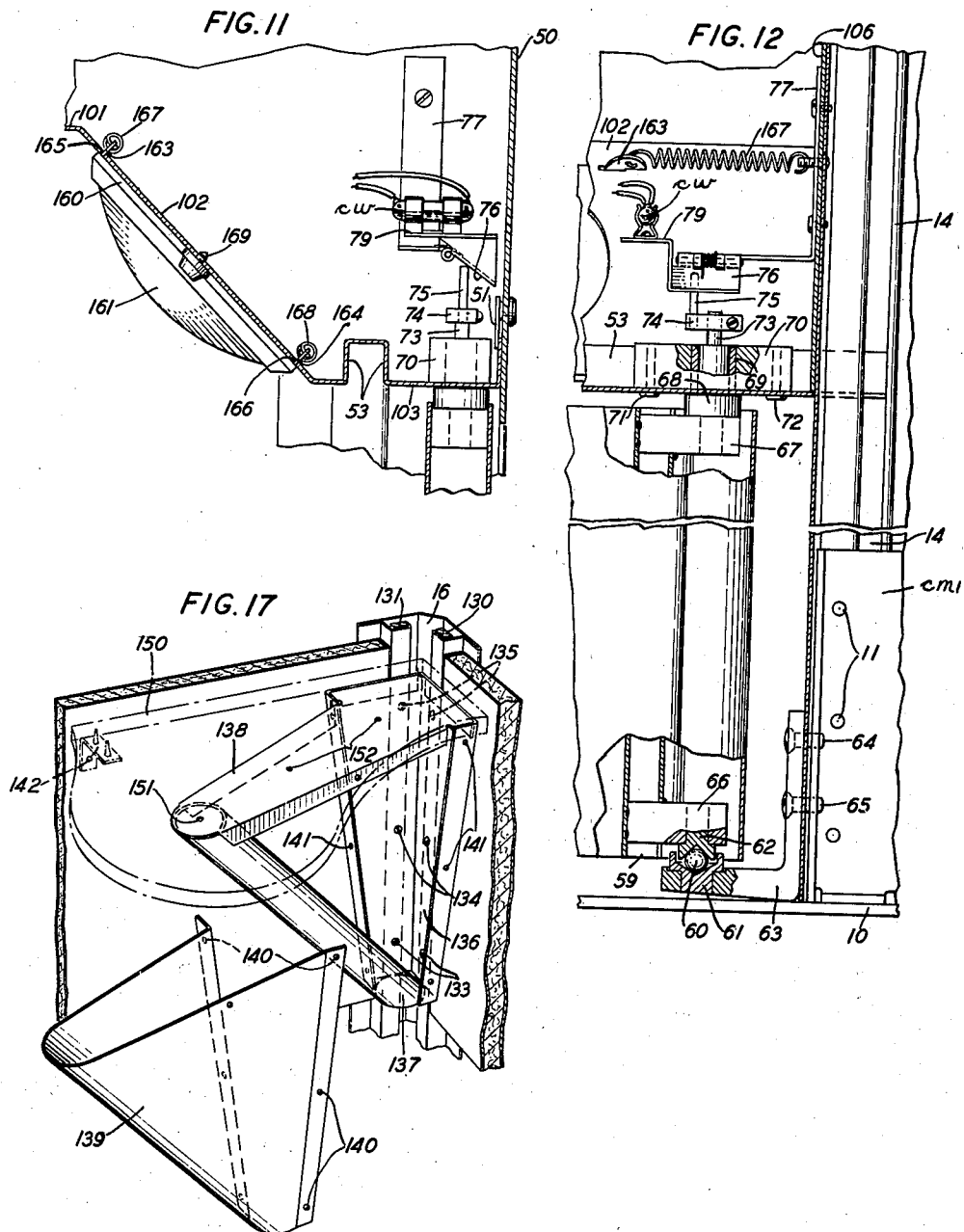
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TELEPHONE BOOTH

Filed Oct. 24, 1939

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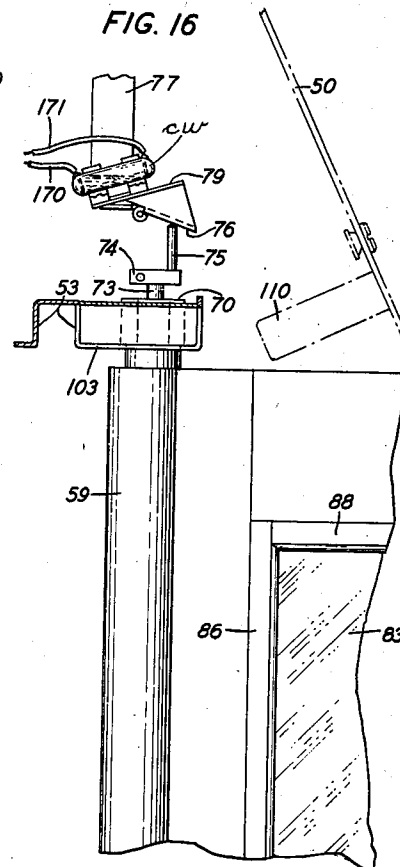
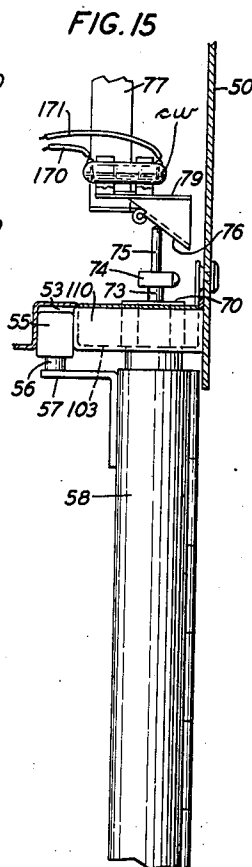
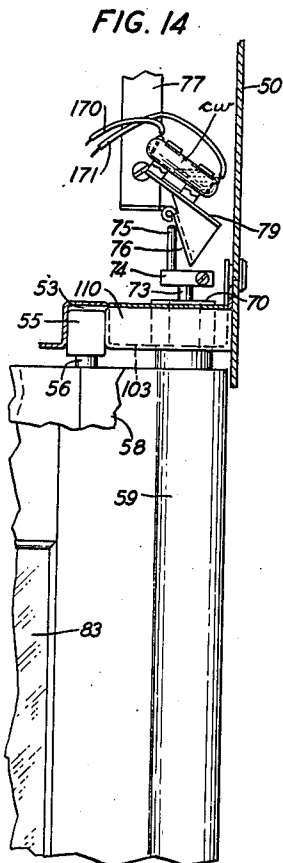
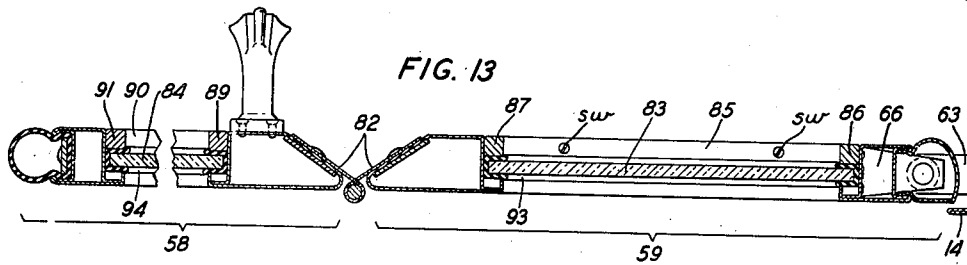
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TELEPHONE BOOTH

Filed Oct. 24, 1939

7 Sheets-Sheet 7



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UNITED STATES PATENT OFFICE

2,248,810

TELEPHONE BOOTH

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Application October 24, 1939, Serial No. 300,916

12 Claims. (Cl. 189—2)

This invention relates to telephone booths and the object of the invention is the provision of a metallic booth which will be simple, durable, cheap to manufacture, easy to assemble and to take apart and wherein the acoustic properties of such a type of booth is substantially improved.

In the drawings,

Fig. 1 is an assembly view of the booth shown in perspective with its door folded inwardly of the booth;

Fig. 2 is a partial front view of the booth shown with the door of a casing disposed at the top of the booth in its open position so as to show substation telephone apparatus and a lighting fixture housed therein, the door of the telephone booth being shown folded outwardly of the booth;

Fig. 3 is a perspective view showing the different wall sections in assembled relation;

Fig. 4 is a partial enlarged perspective view of the encircled portion shown in Fig. 3;

Fig. 5 is a front elevation of the booth shown with its door and that of the casing housing the telephone apparatus in the closed position;

Fig. 6 is cross-sectional view taken on line 6—6 of Fig. 5;

Fig. 7 is a cross-sectional view taken on line 7—7 of Fig. 5;

Fig. 8 is a vertical enlarged sectional view taken on line 8—8 of Fig. 5;

Fig. 9 is a cross-sectional view taken on line 9—9 of Fig. 8;

Fig. 10 is an enlarged perspective view of the frame of the booth showing a number of parts with portions cut away and the cooperating parts of the ceiling exploded, one of the side walls being shown in section.

Fig. 11 is a partial view of the casing at the top of the booth shown in cross-section, the light switch and its operating mechanism being shown in operated position;

Fig. 12 is a side view of Fig. 11 showing the manner of pivoting the door of the booth the bearings for the door being shown partly in section;

Fig. 13 is a cross-sectional view of the door taken on line 13—13 of Fig. 5 shown enlarged;

Fig. 14 is a partial view of the door of the booth showing the mercury light switch controlled thereby in its normal non-operated position and the door in its folded position inwardly of the booth, the door of the casing housing the telephone substation apparatus at the top of the telephone booth being shown in its closed position and in vertical section through the front of the booth.

Fig. 15 is a view similar to Fig. 14 but showing the door of the booth in its normal folded position and the mercury light switch in its operated position, the door of the casing being shown in

vertical section through the front of the booth.

Fig. 16 is still another partial view of the door of the booth shown when partially folded outwardly of the booth with the door of the casing housing the telephone substation apparatus shown in dotted line in its open position so as to permit the disengagement of the door slider from its guide way and thereby the movement of the telephone booth door outwardly of the booth, portions of the casing being shown in vertical section through the front of the booth; and,

Fig. 17 is a perspective view of the seat and its support.

According to the telephone booth of the invention, a base which consists of a substantially rectangular metallic plate 10 best seen in Fig. 10 is reinforced at its under-side by a plurality of steel strips *st* along its peripheral edges and by the diagonally disposed steel strips *st1* and *st2*, the strips *st* and *st1*, *st2* being secured to the plate 10 as by welding.

On to the upper disposed side of plate 10 along its peripheral edges are welded the upright corner members *cm1*, *cm2*, *cm3* and *cm4* and the U-shaped channel members *x1*, *x2* and *x3* shown in Figs. 9 and 10. The side plates *p1*, *p2* of U-shaped channel *x1* are reinforced and held in spaced relation by upright spacer member *sm1*, *sm2* and *sm3* welded thereto while the side plates *p3*, *p4* of U-shaped channel member *x2* are reinforced and held in spaced relation by upright spacer members *sm4*, *sm5* and *sm6*, and the side plates *p5*, *p6*, of U-shaped channel member *x3* by upright spacer members *sm7*, *sm8* and *sm9*, the upright corner members *cm1*, *cm2*, *cm3* and *cm4* and the inwardly disposed side plates *p1*, *p3* and *p6* of U-shaped channel members *x1*, *x2* and *x3* being provided with series of registering holes 11 and 11A, provided for a purpose which will be hereinafter described in detail.

Corner posts 14, 15, 16 and 17 shown in Figs. 1, 2, 5, 9 and 10 of metallic strips bent along their lengths to form a plurality of angle portions *da* and *da2* and an octagonal portion *ac* best seen in Fig. 10. The adjacent sides of angle portions *da* and *da2* are provided with screw threaded holes as 11B registering with holes 11 and 11A in upright corner members *cm1*, *cm2* and in plates *p1*, *p3* and *p6* for receiving screws for securing the corner posts to the plates *p1*, *p3* and *p6*, and to the upright corner member *cm1*, *cm2*, *cm3*, and *cm4* collectively.

The spacer members *sm1*, *sm2*, *sm3*, *sm4*, etc., as shown in Figs. 8 and 10 extend to a point a short distance below the longitudinal top edges of plates *p1*, *p3* and *p6* and serve as rests for the two side walls and the rear wall of the booth. Each of these walls, as shown in Figs. 3 and 4, consists of a plurality of sheet metal box-like sections *b*, *b1*, *b2* and *b3*. The box-like sections

b and b1 interfit into a common box cover member 18 while the box-like sections b0 and b01 interengage with a common box cover member 19, the cover member 18 in turn having its upper disposed side fitted into a space provided between the box-like section b0 and the lower disposed side of cover member 19 as shown in Fig. 4.

The box-like sections b01 and b0 cooperate with their common cover member 19 to form containers for housing pads as 20 of sound insulating material such as rock wool lined with flannel wrapping 21, while the box sections b and b1 cooperate with their common cover box member 18 to form a housing for pads of corrugated paper sheets as 22, shown in Fig. 4, the box sections b0 and b01 of each wall being apertured for permitting the sound waves reaching the sound-absorbing material 20.

The sides and rear walls of the booth thus formed are held in assembled relation on the top end of the supporting upright members sm1, sm2, sm3, sm4, sm5, sm6, sm7, etc. and against the opposite edges of corner posts 14, 15, 16 and 17 and between their respective plates p1, p2 of U-shaped channel member x between the plates p3, p4 of U-shaped channel member x2 and between plates p5, p6 of U-shaped member x3 by similar angle pieces such as 23, 24, 25 and 26, shown in Figs. 1, 2, 7, 8, 9 and 10 bolted to their respective corner posts 14, 15, 16 and 17. These corner posts are held in assembled relation at their upper ends by metallic channel-shaped spacer members, such as 27, 28 and 29 secured at their ends as by screws 30, shown in Figs. 8 and 10 to the corner posts 14, 15, 16 and 17 while plates as 31, 32 and 33 are welded to their respective channel-shaped spacer members 27, 28 and 29 to serve as backing for the booth walls at their upper ends. The metallic channel-shaped spacer members 27, 28 and 29 are provided with downwardly extending arms as 35, 36, 37 and 39, shown in Figs. 6, 8 and 10 provided for securing an apertured metallic plate 40 forming the ceiling of the booth. This plate is of such dimensions as to provide a certain amount of clearance y, shown in Fig. 8, between the side walls and the rear walls of the booths and its peripheral edges for a purpose which will be hereinafter described in detail. The ceiling 40 in cooperation with a rim 41 forms a container for receiving the cloth wrapping 42 and the sound-absorbing material 43 which like the walls may be rock wool, or other similar sound-absorbing material.

The front edge of ceiling, or plate, 40 is supported by attachment to the under-side of a metallic casing, best seen in Figs. 8, 10 and 11, of substantially triangular cross-section provided for housing a lighting fixture LF, its controlling switch cw and the telephone substation apparatus, shown in Fig. 2. This casing is formed with a flat roof portion 100, an L-shaped portion 101 extending downwardly at right angles relative to roof portion 100, diagonal portion 102, the portion 103 formed with a guideway 53 and the upwardly turned ridge 104, the portion 100 and its cooperating portions 101, 102, 103 and 104 are held in their proper bent relation by side flange members 105 and 106 secured as by welding at points a, a1 and a2 and a partitioning flange 107 which cooperates with flange 106 to form a compartment for housing the lighting fixture LF and its supporting plate SP, shown in Figs. 8 and 10, flange member 107 being secured to the casing portion 100 and to its cooperating portions 101,

102, etc. as by welding at points d and d1 while spacer members or brackets 108 and 109 serve as supports for mounting the telephone substation apparatus above mentioned.

The top disposed side 100 of the casing forms in cooperation with a plate 27b a roof for the booth. The plate 27b is provided with a plurality of openings op as shown in Fig. 10, to serve in cooperation with the clearance y and path leading to the interior of the booth. The plate portion 100 of the casing and the plate 27b are secured to the channel-shaped spacer members 27, 28 and 29 by screws scs and along their overlapping edges by screws sc1, shown in Fig. 8. To the front disposed edge of plate 100 is pivoted as on hinges h and h1, a door 50 normally secured in the closed position, as shown in Fig. 5, by a number of latches 51 engaging the upturned ridge 104 of the casing as shown in Fig. 11. Door 50, as shown in Figs. 2 and 10, is provided with a latch element LT engaging the bar LT1 for holding it in the open position. This door carries a block 110 engaging a rectangularly shaped notch n in the portions 103 and ridge 104 of the casing for permitting the disengagement of a slider member 55 attached to the booth entrance door, from the guideway 53, as shown in Figs. 2 and 8, subsequent to the opening of the door 50 whenever the outward opening of the entrance door of the booth is required as, for instance, in an emergency due to the door becoming jammed with an occupant in the booth.

This entrance door, as shown in Figs. 1, 2, 5 and 7, is formed of folding sections 58 and 59 each in the form of a sheet metal frame, the adjacent sides of which are pivoted to each other as by hinge 82. The door sections 58 and 59 are provided with rectangularly shaped openings for receiving the glass plates 83 and 84 secured therein by the clamping action of molding strips 85, 86, 87 and 88 for the glass plate 83 and molding strips 89, 90, 91 and 92 for the glass plate 84, the molding strips 85, 86, 87 and 88, 89 and 90, etc., are held securely to the door sections 58 and 59 by a plurality of screws as sw, shown in Fig. 13, threadedly engaging their respective frame, while rubber strips such as 93 and 94 are placed around the edges of the glass plates 83 and 84 to form yielding joints between the frames forming the door sections 58 and 59 and the glass plates 83 and 84 and their clamping molding strips 85, 86, 87 and 88 and 89, 90, 91 and 92.

Door section 59, as shown in Figs. 8, 9, 12 and 13, is pivotally mounted adjacent the corner post 14 on an end-thrust bearing in the form of a ball 60 placed between the conical recessed bearing elements 61 and 62, bearing element 61 being supported by a bracket 63 secured to the upright corner member cm1 and corner post 14 as by screws 64 and 65 threading into member cm1, while the bearing element 62 is carried by an arm 66 laterally extending from the frame of door section 59 and welded thereto.

To door section 59 at its upper disposed end is welded an arm 67 best seen in Fig. 12 extending laterally therefrom for mounting a spindle 68 rotatably engaging a bushing 69 in a block member 70 secured to the wall portion 103 of the casing as by screws 71 and 72. The spindle 68 is provided with an extension 73 of reduced diameter provided for mounting a collar 74 carrying an eccentrically disposed pin 75, the free end of which engages the under-side of a camming plate 76 pivotally mounted on a bracket 77 in turn secured to the side flange 106 of the casing.

Camming plate 76 best seen in Figs. 11, 12, 14, 15 and 16 is formed with a base portion 79 which serves for mounting a mercury switch *cw* provided for controlling the operation of the lighting fixture LF and that of a fan 81, shown in Figs. 1, 2 and 8 upon the inwardly folding and unfolding of door sections 58 and 59.

On the metallic plate 10 of the base is fitted a rubber floor RF having portions extending upwardly against the side plates *p1*, *p3* and *p6* of U-shaped channel member *x1*, *x2*, and *x3*, where they are secured as by metallic moldings *sm* and screws *scr* engaging the threaded holes *scr1* in side plates *p1*, *p3* and *p6*, this floor being held at its front edge to the plate 10 by a treadpiece *ta*, shown in Fig. 1, in turn secured to the plate 10 by a number of screws *scw*.

To the rear right corner of the telephone booth is secured shelf 114, shown in Fig. 7, formed with a bracket 115 provided for supporting the telephone apparatus in the form of a coin collector box 116 while in the plane of the ceiling in the rear right corner of the telephone booth and in superposed relation to the telephone is secured a bracket apparatus 117, shown in Fig. 6, serving for supporting a fan 81, shown in Fig. 2, and used for the ventilation of the booth, the air entering the booth from openings *op* in the roof 276 and passing through the clearance *y* between the walls of the booth and the peripheral edge of the ceiling and exhausting through an opening formed between the lower edge of door sections 58 and 59 and the tread-piece *ta* at the entrance of the booth.

Similarly, to the rear left corner 16 of the booth is secured as by welding the reinforcing bars 130 and 131, shown in Figs. 10 and 17 to which a frame for the seat 150 of the booth is secured as by a plurality of screws 133, 134 and 135, such frame consisting of the corner-piece 136, the tubing 137 welded at its lower end to the corner-piece 136 and to the under-side of a rest-piece 138 to which the seat 150 is secured as by a number of screws 151 and 152, while a hood member 139 is fitted over the tubing support 137 and is secured to the corner member 136 by a number of screws engaging the hole 140 in hood member 139 and the threaded hole 141 in the corner-piece 136, a bracket 142 which is secured to the right side wall of the booth being provided as an additional support for the seat.

To the portion 103, shown in Figs. 8 and 11, in the compartment formed by side flange 106 and the partitions 107 is mounted a frame 160 for the inverted glass dome 161 disposed in juxtaposition to the lamp 162 of the lighting fixture. This frame is pivoted as by lugs 163 and 164 shown in Fig. 11 engaging slots as 165 and 166 while springs 167 and 168 yieldably hold the frame 160 in its normal closed position where it may be locked by a screw 169.

According to the invention, the unfolding movement of the door sections 58 and 59 from the position shown in Fig. 14 to the position shown in Fig. 15, the rotation of spindle 73 and that of crank pin 75 against the camming plate 76 is effective to move the mercury switch *cw* in a horizontal position for establishing electrical connection with the electrodes connecting with the wires 170 and 171, thus causing the operation of the lighting fixture and that of the fan 81 for lighting and ventilating the booth simultaneously while a manually operated switch 172 is provided

for controlling the operation of the fan independently of the lighting fixture.

It is understood that minor changes may be made to the invention without departing from the scope of the appended claims.

What is claimed is:

1. A telephone booth comprising a substantially rectangular shaped base, two side walls and a rear wall, a plurality of corner posts secured at their lower ends to projections carried by said base, means for securely holding said corner posts in spaced relation at their upper ends, means for securing said walls in assembled relation to each other and in relation to said corner posts, an apertured ceiling for said booth, a plurality of brackets carried by said first-mentioned securing means for supporting said ceiling, said ceiling having a peripherally disposed upwardly extending rim forming a container, sound-absorbing material in said container, and a roof for said booth secured to said first-mentioned means and disposed adjacent the edge of said rim.

2. A telephone booth comprising a base, two side walls and a rear wall, U-shaped channel members secured to said base, spacer members secured to the inwardly disposed sides of said channel members for reinforcing them and serving as rests for said walls, one side of each of said channel members serving as kick plates at the interior of the booth, said base having upright corner members, corner posts, means for securing said corner posts to said upright members and said channel members collectively, spacer members having their ends secured to said corner posts for holding the latter in assembled relation at their upper ends, said base, said corner posts and said spacer members forming a frame of unit structure, means for securing said walls in assembled relation on said corner posts, a ceiling, and a roof for said booth supported by said spacer members.

3. A telephone booth comprising a base, two side walls and a rear wall, corner posts, means for securing the lower disposed ends of said corner posts to said base for holding them in assembled relation to each other, spacer members secured to said corner posts for holding them in spaced relation at their upper ends, a ceiling, a plurality of brackets secured to said spacer members for supporting said ceiling, a triangularly shaped casing having a longitudinal edge resting on the adjacent edge of said ceiling, said casing having a side forming a portion of said ceiling and a roof portion, said roof portion resting on said spacer members, and a metallic plate resting on said spacer member forming the complementary portion of said roof.

4. A telephone booth comprising a base, two side walls and a rear wall, a plurality of corner posts secured at their lower ends to projections carried by said base, means for securely holding said corner posts in spaced relation at their upper ends, means for securing said walls in assembled relation to each other and in relation to said corner posts, a perforated plate forming a ceiling, a plurality of brackets carried by said securing means for supporting said ceiling, said ceiling having a peripheral upwardly extending rim and apertured bottom plate forming a container, sound-absorbing material in said container, a roof for said booth, a casing supported by said corner posts, the sides of said casing forming respectively a portion of the ceiling, a portion of the roof and the front wall of said booth.

5. A telephone booth comprising two side walls and a rear wall, a base, a plurality of securing means for holding each of said walls in assembled relation to said base, a ceiling and a roof supported by said securing means and extending partially over the area of said booth, two of said securing means forming the entrance of the booth, a casing supported by two of said securing means and secured to said ceiling and to said roof, said casing forming the complement portions of said ceiling and said roof and having one of its sides forming the front wall at the top end of the booth, a lighting fixture and telephone substation apparatus housed in said casing, a door hinged to said casing for giving access to said fixture and said apparatus from the front side of said booth.

6. A telephone booth comprising a base, two side walls and a rear wall, a plurality of corner posts, upright members carried by said base for securing said corner posts thereto, means cooperating with said corner posts for holding each of said walls in assembled relation on said base, a ceiling and a roof for said booth, a plurality of spacer members secured to said corner posts at their upper ends for holding them in spaced relation to each other, means for securing said ceiling and said roof to said spacer members, two of said corner posts forming the entrance of the booth, a casing supported by the last-mentioned corner posts and having end portions bearing against two oppositely disposed spacer members, means for securing said casing to the last-mentioned spacer members, said casing having a door forming the front wall of said booth, a door of folding sections for said booth, a bracket carried by one of the last-mentioned corner posts, an end-thrust bearing carried by said bracket for pivoting one of said door sections to one of the last-mentioned corner posts, a bearing secured to said casing, a spindle carried by said door section rotatably engaging said bearing, a crank secured at the end of said spindle, a lighting fixture and a switch in said casing, a camming element disposed in engageable relation with said crank for imparting movement to said switch for controlling the operation of said lighting fixture upon the operation of said door sections.

7. A telephone booth comprising a base, two side walls and a rear wall, upright members carried by said base, corner posts secured to said upright members, a ceiling, a roof and a casing mounted on said corner posts, a door consisting of folding sections for said booth, one of said sections being hinged to one of said corner posts, said casing having a door forming the front wall of the booth, a guideway formed with said casing, a sliding member carried by the other section of said door and engaging said guideway for controlling the folding movement of said door sections, a block carried by the door of said casing normally holding said slider in position in said guideway upon the unfolding of said door sections whereby the opening of said casing door permits the disengaging of said slider from said guideway for folding the booth door outwardly of said booth.

8. A telephone booth comprising two side walls and a rear wall, a base, a plurality of securing means for holding each of said walls in assembled relation to said base, a ceiling and a roof extending partially over the area of said booth, two of said securing means forming the entrance of

the booth, a casing supported by two of said securing means, a lighting fixture and electrical apparatus in said casing, a door hinged at the front disposed side of said casing, permitting access to said lighting fixture and said apparatus from the exterior of said booth, a door for said booth formed of folding sections, one of said sections being pivoted to one of the last-mentioned securing means and to said casing, a slider member carried by the other folding door section and a guideway formed with said casing for controlling the movement of said folding door sections.

9. A telephone booth, a base comprising a metallic plate, upright members secured to said plate, U-shaped channel members secured to said plate and spacer members disposed vertically in said channel members and secured to the inner and outer disposed sides of said channel members for reinforcing them said spacer members serving as bearing points for the walls of said booth and the inner disposed sides of said channel members serving as kick plates for said walls.

10. In a telephone booth, a base, said base comprising a substantially rectangularly shaped plate, upright members secured at each corner of said plate, U-shaped channel members secured to said plate adjacent the peripheral edges thereof, a plurality of spacer members secured to said channel members for reinforcing the sides thereof, corner posts having portions registering with the geometrical cross-section of said upright members and having portions overlapping the adjacent ends of the outwardly disposed sides of said channel members, and means for securing said corner posts to said upright members and to the inner sides of said U-shaped channel members collectively.

11. A telephone booth having a base, corner posts secured to said base two side walls and a rear wall, a ceiling and a roof supported by means secured to said corner posts, each of said walls comprising a plurality of apertured plates bent to form box-like sections, other plates bent to form cover sections, said box-like sections cooperating with said cover sections to form containers, sound-absorbing material in said containers, means for securing said walls to said corner posts, an apertured plate forming a ceiling for said booth, said plates having a peripheral rim forming an open container spaced from said roof, and sound-absorbing material in said container.

12. A telephone booth comprising a base, two side walls and a rear wall, a plurality of corner posts secured at their lower ends to securing elements carried by said base, means for securely holding said corner posts in spaced relation at their upper ends, each of said walls comprising a plurality of apertured plates forming box-like sections and cover sections, said box-like sections cooperating with said cover sections to form a plurality of containers, means for securing said walls in assembled relation to each other and in relation to said corner posts, a perforated plate forming a ceiling, a plurality of brackets carried by said securing means for supporting said ceiling, said ceiling having a peripheral upwardly extending rim forming a container, sound-absorbing material in containers formed by said box-like sections and cover sections and in the last-mentioned container, and a roof for said booth secured to the first-mentioned means.

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