

April 25, 1939.

F. A. KUNTZ

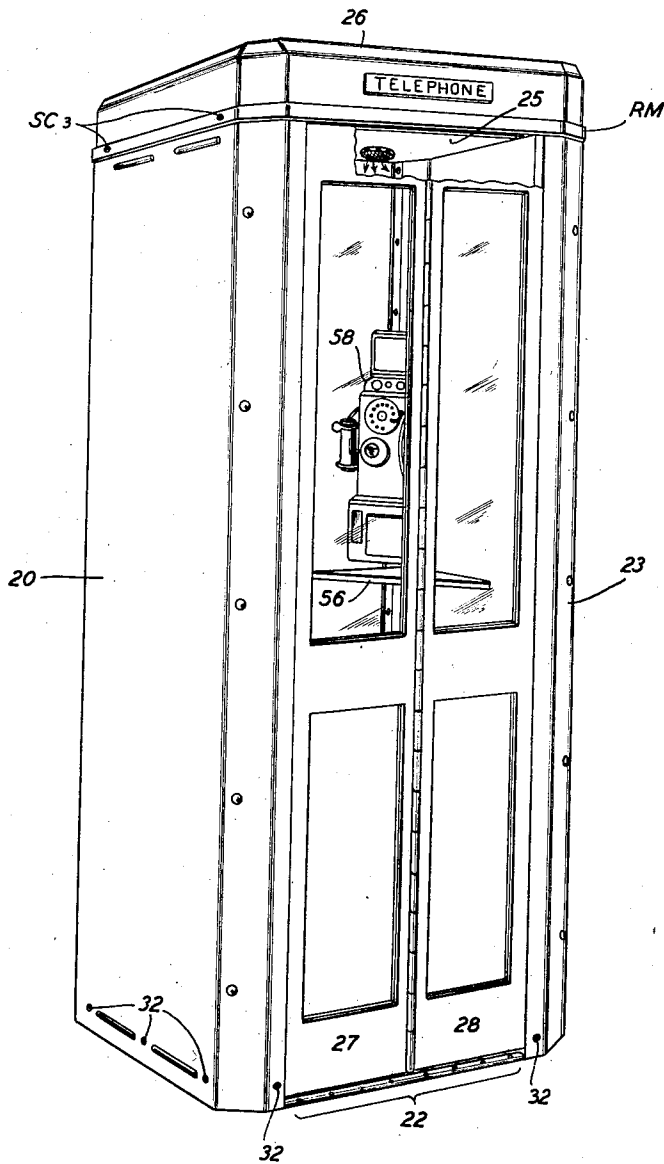
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TELEPHONE BOOTH

Filed Sept. 12, 1936

6 Sheets-Sheet 1

FIG. 1



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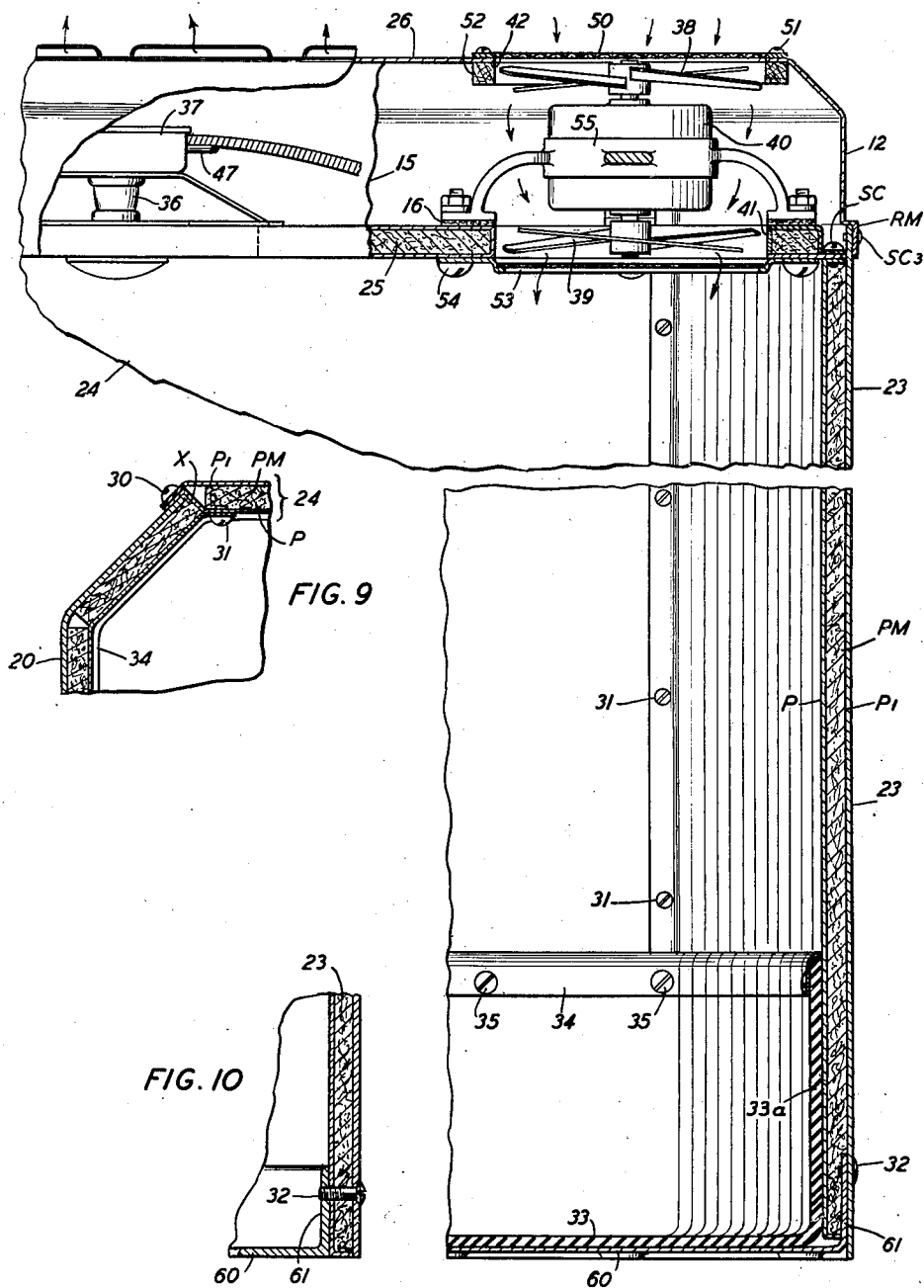
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FIG. 2



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FIG. 3

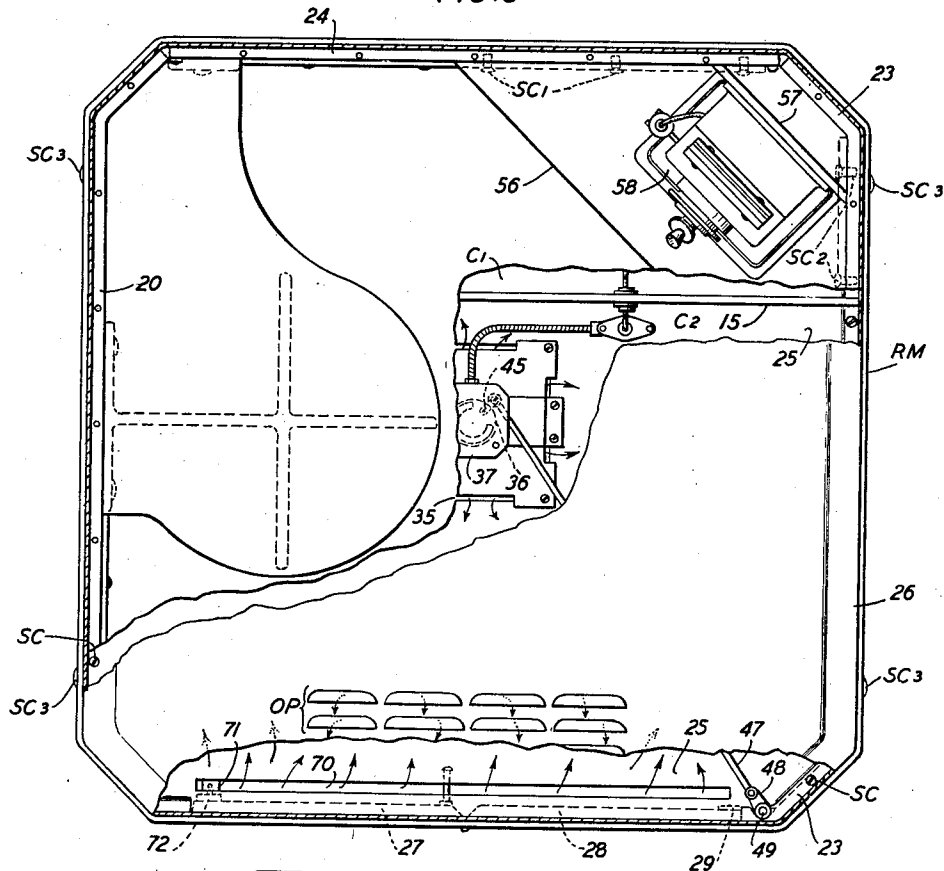
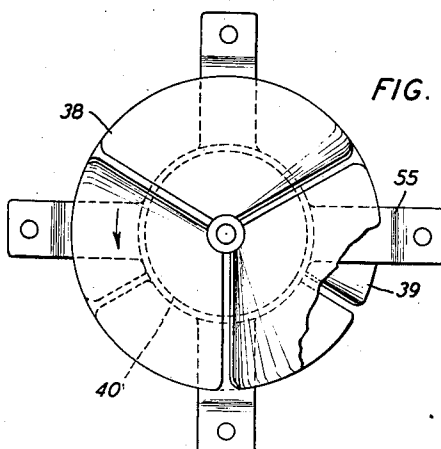


FIG. 8



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FIG. 4

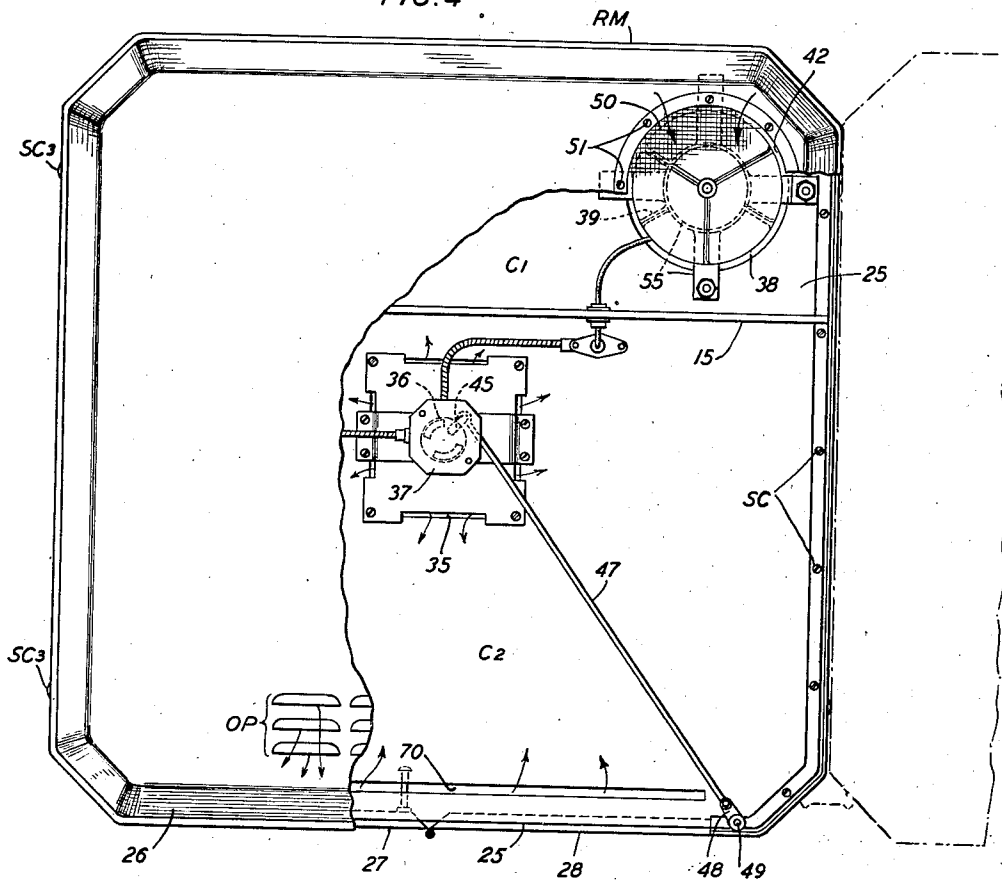
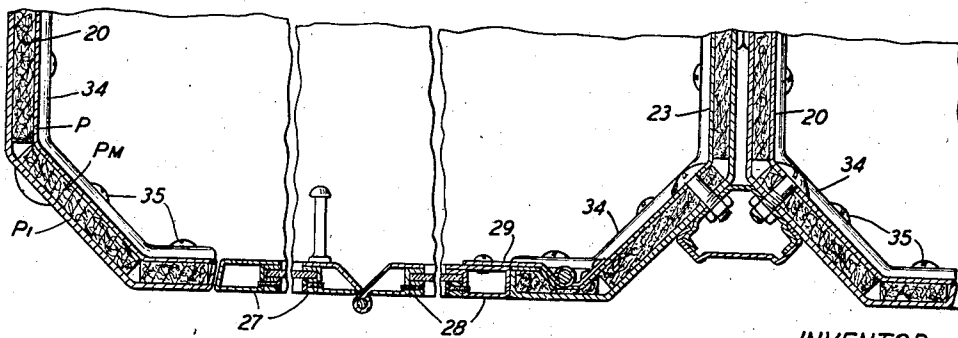


FIG. 6



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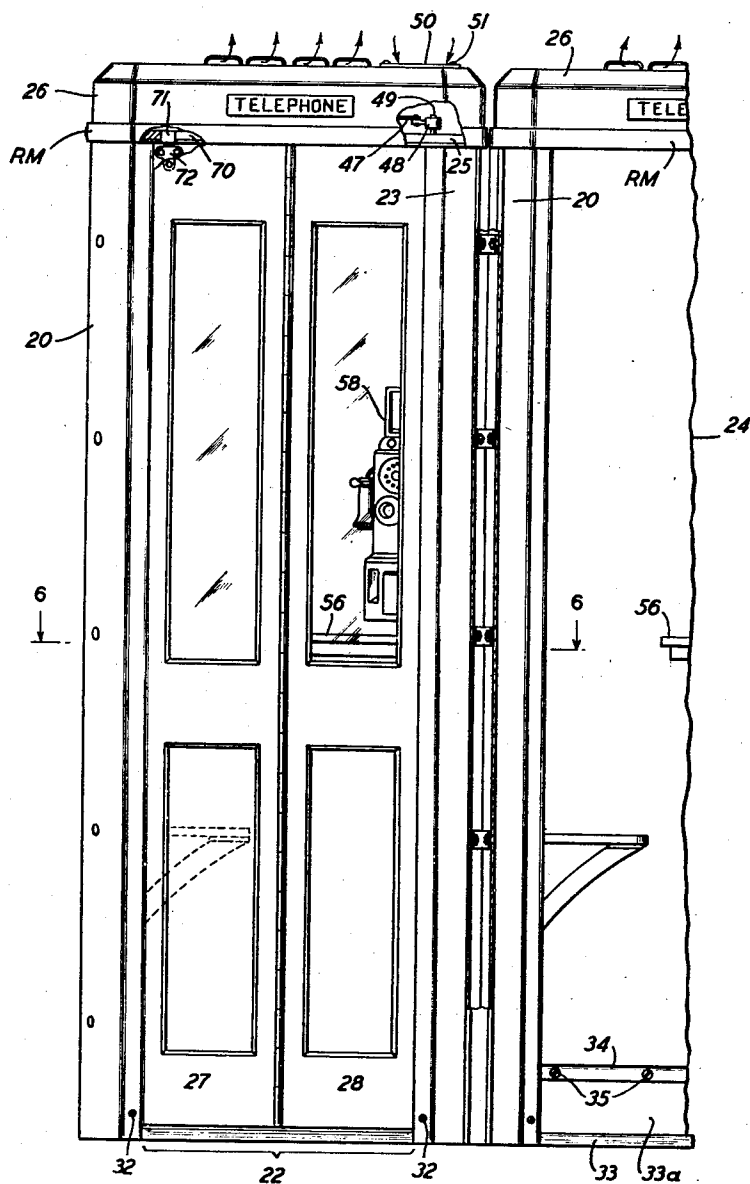
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FIG. 5



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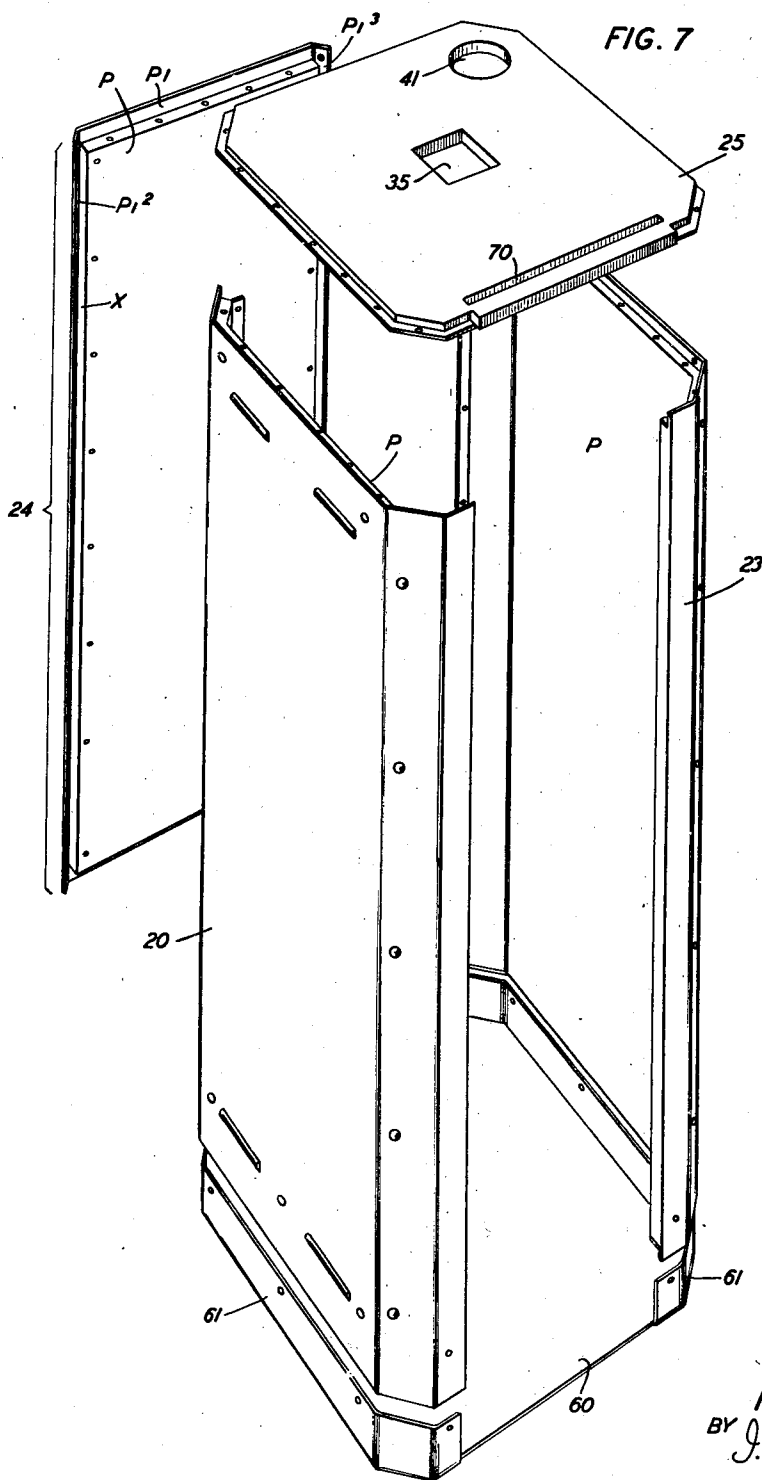
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UNITED STATES PATENT OFFICE

2,155,495

TELEPHONE BOOTH

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Application September 12, 1936, Serial No. 100,430

4 Claims. (Cl. 189—2)

This invention relates to telephone booths and the object of the invention is the provision of a telephone booth which will be simple in construction, convenient in use, and wherein extraneous noise is reduced to a minimum level.

According to the invention the walls of the booth are made of a composite sheet consisting of two metallic plates of different thickness and a plate of sound-proofing material of another thickness adhesively united to the metallic plates, such composite sheet being formed to obtain telephone booths of cross-sections representing any geometrical figure desired. Means is provided at the lower end of the booth for receiving the rim portion of a base which serves to hold the walls in assembled relation at this end of the booth in cooperation with a number of screws engaging the outer disposed metallic plate of the composite sheet and the rim of the base. A ceiling also formed of a composite sheet rests on the top ends of the walls and screws engaging the ceiling and a bent-over portion of the inner disposed metallic plate of the composite sheet serve to hold the booth walls in assembled relation at this end. A roof which is made of a stamped metallic sheet is provided with means for telescopically engaging with the peripheral contours of the booth walls. Means is provided in the space between the ceiling and the roof for mounting a motor with its armature shaft disposed in a vertical position for mounting two fan wheels for movement in registering apertures in the ceiling and the roof for the ventilation of the booth, the fan wheels being disposed in staggered or overlapping relation to each other, thus avoiding the use of baffle plates which have been found to offer considerable resistance to the air flow, while the use of two fan wheels in staggered relation prevents visibility to the exterior of the booth and substantially increases the amount of air forced into the interior of the booth without increasing the motive force and effectively prevents noises of the motor owing to the better balancing of its armature shaft.

Other features and advantages of the invention will appear from the following description and by the claims appended thereto, reference being had to the accompanying drawings in which:

Fig. 1 is an assembly view shown in perspective and with portions of the door cut away;

Fig. 2 is a partial view shown in section;

Fig. 3 is a top view with the roof and ceiling with portions cut away to show the position of the telephone apparatus in the booth in relation to the lighting fixture.

Fig. 4 is a top view with portions of the roof cut

away to show the position of the fan in relation to its controlling switching device;

Fig. 5 is a front view showing two telephone booths secured to each other, the securing means being shown partly in section;

Fig. 6 is a partial view of the booth shown in section taken on line 6—6 of Fig. 5;

Fig. 7 is an exploded view of the combined side and front walls, the rear wall and the ceiling shown in perspective;

Fig. 8 is a top view of the fan;

Fig. 9 is a partial view showing one of the combined side and front wall sections and the rear wall in assembled relation; and

Fig. 10 is a partial view showing a modification of the base shown in Figs. 1 and 2.

As shown in the drawings, the telephone booth of the invention is preferably of octagonal cross-section, the wall elements of which are formed of two combined front and side wall sections 20 and 23 each also forming a portion of a rear wall, a complementary rear wall section 24, a ceiling 25, a roof unit 26 and a door formed of two relatively movable sections 27 and 28, section 28 being in turn attached to the combined front and side wall section 23 by a plurality of hinged members as 29 shown in Figs. 4 and 6.

The two combined front and side wall sections 20 and 23, the complementary rear wall section 24 and the door sections 27 and 28 are formed of composite sheets consisting of two metallic plates P and P¹ of different thickness and a layer of sound-proofing material PM of another thickness adhesively or otherwise united to the metallic plates while the ceiling 25 is formed of composite sheets as shown in Fig. 2. The longitudinal edges P¹₂ and P¹₃ of the outer disposed plate P¹ of the complementary rear wall section 24 as shown in Figs. 7 and 9 extend beyond the longitudinal edges of the plate of sound-proofing material PM and are bent in overlapping relation on the outer disposed metallic plate of the combined walls 20 and 23 and secured thereto by a plurality of screws 30, while the parallel edges x of the inner disposed plate P of the complementary rear wall section 24 are bent substantially at right angles over the edge of the sound-proofing material to serve as abutment for the combined wall sections 20 and 23, the plates P of combined wall sections 20 and 23 being secured to the rear wall section 24 by a plurality of screws 31 as shown in Figs. 2 and 9.

The metallic plates P of the complementary rear wall section 24 and the combined side and front wall sections or elements 20 and 23 at their top ends are bent substantially at right angles over

the ends of the sound-proofing material 23 to serve as a seat or bearing surface for the ceiling 25 which is secured to these walls and the complementary rear wall section by a plurality of screws SC shown in Figs. 2, 3 and 4, thus holding the rear wall section 24 and the two combined wall sections in assembled relation at their upper ends, while the roof unit 26 as shown in Figs. 1, 2, 3, 4 and 5 is provided with a shoulder and a rim portion RM the latter telescopically engaging the peripheral contours formed by the booth walls 20, 23 and 24 to which it is secured by a number of screws SC3.

A metallic base 60 shown in Fig. 2 is provided with a perpendicularly extending peripheral rim 61 following the inner peripheral contours of the outer disposed metallic plates of combined walls 20 and 23 and that of the inner side of the outer disposed metallic plate of the complementary rear wall section 24 for securing them thereto by a plurality of screws 32, and on the base 60 is placed a floor 33 of rubber or fibrous material having upwardly extending flange portions as 33a secured to the booth walls at their upper disposed edges by a metallic strip 34 and screw 35 engaging the booth walls.

In the modification of the base 60 as shown in Fig. 10 the rim portion 61 fits the inner periphery of the booth walls and serves to hold these walls in assembled relation at their lower ends, the walls being secured to the base by a plurality of screws 32 threadedly engaging the rim portion 61 of the base.

The ceiling 25 is provided at its front portion with a rectangularly shaped opening 70 forming an air outlet and serving as a guide for a slider member 71 which is carried by a bracket 72 secured to the rear side of door section 27, the slider member 71 thus controlling the relative movement of door sections 27 and 28.

The ceiling 25 is also provided with a centrally disposed opening 35 for receiving a lighting fixture 36 for the lighting of the booth, the lighting fixture being provided with a switching device in a casing 37 shown in Fig. 2 for controlling the operation of the lighting fixture bulb upon the operation of the door in a manner that will be hereinafter described in detail.

On the ceiling 25 is securely mounted a motor 40 for actuating the fan wheels 38 and 39, shown in Figs. 2 and 4, fan wheel 39 being disposed for movement in a circular opening 41 in the ceiling 25 and fan wheel 38 in a coaxially disposed circular opening 42 in the roof 26.

A partition 15 shown in Figs. 2, 3 and 4 is provided for dividing the space between the ceiling and the roof 26 into two compartments c1 and c2 for preventing the air forced out of the booth through the lighting fixture opening 35 and through the opening 70 in ceiling 25 by the action of the fan wheels from mixing with the air entering the booth through the fan opening 41, the air being exhausted through the air openings OP in the roof 26.

The operation of motor 40 is effected simultaneously with the operation of the lighting fixture bulb under control of the movement of the door. This door is connected to the operating arm 45 of the switch device in the housing 37 of the lighting fixture by a rod 47, the other end of which is connected to a crank 48 carried by the hinge pin 49 extending above the ceiling 25 as shown in Figs. 4 and 5.

Each of the blades of fan wheels 38 and 39 has an angular distance of substantially 120 degrees and the blades of fan wheel 38 are staggered an

angular distance of substantially 60 degrees relative to the blades of fan wheel 39 to prevent visibility to the outside of the booth, thus avoiding the use of a system of baffle plates and correspondingly reducing the cost of the telephone booth. A screen 50 is disposed in juxtaposition to the fan wheel 38 and is secured to the roof 26 by a plurality of screws 51 engaging a ring 52 of non-metallic material disposed concentric to fan wheel 38 to form an air path leading to the compartment C1 at the top of the booth. Similarly, a screen 53 is disposed in juxtaposition to fan wheel 39 and is secured to the underside of ceiling 25 by screws 54, which also serve for securing the motor spider shaped bracket 55 on the top side of the ceiling while rubber pads such as 16 are interposed between the arms of bracket 55 and the ceiling 25 for further preventing the vibrations generated by the operation of the motor 40 to reach the interior of the booth.

In the rear right corner of the booth formed by the combined front and right side wall section 23 and the rear wall 24 is secured in a well-known manner a writing shelf 56 and a plate 57 provided for mounting the telephone apparatus 58 of the coin collector type in axial alignment with respect to the fan wheels 38 and 39 for projecting the maximum of the air stream toward the general position of the telephone apparatus and that of the user in the booth.

According to the invention, the composite sheets may be shaped to form a telephone booth of any geometrical cross-section desired and minor other changes may be made to the invention without departing from the scope of the appended claims.

What is claimed is:

1. A telephone booth having a plurality of walls, a door, a ceiling and a roof supported by said walls, said roof and said ceiling having each an opening forming an air path leading to the interior of the booth, a fan wheel in each opening these fan wheels cooperating with each other to generate a current of air toward the interior of the booth, a motor for actuating said fan wheels, the blades of said fan wheels forming a complete circumference and the blades of one of said fan wheels being disposed at an angle relative to the blades of the other of said fan wheels for preventing visibility through the openings in said ceiling and said roof.

2. A telephone booth having a plurality of walls, each of said walls consisting of a plurality of layers of metallic material of different thickness and a sheet of sound-proofing material, the edges of the inner disposed metallic layer at the top end of the walls being bent substantially at right angles over the edge of the sound-proofing material to form a bearing surface, a ceiling made of a plurality of layers of metallic and sound-proofing material adhesively united and having its metallic layers extending beyond the sound-proofing material in superposed relation with said bearing surface, a plurality of screws engaging said bent portion for securing said ceiling to each of said walls for securing the latter in assembled relation to each other at one of their ends and a base having a peripheral rim portion fitted between the layer of sound-proofing material and one of said metallic layers for holding said walls in assembled relation at their other ends and a plurality of screws for securing said base to said walls.

3. A telephone booth having a rear wall and two combined side and front walls, said combined

side and front walls having portions bent at an angle to form with said rear wall and said front wall portions a booth of octagonal cross-section, a ceiling for said booth having its peripheral edge registering with the peripheral shape of said walls, said ceiling and said walls consisting of a plurality of homogeneously united plates of metallic and sound-proofing material, a roof for said booth having its peripheral edge formed with a shoulder portion resting on the edge of said walls, and a plurality of screws for securing said roof to one of said metallic plates of said walls and said ceiling to the other metallic plate of said walls.

4. A telephone booth having two combined side and front walls, each of said walls having a portion of a rear wall, a complemental rear wall section secured to said rear wall portions, each of said walls and said complemental wall section comprising two layers of metallic material and a layer of sound-proofing material homogeneously united to the layers of metallic material, each

of said walls having their metallic layers at their rear wall portions overlapping their plates of sound-proofing material, means for securing the outer disposed overlapping metallic portion of one wall to the inner disposed metallic portions of another of said walls, a ceiling for said booth secured to the inner disposed metallic layer of each of said walls and the complemental portion of said rear wall for holding said walls and said rear section in assembled relation at their upper ends, a peripherally disposed ridge formed by the outer disposed layers of each of said walls around said ceiling, a roof having a peripheral shoulder portion resting on said ridge, means for securing said roof to the outer disposed metallic layers of each of said walls at their ridge portions and a base having a number of peripherally disposed portions secured to each of said walls adjacent their lower ends, for holding them and said rear wall section in assembled relation to each other at said lower end.

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