

1,043,055.

W. D. CARTER.
TELEPHONE BOOTH.
APPLICATION FILED OCT. 18, 1910.

Patented Oct. 29, 1912.
2 SHEETS—SHEET 1.

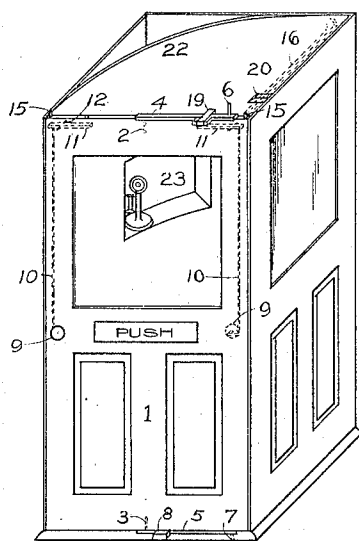


Fig. 1.

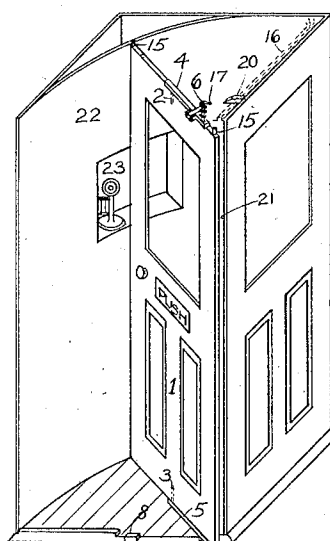


Fig. 2.

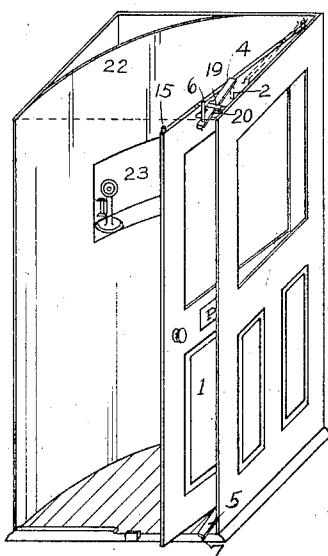


Fig. 3.

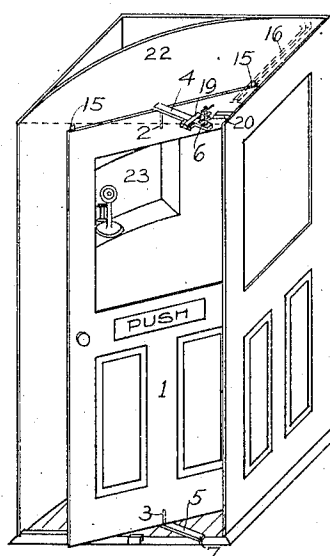


Fig. 4.

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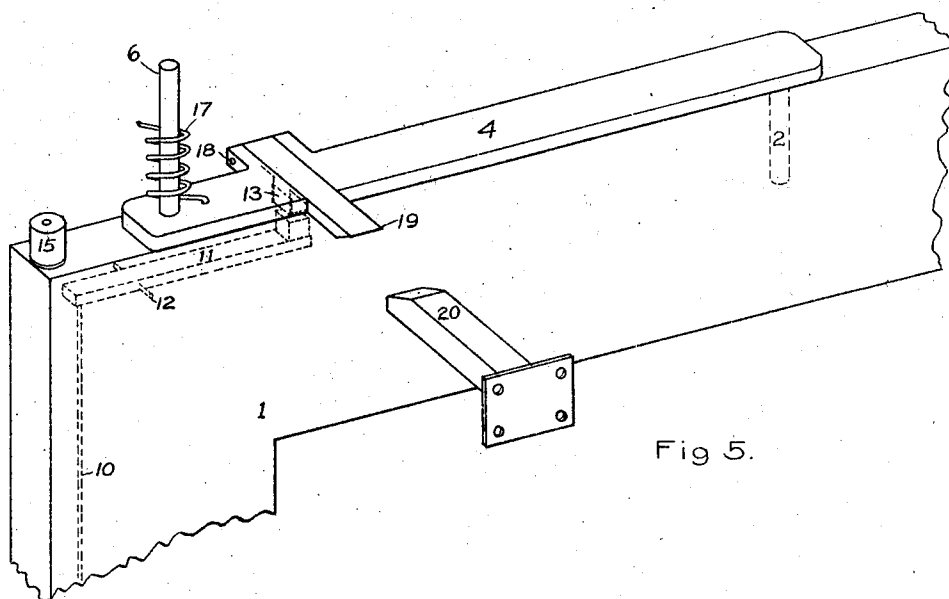


Fig. 5.

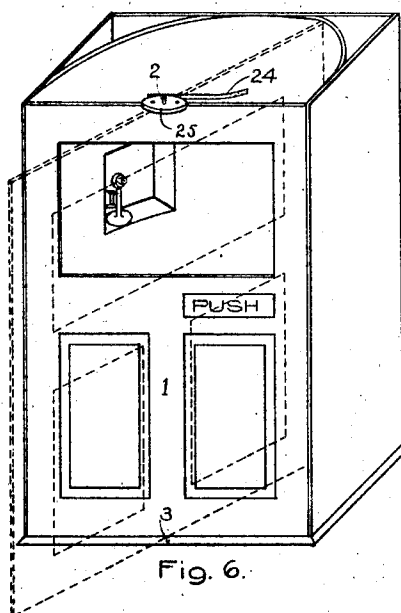


Fig. 6.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM DOUGLAS CARTER, OF QUINCY, ILLINOIS.

TELEPHONE-BOOTH.

1,043,055.

Specification of Letters Patent.

Patented Oct. 29, 1912.

Application filed October 18, 1910. Serial No. 587,756.

To all whom it may concern:

Be it known that I, WILLIAM DOUGLAS CARTER, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented a new and useful Improvement in Telephone-Booths, of which the following is a specification.

This invention relates to a booth containing a door so mounted as to move inward on hinges, levers, or slides, so as to expel and entrain air from and into said booth, and to be so contrived as to close the doorway of said booth during the occupancy of same. This object is attained by the mechanism illustrated in the accompanying drawings forming part of this specification.

Figure 1 is a front and side view of a booth with top removed, showing my ventilating door in the position which it occupies when the doorway to said booth is closed by said ventilating door; Fig. 2 is a similar view of the booth showing the ventilating door in one of the successive positions which it assumes when pushed inward by a person entering the booth; Fig. 3 is a view of the same booth showing the ventilating door at the end of its inward swing, and about to return to close the doorway; Fig. 4 is a view of the booth showing the ventilating door in one of the successive positions which it assumes in returning to the original closed position shown in Fig. 1; Fig. 5 is an enlarged view showing the lever and bearings upon which said ventilating door swings; Fig. 6 shows a modified construction of the booth and ventilating door designed to illustrate the same principle shown in the above named drawings.

Similar figures refer to similar parts throughout the several views.

Ventilating door 1 is supported between the bearings 2 and 3 at the ends of the arms 4 and 5, which arms themselves are carried on bearings 6 and 7 respectively.

8 is a stop so placed as to prevent arm 5 and ventilating door 1 from swinging outward when in the closed position shown in Fig. 1.

9 are knobs used to open the door from the inside when the occupant of the booth is ready to leave the same. One of these knobs is always on the inside and one on the outside of said ventilating door.

10 are rods connecting knobs 9 with levers 11 so as to release the catch 13 (shown in Fig. 5) and thereby permit the ventilating

door to swing on bearings 2 and 3 as shown in Figs. 3 and 4. The releasing of this catch is necessary in order that the occupant of the booth may open the door from the inside.

15 are rollers fixed to the top of ventilating door 1, and so placed as to follow in the track or slot 16 and thereby control the movement of ventilating door 1 in closing.

In Fig. 5, 17 is a spring which operates to force lever 4 toward the front of the booth and into the position shown in Fig. 1.

Catch 13, Fig. 5 hinged at bearing 18, carries the lug 19 which engages with post 20 just before ventilating door 1 reaches its extreme inward position, as shown in Fig. 3. Post 20 being mounted on the inside wall of the booth, forces upward catch 13 (see Fig. 5) and releases the ventilating door so that it can swing on bearings 2 and 3 (see Figs. 3 and 4.) The end of post 20 presses ventilating door 1 outward from the side wall, thereby starting said ventilating door on its return path to close the doorway of the booth. The path of the ventilating door in closing, leaves space for the party within the booth to stand.

Bearings 6 and 7 are positioned a short way from the corners of the ventilating door as shown so that the ventilating door will swing outward at the right hand edge, and thereby form the opening 21 (Fig. 2) to permit the egress of air from the booth when the ventilating door is forced inward.

The inside wall 22 of the booth is curved to fit more closely the left hand edge of the ventilating door as it swings inward on bearings 6 and 7; so that the ventilating door will sweep through substantially all of the inside area of said booth, and thereby be more effective in expelling and entraining air from and into the same. 23 is a recess in said wall 22 for the purpose of holding a telephone or other apparatus out of the path of the ventilating door.

Fig. 6 shows a modified construction of the booth and ventilating door. In this figure the ventilating door merely revolves about the axis of its bearings 2 and 3. Leaf spring 24 operates to restore the ventilating door to its closed position by means of the pressure exerted against cam 25, whenever it is deflected from said position by a party entering or leaving the booth. The broken lines indicate one of the positions assumed by said door in its revolution.

The operation of my ventilating door is

as follows: A party entering the booth presses against the outside knob or push plate and pushes the ventilating door inward on bearings 6 and 7. This forces the air within the booth out through the opening made at the right of the door, and at the same time draws into the booth a fresh supply of air through the doorway. When the ventilating door has been pushed against the side of the booth, the post or stop mounted on the inside wall, releases the catch 13 and allows the spring 17 to operate, swinging the door forward and closing the doorway. When the occupant wishes to leave the booth he turns the knob on the inside of the door and pulls the door backward, reversing the motion shown in Figs. 3 and 4. When the occupant has left the booth, the door closes as in the first case, and the catch 13 holds the arm 4 in place on the top of the ventilating door, so that the above process may be repeated by the entrance of the next party desiring to use the booth.

I claim:

1. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and contrived so as to be the means of closing the doorway of said booth.

2. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and to be the means of closing the doorway of said booth, and mechanism for actuating the same to return it to a closed position when opened.

3. In a telephone booth provided with a telephone, a door adapted to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth; said door being so hinged that part of said door extends to each side of its center of oscillation, so that that part of said door on one side of said axis of oscillation will swing in the opposite direction to that part of said door on the other side of said axis of oscillation; said door likewise being contrived to close the doorway of said booth, substantially as set forth.

4. In a telephone booth provided with a telephone, a revolving door so adapted as to be moved through substantially the whole area of said booth so as to expel and entrain air from and into said booth, and being so contrived as to close the opening of said booth.

5. In a telephone booth provided with a telephone, a door so adapted as to be moved through substantially the whole area of said booth so as to expel and entrain air from

and into said booth; and to provide automatically an opening for the egress of air from said booth; and to be the means of closing the doorway of said booth, substantially as set forth.

6. In a device of the class described, a telephone booth, a door for said booth adapted to expel and entrain the air from and into said booth, said door being pivoted to a lever arm, said lever arm being pivoted to the booth structure, means to engage the body of said lever arm with said door, and means adapted to actuate said engaging means to disengage said lever arm from bodily engagement with said door during the movement of said door.

7. In a device of the class described, a telephone booth, a door for said booth, a lever arm pivoted near one extremity to said booth and near the other extremity to said door, means to bodily engage said lever arm with said door whereby the door will rotate about the pivotal connection of the lever arm to the booth, and means adapted at a predetermined point in the rotation of said door to actuate said engaging means to disengage said lever arm from bodily engagement with said door whereby said door may rotate about its pivotal connection with said lever arm.

8. In a device of the class described, a telephone booth, a door for said booth, lever arms pivoted at one end to said booth and at the other end to said door, and means to bodily engage one of said lever arms with said door whereby the door will rotate about the pivotal connection of the lever arms to the booth when said lever arm is bodily engaged with said door, and means adapted at a predetermined point in the rotation of said door to actuate said engaging means to disengage said lever arm from bodily engagement with said door whereby said door will be permitted to rotate about its pivotal connection with said lever arm as an axis.

9. In a device of the class described, a telephone booth, a door for said booth, said door being pivoted to a lever arm, said lever arm being pivoted to the booth structure, means to engage the body of said lever arm with said door during a certain period of rotation whereby the door will rotate about the pivotal connection of the lever arm to the booth, means adapted to actuate said engaging means to automatically disengage said lever arm from bodily engagement with said door at the conclusion of said period of rotation whereby the door may rotate about its pivotal connection to said lever arm, and means actuating said lever arm to cause said door to continue around to its closed position.

10. In a device of the class described, a telephone booth, a door for said booth, said door being pivoted to a lever arm near one

extremity of the latter, said lever arm being pivoted near its other extremity to the booth, means to engage the body of said lever arm with said door whereby said door may rotate about the pivotal connection of said lever arm with said booth, means adapted to actuate said first named means to automatically disengage said lever arm from bodily engagement with said door at the conclusion of a certain period of rotation, rollers fitted to said door, and a track carried by said booth, said track being so located as to engage one of said rollers at the conclusion of said first named period of rotation and to direct the movement of the said door in its closing movement.

11. In a device of the class described, a telephone booth, a door for said booth, said door being pivoted to a lever arm near one extremity of the latter, said lever arm being pivoted near its other extremity to the booth, means to engage the body of said lever arm with said door whereby said door may rotate about the pivotal connection of said lever arm with said booth, means adapted to actuate said first named means to automatically disengage said lever arm from bodily engagement with said door at the conclusion of a certain period of rotation, rollers fitted to said door, a track carried by said booth, said track being so located as to engage one of said rollers at the conclusion of said first named period of rotation and to direct the movement of the said door in its closing movement, and means actuating said lever arm whereby the same will cause said door to continue around to its closing position when said rollers are engaged by said track.

12. In a device of the class described, a telephone booth, a door for said booth, lever arms located adjacent the top and bottom of said door and pivoted each at one end to said booth and at the other end to said door, means to bodily engage one of said lever arms with said door during a certain period of rotation of said door, and means adapted to automatically disengage said engaging means whereby said lever arm will be disengaged from bodily engagement with said

door at the conclusion of said rotation whereby the door may rotate about its pivotal connection with said lever arms as an axis to its closing position.

13. In a device of the class described comprising a booth, a door for said booth, said door being pivoted to a lever arm, said lever arm being pivoted to the booth, means to engage the body of said lever arm with said door during a certain period of rotation, said means comprising a lug member pivoted to said lever arm and adapted to seat in a recess in the door, and means to automatically disengage said lever arm at the conclusion of said rotation, said disengaging means comprising a check member extending from the wall of the booth and adapted to coact with the lug member, whereby the latter is disengaged from the door.

14. In a device of the class described, a booth, a door for said booth, said door being pivoted to a lever arm, said lever arm being pivoted to the booth structure, means to engage the body of said lever arm with said door, means to automatically disengage said lever arm from bodily engagement with said door after a certain amount of rotation of said door, and manually operated means to disengage the body of said lever arm from said door.

15. In a device of the class described, a booth, a door for said booth, said door being pivoted to a lever arm, said lever arm being pivoted to the booth structure, means to engage the body of said lever arm with said door, means to automatically disengage said lever arm from said door, and manually operated means to disengage the body of said lever arm from said door, said second named disengaging means comprising a rotatable knob operating a pivoted lever arm adapted to contact with and disengage said first named lever arm upon rotation of said knob.

In testimony whereof, I have subscribed my name.

WILLIAM DOUGLAS CARTER.

Witnesses:

MONTAGUE FERRY,
FLOSSIE M. GRAFF.