F. F. BEEBY.

TELEPHONE BOOTH.

APPLICATION FILED NOV. 24, 1919.

1,382,265.

Patented June 21, 1921.

3 SHEETS—SHEET 1.

Fig. 1.

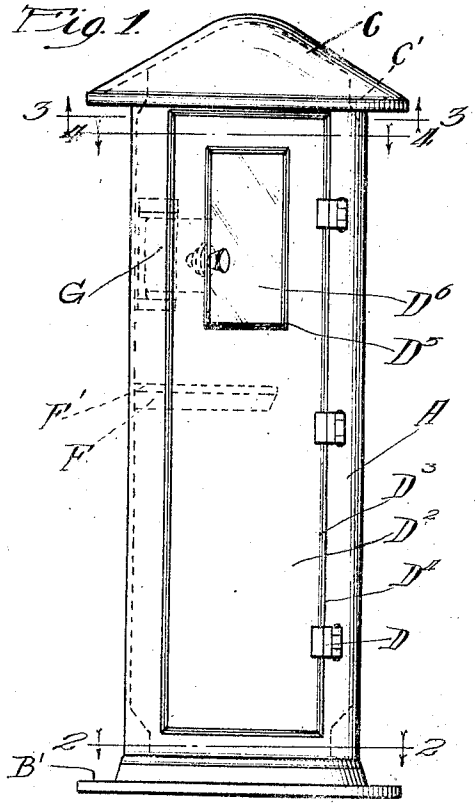


Fig. 2.

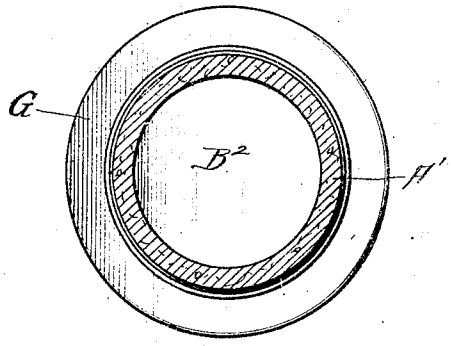


Fig. 3.

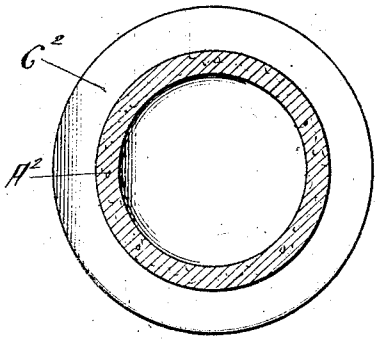


Fig. 7.

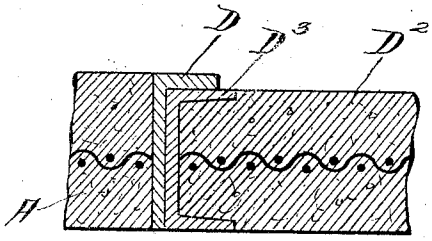
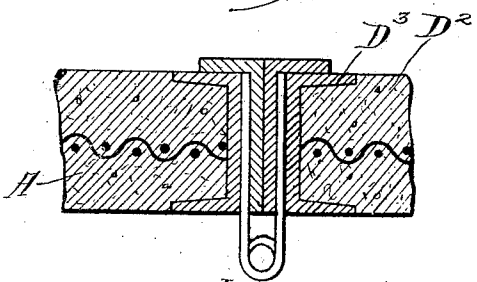


Fig. 8.



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3 SHEETS—SHEET 2.

Fig. 4.

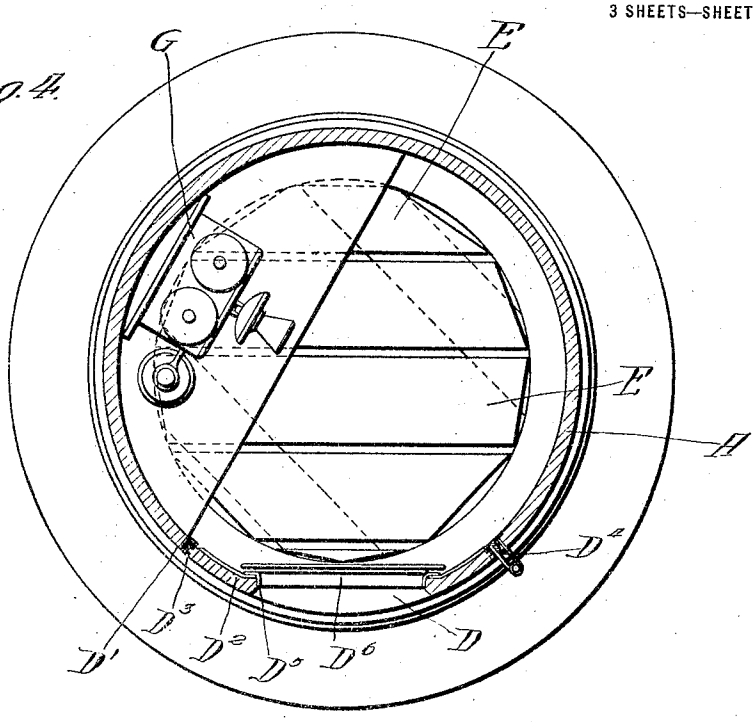


Fig. 5.

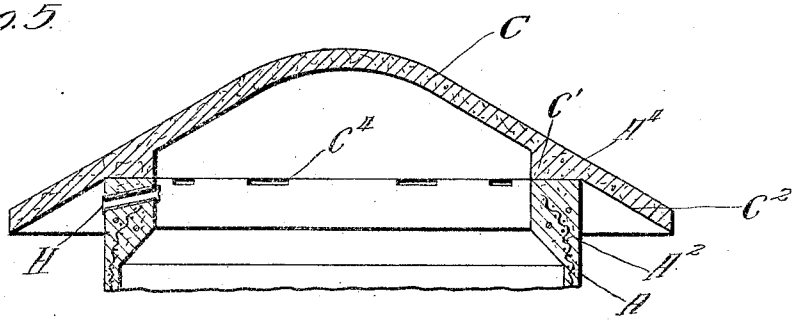
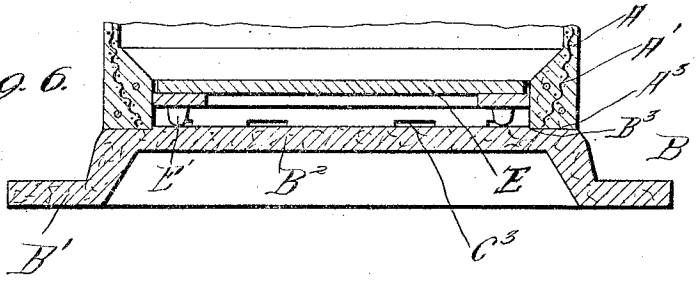


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 9.

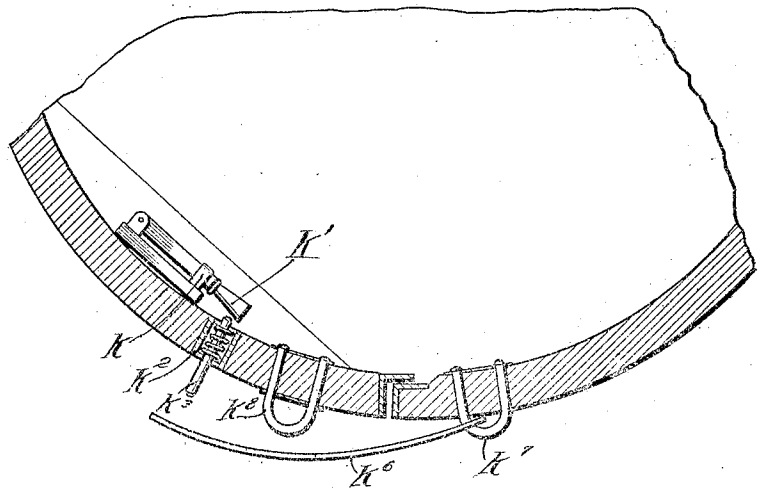
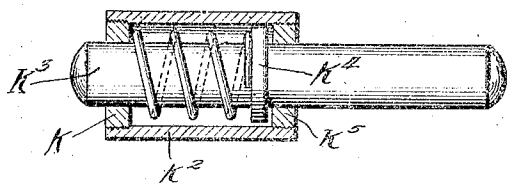


Fig. 10.



Witness:
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UNITED STATES PATENT OFFICE.

FRANK F. BEEBY, OF CHICAGO, ILLINOIS, ASSIGNOR TO CEMENT-GUN CONSTRUCTION COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TELEPHONE-BOOTH.

1,382,265. Specification of Letters Patent. **Patented June 21, 1921.**

Application filed November 24, 1919. Serial No. 340,316.

To all whom it may concern:

Be it known that I, FRANK F. BEEBY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Telephone-Booths, of which the following is a specification.

My invention relates to improvements in concrete telephone booths, and more particularly to a concrete telephone booth which is constructed in sections, and adapted for economy in manufacture, convenience of shipment and ease of assembly and repair. It is particularly suitable for use on electric interurban railway lines where telephones are placed at various points along the way, and where the telephone circuit is best disconnected during non-use of the booth. The telephone booth is especially adapted to construction by the cement-gun process which consists of projecting a type of cement commonly called gunite, under pressure against the mold or backing on which it hardens. Further uses will appear from time to time in the course of the specification.

I have illustrated my invention diagrammatically in the following drawings:

Figure 1 is an elevation of my telephone booth;

Fig. 2 is a section on the lines 2—2 of Fig. 1;

Fig. 3 is a section on the lines 3—3 of Fig. 1;

Fig. 4 is an enlarged plan view of my invention with parts in section;

Figs. 5 and 6 are vertical sections of the top and bottom respectively of my telephone booth;

Fig. 7 is a horizontal partial section through the door, and door jamb;

Fig. 8 is a similar section showing a hinge of the door;

Fig. 9 is a similar section showing details of the door securing means;

Fig. 10 is a detail on an enlarged scale of Fig. 9.

Like parts are represented by like symbols in all the figures. A is a cylindrical telephone booth body of reinforced concrete, strengthened at top and bottom by the enlarged rims A^1 A^2, provided with additional reinforcing, which form horizontal bearing surfaces A^3, A^4. The lower bearing surface A^3 rests on a base member B comprising a flat circular ground engaging rim B^1 and raised central portion B^2 out of contact with the ground. A peripheral indented ledge B^3 about such raised central portion is adapted to receive and center the bearing surface of the body cylinder. On the upper bearing surface A^4 of the cylinder rests a single integral roof member comprising a concave shell C with a ledge or step C^1 around the interior adapted to rest on the upper bearing surface of the cylinder. The periphery or eaves C^2 of the roof shell depend, and center it on the cylinder. This step is substantially within the periphery of the roof, and the joint is thus protected by eaves from the weather. The top and bottom of the booth body may be notched as at C^3 C^4, to furnish ventilation at the top and drainage at the bottom. The booth body is provided with a door opening D, rimmed with a metal jamb D^1. In it is fitted a reinforced door slab D^2, rimmed with channel iron D^3, hinged as at D^4 to the door jamb. In the upper portion of the door a metal rimmed opening D^5 receives a pane of glass D^6. In the bottom of the cylinder is a floor preferably composed of wooden boards E insulated from the concrete base by the glass or porcelain insulating members E^1. Cast integral with the cylinder, midway its height, is a step or ledge F adapted to support a shelf F^1 of wood or other suitable material. Above the shelf is the telephone instrument G supported to the interior of the booth by any suitable means, such as hooks not illustrated. The telephone wires may enter the booth by the porcelain conduit H, or by any other suitable means.

I provide a lock for the door which includes an electrical connection with the phone, and a switch adapted to be thrown open when the door is closed. K is an electric switch, with connections not shown, which is adapted when opened to break the telephone connection. Adjacent the handle K^1, and inset in a socket K^2 in the wall of the booth is a plunger K^3, with a central rim K^4, larger than the apertures of the socket, K^5. K^6 is a clasp secured by the staple K^7 and adapted to engage the staple K^8, to be locked thereon. When it engages said staple it also engages the plunger K^3, and forces it against the switch handle K^1. The switch is thereby disconnected, and the

door of the booth cannot be closed and locked without breaking the telephone circuit.

My method of construction is as follows: In building the body section, I construct a collapsible cylindrical mold, beveled at top and bottom, and indented adjacent its center, to form the thickened rims and the shelf ledge. About this mold, and spaced therefrom I place a reinforcement of wire or expanded metal mesh, strengthened at top and bottom in the thickened portion of the mold, by circular reinforcing bars, or other suitable reinforcement. I leave an aperture in the reinforcement for the door, and line it with an angle iron, secured to the wire mesh, to form the door jamb. Lying within it, and hinged to it, I place the door frame. Within it and secured to it I insert more mesh, leaving a window aperture therein. A tile conduit is inserted in the upper part of the reinforcing, to serve as inlet for the wires. When the reinforcement is completed, I shoot wet concrete or gunite, as it is called by the trade, projecting it under pressure against the mold, from a gun or nozzle, until the reinforcement is incased to a sufficient thickness. The result is a booth body completed in one operation, the door being shot at the same time as the body of the booth. The top and bottom are cast or shot separately, and are of the usual reinforced concrete construction. Waterproof gunite or concrete is used throughout.

Applicant has illustrated an operative mechanism and a practical way of making it. It will however, be understood that many variations in the method of manufacture, and in the arrangement and details of the article itself could be made without departing from the spirit of my invention. The plunger K^3 could be spring operated, so as automaticaly to reconnect the switch when the door is opened, and the engagement or connection between the plunger and the switch could be a pivotal instead of a contact engagement.

The use and operation of my invention are as follows:

I provide a small concrete telephone booth which is easily and cheaply constructed, the parts of which can be easily shipped and handled, are simply assembled, and easily and cheaply replaced. This avoids the necessity of complete reconstruction when one part is broken, whether before assembly, or after installation. The base of the booth takes its bearing on the soil only at the outer edge, and thus furnishes a broad and steady rest, disposing with the necessity of a foundation. The wooden floor in the telephone booth makes a perfectly insulated surface supported on glass or porcelain insulation on which the operator stands when using the telephone, and is thereby protected from shock through charged wires or lightning. The booth is adaptable for use on interurban trolley lines. It is impervious, non-warping, structurally strong enough to resist ordinary attempts to break in, and too small to tempt use as a store-house. The door cannot warp, and fits tightly. The edges of the door and jamb will not chip or crumble. The projecting eaves of the roof protect the upper joints and prevent rain leakage.

If any water does penetrate it can set up no short-circuit, for the wooden floor is insulated from the damp concrete. The provision of a switch control by the door insures that the telephone circuit will never be connected save when the door is opened and the booth in use. The mere closing and locking of the door is enough to break the connection.

I claim:

1. A sectional reinforced concrete booth, comprising a circular base, a circular bearing surface thereabout, a cylindrical body section open at top and bottom, said body thickened and reinforced at the top and bottom, the thickened bottom edge adapted to engage the circular bearing surface of the base, a circular convex roof section, a circular bearing surface within the periphery thereof, adapted to engage the thickened upper edge of the body.

2. A sectional reinforced concrete booth, comprising a cylindrical body open at both ends, an enlarged reinforced interior rim about said body at the top and bottom, a bearing surface formed about either end of the cylindrical body, a base supporting the bottom of said body, comprising a flat ground engaging rim, a raised center, and a circular bearing surface thereabout, a unit lid resting on the enlarged top of the cylinder.

In testimony whereof, I affix my signature in the presence of two witnesses this 19th day of November, 1919.

FRANK F. BEEBY.

Witnesses:
ARTHUR E. JOHNSON,
JOHN V. SCHAEFER.