

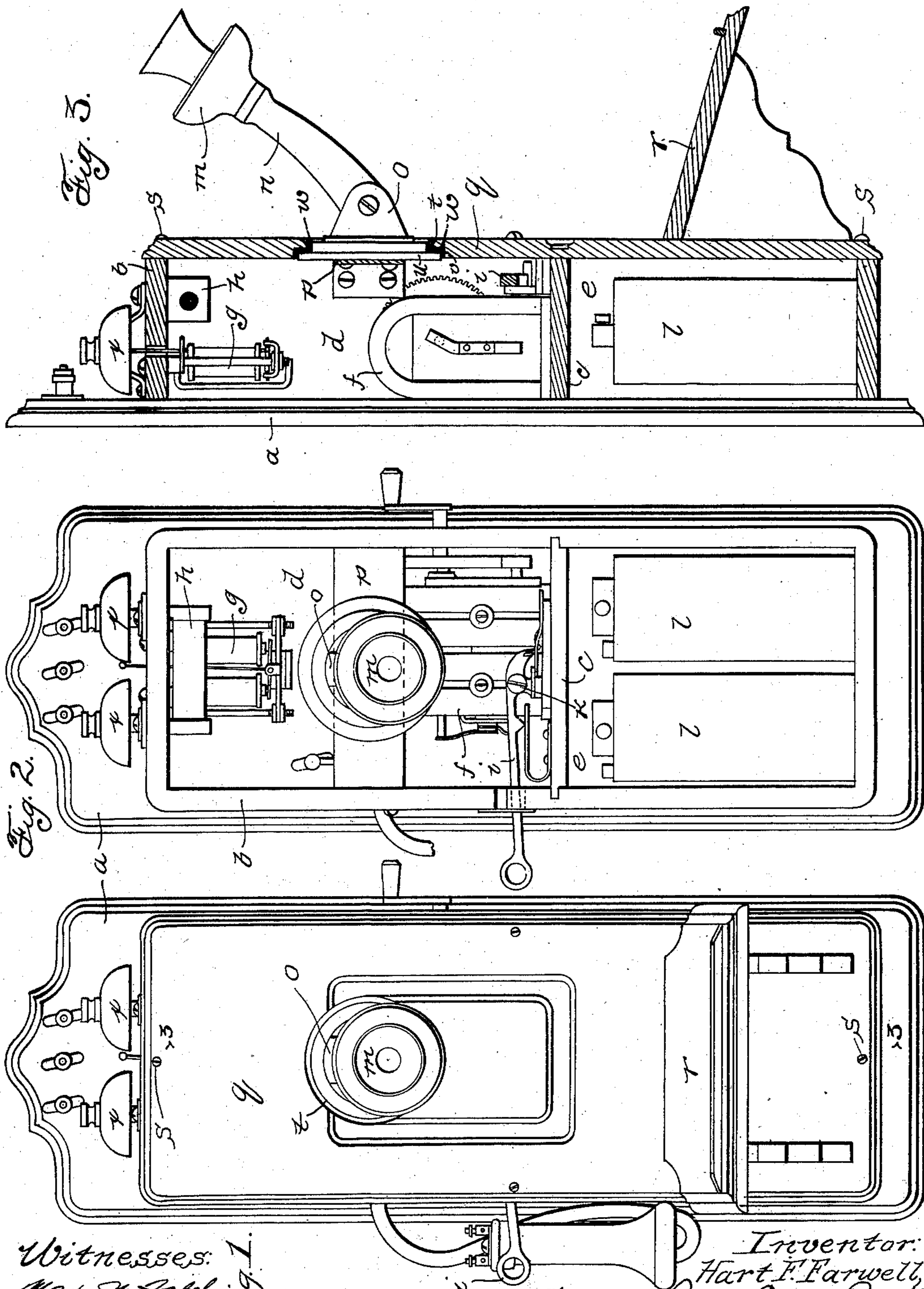
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H. F. FARWELL.
TELEPHONE SUBSTATION APPARATUS.

APPLICATION FILED AUG. 26, 1901.

NO MODEL.



Witnesses:
Max H. Zabel.
Herbert J. Oberfeil.

Inventor:
Hart F. Farwell,
By Charles A. Brown, Cragg & Ryell
Attorneys.

UNITED STATES PATENT OFFICE.

HART F. FARWELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO COUNTRY HOME TELEPHONE MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TELEPHONE-SUBSTATION APPARATUS.

SPECIFICATION forming part of Letters Patent No. 741,899, dated October 20, 1903.

Application filed August 26, 1901. Serial No. 73,338. (No model.)

To all whom it may concern:

Be it known that I, HART F. FARWELL, 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-Substation Apparatus, 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-substation apparatus, and has for its object the improvement of mechanical characteristics of such apparatus, whereby hinge-springs that have hitherto been employed in connection with the cabinets containing the telephonic apparatus may be dispensed with. These springs were hitherto necessary in connection with telephone outfits where portions of the apparatus were provided upon the swinging doors or lids.

In accordance with my invention all of the apparatus is preferably confined in one box provided with a front panel that is preferably bodily removable and which is preferably unprovided with any form of circuit connection, so that the entire telephonic apparatus may be readily inspected and tested, while its various parts are visible.

The particular feature of my invention is the mounting of the transmitter independently of this removable cover, the transmitter being mounted upon a support that is secured to the interior of the box. The transmitter may be carried upon a swinging arm which is mounted upon this support secured to the interior of the box. In order that the cover may be removed, it is provided with an opening that preferably permits it to be completely withdrawn from the box, the opening being of such a size that the transmitter may pass through the same. This opening is preferably circular, the cover being preferably bodily removable, and in order to prevent the access of dust to the interior of the box through this opening the transmitter-mounting is preferably provided with some suitable packing, as felt or plush, that surrounds the opening in the box-cover and closes any gap

that may exist between the cover and the mounting.

I will explain my invention more fully by reference to the accompanying drawings, in which—

Figure 1 is a front view of the telephone apparatus constructed in accordance with my invention. Fig. 2 is a similar view with the front cover of the box removed. Fig. 3 is a central sectional view in elevation.

Like parts are indicated by similar characters of reference throughout the different figures.

The particular form of apparatus herein illustrated is that which is known as a "wall set," having a backboard *a* designed for securement to the wall, a box-frame *b* divided by a partition *c* into compartments *d* and *e*, the compartment *d* containing in this instance a magneto-generator *f*, call-bell magnet *g*, and induction-coil *h*. An ordinary gravity switch-hook *i* is illustrated that projects into the compartment *d*, the pivotal mounting *k* for the said gravity switch-hook being provided upon the partition *c*. The lower compartment *e* is designed to contain the battery *l*. The transmitter *m*, that is designed to be put in circuit with the battery and a winding of the induction-coil, is mounted upon a swinging arm *n*, the pivotal mounting *o* of the swinging arm being placed upon a transverse brace *p*, secured to the side margins of the box. The box is provided with a movable cover *q*, that may have a sloping shelf *r*. This cover is preferably bodily removable, being secured to the box-frame *b* by means of screws *s* or other suitable means. In order that the transmitter may project through the cover, the cover is provided with a hole *t*. In order that the cover may be completely removed from the box, the said hole is made of a diameter corresponding to the diameter of the transmitter. To prevent dust from finding access to the interior of the box through the hole *t*, the base of the transmitter pivotal support is preferably provided with a flange *u*, that fits a corresponding recess *v* in the back of the cover, the central portion of the transmitter-support, which is

in the form of a circular plinth, projecting through the hole and lying but slightly beneath the front face of the cover. The central portion of the transmitter-support that
 5 thus projects through the hole in the front of the cover preferably corresponds in diameter to this hole. To effectively close the crack between the transmitter-support and the cover, I preferably provide in the recess *v* a
 10 ring of packing *w*, that may be of plush or felt. The cover is also free of the bells *x*, which are mounted upon the top of the box-frame.

It will be apparent that by means of my invention I have provided a cabinet for a sub-
 15 station apparatus that is entirely free of hinge-contacts, while the cabinet is provided at the same time with a cover that may be displaced to reveal the contents thereof.
 20 Thus there are secured all of the advantages of the prior forms of cabinets for substation apparatus, the main disadvantage being removed.

It is obvious that changes may readily be
 25 made in the preferred embodiment of the invention herein disclosed without departing from the spirit of the invention, and I do not, therefore, wish to be limited to the precise apparatus herein set forth; but,

30 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a telephone-substation apparatus, the combination with a box for containing tele-
 35 phonic apparatus, having a removable cover, of a transmitter having pivotal mounting upon the box independent of the cover, said cover having a hole to accommodate the transmitter, substantially as described.

40 2. In a telephone-substation apparatus, the combination with a box for containing telephonic apparatus, having a removable cover, of a transmitter having a pivotal mounting

upon the box independent of the cover, said cover having a hole to accommodate the trans- 45
 mitter, and an arm intervening between the transmitter and its mounting, substantially as described.

3. In a telephone-substation apparatus, the combination with a box for containing tele- 50
 phonic apparatus, having a removable cover, of a transmitter having a pivotal mounting upon the said box, independent of the cover, said cover having a hole to accommodate the transmitter, an arm intervening between the 55
 transmitter and its mounting, and a packing intervening between the transmitter-mounting and the portion of the cover around the opening therein, substantially as described.

4. In a telephone-substation apparatus, the combination with a box for containing tele- 60
 phonic apparatus, having a movable cover, of a transmitter having a pivotal mounting upon the box independent of the cover, said cover having a hole to accommodate the trans- 65
 mitter, substantially as described.

5. In telephone-substation apparatus, the combination with a box for containing tele-
 phonic apparatus having a removable cover, of a transmitter located at the outside of the 70
 box and having a pivotal mounting upon the inside of the box independent of the cover, the cover having a hole of the same contour as the transmitter-support and into which the support projects, said hole being large enough 75
 to permit passage therethrough of the transmitter whereby the cover may be removed without removing the transmitter or other parts of the telephonic apparatus, substan- 80
 tially as described.

In witness whereof I hereunto subscribe my name this 22d day of August, A. D. 1901.

HART F. FARWELL.

Witnesses:

GEORGE L. CRAGG,
 HERBERT F. OBERGFELL.