

No. 729,184.

PATENTED MAY 26, 1903.

W. KAISLING.
TRANSMITTER ARM.

APPLICATION FILED DEC. 8, 1902.

NO MODEL.

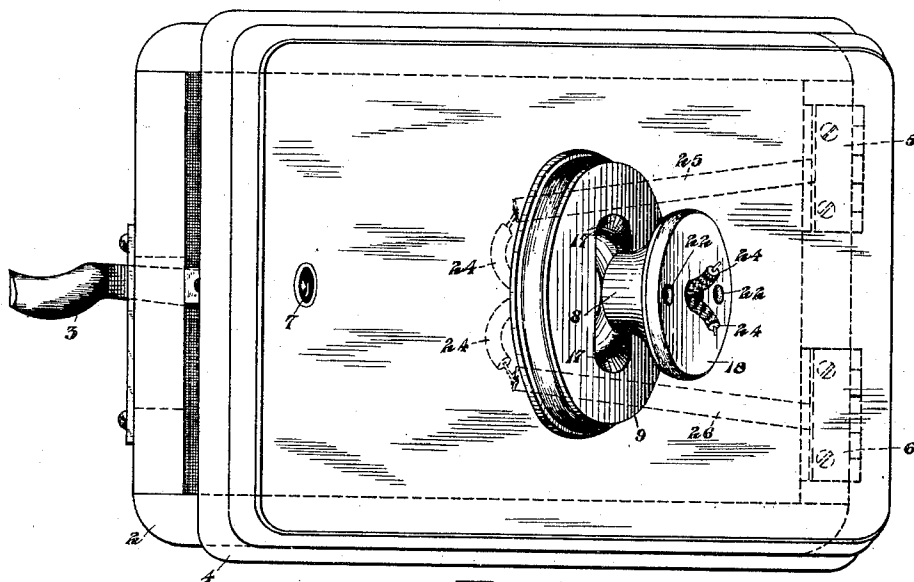


Fig. 1.

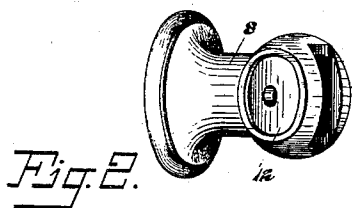


Fig. 2.

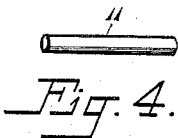


Fig. 4.

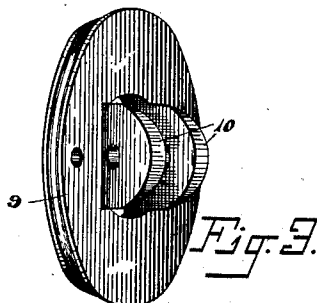


Fig. 3.

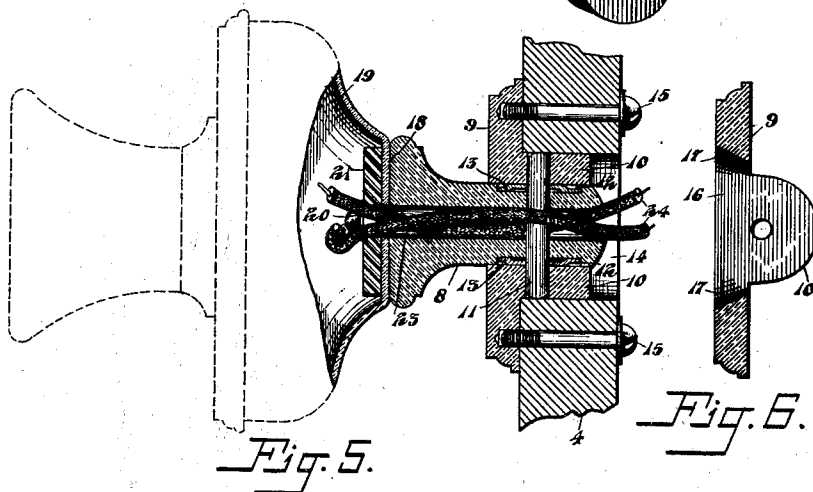


Fig. 5.

Fig. 6.

Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM KAISLING, OF CHICAGO, ILLINOIS, ASSIGNOR TO KELLOGG SWITCH-BOARD AND SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TRANSMITTER-ARM.

SPECIFICATION forming part of Letters Patent No. 729,184, dated May 26, 1903.

Application filed December 8, 1902. Serial No. 134,249. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KAISLING, 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 Transmitter-Arms, of which the following is a specification.

My invention relates to improvements in transmitter-arms, my object being to provide an arm that will accomplish practically the same results as ordinary arms in so far as the up-and-down adjustment to accommodate the instrument to persons of different heights is concerned, but with an economy of room not obtainable in the ordinary arm, and which saving in space particularly adapts my invention to use in locations, such as the rooms of hotels, where by reason of the limited available space and the further fact that the instrument must almost invariably be affixed to the wall of the room it is inexpedient to have the transmitter project an undue distance from the face of the telephone-box or other support.

A further object is to provide such a short arm with means to entirely conceal the transmitter cord or cords, so that although the instruments are designed to be located in places where an exceptional opportunity for tampering with the same by unauthorized persons is provided there is very little opportunity for their derangement.

Still another object is to provide a firm and reliable mounting for an arm which may be conveniently and neatly applied to a telephone-box or other support and without unnecessary complication.

To the accomplishment of these and such other objects as may hereinafter appear, the invention comprises the construction and features hereinafter described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, in which the same reference characters indicate like parts throughout the several views, and in which—

Figure 1 is a front elevation of a telephone-box of the type known as a "hotel set," and in which the cover is partially open, thus show-

ing the arm in perspective. Fig. 2 is a detailed perspective view of the arm proper. Fig. 3 is a perspective view of the rear face of the base-plate. Fig. 4 is a detailed view of the pivot-pin. Fig. 5 is a horizontal sectional view through the center line of the pivot and arm, and Fig. 6 is a vertical section through the center of the base-plate.

In the figures, 2 indicates the usual box of an ordinary hotel set in which the usual switch-hook 3 is pivoted and upon which the receiver is normally hung to change the circuits of the set from talking to signaling position, and vice versa. The cover or door 4 of the box is secured by the hinges 5 and 6 to the edge of the box 2, and when closed it is locked by a suitable screw or other locking device 7. In Fig. 1 this cover is shown partially open, so that the transmitter-arm and its base-plate are seen in perspective.

The transmitter-arm 8 is extremely short, as shown in the various figures of the drawings, and is pivoted at its rear end upon the base-plate 9. This plate 9 is provided with a rearwardly-extending part or portion comprising the two ears or lugs 10 10, between which the inner end of the arm 8 is inserted and through which, as well as through the said arm, the pivot-pin 11 extends. The arm 8 is recessed concentrically with its pivot-aperture upon each side, as at 12, to receive the metallic spring-washers 13 or other friction devices to cause a sufficient binding between the sides of the arm and the ears or lugs 10 10, so that the arm will remain in any position to which it is adjusted.

The door 4 or other support to which the arm may be attached is provided with a depression—in this case in the form of an aperture 14—into which the rearwardly-extending ears or lugs 10 10 project. The body of the base-plate 9 is sufficiently large to extend beyond the edge of the aperture 14 and to thereby cover or conceal the same. It forms, in fact, an escutcheon for the hole 14, and thus combines a neat appearance with a firm and reliable mechanical structure.

The aperture 16 through the body portion of the plate 9 and through which the pivoted arm 8 extends is provided with a wide mouth

or opening, preferably formed by the flaring edges 17 17 of the upper and lower ends of the said opening or slot 16, as shown in Fig. 6, and which may be curved also, as indicated, 5 to conform to the exterior curvature of the arm 8. This construction permits the arm to be vertically vibrated through an extremely-wide angle considering the rearward location of the pivot, whereby the transmitter, which, 10 as hereinafter explained, is carried upon the outer end of the arm, may be adjusted to the heights of different persons as readily and to practically the same extent as though an arm of the ordinary type were employed. The lo- 15 cation of the pivot 11 is back of the face of the base-plate 9 and even back of the face of the door 4, thus gaining considerable room with respect to the projection of the trans-mitter from the face of the telephone-box.

20 As shown in Figs. 1 and 5, the arm is provided with a flat outer end 18, adapted to receive the corresponding portion of the trans-mitter 19, which is secured thereon by means of suitable screws 20, passing through a washer 21, the rear wall of the transmitter-casing, 25 and into threaded apertures 22, formed in the said forward end 18 of the arm. These serve to readily secure the transmitter in position upon the outer end of the arm 8. It will be understood that this end of the arm may be 30 formed to receive any type of transmitter.

For the sake of concealing the transmitter-cords, so that no harm may come to them, and for the sake of a good appearance the 35 arm is provided with a longitudinal bore 23, through which the transmitter-cords 24 extend. These cords are preferably of the usual insulated type employed in this class of in-struments, and one of them is preferably se- 40 cured, as shown in Fig. 5, to one of the screws 20, whereby that side of the circuit is estab-lished with the transmitter-shell, and is thence continued through the diaphragm or in any other manner to one electrode of the trans- 45 mitter. The other conductor 24, extending through the transmitter-arm, is designed to be suitably secured to the other electrode of the transmitter without being electrically con- nected with the transmitter casing or arm. As 50 shown, these wires may pass back through the arm, one on either side of the pivot-pin 11, and be suitably connected in the electric circuit. It will be obvious that but a single wire may be employed; but it is preferred to use both, as 55 shown. Their inner ends, as shown in Fig. 1, are secured the one to a metal strip 25, carried upon the inner side of the cover 4 and electrically connected with the hinge 5, while the other is similarly connected with a 60 like strip 26, extending to the hinge 6, where- by the transmitter is conveniently connected in the electric circuit of the set. Figs. 5 and 6 show the parts in full size and to scale.

While I have thus specifically described 65 the details of construction of my device, it is apparent that the same may be varied

without departing from the scope or principle thereof; but,

Having thus pointed out one commercial 70 form of the invention and the manner of carrying the same into practical effect, what I claim, and desire to secure by Letters Pat-ent, is—

1. The combination with a supporting mem- 75 ber having a depression in its outer face, of a base-plate having a substantially flat outer face, said plate being secured to said member over said depression and serving as an es- cutcheon to cover and conceal the same, a short transmitter-arm pivoted at its inner end 80 directly to said base-plate back of its outer face whereby said base-plate and arm may be applied to or removed from said supporting member as a whole, said arm being arranged to receive and carry a telephone-transmitter 85 at its outer end, substantially as described.

2. The combination with a short transmit- 90 ter-arm, of a base-plate having a rearwardly-extending part, the arm being pivoted to said rearwardly-extending part, substantially as described.

3. The combination with a transmitter-arm, 95 of a base-plate having rearwardly-extending ears or lugs, the said arm being pivoted be- tween said ears or lugs, substantially as de- scribed.

4. The combination with a supporting mem- 100 ber having a depression therein, of a base-plate provided with a part extending rear- wardly into said depression, and a transmit- ter-arm pivoted to said rearwardly-extending part, substantially as described.

5. The combination with a supporting mem- 105 ber having a depression therein, of a base-plate provided with a part extending rear- wardly into said depression, and a transmit- ter-arm pivoted to said rearwardly-extending part, said base-plate serving to also cover and conceal the depression, substantially as de- 110 scribed.

6. The combination with a supporting mem- 115 ber having an aperture therein, of a base-plate secured to the face of said member and having lugs extending rearwardly into said aperture, said base-plate having a wide- mouthed opening between said lugs, and a short transmitter-arm extending through said opening and pivoted between said lugs, sub- 120 stantially as described.

7. The combination with a supporting mem- 125 ber having an aperture therein, of a base-plate secured to the face of said member and having lugs extending rearwardly into said aperture, said base-plate having a wide- mouthed opening between said lugs, and a transmitter-arm extending through said open- ing and pivoted between said lugs, the said plate serving also to cover and conceal the said aperture and the wide-mouthed open- 130 ing permitting a wide-angled movement of the arm, substantially as described.

8. The combination with a base-plate hav-

ing an opening and rearwardly-extending lugs at the sides of the opening, a transmitter-arm extending through said opening and pivoted between said lugs, and means to cause the arm to frictionally engage the said lugs, whereby the arm remains in any position to which it is adjusted, substantially as described.

9. The combination with a base-plate having an opening and rearwardly-extending lugs at the sides of the opening, a short transmitter-arm extending through said opening and pivoted between said lugs, and a friction-washer between the arm and one of the lugs, whereby the arm remains in any position to which it is adjusted, substantially as described.

10. The combination with a base-plate having an opening and rearwardly-extending lugs at the sides of the opening, a short transmitter-arm extending through said opening and pivoted between said lugs, and friction-washers between the arm and the lugs, whereby the arm remains in any position to which it is adjusted, substantially as described.

11. The combination with a base-plate having an opening and rearwardly-extending lugs at the sides of the opening, a transmitter-arm extending through said opening and pivoted between said lugs, the said arm having a recess formed on each side opposite the lug, and friction-washers carried in said recesses, substantially as described.

12. The combination with a base-plate having an opening and rearwardly-extending lugs at the sides of the opening, a transmitter-arm extending through said opening and pivoted between said lugs, the said arm having a recess formed on each side opposite the lug, and metallic spring friction-washers carried one in each said recess, substantially as described.

13. The combination with a supporting member having a depression in its outer face, of a base-plate having a substantially flat outer face, said plate being secured to said member over said depression and serving as an escutcheon to cover and conceal the same, a short transmitter-arm pivoted at its inner end directly to said base-plate back of its outer face whereby said base-plate and arm may be applied to or removed from said supporting member as a whole, said arm being arranged to receive and carry a telephone-transmitter at its outer end and being hollow to permit the passage therethrough to the rear of said plate of the conductor cord or cords whereby they are concealed from view, substantially as described.

14. The combination with a supporting member having an aperture, of a base-plate having pivot-lugs extending rearwardly into said aperture, a transmitter-arm passing through an aperture in said plate and pivoted between said lugs, said arm having a longitudinal bore for the passage of the transmitter cord or cords whereby they are entirely

concealed and are brought out in the rear of said member for ready connection in the electric circuit, substantially as described.

15. The combination with a supporting member having an aperture therethrough, of a base-plate secured to the face of said member and having pivot-lugs extending rearwardly into said aperture, said plate also having an opening between said lugs, a transmitter-arm extending through said opening and pivoted between said lugs, said arm having a longitudinal bore, a transmitter cord or cords passing through said bore to the rear of said member, and a fixed circuit conductor or conductors mounted upon the inside of said member and with which the said cord or cords are connected, the arrangement and connection being such as not to impede the adjustment of the arm to different angles, substantially as described.

16. In a telephone-box, the combination with a hinged door, of a base-plate affixed to the outside thereof, and having rearwardly-extending pivot-lugs projecting into an aperture in the same, a short transmitter-arm pivoted to said lugs, said arm being hollow, transmitter-cords extending through said arm and to the inside of the said door, and fixed circuit-conductors secured to the inside of said door and connecting with the hinges thereof at one end and with the said transmitter-cords at the other, substantially as described.

17. The combination with a base-plate having lugs extending rearwardly from its inner face, of a transmitter-arm passing through an aperture in said plate and between said lugs, and a pivot for said arm carried by said lugs in the rear of said inner face, substantially as described.

18. The combination with a base-plate having rearwardly-extending lugs and a wide-angled slot between said lugs, a transmitter-arm having its inner end passing through said opening and between said lugs, a pivot-pin passing through said lugs in the rear of the inner face of said plate and through said arm, and a supporting member to which said plate is secured, said member having a depression into which said lugs extend, the side walls of the depression preventing the working out of said pin, substantially as described.

19. The combination with a supporting member having an aperture therein, of a base-plate having a wide-angled opening therein and lugs upon its rear face extending into said aperture, a short transmitter-arm having an enlarged and transversely-flattened outer end to which a telephone-transmitter is adapted to be secured, the inner end of said arm being flattened and extending through said opening and between said lugs, friction-washers carried in recesses in its opposite flattened sides and engaging the inner faces of said lugs; a pivot-pin passing through said lugs, the said inner end of the arm and the washers; and screws passing through said member and into the rear face of said plate

to secure the same to the said member, the said arm having a longitudinal bore from end to end to receive the conductor-cords, substantially as described.

- 5 20. The combination with a supporting member having an aperture therein, of a base-plate secured to one face of said member and having a part projecting into said aperture, a transmitter-arm pivoted at its rear end to
10 said part projecting into the said aperture and adapted to carry a telephone-transmitter

at its free end, and means to secure said base-plate to said supporting member whereby said arm is also secured to the said member, substantially as described.

Signed by me at Chicago, county of Cook, State of Illinois, this 6th day of December, 1902.

WILLIAM KAISLING.

Witnesses:

FRANCIS E. JOHNSON,
GAZELLE BEDER.