No. 749,388. PATENTED JAN. 12, 1904.

S. J. LARNED & J. S. FORD.

LOCKING DEVICE FOR TELEPHONE APPARATUS.

APPLICATION FILED OCT. 9, 1903.

NO MODEL.

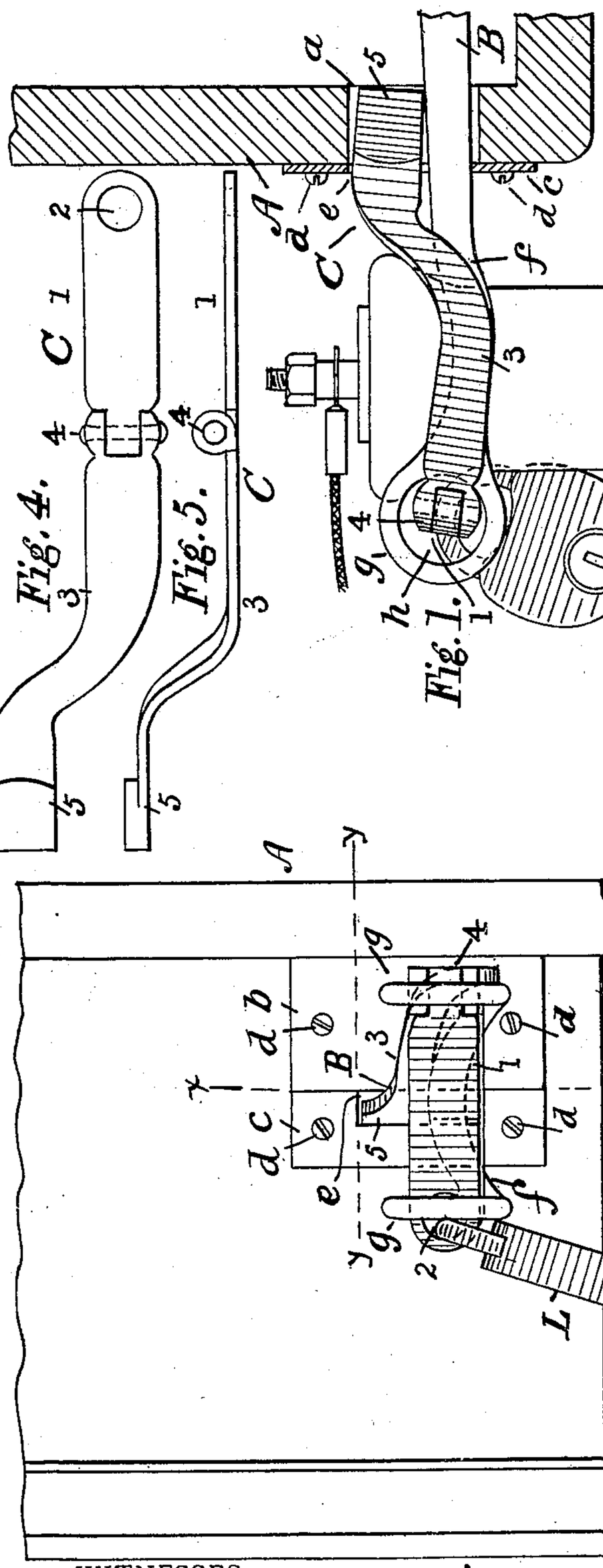

Fig. 4. Fig. 5.

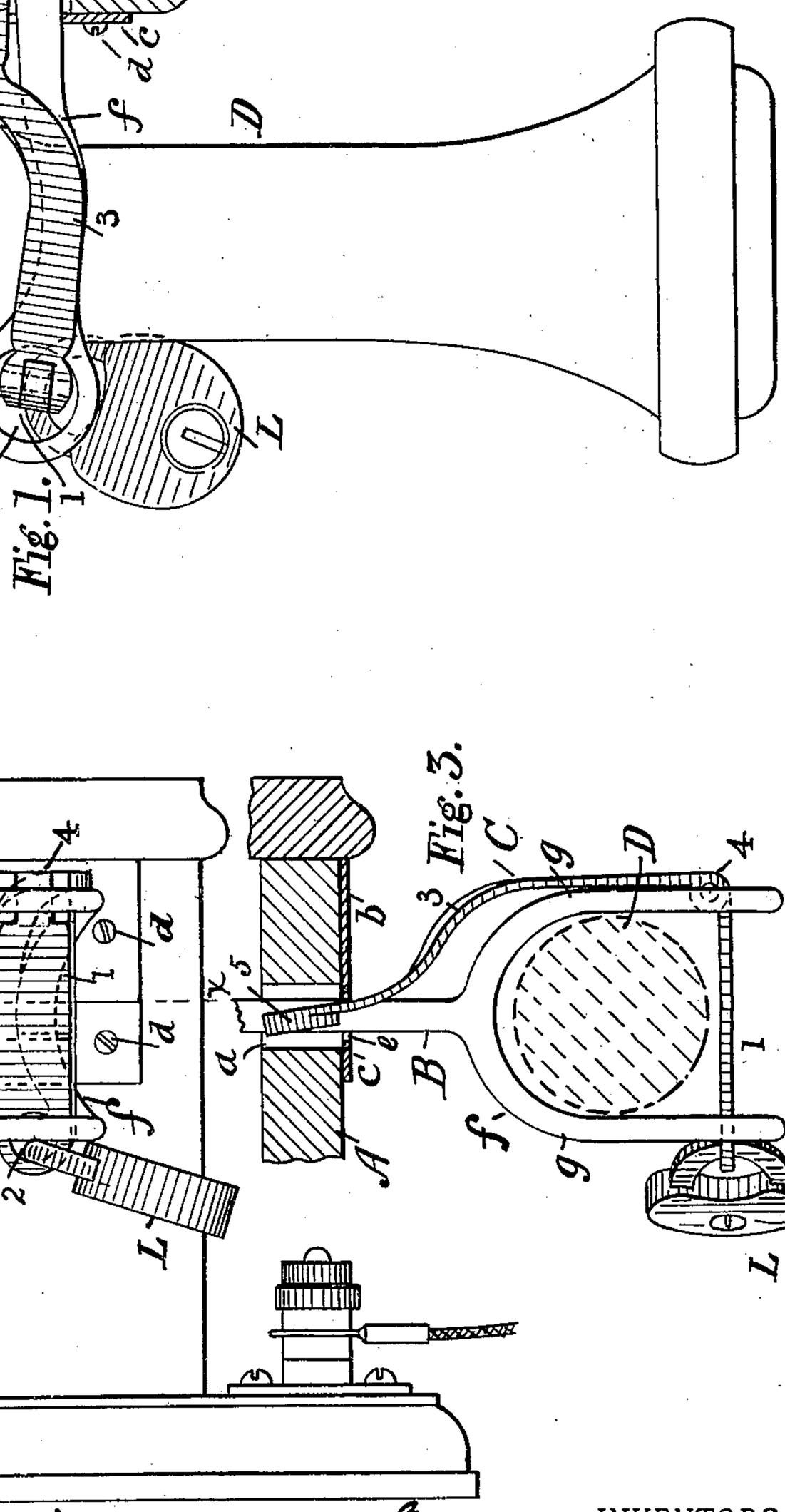

Fig. 1.

Fig. 3.

Fig. 2.

WITNESSES:

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No. 749,388. Patented January 12, 1904.

UNITED STATES PATENT OFFICE.

SHERWOOD J. LARNED AND JAMES S. FORD, OF CHICAGO, ILLINOIS, ASSIGNORS TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF NEW YORK.

LOCKING DEVICE FOR TELEPHONE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 749,388, dated January 12, 1904.

Application filed October 9, 1903. Serial No. 176,410. (No model.)

To all whom it may concern:

Be it known that we, SHERWOOD J. LARNED and JAMES S. FORD, residing at Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Locking Devices for Telephone Apparatus, of which the following is a specification.

This invention relates to telephone apparatus, and especially to locking devices whereby the use of such apparatus may temporarily be prevented. It frequently becomes desirable in the transaction of telephone-exchange business to prevent the use of apparatus at a substation or pay-station and to secure such apparatus in this condition of disuse against attempts to employ the same. The apparatus at the telephone-stations referred to is usually in the care of some technical employee, commonly an inspector, upon whom devolves the duty of disorganizing the apparatus temporarily for reason of non-payment of rental or for any other cause, in which it is not necessary to remove the instruments entirely, and the disarrangement ordinarily and heretofore employed has consisted in the opening of portions of the circuits or the removal of some essential part, such expedients operating to establish the desired temporary impotency of the instruments.

The object of our invention is to provide a portable device small in size and light in weight, several of which can be carried by the employee in his pockets, tool-bag, or kit and can be easily applied to the telephone apparatus, so that while it is attached the use of the apparatus is prevented without disturbing the circuits or any part of said apparatus and which, moreover, can readily and speedily be detached at the proper time.

To this end our invention consists in a portable device or appliance capable of being readily attached to or detached from a station telephone apparatus, which when so attached will prevent the removal of the receiving instrument from its position on the yoke or hook of the switch-lever and which also is adapted to prevent the upward or circuit-changing movement of the said switch-lever in a manner independent of the locking of the receiver in the yoke.

The invention comprises the combination of the casing of the telephone apparatus, the suspension switch-lever, and the receiver supported thereby with a flexible portable locking device provided at one end with means for entering the slot in said casing through which issues the switch-lever and in the space above said lever, and thus blocking the path wherein the said lever normally moves to switch the telephones into the talking-circuit, and provided at its other end with means for closing the space between the prongs of the switch-yoke, and thus inclosing and locking the receiver in the yoke. The locking device therefore provides means located at its opposite ends for rigidly blocking the movement of the switch-lever and also for locking the receiver into its position between the prongs of the switch-yoke, all of which we will now proceed to describe and point out in the claims.

In the accompanying drawings, Figure 1 is a section, on line *x x* of Fig. 2, of the lower part of the casing which incloses and supports the telephone apparatus at a substation, showing the telephone-receiver upon the switch-lever. Fig. 2 is a side view of the same with the receiver removed to more clearly indicate the invention. Fig. 3 is a section on line *y y* of Fig. 2, the telephone being indicated by dotted lines; and Figs. 4 and 5 are respectively side and edge views of the portable locking device, showing the same extended or opened out.

In the drawings, A represents the lower portion of the casing of the box within and upon which the telephone apparatus at a substation is supported, having upon its side an opening or slot *a*, through which projects the switch-lever B, terminating in a fork or yoke *f*, provided with the tines or extension-horns *g g*, whose ends are rounded and made lighter in weight by a central hole or perforation *h*. The outer edges of the opening *a* are protected by an escutcheon formed by the metal plates *b* and *c*, the latter having a notch *e* on its inner side for the play of the switch-lever

B, the upper and lower edges of said notch forming the limit-stops for the said switch-lever, these plates being secured to the casing by the screws *d*.

D is the receiving-telephone, supported by and held suspended between the sides or horns *g g* of the yoke *f* of the switch-lever, the weight of said receiver acting to depress the said lever and cause the opening of the conversation-circuit, all in a manner well understood.

C represents the form wherein we have embodied the locking device, which consists of two metal plates 1 and 3, having ends mortised to one another and joined by a rivet or pintle to form a hinge or joint. The plate 1 has a hole at its end for the reception of the hasp of a padlock and is just long enough to extend across the open space between the sides *g g* of the yoke and admit of the insertion of the padlock-hasp. The plate 3 is bent upward and curved outward to conform to the shape of and ride on top of the switch-lever and terminates in a thickened square bolt end 5, parallel with the hinged end of the plate and in another plane.

We do not limit ourselves to the precise form shown and described, but have found this construction to work well in practice. These plates may be made from sheet metal, such as brass, and machined, or they may be cast into the forms shown and hinged together.

The device is so small and compact that quite a number can be carried by an inspector without inconvenience.

When for any reason it becomes necessary to render the telephone apparatus inoperative by the application thereto of the device C, its end or bolt 5 is inserted through the orifice *e* of the escutcheon into the opening *a* in the casing (which is usually larger in all its dimensions than the orifice *e*) between the upper part of the switch-lever B and the upper part or stop edge of the escutcheon, and the extension-plate 1 is turned at an angle at its joint or hinge 4 and its free end or shorter plate passed through the perforations *h h* in the ends of the yoke sides. The hasp of the padlock L is then inserted through the hole 2 in the end of the plate 1 and the key turned in the padlock. It will be seen that the square bolt end 5 is firmly located between the top of the switch-lever and the upper edge of the escutcheon, filling the space between them, and is extended into the orifice *a* a sufficient distance to prevent its withdrawal by any endwise movement. It is also manifest that the plate 1 forms a bar across the open space at the end of the yoke *f*, so that the body of the receiver D is effectually inclosed. The receiver may be moved upward a short distance; but as the switch-lever B is locked down by the square end 5 it cannot follow the movement of the telephone, and until the padlock is removed the telephone apparatus cannot be used.

The device is rendered very flexible by reason of the joint 4 and is adapted to switch-levers of varying lengths of extension from the face of the casing A. It can be folded in a small compass and is adapted to prevent the closing of the telephone-circuits, even in instances where it becomes necessary to detach and temporarily remove the receiver.

We claim—

1. The combination of substation telephone apparatus; with a flexible locking device one end portion of which is adapted to rest upon the upper edge and in the path of the switch-lever and prevent the same from moving while the opposite end portion extends across the way of removal of the telephone-receiver and locks the same in the yoke of the switch-lever.

2. The combination of substation telephone apparatus with a flexible locking device consisting of two jointed plates, one plate being adapted to rest upon the upper edge and in the path of the switch-lever and prevent its movement, while the second plate extends through the perforated ends of the yoke and locks the telephone-receiver therein.

3. The combination of substation telephone apparatus, with a flexible locking device constituting when in place a rigid connection between the said apparatus-casing and the yoke of the switch-lever, one end portion of the device adapted to extend into the casing and in the path of the switch-lever and prevent the same from moving, while the opposite end portion of the device passes through the perforated ends of the yoke and locks the telephone-receiver therein.

4. The combination of substation telephone apparatus with a flexible locking device consisting of two jointed plates, one plate serving as a block between the switch-lever and its upper limit-stop to prevent its switching movement, and the second plate extending through the perforated ends of the yoke in front of the telephone-receiver, and secured by a lock.

5. The combination of substation telephone apparatus; with a locking device adapted to prevent the switch-lever from closing the telephone-circuits, and consisting of a rigid connection between the said apparatus-casing and the yoke of the switch-lever; one end portion of the device being adapted to extend into the casing and in the path of the switch-lever to prevent the upward movement thereof, and means for locking the opposite end portion of the device to the yoke of the switch-lever, as described.

6. A portable device for locking in their positions of rest the switch-lever and receiver of a telephone apparatus, consisting of the bar conformed at one end to enter and fill the slot above said lever in the casing of said apparatus; and of length to extend outward there-

from parallel to said lever to the holes in the fork thereof; an extension-piece hinged to said outer end adapted to pass through the said holes or to overlap the said fork; and means for securing the said extension to said fork; substantially as set forth.

7. A flexible locking device for telephone apparatus consisting of two metal plates jointed to each other, the free end of one plate constituting a bolt, and the free end of the second plate being perforated and provided with a padlock, as set forth.

8. In combination with the casing, switch-lever and receiver of a telephone apparatus, the portable locking device for said switch and receiver comprising the bar formed at one end to enter the slot in the said casing through which said lever projects, and to fill the space in said slot above said lever; the extension hinged or jointed to the outer end of said bar, and adapted to overlap the fork of said switch-lever; and the lock to secure the fork of said lever to said hinged extension; whereby the said lever and receiver may be locked in their normal positions, substantially as described.

9. A locking device for substation-telephones consisting of a bolt adapted to be inserted in the opening in the casing in which the switch-lever moves, thereby preventing movement of said lever, and a bar connected with said bolt and extending across the forked end of the switch-lever, thereby preventing removal of the telephone-receiver.

10. A locking device for substation-telephones, consisting of a bolt adapted to be inserted in the opening in the casing in which the switch-lever moves, thereby preventing movement of said lever, a bar connected with said bolt and extending across the forked end of the switch-lever, thereby preventing removal of the telephone-receiver, and means for securing said parts in their locking position.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 2d day of October, 1903.

SHERWOOD J. LARNED.
JAMES S. FORD.

Witnesses:
WILLIAM P. SIDLEY,
CARL A. ROSS.