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MEANS OF MECHANICALLY INTERCONNECTING SEPARATE TELEPHONE SYSTEMS

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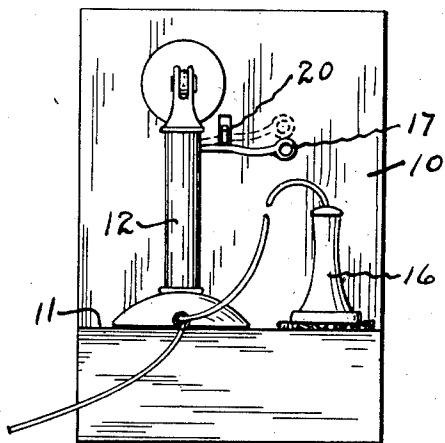


Fig. 1.

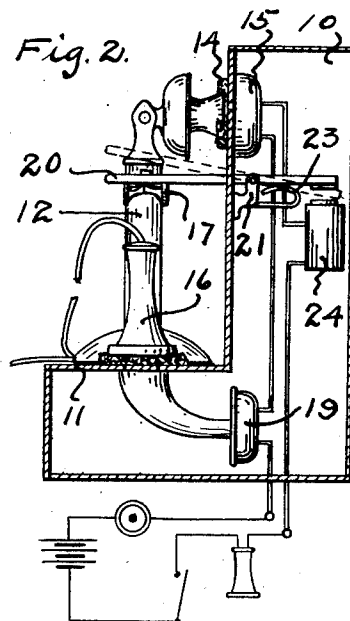


Fig. 2.

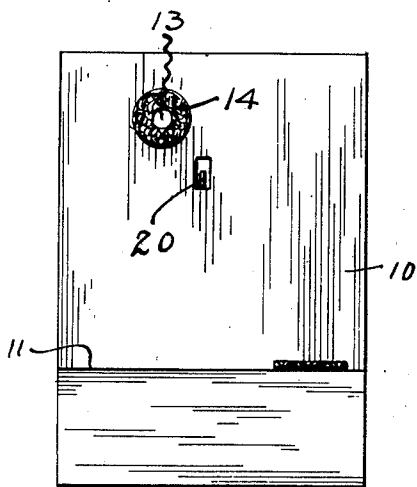


Fig. 3.

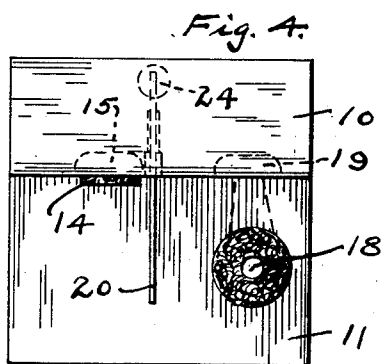


Fig. 4.

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UNITED STATES PATENT OFFICE.

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MEANS OF MECHANICALLY INTERCONNECTING SEPARATE TELEPHONE SYSTEMS.

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The occasion often arises in telephone work in that the telephone subscriber has a private telephone system of his own, normally independent of the incoming telephone line from the outside exchange, and where the outside line is made to be connected electrically with the private system, the private system must have the proper characteristics for such a hookup to meet the telephone company's requirements, and a certain charge is made for such a connection. Also there are other frequent cases where a single incoming telephone line is had and to make that available at different points, the subscriber has so-called extensions made to the desired points, such a system again requiring a rental charge in addition to the extension being under the supervision of the telephone company. Furthermore, to maintain a standard service the telephone company usually demands that no electrical connections be made with the telephone circuit unless under its jurisdiction.

Such conditions existing, it is the primary purpose of my invention, to eliminate any and all electrical connections between a private telephone system and the incoming outside system, and at the same time make the outside or company telephone serve as a means from which the service may be transmitted to any number of points as desired by the subscriber. That is, by this invention, the subscriber may have his usual telephone as supplied by the telephone company, but the extensions within the subscriber's own property are his and may be used, changed, or extended at will, without in any way causing an electrical hookup with the company telephone.

I accomplish this object by the means as illustrated in the accompanying drawing, in which—

Fig. 1, is a front elevation of the apparatus with a company telephone in position for use;

Fig. 2, a side elevation, with the side wall removed to disclose the inner mechanism;

Fig. 3, a front elevation similar to Fig. 1, but with the telephone removed; and

Fig. 4, a top plan view, with the telephone removed.

Like characters of reference indicate like parts throughout the several views.

A box-like structure 10 is formed with the lower forwardly projecting shelf 11 on

which the company telephone 12 is placed such that the mouth-piece of the transmitter of the telephone 12 fits over the hole 13. A felt pad 14 is engaged between the box wall and the mouth-piece so as to prevent vibrations of the mouth-piece being transmitted to the box wall or the reverse.

Immediately behind the hole 13, is a receiver 15 with its mouth to the hole 13, the receiver 15 being of the usual and well known construction commonly employed in telephone work.

The receiver 16 of the telephone 12 is removed from the hook 17 and placed mouth downward over the hole 18, a piece of felt separating the receiver from the box shelf 11. A transmitter 19, of the usual and well known construction as employed in telephone work, such as on switch-boards has its mouth-piece immediately under the hole 18.

The telephone receiver 16 being removed from its hook 17, the hook 17 will move upwardly as indicated by the dash lines in Fig. 1, this being the position when the telephone 12 is in electrical circuit with the incoming company line. To disconnect the telephone 12, the hook 17 is pushed downwardly, such being the usual and well known operation of the telephone in common usage today.

As the telephone receiver 16 is always removed and positioned as above described in my invention, I provide a lever 20 pivotally mounted on a bracket 21 within the upright section of the box 10, so that the lever may extend through a slot 22 in the box wall and pass over the top of the hook 17. The lever 20 extends backwardly from the bracket 21 and has a spring 23, here shown as carried by the bracket 21, which spring normally pushes the rear end of the lever 20 upwardly to cause the outer end of the lever to press the hook 17 down to the position as indicated in Figs. 1 and 2, the position when the telephone 12 is not in operation.

To release the hook 17 to place the telephone 12 in service, an electro-magnet 24 is mounted with its pole-piece under the rear end of the lever 20, whereby, when the magnet is energized, the lever end will be pulled down to cause the lever to assume the position as indicated by the dash lines in Fig. 2, and the hook 17 may then raise.

Referring to Fig. 2, the transmitter 19 and the receiver 15 are in electrical circuit

with the electro-magnet 24, so that when the circuit is energized by the subscriber's system, a suggestive diagram of such a system being indicated below the box 10 in Fig. 2, the magnet 24 holds the lever 20 off the hook 17.

Thus it may be seen that the telephone 12 belonging to the company has no electrical connection with the subscriber's system, and that the subscriber's system interferes in no way with the usual operation of the company telephone. The sound waves arising in the company telephone receiver 16 actuate the transmitter 19, and similarly, the sound waves from the receiver 15 actuate the telephone transmitter.

I claim:

1. The combination with a telephone having an upright standard, a transmitter carried on the standard, a telephone switch-operating, receiver arm extending from the standard normally tending to move upward, and a detachable receiver, of a table supporting said telephone, an extension from the

table, a receiver carried by the extension adapted to be covered by the transmitter of said telephone, a transmitter carried by the table against which the telephone receiver may be placed, a lever pivotally carried by the extension adapted normally to press the telephone switch arm downwardly, and an electro-magnet carried by the table to operate said lever whereby said arm may travel upwardly.

2. A mechanical means of interconnecting two telephone systems comprising a table having an aperture therethrough, a telephone transmitter below said aperture, an upright extension from the table having an aperture therethrough, a telephone receiver communicating through said aperture, a lever extending from said table extension over said table, means normally causing said lever to travel downwardly, and an electro-magnet to cause said lever to travel upwardly upon being suitably energized.

In testimony whereof I affix my signature.

RUSSELL L. MAURER.