

(No Model.)

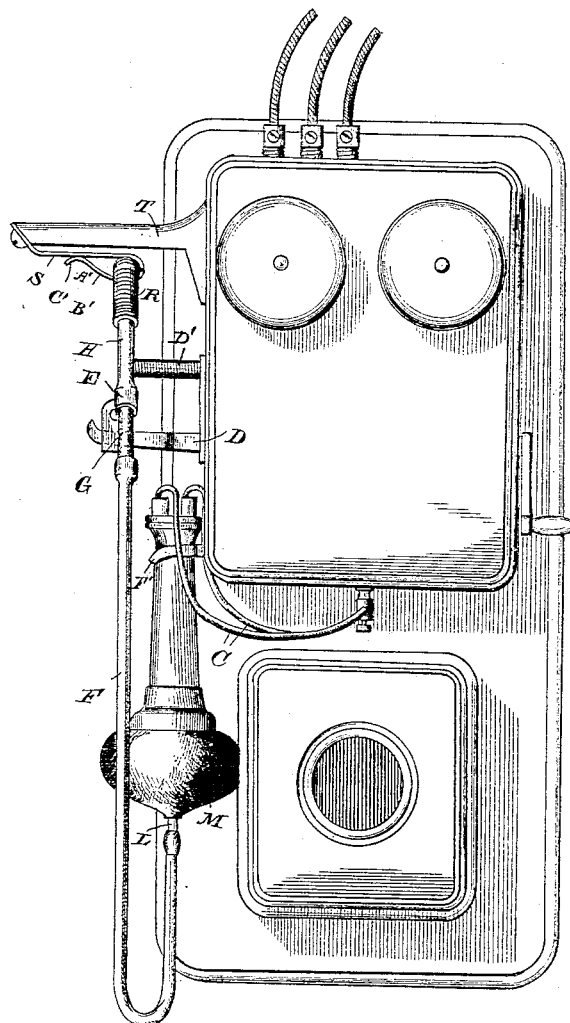
2 Sheets—Sheet 1.

G. McC. BROWN.
EAR ATTACHMENT FOR TELEPHONES.

No. 493,245.

Patented Mar. 14, 1893.

Fig. 1.



Witnesses

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Inventor

By *his* Attorneys,

Geo. McC. Brown,

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Fig. 4.

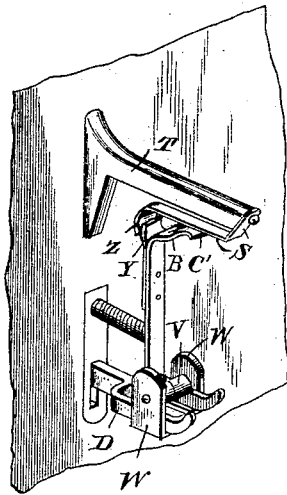


Fig. 2.

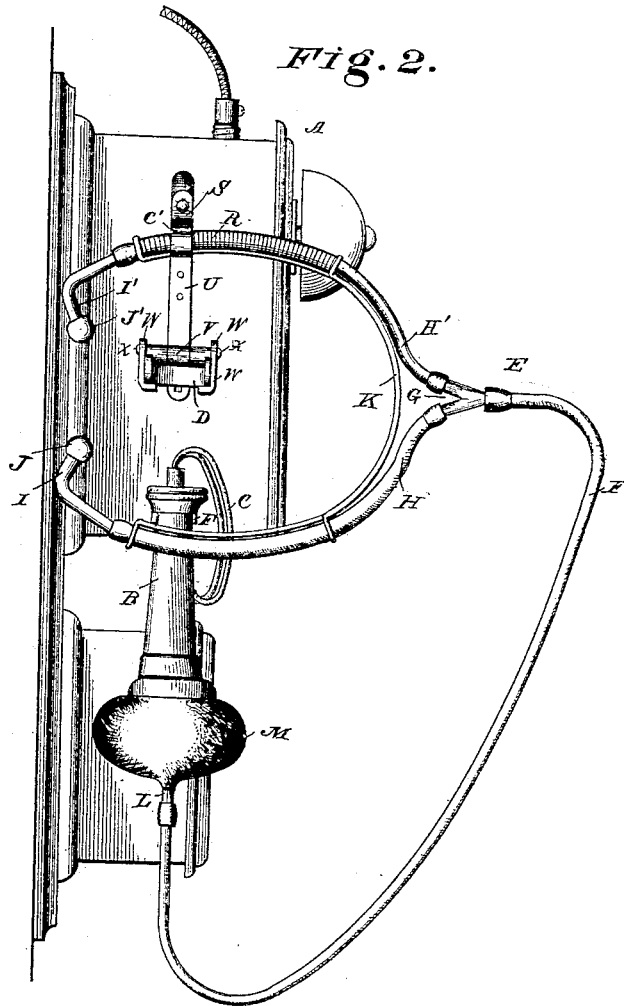
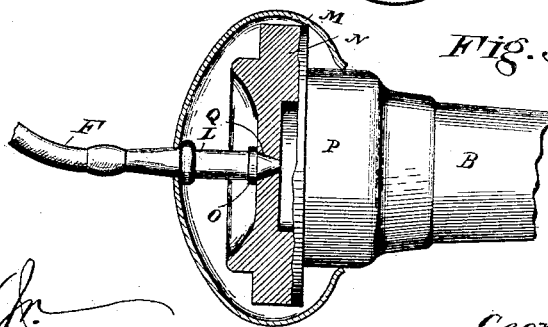


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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ONE-HALF TO EDWARD JAMES CAHILL, OF LA SALLE, ILLINOIS.

EAR ATTACHMENT FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 493,245, dated March 14, 1893.

Application filed June 23, 1892. Serial No. 437,737. (No model.)

To all whom it may concern:

Be it known that I, GEORGE McCLELLAN BROWN, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Ear Attachment for Telephones, of which the following is a specification.

This invention relates to a new and useful attachment for telephones, and particularly to a flexible ear attachment for telephone receivers.

The object of the invention is to provide a convenient arrangement whereby the wave sounds emanating from the receiver can be directly and independently conveyed and concentrated to both ears of the receiving operator in such manner that his hands are left free for independent use, or in other words, so that he need not be impeded or restricted in the use of his hands by holding and manipulating the receiver.

The improvement is especially designed for use in places where the sounds of machinery or other attendant noises serve to distract and disturb the ear of the receiving operator; and moreover is intended to enable him to use his hands freely for other incidental uses at the same time he is attending the reception of a message at the telephone.

With these objects in view the invention consists in means of flexibly attaching to the ordinary receiver of a telephone a bifurcated flexible self-adjusting audiphone or ear-piece extensibly secured to said receiver, and arranged to control the operation of the receiver-switch by its insertion and removal to or from its normal inactive position in its retaining agency.

My invention consists further in certain details of construction, arrangement, and combination of parts, all of which will be more fully described hereinafter, and specifically pointed out in the appended claims.

Referring to the accompanying drawings forming a part of this specification:—Figure 1 is a view in front elevation showing my invention as applied and attached in inactive position to an ordinary telephone. Fig. 2 is a detail side elevation of Fig. 1. Fig. 3 is a sectional detail view illustrating the means of attaching the flexible ear-piece to the re-

ceiver of the telephone. Fig. 4, is a detail perspective view of the spring holder for the improved attachment.

Similar letters of reference are used to designate corresponding parts in the several figures.

Referring to Fig. 1, A indicates a telephone of any ordinary or usual construction, having the receiver B, the circuit thereto C, and the lever switch D.

The flexible bifurcated attachment E shown as connected to the receiver B consists of a tubular rubber main branch F, diverging, at G, into the tubes H H', severally provided at their upper extremities by the hard-rubber ear-pieces I I', curving inwardly at their ends to form horizontal projections in line with the ear, and terminating in the perforated rounded tips J J', that are intended to enter and rest in the ear cavity when adjusted. This attachment is held in a self-sustaining position when inserted in the ears by the curved U-shaped spring K, having its extremities respectively fastened to the branch-tubes H H', as shown, and tending normally to bring and hold said branches together and in alignment. The main branch F is acoustically connected to the mouth of the receiver B by the coupling-tube L having a reduced end fitting in and held by the rubber end of the main branch, and a flaring or expanded body carrying at its lower portion the semi-elliptical or bell-shaped rubber bulb M, perforated at its top to receive the end of the coupling-piece L and stretched and secured tightly around the circular exterior of the enlarged mouth of the receiver B, being held securely thereon by the edge of the bulb contracting in and under the peripheral flange N of the receiver. As shown in Fig. 3, the coupling-piece L has a shoulder or collar O, at its extremity adjacent to the receiver mouth, thus forming the protruding neck P, which is designed to fit and rest snugly in the aperture Q in the mouth of the receiver and in front of its diaphragm, by which construction it will be seen that the sound coming from the diaphragm of the receiver is carried by the tubular bifurcated ear-piece E, up to the drums of the ears of the operator, the bulb M being a non-resonator, and the attachment being held in set

position by the spring K having sufficient tension to hold the ear-tips J J' securely in place in the ears.

In the position of rest shown in Fig. 1, the branch-tube H' is wrapped with a protective wrapping of wire, R, and inserted in its lodgment or seat formed by the horizontal spring-finger S, downwardly turned at its inner free end to form one retaining member of the seat and attached at its other end-portion to the arm T, and the vertical spring-actuated, pivoted spring-arm U, pivoted to pivot-stud V, fastened across the bifurcations of the switch-lever and made removable by the curved clips W and screws X X. This spring U has a lip Y impinging against the face of the finger S and adapted to rest against the downwardly extending corresponding lip Z of said finger. And A' designates the horizontal portion of the spring U, which is curved downwardly at B', forming a recess with the two lips Y Z, for the branch H', and terminating in the flaring projection C', leaving sufficient space between the face of the spring S and its end in which to slip the round branch H', which is then moved in between and along, carrying the lip Y back against the lip Z in the position shown in Fig. 4, thus separating the springs and actuating the switch-lever. The said branch can be easily removed by pulling the same outward and horizontally, thus raising the spring S and engaging and carrying out the pivoted spring U which is provided with a tension spring D' interposed between the same and the casing of the telephone and adapted to normally press the spring U in an outward direction. Thus the removal of the ear-piece from between the springs permits the return of the switch-lever.

The receiver B is hung permanently in a bifurcated support F' on the telephone casing in a convenient location so that the operator is relieved of its additional weight when using the extensible ear attachment.

Having thus described my invention, what I claim is—

1. In a telephone attachment, the combination with a receiver, of a flexible extensible ear-piece having diverging spring-actuated ear-tubes merging into a main branch connected to the receiver, and a coupling for connecting the receiver to the ear-tube consisting of a hollow rubber bulb contracted around the mouth of the receiver and attached also to the ear-tube, substantially as described.

2. In a telephone attachment, the combination with a bifurcated extensible ear-piece having a main flexible tube or branch, of a telephone receiver, and a non-resonant flexible coupling between the tube and said receiver, substantially as described.

3. In a telephone attachment, the combination with a receiver and an extensible flexible bifurcated audiphone acoustically connected thereto, of a rubber bulb coupling the said audiphone and receiver together, substantially as described.

4. In a telephone attachment, the combination with a main branch of a flexible bifurcated ear-piece, of a coupling tube fitting in the end of said main branch and provided with a protruding neck of reduced diameter at its other end, a rubber bulb secured around said neck and also around the mouth of the receiver, and the receiver, substantially as described.

5. In a telephone attachment, the combination of an ear tube of a bifurcated flexible receiver provided with a protective wrapping designed to slide between the bearing surfaces of a spring-actuated support for said tube, and said spring actuated support, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE MCCLELLAN BROWN.

Witnesses:

W. T. ABERNATHY,
EDWARD F. WOODSIDE.