C. L. FIELDS.

TELEPHONE ATTACHMENT.

APPLICATION FILED JULY 9, 1910.

987,563.

Patented Mar. 21, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

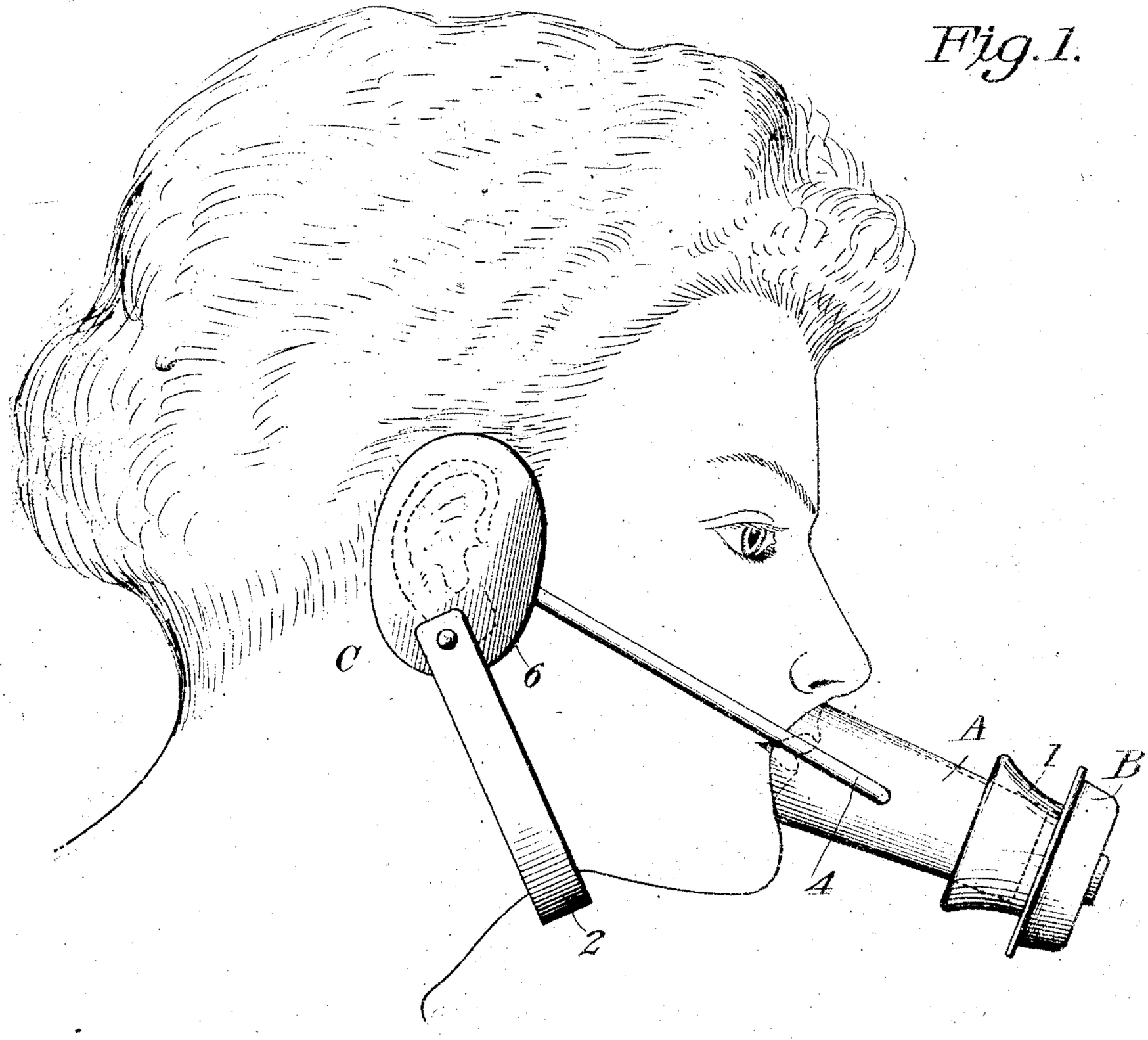
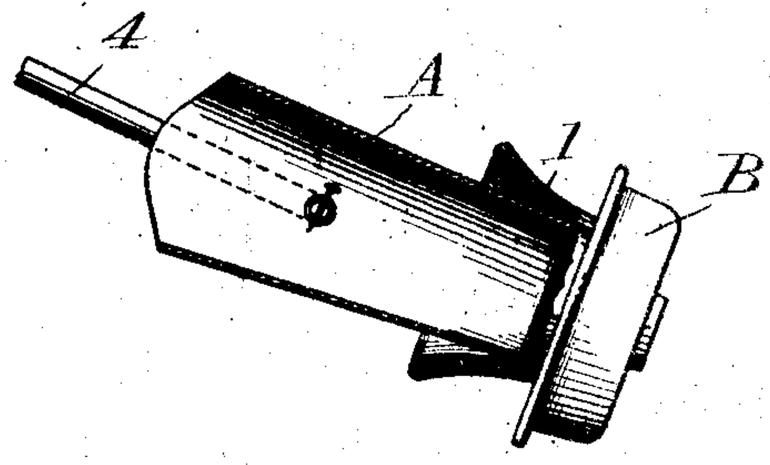


Fig. 4.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

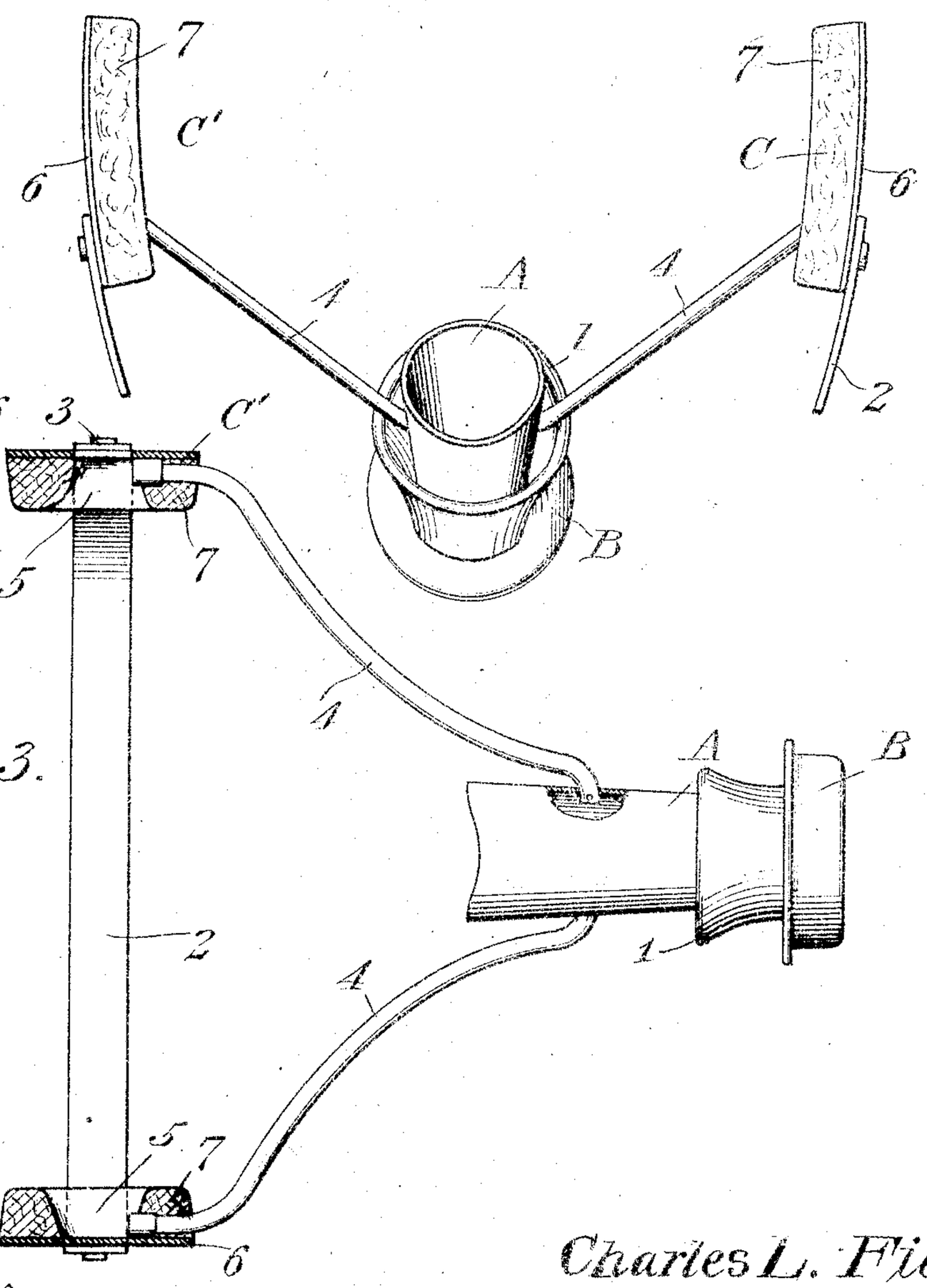

Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES L. FIELDS, OF ROCHESTER, INDIANA.

TELEPHONE ATTACHMENT.

987,563. Specification of Letters Patent. Patented Mar. 21, 1911.

Application filed July 9, 1910. Serial No. 571,181.

To all whom it may concern:

Be it known that I, CHARLES L. FIELDS, a citizen of the United States, residing at Rochester, in the county of Fulton and State of Indiana, have invented new and useful Improvements in Telephone Attachments, of which the following is a specification.

This invention relates to a speaking attachment for telephones whereby the disturbing sounds and noises are excluded so that the outgoing voice sounds can be more effectively transmitted and the incoming voice sounds better heard.

The invention has for one of its objects to provide an extremely simple, practical, and inexpensive attachment of this character which can be readily applied to ordinary telephone transmitters and capable of being easily adjusted to the mouth and ears of the user.

A further object of the invention is the provision of a noise-excluding device including ear covers, a mouth piece, and sound-conducting tubes between the mouth piece and ear covers, the latter being hollow and in communication with the tubes so that the user can readily hear his own voice in its natural tone.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 is a side view of the device shown applied to a telephone and in use. Fig. 2 is a rear view thereof. Fig. 3 is a plan view with the ear covers or mufflers in section. Fig. 4 is a sectional view of the mouth piece shown applied to the transmitter of the telephone.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawings, A designates the mouth piece or sound-excluding body of the attachment, the same being of funnel or trumpet shape and constructed of any suitable material. The smaller end of this mouth piece is of such size as to fit into the mouth piece 1 of the telephone transmitter B, and the larger end of the mouth piece A is of such size as to take in the mouth of the user. The voice is conducted through the mouth piece A and operates in a well-known manner on the diaphragm of the transmitter B of the telephone. This mouth piece is used primarily to prevent surrounding noises and sounds from interfering with the speaker's voice so that only the latter will be transmitted through the telephone system and as the result the distant listener can hear more readily.

It is desirable to exclude noises and disturbing sounds from the ears of the user, and therefore the attachment includes ear covers C and C', which are fastened to the ends of a bowed chin band 2 which must be spread open in order to permit the band to be adjusted to the user, the band passing under the chin and upwardly along the cheeks so that the ear covers or mufflers can bear against the outer structure of the ears. One ear cover C' has an opening 3 so that the receiver of the telephone set can be placed against the outside of the ear cover in order that the sounds of the incoming voice can be distinctly heard. The ear covering section of the attachment is connected to the mouth piece section so that the attachment will be a unitary structure, and for this purpose the flexible elements 4 are connected with the mouth piece A and with the ear covers C and C', and since the connecting elements are flexible, the chin band can freely open and close. These elements 4 are intended also to act as sound conductors, and to do this, they are in the form of tubes that have their front ends in open communication with the mouth piece A and their rear ends in open communication with the ear covers, the latter being hollow or formed with chambers 5. Each ear cover consists of a plate 6 of any suitable material, to which is fastened an oval ring 7 of thick felt or other suitable material which is adapted to bear directly on the ear, the chamber 5 inclosed by the ring being in communication with the auditory passage of the ear. By means of these tubes, the speaker's voice is freely conducted to his own ears and as the result unnatural sounds will not be heard as would otherwise be the case.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have

described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim as new, is:—

1. An attachment of the class described comprising a tubular mouth piece open at opposite ends for conducting voice sounds therethrough, one end being applied to the mouth of the user and the other end to the mouth piece of a telephone transmitter, apertures in the sides of the mouth piece, tubes having their forward ends extending into the mouth piece through the apertures, and chambered ear covers into which the rear ends of the tubes extend for conducting the sound of the voice from the mouth piece to the ears, said tubes forming the said connecting means for permanently uniting the mouth piece and ear covers.

2. An attachment for telephones comprising a tubular mouth piece adapted to be applied to the mouth piece of a telephone transmitter and into which the voice is spoken, chambered ear covers, tubes connected with the mouth piece and ear covers and having their ends in open communication with both, and a flexible supporting band to which the ear covers are attached, said tubes forming the sole connections between the ear covers and mouth piece.

3. An attachment of the class described comprising a mouth piece open at both ends to be applied to the mouth of the user and to the mouth piece of a telephone transmitter, ear covers, a support for the covers, and flexible sound-conducting members connected with the mouth-piece intermediate its ends and with the ear covers.

4. An attachment of the class described comprising a mouth piece section, an ear covering section, the latter section consisting of a flexible band and mufflers on the ends thereof, and a pair of flexible connecting and sound-conducting elements having their front ends attached to the mouth piece section intermediate its ends and at opposite sides and their rear ends attached to the ear covering section.

5. In a device of the class described, the combination of a mouth piece; chambered ear covers; means for connecting the covers together and for holding the same on the head of the user; and flexible tubes connecting the ear covers with the mouth piece and having their ends communicating with the latter and with the chambers of the ear covers; each ear cover consisting of a plate and a ring of yielding material to bear against the external ear structure, the plate of one ear cover having an opening through which sounds from a receiver can be communicated to the ear.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES L. FIELDS.

Witnesses:

MILTON O. REES,

C. E. ROBBINS.