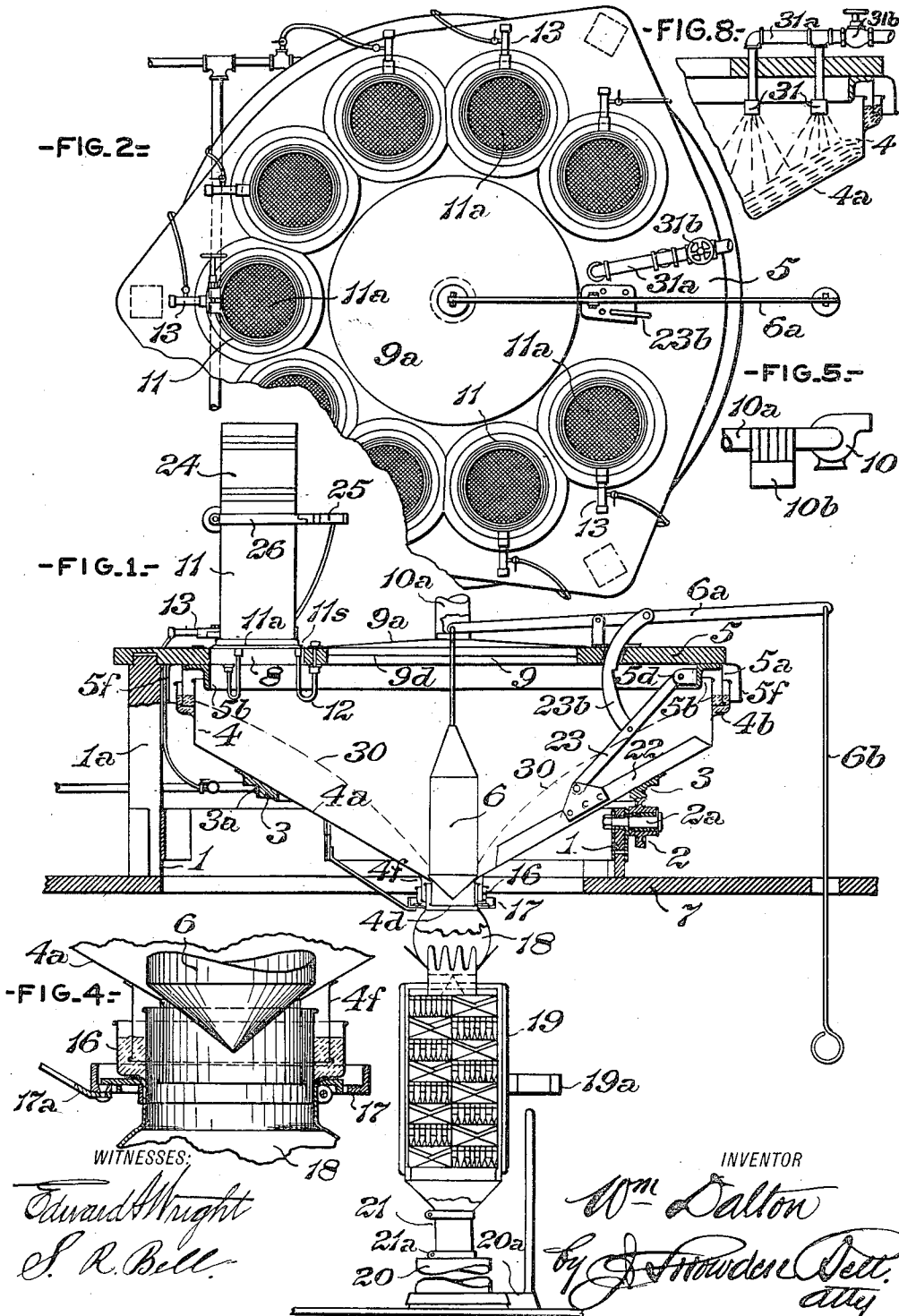


W. DALTON.
MANUFACTURE OF BLENDED POWDER COMPOUNDS.
APPLICATION FILED JULY 18, 1916.

1,204,137.

Patented Nov. 7, 1916.
2 SHEETS—SHEET 1.



UNITED STATES PATENT OFFICE.

JOHN L. CREVELING, OF NEW YORK, N. Y.

TELEPHONE APPLIANCE.

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Specification of Letters Patent.

Patented Nov. 7, 1916.

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To all whom it may concern:

Be it known that I, JOHN L. CREVELING, a citizen of the United States, residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Telephone Appliances, of which the following is a specification, reference being had to the drawing forming a part thereof.

My invention pertains to that class of devices intended to be used in connection with the receiver of an ordinary telephone and has for its particular object to provide means for rendering impulses emitted by an ordinary telephone receiver audible in both ears instead of one only, as is usual, and also to cut out outside noises which ordinarily tend to confuse a person having a single receiver to one ear and the other ear open to outside impulses.

It is a further object of my invention to provide an inexpensive device which may fulfil the above functions and be readily applied to the ordinary receivers now in use without defacing the same and also to provide a device which may be permanently attached to the receiver or attached at such times as desired with as little inconvenience as possible.

Figure 1 is a side elevation and partial section of an ordinary Bell telephone receiver together with one form of device embodying my invention applied thereto, shown partially in section. Fig. 2 is a front elevation of one means for attaching my device to the ordinary receiver. Fig. 3 is a side elevation of the attaching means shown in Fig. 2.

In Fig. 1 (1) represents the body portion of the ordinary Bell telephone receiver provided with the threaded portion (2), diaphragm (3) and ear piece (4) having an annular flange (5) serving to clamp the diaphragm in place and define the cavity (6) with which communication is established by the aperture (7). (8) represents an ear piece which may be identical with the ear piece (4) with exception of the opening or cavity (9) which communicates with the nipple (10) to which is attached the sound tube (11) terminating in the nipple (12) which is attached to the ear piece (13) so as to communicate with the interior of the cavity (14) thereof. The ear piece (8) is shown as held in place against the receiver (1) as by means of clips (16) carried by a spring ring as indicated in section by (17).

In Figs. 2 and 3 (16) represents the clips as shown in Fig. 1 carried by the spring ring (17) which may be opened and sprung upon the ear piece (8) if desired.

The practical operation of my improved telephone appliance is substantially as follows; reference being had particularly to Fig. 1. If desired, the telephone receiver (1) may be used in the regular way without the use of my appliance until such times as it may be desirable to cut out outside noises and render the sound emitted by the receiver more easily audible. At such times the ear piece (8) may be placed against the ear piece (4) of the receiver and held firmly against one ear of the listener and the ear piece (13) held against the other ear.

Then the sound impulses emitted by the receiver will be transmitted to the operator through the aperture (7) and through cavity (9) tube (11) to cavity (14) causing an effect on each ear in such manner as to make the vibrations of the diaphragm (3) much more plainly audible and the ear piece (13) will also serve to cut out outside noises.

If desired to permanently attach my appliance to the receiver (1), the ear piece (4) may be removed and the ear piece (8) screwed upon the threaded portion (2) in its place. With this arrangement sound may be carried to each ear in an obvious manner. If desired to attach my appliance to the ordinary receiver in such manner that it will stay attached thereto and at all times be readily and quickly removable the spring device as shown in the figures may be used in the following manner. The spring ring (17) may be opened and sprung over the ear piece (8) in such manner as to firmly grip the same. Then if the ear piece (8) be pressed against the receiver (1) the clips (16) will spring over the edge of the ear piece (4) and hold the ear piece (8) in place as shown in Fig. 1 and thus the appliance will remain attached to the receiver until purposely separated as desired.

It will be noted that when the ear piece (8) is held upon the ear piece (4) by the clips (16) the same may be rotated about the ear piece (4) with little difficulty; therefore, if in picking up the instrument and placing the ear piece (8) to the ear, the tube (11) should happen to come in an undesirable position, as for example between the face of the user and the telephone trans-

mitter, the ear piece (8) may readily be revolved upon the receiver against which it is merely held by the clip (16) and the tube (11) brought to a desirable position. In the use of this type of instrument this is a very desirable feature.

I do not wish in any way to limit myself to any particular constructions shown in the drawing which is merely an illustration of some forms of devices embodying my invention and from which great variation may be made and still be within the scope of said invention.

Having thus described my invention, what I desire to protect by Letters Patent is as set forth in the following claims, to wit:—

1. An attachment for a telephone receiver ear piece adapted to operatively engage the same, comprehending an attachment ear piece having a spring ring encircling and gripping the same provided with members adapted to engage the telephone-receiver ear piece to detachably hold the attachment ear piece in operative relation to said receiver ear piece.

2. An attachment for telephone receivers comprising an ear piece, a spring ring encircling and gripping said ear piece, said ring being provided with members for operatively engaging a telephone receiver to hold said attachment ear piece in operative relation thereto.

3. The combination with a telephone receiver having an ear piece, of an attachment ear piece provided with engaging means whereby it is retained in operative relation with said receiver ear piece, said engaging means comprehending a spring ring encircling and gripping said attachment ear piece and having projecting members for engaging the telephone receiver ear piece to hold said ear pieces in operative relation with each other.

4. An attachment for a telephone receiver ear piece adapted to operatively engage the same, comprehending an attachment ear piece having a spring ring encircling and gripping the same, said ring being provided with members engaging said attachment ear piece to prevent lateral movement thereon, and also provided with members adapted to engage the telephone receiver ear piece to

detachably hold the attachment ear piece in operative relation to said receiver ear piece.

5. An attachment for telephone receivers comprising an ear piece, a spring ring encircling and gripping said ear piece, said ring being provided with members for preventing lateral movement of said ear piece within said ring, and also provided with members for operatively engaging a telephone receiver to hold said attachment ear piece in operative relation thereto.

6. The combination with a telephone receiver having an ear piece, of an attachment ear piece provided with engaging means whereby it is retained in operative relation with said receiver ear piece, said engaging means comprehending a spring ring encircling said attachment ear piece and having inwardly turned members on opposite sides thereof engaging said ear piece and also having projecting members for engaging the telephone receiver ear piece to hold said ear pieces in operative relation with each other.

7. The combination with a telephone receiver having an ear piece provided with a sound transmitting aperture, of an attachment ear piece adapted when placed between the receiver ear piece and the ear of a user to transmit sound waves from said aperture to said ear, and having a second ear piece, means for carrying sound waves from the receiver thereto, and means for holding the attachment ear piece in operative relation to the receiver ear piece comprehending a member encircling the attachment ear piece and tending to grip the same, said member being provided with inwardly extending members engaging said attachment ear piece to prevent lateral movement with respect to said encircling member and means carried by said encircling member for engaging the receiver ear piece and holding the said ear piece and the attachment ear piece in operative relation with each other.

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Witnesses:

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