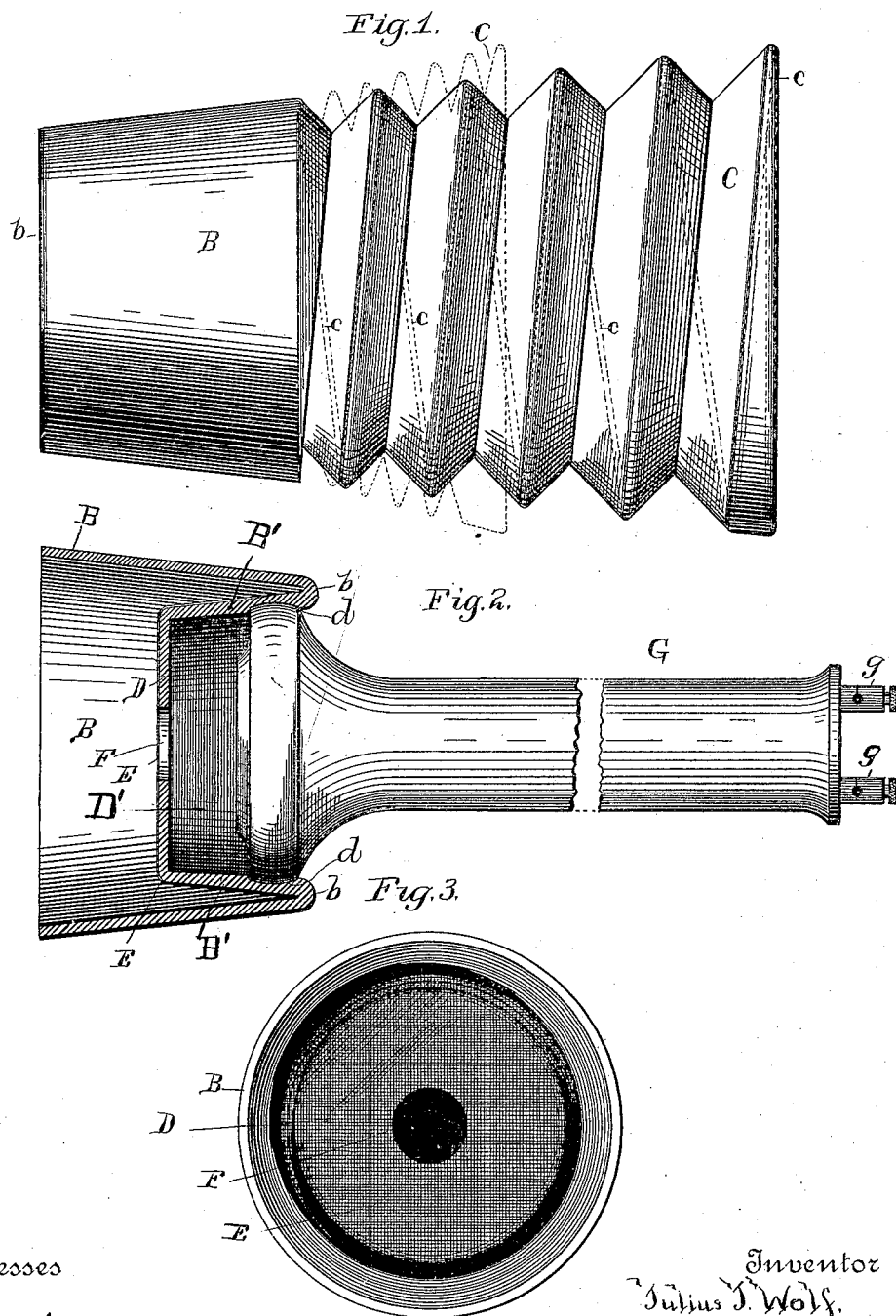


(No Model.)

J. J. WOLF.
EARPHONE FOR TELEPHONES.

No. 423,299.

Patented Mar. 11, 1890.



Witnesses

R. A. Balderson

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UNITED STATES PATENT OFFICE.

JULIUS J. WOLF, OF KANSAS CITY, MISSOURI, ASSIGNOR OF TWO-THIRDS TO
MAX WEIL AND AARON M. SLOSS, BOTH OF SAME PLACE.

EAR-PHONE FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 423,299, dated March 11, 1890.

Application filed January 24, 1890. Serial No. 337,951. (No model.)

To all whom it may concern:

Be it known that I, JULIUS J. WOLF, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Ear-Phones for Telephones, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in ear-phones, its object being to provide a device which will increase the distance between the drum of the ear and the ear-phone now in common use by applying my device, thereby making articulation more distinct and decreasing the noise due to induction which heretofore has been heard over the wires. I attain these ends by employing the device illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the device. Fig. 2 is a central section, showing the coiled accordion-plaiting removed and more clearly showing how the device is constructed and also how it is secured to the phone. Fig. 3 is an end view of Fig. 2.

In the drawings, B is the outer truncated cone or body, having a frusto-conical-shaped flange B', provided with a cross-partition D, said flange and partition forming a drum D', over which is placed a cloth or other fabric E, prepared by a chemical process. The said interior flange has a groove or thread d, by which it may be secured to the phone.

F is a central perforation through said cross-partition of the drum D', by which the sound is conducted to the ear.

G is a phone such as are now in common use, on which my device is designed to be secured, said phone having the binding-posts g, which are connected to the transmitting-wires. The accordion-plaiting C is for the purpose of increasing and decreasing the distance between the ear and the phone, the coil-spring c, which takes the form of a spiral, being sufficient to hold the plaiting C in position, as illustrated in Fig. 1. Should the operator wish to bring the phone nearer to the ear, by a slight pressure of the phone G the spring c can be closed partly or entirely, as illustrated by dotted lines in Fig. 1.

While the body B and drum D' and the ac-

cordion-plaiting G hush the noise due to induction and cross-talking, they serve to sharpen the articulation, and when using this device one can hear very much clearer than heretofore.

It has frequently been found by those talking through a telephone that the noise due to induction and the effect of the wind on the wires make it hard to hear articulation. Now by using my improved ear-phone this is entirely obviated, and, as before stated, articulation is made much plainer, the space between the ear and the phone hushing the noise due to induction without affecting the speech. The body B and drum D' may be constructed of any suitable material, such as celluloid, gutta-percha, stiff pasteboard, or any other material which may be deemed advisable.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An ear-phone having the main drum B, provided with an interior drum D', covered by a chemically-prepared cloth E, for the purposes substantially as specified.

2. An ear-phone provided with body B, to which is secured a spiral spring c, and the accordion-plaiting C, secured over the spring, for increasing and decreasing the distance between the ear and the phone, substantially as described.

3. An ear-phone having the body B and an interior drum D', covered by a cloth E and provided with a perforation F, said interior drum D' being provided with a groove or channel d, which fits over the flange end of the phone G, for the purpose substantially as specified.

4. An ear-phone having the body B and interior drum D', provided with a chemically-prepared cloth E, said body B being provided with accordion-plaiting C, secured around spiral spring c, by which the distance between the ear and phone may be regulated, substantially as and for the purposes set forth.

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

JULIUS J. WOLF.

Witnesses:

P. C. JOHNSON,
A. A. HIGDON.