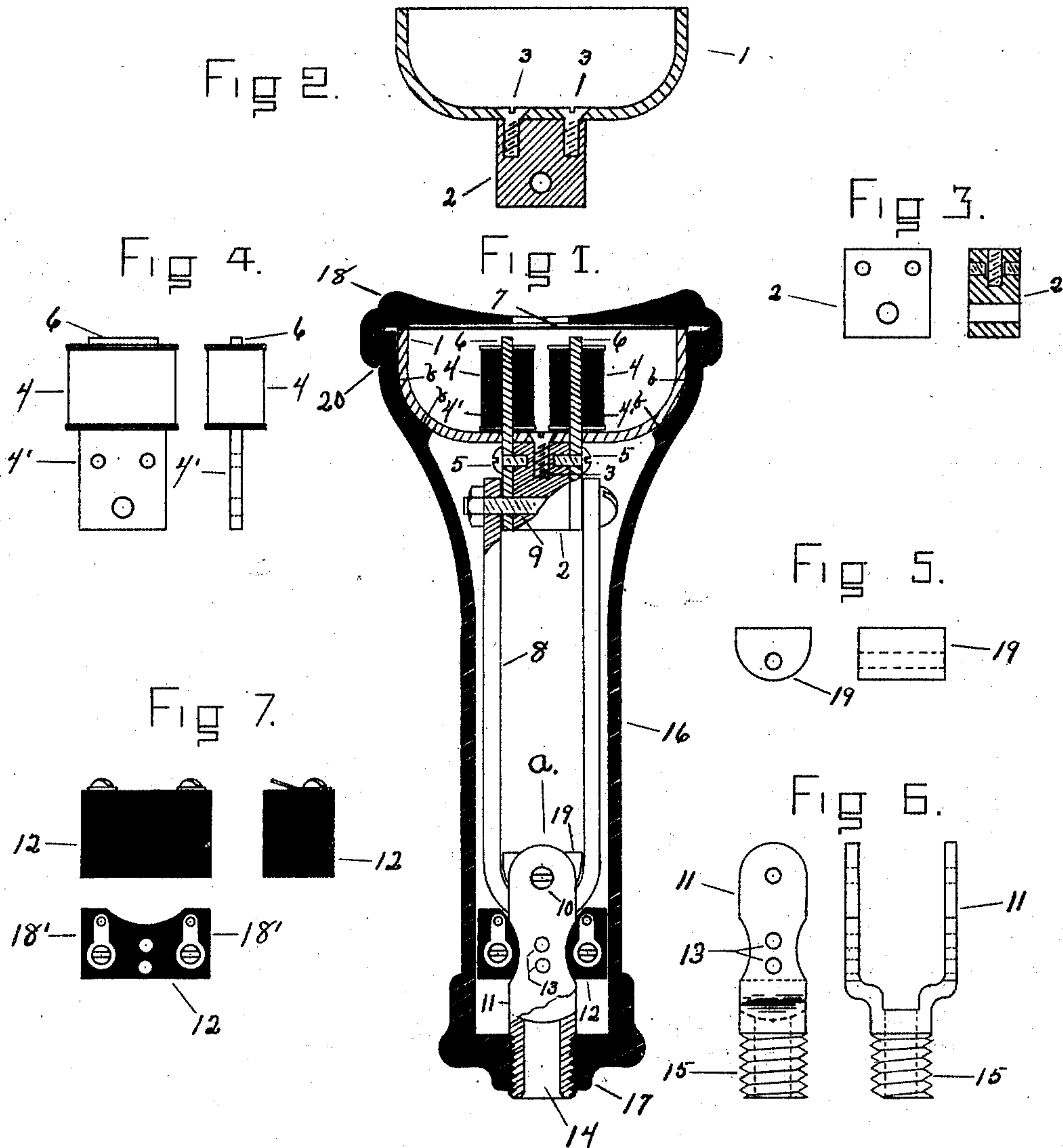


No. 759,095.

PATENTED MAY 3, 1904.

J. I. GEMMILL.  
TELEPHONE RECEIVER.  
APPLICATION FILED DEC. 22, 1902.

NO MODEL.



WITNESSES:

James R. Gemmill (Sr.)  
Leota M. Gemmill.

INVENTOR

James I. Gemmill.



# UNITED STATES PATENT OFFICE.

JAMES I. GEMMILL, OF CLEVELAND, OHIO.

## TELEPHONE-RECEIVER.

SPECIFICATION forming part of Letters Patent No. 759,095, dated May 3, 1904.

Application filed December 22, 1902. Serial No. 136,280. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES I. GEMMILL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain Improvements in Telephone-Receivers, of which the following is a specification and together with the accompanying drawings should make clear all the important features to those skilled in the art to which this appertains.

The object of my invention is to obtain a fixed adjustment between the diaphragm and the exposed poles of the electromagnets, so that the adjustment will remain normal throughout the use of the instrument.

Figure 1 shows a central longitudinal section of receiver with the interior parts in their proper position. Fig. 2 is a section of the pressed-metal cup and block attached thereto. Fig. 3 shows two views of block 2, one a section and the other an elevation. Fig. 4 shows two views of the electromagnet-spools. Fig. 5 shows two views of type-metal block. Fig. 6 shows two views of threaded clevis used to hold the whole combination together in the hard-rubber shell. Fig. 7 shows different views of the hard-rubber block which is used to sustain and insulate the soldered electrical connections one from the other.

In all the cuts in the drawings the same characters of reference indicate similar parts.

In Fig. 1 I show a pressed-metal cup 1, to which is attached a brass block 2 by means of screws 3 3, of which only one is here shown. A glance at Fig. 2 will clearly show how said block 2 is attached to said cup 1. Referring back to Fig. 1, the electromagnet-spools 4 4 and their respective cores 4' 4' are passed through slots conveniently arranged in the bottom of said cup 1. Said cores are permanently attached to the block 2 by screws at 5 5. The exposed poles of the electromagnets at 6 6 are now lapped down, so as to come into a state of parallelism with and below the plane of the edge of cup 1, thereby creating the adjustment between the diaphragm 7 and the cores 6 6. The permanent magnet 8 is so bent and adapted to slip over the lower extremities of the electromagnet-cores and attached to

same by a bolt 9, passing through the cores 4' 4' and the intervening brass block 2. In the bend of the permanent magnet 8 at the point *a* is a type-metal block 19, so formed as to neatly fill said bend and through which is drilled a hole adapted to receive a bolt 10, which serves to attach the clevis 11. The said clevis sustains the hard-rubber block 12, which is held in place by means of pins through holes 13 13. Said clevis is drilled internally at the lower end, forming a channel 14, which serves to allow the introduction of connecting-wires to the system to which the instrument is attached. The clevis is threaded exteriorly (shown at 15, Fig. 6) and is adapted to engage a thread in the rubber shell 16 at 17, and thereby, due to the flexibility of the joint at *a*, will draw into perfect alinement the whole combination in the shell 16. The strain is taken up by the aforementioned pressed-metal cup 1, it resting on the shell 16 at or about the points *b b b b*.

The diaphragm 7 rests on the edge of cup 1 and is held in place by the hard-rubber cap 18 engaging the shell 16 by means of a thread at 20. The hard-rubber block 12 serves to attach the solder-clips 18' 18' to.

The leading-in wires and cord connections are not shown, as they do not enter into or in any way interest in this case and would only tend to obscure the drawings.

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

1. In a telephone-receiver a metal cup, in combination with a metal block, electromagnet-spools attached thereto and a permanent horseshoe-magnet secured to the block and electromagnet-spools, a clevis with a threaded shank and a metal block attached to said permanent magnet, together with a hard-rubber block, supporting the solder-connecting clips, all as shown and described.

2. In a telephone-receiver, in combination, a suitable metal cup, a magnetic insulating-block attached thereto, electromagnet-spools attached to said block and a horseshoe-magnet secured to said block and spools, a suitable metal block and clevis with threaded shank,

secured to said magnet and a suitable rubber casing, with an interiorly-threaded hole in the tailpiece, through which the threaded shank of the clevis passes and secures the several parts  
5 within the shell, substantially as shown and described.

In testimony whereof I have affixed my name

to this specification, this 8th day of December, A. D. 1902, in the presence of two subscribing witnesses.

JAMES I. GEMMILL.

Witnesses:

JAMES R. GEMMILL, Sr.,

LEOTA M. GEMMILL.