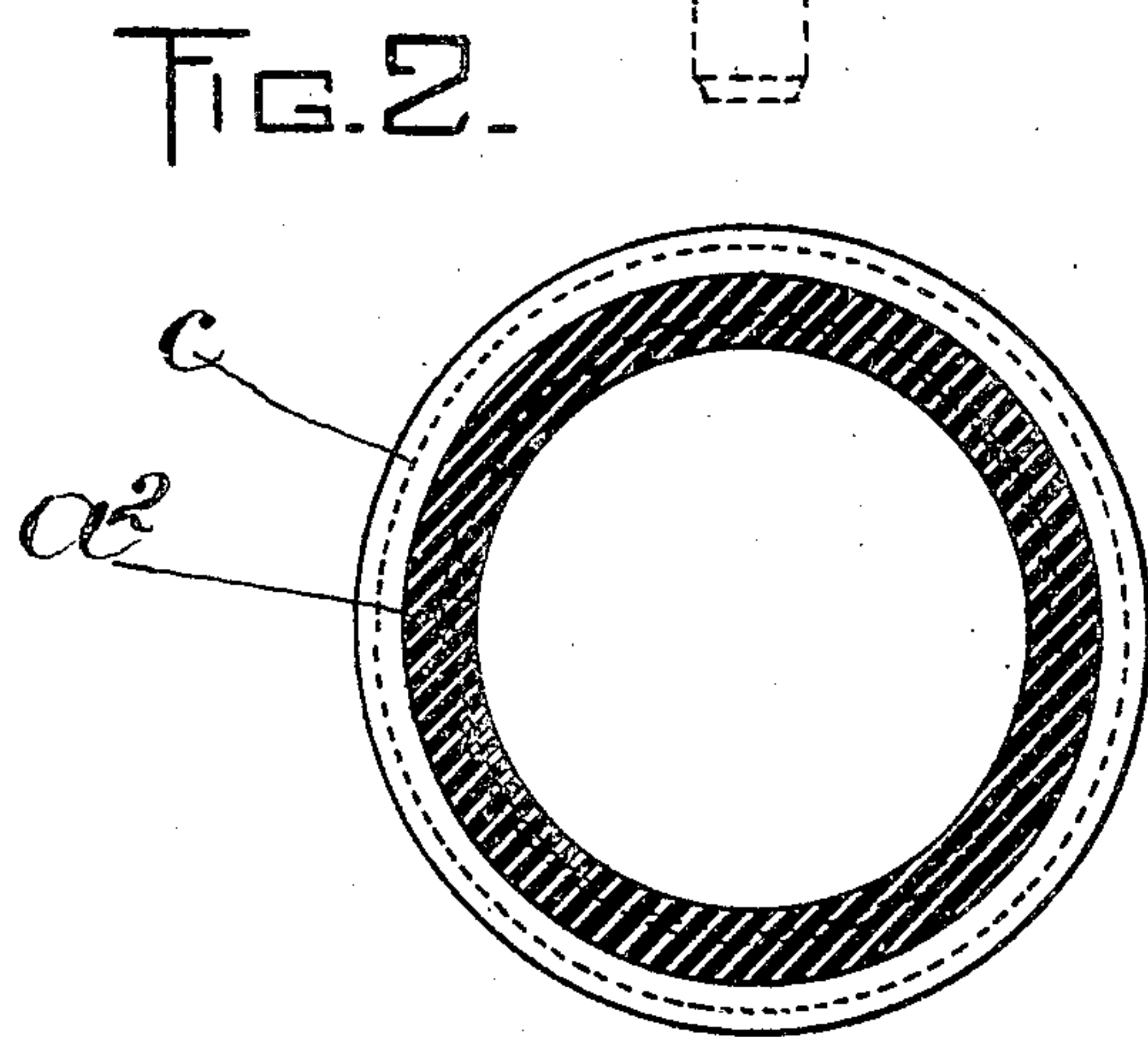
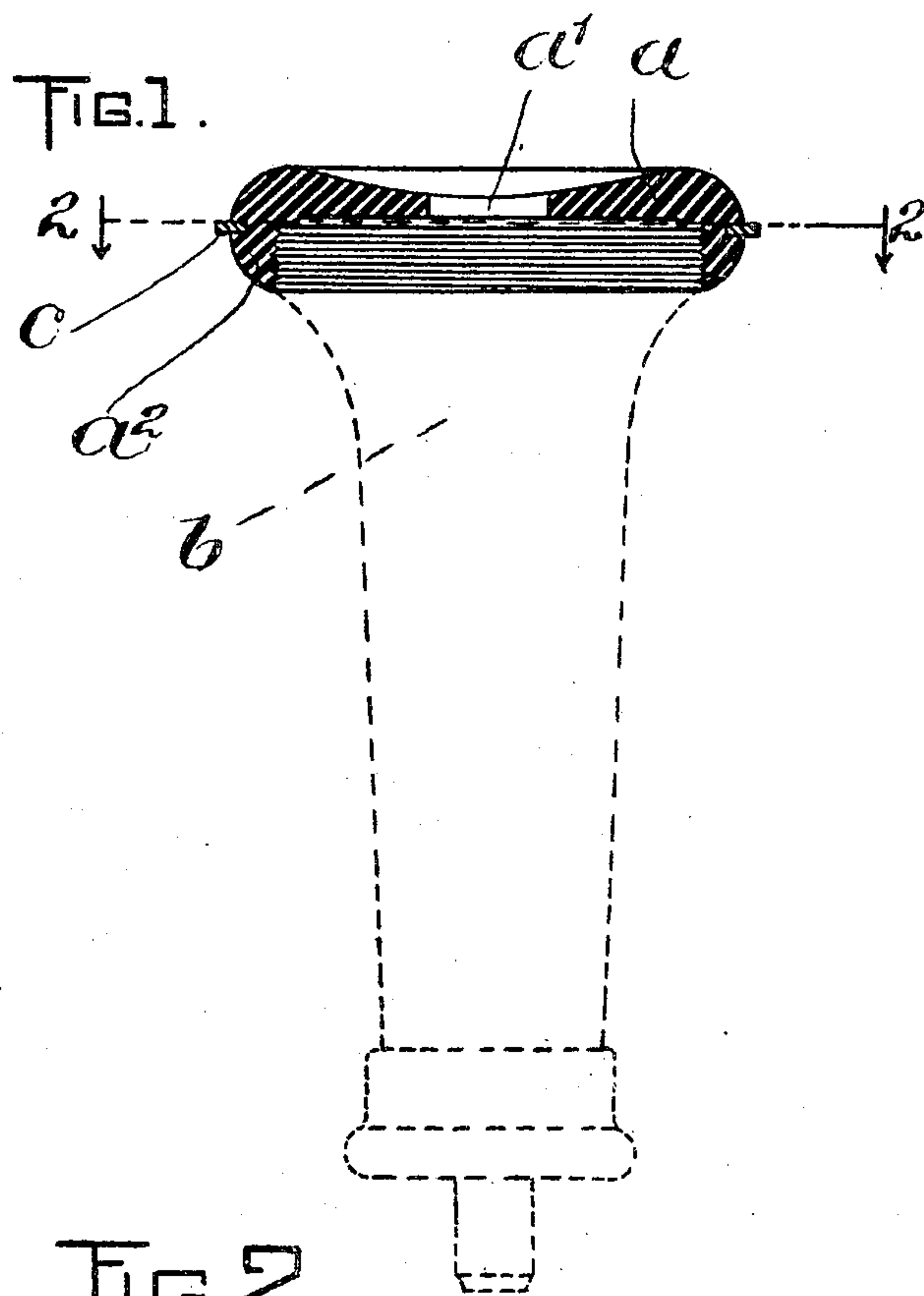


No. 801,034.

PATENTED OCT. 3, 1905.

W. J. MURDOCK.
TELEPHONE RECEIVER.
APPLICATION FILED JAN. 5, 1905.



WITNESSES

m. Matheson

S. Patchelder

INVENTOR

W. J. Murdock

by Knight Brown Quincy

Attys.

UNITED STATES PATENT OFFICE.

WILLIAM J. MURDOCK, OF BOSTON, MASSACHUSETTS.

TELEPHONE-RECEIVER.

No. 801,034.

Specification of Letters Patent.

Patented Oct. 3, 1905.

Application filed January 5, 1905. Serial No. 239,755.

To all whom it may concern:

Be it known that I, WILLIAM J. MURDOCK, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Telephone-Receivers, of which the following is a specification.

This invention relates to the diaphragm covering or retaining cap of a hand telephone-receiver. This cap is made of insulating material and is provided with a marginal shoulder or flange projecting rearwardly from the diaphragm-covering portion and internally threaded to engage an external thread on the body portion of the case which contains the diaphragm-operating magnet. The diameter of the cap is greater than that of the magnet-containing portion of the case and is therefore the part of the instrument which is liable to receive injury by contact with external objects. The cap and its flange are necessarily limited in thickness, and this limitation, together with the necessarily brittle nature of the insulating material of which it is made, renders the cap liable to breakage or fracture, especially across the marginal flange, when the cap strikes an external object.

My invention has for its object to prevent the liability of breakage of the cap; and to this end it consists in a cap having a reinforcing-ring of greater tensile strength than the material of the cap, said ring surrounding the internally-threaded portion of the flange and serving to prevent transverse fracture of the latter.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a transverse section of a cap embodying my invention, a portion of the body of the case being shown by dotted lines. Fig. 2 represents a section on line 2 2 of Fig. 1.

The same reference characters indicate the same parts in both the figures.

In the drawings, *a* represents the diaphragm-covering cap of a telephone-case, said cap being provided with a suitable orifice *a'* for the

passage of sound-waves from the diaphragm and with a marginal rearwardly-projecting shoulder or flange *a'*, which is internally screw-threaded to engage an external thread on the body portion *b* of the receiver-case.

In carrying out my invention I provide the cap *a* with a reinforcing-ring *c*, composed of a material of greater tensile strength than the insulating material of the cap and surrounding the internally-threaded portion of the flange *a'*. Any suitable material may be used in making the ring *c*, such as vulcanized fiber, metal, &c. The material of the cap is molded upon the ring in such manner as to cover its inner edge and also to cover wholly or in part the opposite sides of the ring. Preferably the outer edge of the ring projects outwardly from the portion of the cap having the greatest diameter, as shown in Fig. 1, the ring being therefore exposed, so that its outer edge sustains any shock or jar that may result from the contact of the cap portion of the receiver with an external object. If desired, however, the outer edge of the ring may be flush with the external surface of the cap.

It will be seen that the described improvement greatly strengthens the cap and practically eliminates the liability of fracture or breakage of the same by contact with external objects.

I claim—

A telephone-receiver case having a diaphragm-retaining cap of insulating material provided with an internally-screw-threaded flange and having a substantially unyielding reinforcing-ring of greater tensile strength than the material of the cap, said ring being embedded in the material of the cap and surrounding said threaded flange.

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

WILLIAM J. MURDOCK.

Witnesses:

C. F. BROWN,
E. BATCHELDER.