

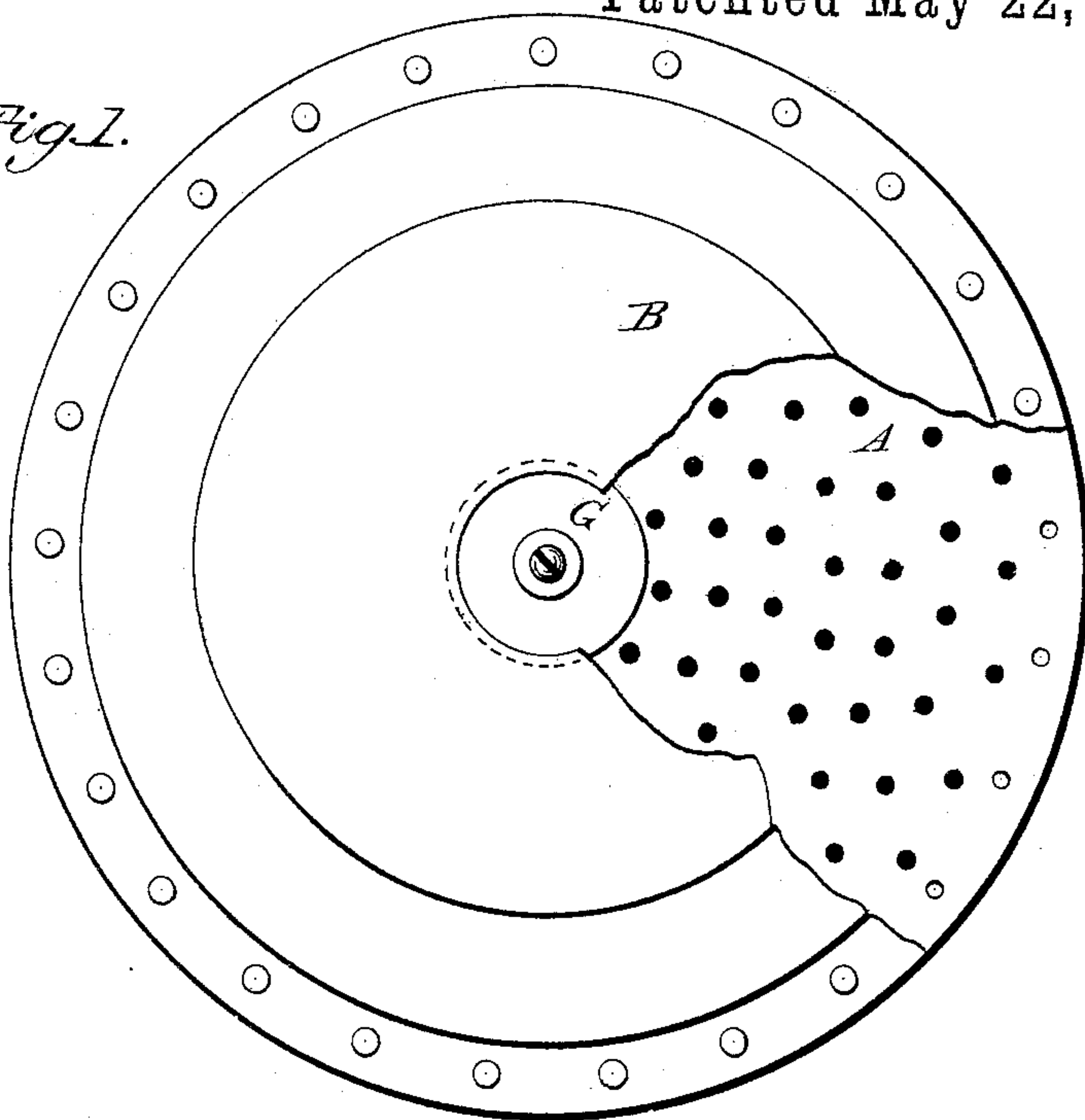
(No Model.)

G. F. SHAVER.  
MECHANICAL TELEPHONE.

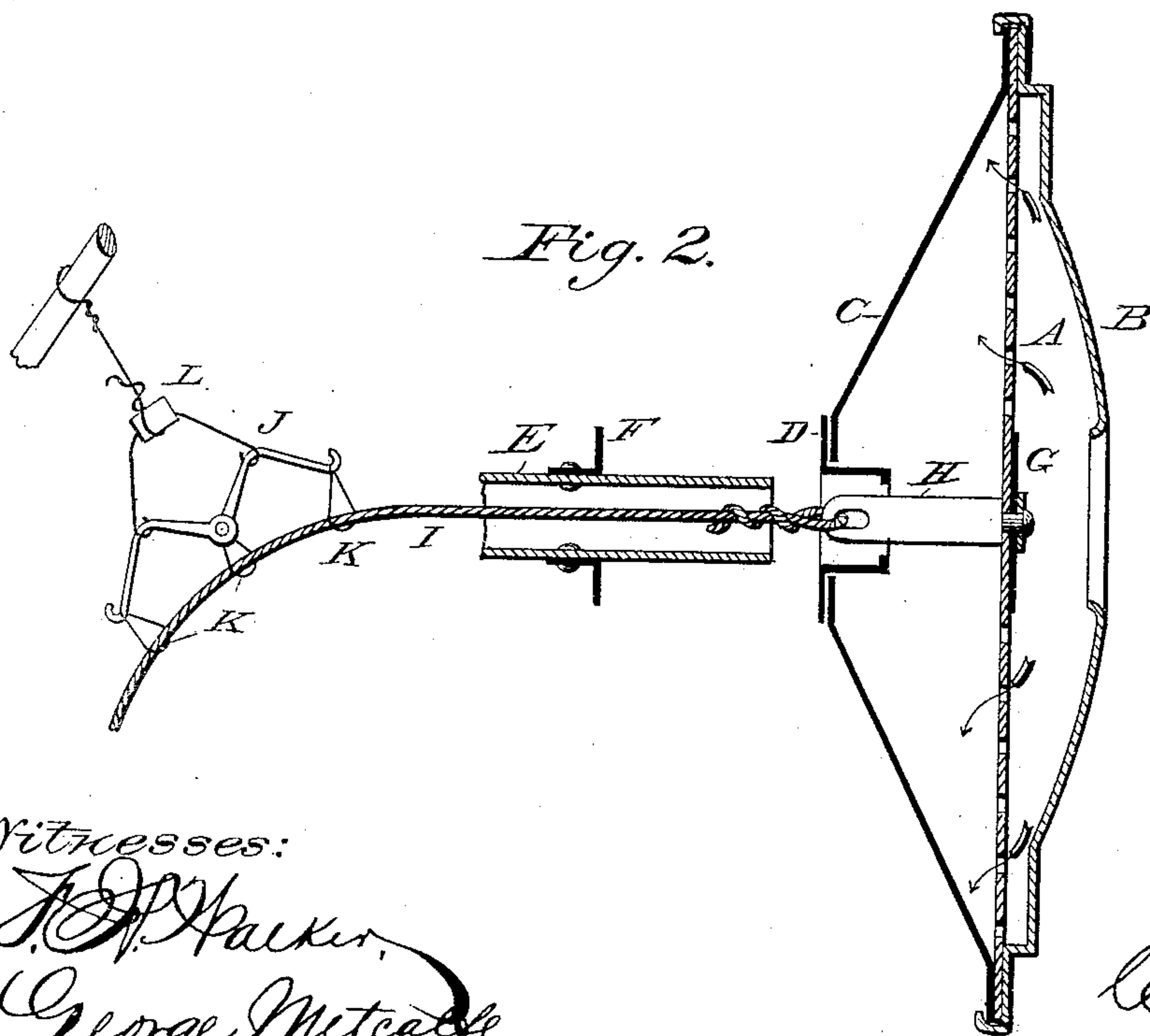
No. 383,324.

Patented May 22, 1888.

*Fig. 1.*



*Fig. 2.*



Witnesses:

*J. D. Parker,*  
*George Metcalf,*

Inventor:

*G. F. Shaver*

# UNITED STATES PATENT OFFICE.

GEORGE FREDERICK SHAVER, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE SHAVER CORPORATION, OF SAME PLACE.

## MECHANICAL TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 383,324, dated May 22, 1888.

Application filed September 19, 1887. Serial No. 250,150. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE FREDERICK SHAVER, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Mechanical-Telephone Apparatus, of which the following is a specification.

The object of my invention is to provide a mechanical-telephone apparatus simple in construction and simple and efficient in operation. The principal improvement consists in the novel construction of a shell containing the diaphragm. The means which I employ to effect this result is shown in the accompanying drawings, of which—

Figure 1 is a plan view of the apparatus with a part broken away to show the internal construction, and Fig. 2 shows a cross-section of the telephone and attached apparatus.

A represents a diaphragm of a telephone, made of metal or other suitable material and perforated with small holes. The action of perforating throws the material out of place around the perforations, condensing it upon the top surface and expanding it underneath, the effect being to destroy the natural resonance of the material and enabling sound-vibrations sent over the wire to be accurately reproduced without being intermingled with the aforesaid ringing sound given out by unperforated diaphragms. A concentrator, B, is placed over the diaphragm to concentrate the sounds transmitted and received and to exclude extraneous sounds, and a cone-shaped base-piece, C, supports both diaphragm and

concentrator, to which it is riveted at intervals about the outer edge. An annular recessed collar, D, is fitted into the base C, for the purpose of supporting and centering the telephone, and when in use is placed over the end of a piece of tubing, E, which is mounted in the wall. A collar, F, is fitted upon the pipe E, to prevent the pipe from going too far into the wall. A washer, G, is placed upon the face of the diaphragm, and a bar, H, is riveted thereto for the purpose of attaching the line-wire I, which is supported by a hanger, J, made of two pieces of V-shaped metal hinged together at the center and provided with loops K K K, through which the line-wire passes. A hummer, L, made of a piece of rubber tubing, is placed at the back of the hanger for the purpose of intercepting extraneous vibrations.

What I claim as new, and desire to secure by Letters Patent, is—

In a mechanical-telephone case, a rear plate and recessed supporting chamber, D, through which a line-wire, I, is suspended, in combination with a concentrating plate, B, extending over the said rear plate at its outer edge and flanged, thus supporting and clamping the telephone-diaphragm in position, substantially as herein set forth and described.

Signed at New York, in the county of New York and State of New York, this 12th day of September, A. D. 1887.

GEORGE FREDERICK SHAVER.

Witnesses:

ANDREW POWELL,  
FRANK H. WALKER.