

(No Model.)

W. HADDEN.

TELEPHONE.

No. 312,841.

Patented Feb. 24, 1885.

Fig. 1.

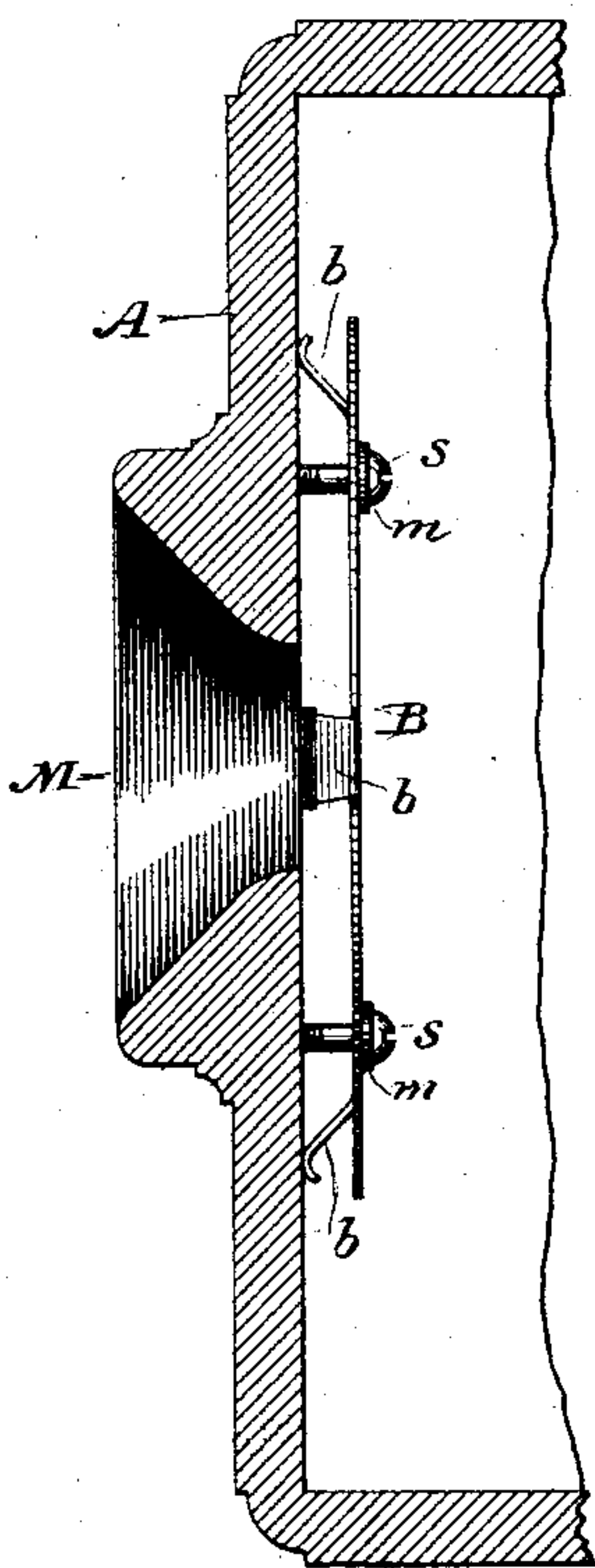
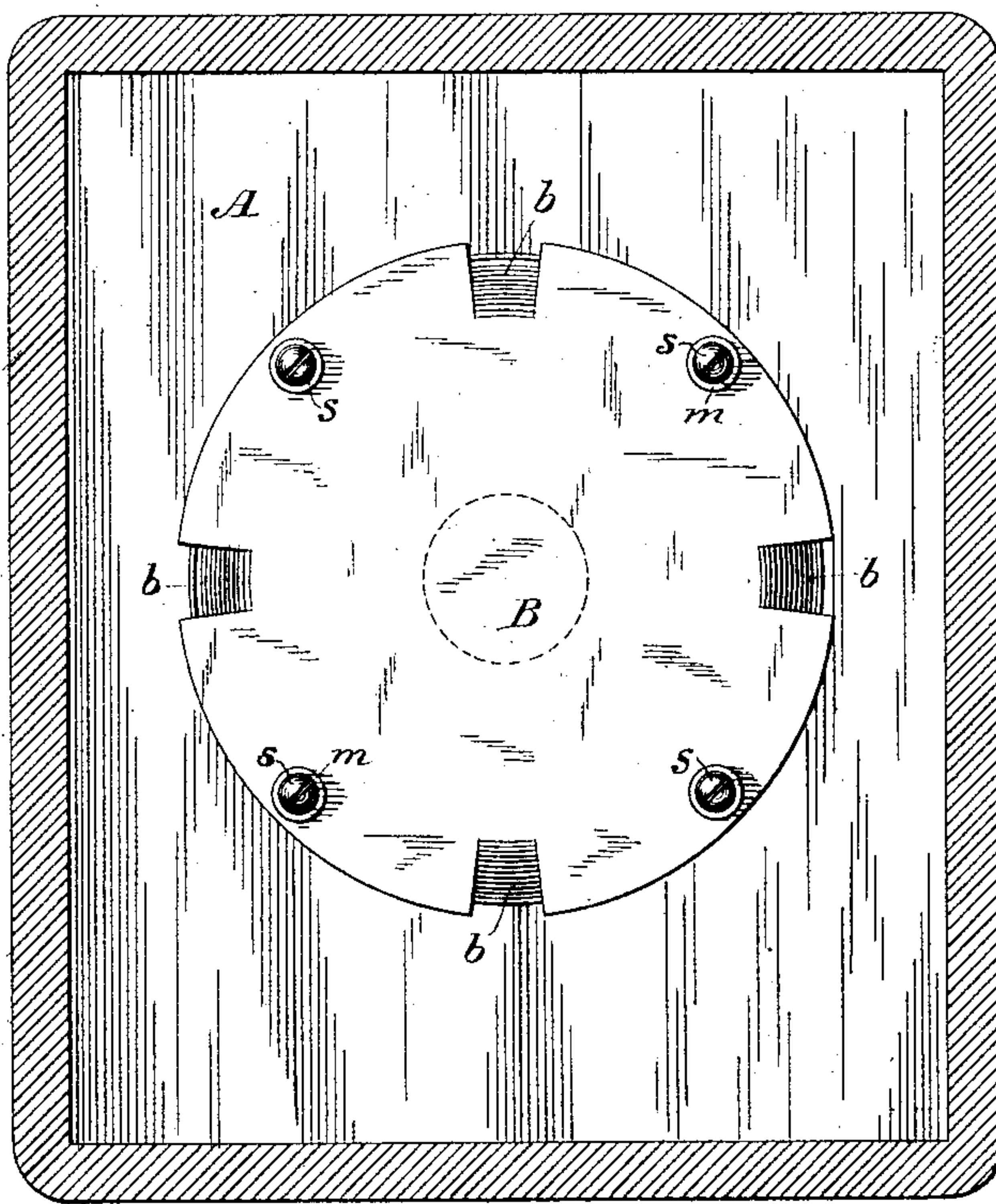


Fig. 2.



Witnesses

Wm A. Sprinkle
Jos. S. Latimer

Inventor
William Hadden.

By his Attorneys

Pope & Edgcomb

UNITED STATES PATENT OFFICE.

WILLIAM HADDEN, OF BROOKLYN, NEW YORK.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 312,841, dated February 24, 1885.

Application filed June 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HADDEN, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Telephones, of which the following is a specification.

My invention relates to the class of instruments designed for the transmission of speech by electric impulses; and it relates more particularly to the method of attaching the diaphragms to these instruments. Heretofore the diaphragms, both in the transmitting and receiving telephonic instruments, have usually been attached by clamping the plate around its outer edge between the two parts which compose the frame-work of the instrument, forming thereby a closed air-chamber around the mouth-piece opening between the front of the diaphragm and the inside of the front of the box or case. It has, however, been proposed in some instances to support the diaphragm upon springs or yielding supports which are not integral with the diaphragm.

My invention consists in attaching the diaphragm to the inside of the front of the case by means of screws, while it is held at a proper distance from the case, so as to form a suitable air-chamber, by means of tongues or partially-separated sections of the diaphragm, and which are bent outward so as to form supporting feet or springs.

My invention is shown in the accompanying drawings, in which Figure 1 is a vertical transverse section of the front of the instrument, showing the position and attachment of the

diaphragm; and Fig. 2 is a back view of the same.

In the drawings, A is the front part of the case of the instrument, and B the diaphragm. At suitable places in the edge of the plate the portions *b b b b* are partially severed, and are bent outward so as to form spring feet or supports, as shown in Fig. 1. I have shown in the drawings four of these supports so made, but any suitable number may be used. The four screws *S S S S* pass through the plate from the back and into the front of the case. It is evident that the depth of the chamber and the firmness of the diaphragm connection with the case may be varied as desired by this arrangement, while the open-air chamber and the method of supporting the plate allow it greater freedom of vibration to the extreme edge.

I claim as my invention—

1. In a telephonic instrument, a diaphragm secured to the case and separated therefrom by lips formed of partially-separated portions of the diaphragm, substantially as described.

2. The combination, in a telephonic instrument, of the supporting-case, a diaphragm secured to said case, and intervening yielding supports integral with the diaphragm, whereby the edge of said diaphragm is left free.

In testimony whereof I have hereunto subscribed my name this 12th day of June, A. D. 1884.

WILLIAM HADDEN.

Witnesses:

DANL. W. EDGECOMB,
CARRIE E. DAVIDSON.