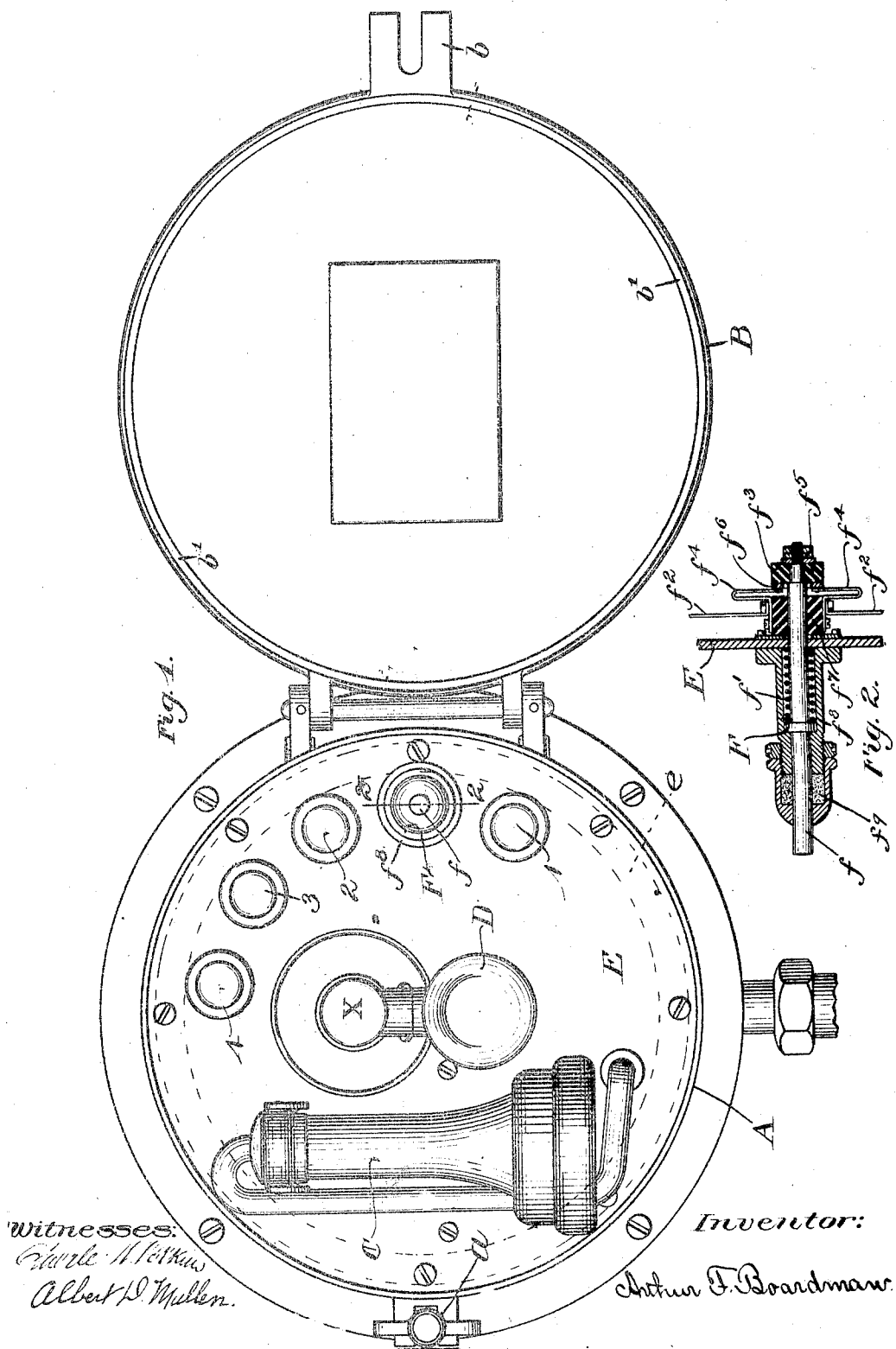


No. 811,029.

PATENTED JAN. 30, 1906.

A. F. BOARDMAN.
TELEPHONE FOR SHIPS, MINES, &c.
APPLICATION FILED APR. 10, 1905.



UNITED STATES PATENT OFFICE.

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TELEPHONE FOR SHIPS, MINES, &c.

No. 811,029.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR F. BOARDMAN, a citizen of the United States, and a resident of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Telephones for Ships, Mines, or Under Similar Atmospheric Conditions, of which the following is a specification.

My invention relates to telephones where used so as to be exposed to water, moisture, spray, snow, or sleet.

My invention consists in an adaptation of the parts and a combination of the same.

My invention will be plain upon reference to the drawings, in which—

Figure 1 is a plan showing the telephone-box swung open and leaving the various devices exposed. Fig. 2 is a detail of the circuit making and breaking element or contact-maker.

Referring to the drawings, which are approximately half the usual size of the apparatus, A is the telephone-holding box, usually made of brass, and B is the swinging door therefor, having the latch *b*, which is clamped in position when the door is closed by the oscillating thumb-screw *a*.

Within the box A is the ordinary telephone-receiver C. D is a horn or curved-shaped mouthpiece for the transmitter X, the curvature of the mouthpiece D being for the purpose of keeping moisture away from the transmitter. The plate E is carried upon a waterproof gasket, (dotted lines *e*.) The water-tight press-buttons 1, 2, 3, and 4, (and more, if desired,) are for calling various departments. F is the contact maker and breaker controlling the talking-circuit, which in detail may be built, as shown in Fig. 2, as composed of the rod *f*, helical spring *f'*, whereby *f* when the door is open will be in the position shown in this detail drawing, the circuit-wires *f''*, the insulator *f'''*, the contact-springs *f''''*, and the holding-nut *f'''''*. Upon the face of the insulator *f'''* is the contact-ring *f''''''* for making and breaking contact with the contact-springs *f''''*. I prefer to also place a gasket between the cover B and case A—as, for example, *b'*—and there

should preferably be a stuffing-box *f''''''''* of the contact-maker and also on plate E for the telephone-cord.

When the rod *f* is pushed into F, the effect is to break the circuit through the springs *f''''* *f''''* and contact-ring *f''''''*, as will be the case when the door B is closed upon the box, inasmuch as said door will strike against the projection *f*, and so throw the apparatus out of operation. Conversely, upon opening the door B the rod *f* will be forced by the spring outwardly, thereby bringing the ring *f''''''* about the insulator *f'''* in contact with the circuit-springs *f''''* *f''''*, which will establish the proper circuit. Thereupon upon removing the telephone C from its handle conversation may be carried on with any desired department by pressing the proper button, the construction and electrical connections of which will be easily understood without further description.

Having described my invention, what I 70 claim is—

1. In a telephone, the combination with the case A, its door B and plate E of a telephone-receiver C, telephone-transmitter X, a mouth-piece D for the transmitter, one or more push-button calls, and a contact maker and breaker F composed of the proper attaching and holding devices and the rod *f*, spring *f'*, spring-contacts *f''*, *f''*, insulator *f'''*, holding-nut *f''''* and contact-ring *f''''''*; substantially as described 80 and shown.

2. In a telephone, the combination with the case A, door B of a plate E, a waterproof gasket *e* supporting said plate, a telephone-receiver C, telephone-transmitter X, a mouth-piece D for the transmitter, one or more push-button calls, and a contact maker and breaker F composed of the proper attaching and holding devices and the rod *f*, spring *f'*, spring-contacts *f''*, *f''*, insulator *f'''*, holding-nut *f''''* and contact-ring *f''''''*; substantially as described 90 and shown.

In witness whereof I hereunto set my hand this 8th day of April, 1905.

ARTHUR F. BOARDMAN.

In presence of —
CHARLES W. WILKINS,
ALBERT D. MULLEN.