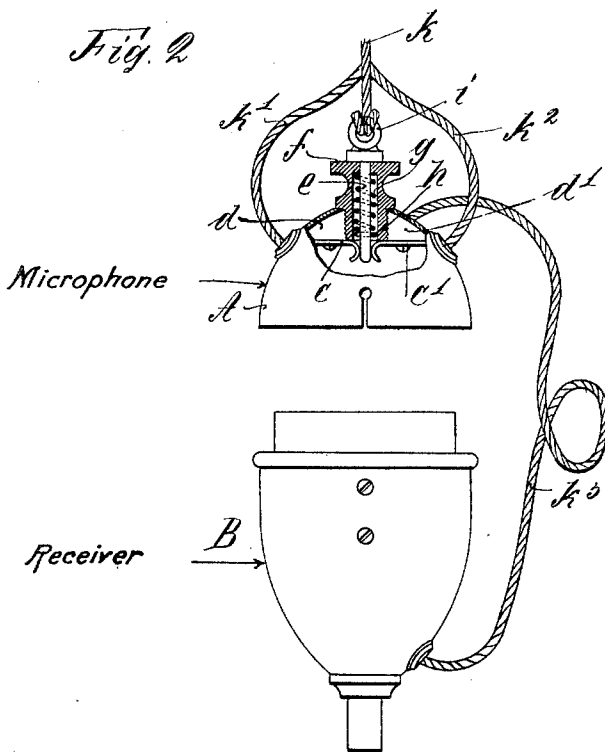
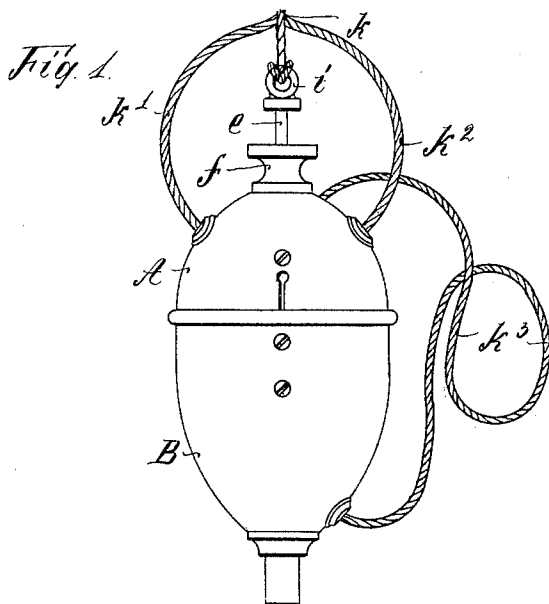


(No Model.)

F. MÜLLER.
PENDENT MICROTELEPHONE.

No. 586,689.

Patented July 20, 1897.



Witnesses:
Richard Brown
Ludwig Spitzer

Inventor
F. Müller

UNITED STATES PATENT OFFICE.

FRANZ MÜLLER, OF BERLIN, GERMANY.

PENDENT MICROTELEPHONE.

SPECIFICATION forming part of Letters Patent No. 586,689, dated July 20, 1897.

Application filed December 12, 1896. Serial No. 615,479. (No model.)

To all whom it may concern:

Be it known that I, FRANZ MÜLLER, a subject of the King of Prussia, German Emperor, and a resident of Berlin, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Pendent Microtelephones, of which the following is an exact specification.

This invention refers to microtelephones of the kind in which the microtelephone is held by means of a cord containing the conducting-wires and is suspended from a suitable bracket or other support arranged at or near to the plate (desk, dining-table, or the like) of the person for the use of whom the microtelephone is intended.

My improvements in microtelephones of said kind relate to the automatic switch employed with the same; and my improvements consist in letting the switch be operated in one direction by a spring having a strength greater than the weight of the fixed or stationary part of the apparatus containing the microphone and in the other direction by the part of the apparatus containing the telephone, or, more precisely, by the weight of said last-mentioned part, said weight being so great as to be able to overcome the strength of the spring aforementioned if it is combined or coacts with the weight of the part containing the microphone.

In the prior constructions known to me the automatic switch is operated by putting the two parts together—*i. e.*, by shoving one part into the other. If the person using the apparatus, and separating and reuniting, therefore, the microphone and the telephone, does not effect said reuniting with proper care the contact established is bad and the apparatus does not work as good as desired. In many cases the apparatus does not work at all—that is to say, a signal calling the person to its apparatus cannot be given.

The object of my improvements therefore is to make the apparatus independent of the care of the operator, and I attain that object by the means that have been mentioned in preceding paragraph.

In order to make my invention more clear, I refer to the accompanying drawings, in which similar letters denote similar parts throughout both views, and in which—

Figure 1 is a side view of my improved microtelephone, the two parts being put together. Fig. 2 shows the two parts disconnected, the upper part being partly in section.

The upper part A contains the microphone, the lower part B the telephone. I have thought it unnecessary to represent the details of the microphone and the telephone because said details are known and are not in direct connection with the subject-matter of my invention. The circuit including the microphone—*i. e.*, the circuit that is to be closed on the part B being taken off the part A—contains the contact-pieces *c c'*, which are held by the insulating-pieces *d d'*. Said contact-pieces *c c'* are put into conductive connection by the pin *e* when the part B is removed from the part A. The upper portion of the latter is provided with a hollow knob *f*, through which passes the pin *e* aforementioned. The pin *e* is encompassed by a spring *g*, which presses at its upper end against the closed top portion of the knob *f* and at its lower end against a small pin *h*, passed in crosswise direction through the lower end of the pin *e*. The upper end of the latter is provided with an ear *i*, that serves for connecting the apparatus to the suspending-cord *k*. The branches *k' k''* of this cord lead the conducting-wires to and into the interior of the microphone A. The wires connecting the microphone with the telephone B are contained within the cord *k*.

Having thus fully described the nature of this invention, what I desire to secure by Letters Patent of the United States is—

1. In a pendent microtelephone consisting of two separable parts containing one the microphone and the other the telephone, and having one of said parts arranged below, and held by, the other, the combination with the upper part, of an automatic switch interposed between said part and the means for holding the whole microtelephone; and being adapted to be operated in one direction by a spring having a strength adapted to overcome the weight of said upper part, and in the other direction by the combined weights of the said upper and said lower part, for the purpose as described.

2. In a pendent microtelephone consisting of two separable parts containing one the microphone and the other the telephone, and

having one of said parts arranged below, and held by, the other, the combination with the upper part, of two stationary contact-pieces arranged within the latter, and insulated one
5 from the other, and a movable contact-piece adapted to put said other pieces into, and throw them out of, contact; said movable contact-piece being interposed between said upper part and the means for holding the whole
10 microtelephone, and being adapted to be operated in one direction by a spring having a

strength adapted to overcome the weight of said upper part, and in the other direction by the combined weights of the said upper and said lower part, for the purpose as described. 15

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANZ MÜLLER.

Witnesses:

RICHARD ARONS,
LUDWIG PFEIFFER.