

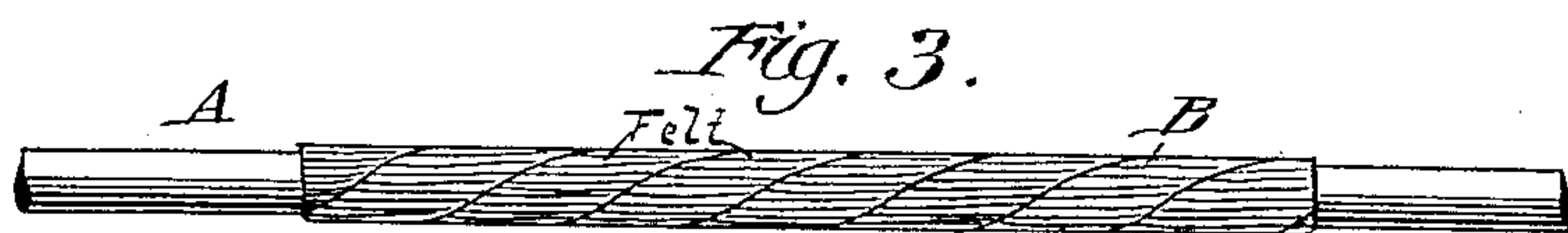
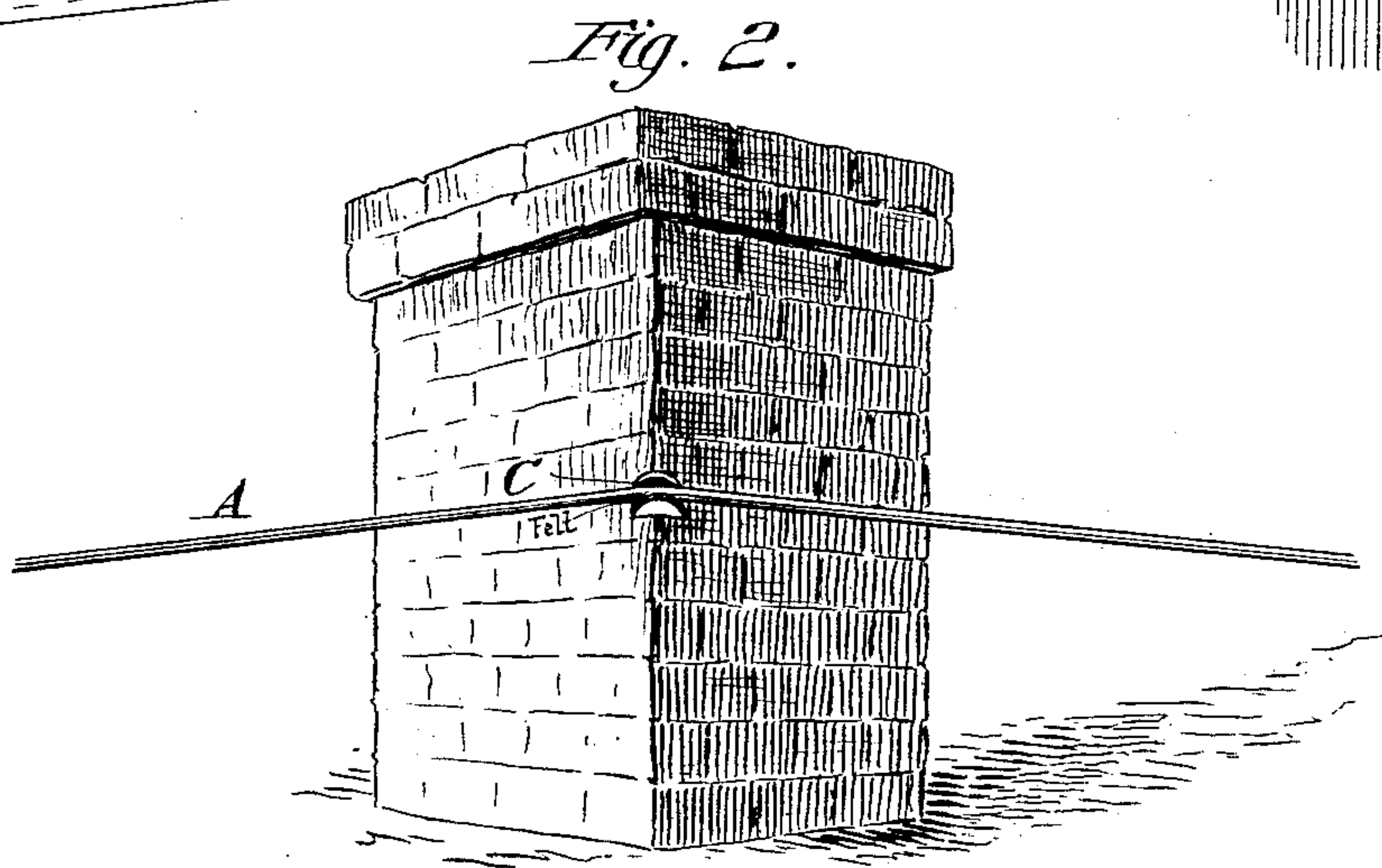
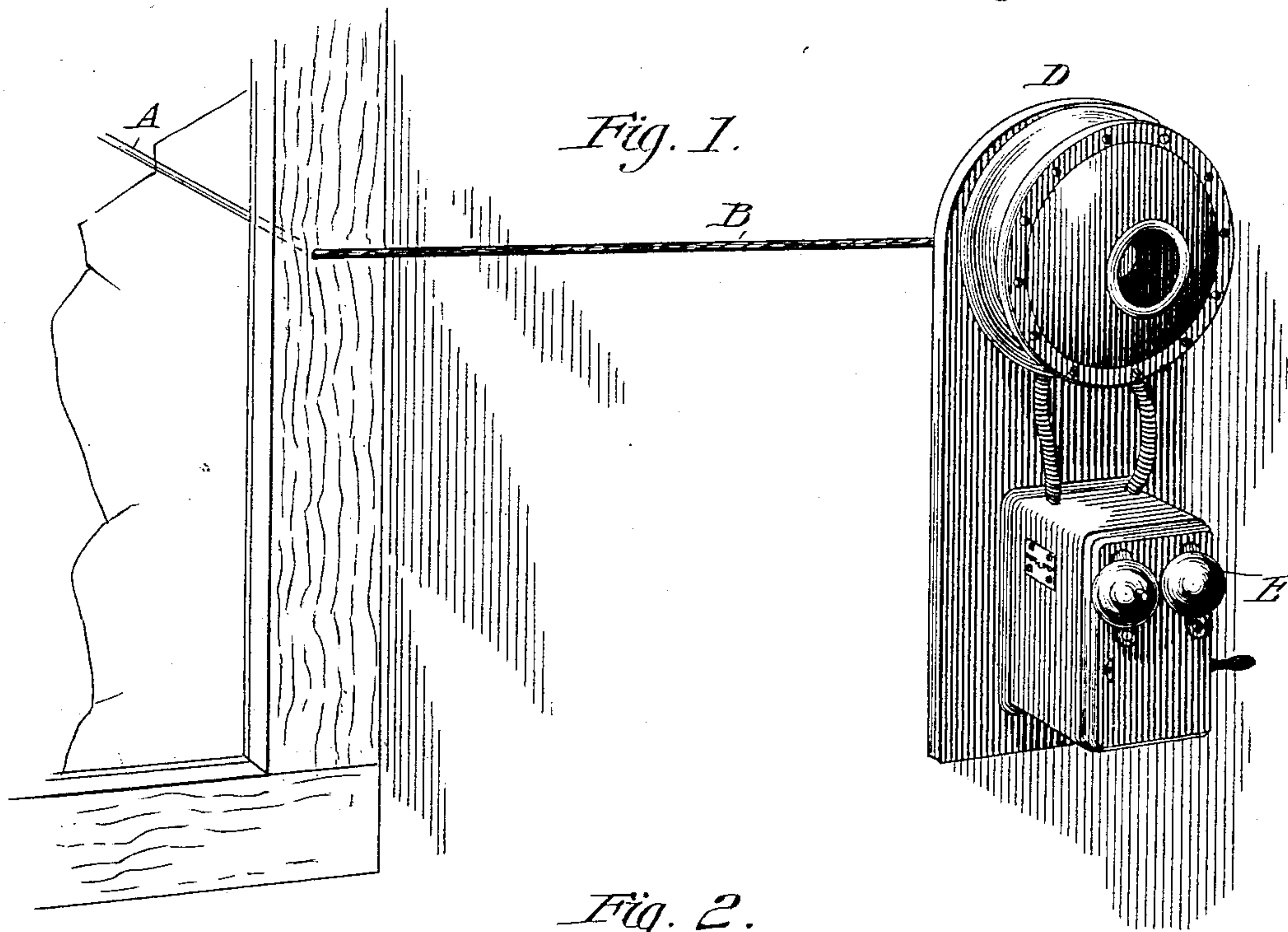
(No Model.)

F. E. CLARK.

INSULATION FOR MECHANICAL TELEPHONE CONDUCTORS.

No. 387,969.

Patented Aug. 14, 1888.



WITNESSES:

F. E. Clark,
Geo. Fenn.

INVENTOR:

Francis E. Clark.

BY

W. J. Townsend

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANCIS EDMOND CLARK, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-FOURTH TO CHARLES A. HESS AND WILLIAM J. TOWNSEND, OF SAME PLACE.

INSULATION FOR MECHANICAL-TELEPHONE CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 387,969, dated August 14, 1888.

Application filed June 22, 1888. Serial No. 277,890. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS EDMOND CLARK, 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 the Insulation of Conductors of Mechanical Telephones, of which the following is a specification.

My invention relates to improvements in the insulation of conductors of mechanical or acoustic telephones, which I accomplish by the use of felt, either covering the conductor or interposed between the conductor and any substance with which such conductor may come in contact. As now used, such conductors are suspended upon hangers which project a distance from the wall, or other substance with which the conductors would otherwise come in contact, which hangers are expensive in construction, inefficient in operation, and unsightly in appearance. My invention allows the wires to be strung closely along walls, around corners, through partitions or casings, and at the same time affords a better protection against the loss of vibration or sound.

In the accompanying drawings, Figure 1 is a perspective view of the conductor passing along the surface of a wall and through the casing of a window. Fig. 2 shows the conductor or passing around the corner of a chimney. Fig. 3 is an enlarged view of the conductor, showing a section thereof covered with felt.

A is the conductor, and B the felt applied to such conductor, which may be applied by winding a narrow strip of felt spirally upon the conductor, or in any other approved manner.

D is the telephone, and E the usual call-bells.

It is obvious that the whole conductor may be covered with felt, and such manner of its application will be found to be beneficial, as there will be more or less loss of sound from the naked wire into the air, which the covering of felt will prevent; but for the purpose of doing away with the use of the hangers it will be found sufficient to interpose felt between the conductor and any substance with which the conductor may come in contact. Instead of covering the wire the felt may be placed upon a guard or protector, as shown at C, Fig. 2.

Such manner of application will be advisable when a sharp or hard corner—as, for example, a chimney, as shown—would tend to cut the felt upon the wire or injure the wire itself.

The value of felt as an insulator of a conductor of an acoustic telephone over any other material or compound in use consists largely in the fact that it is without warp or woof and without fibers of any considerable length, and the short fibers therein are without regularity in their arrangement, which, added to its quality of softness, renders it a better non-conductor of vibration or sounds than any other known material.

By protecting the conductor in the manner described and shown the same may be drawn closely along a wall and may be closely drawn through a partition or casing, as shown in Fig. 1, or closely around a sharp corner, as shown in Fig. 2.

The felt may be used both within and out of doors, as it is not affected by moisture or other atmospheric changes.

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

1. In a mechanical or acoustic telephone conductor, the combination of a covering of felt upon the conductor at points where the same comes in contact with any substance with said conductor, substantially as described and shown.

2. In a mechanical or acoustic telephone conductor, the combination, with the conductor, of felt interposed between the conductor and any substance with which such conductor may come in contact, substantially as shown and described.

3. In a mechanical or acoustic telephone conductor, the combination, with the conductor, of a support or guard covered with felt, substantially as described and shown.

Signed at New York, in the county of New York and State of New York, this 19th day of June, A. D. 1888.

FRANCIS EDMOND CLARK.

Witnesses:

GEORGE FENN,
W. J. TOWNSEND.