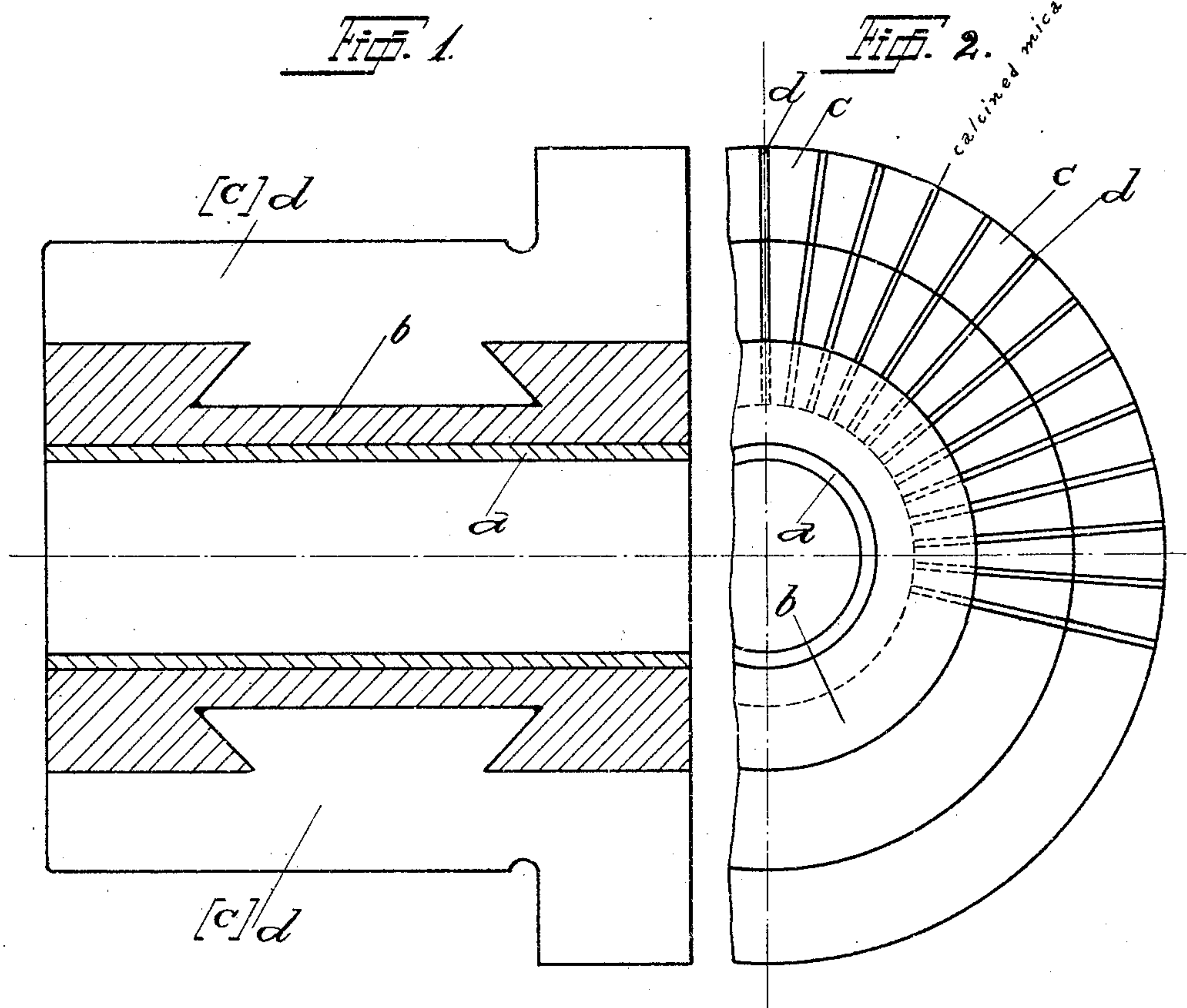


No. 842,571.

PATENTED JAN. 29, 1907.

M. MEIROWSKY.
INSULATION FOR COMMUTATORS.
APPLICATION FILED JULY 13, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

MAX MEIROWSKY, OF COLOGNE-EHRENFELD, GERMANY.

INSULATION FOR COMMUTATORS.

No. 842,571.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed July 13, 1905. Serial No. 269,555.

To all whom it may concern:

Be it known that I, MAX MEIROWSKY, engineer, a subject of the German Emperor, and a resident of Cologne-Ehrenfeld, Germany, have invented certain new and useful Improvements in Insulation for Commutators, of which the following is a specification.

The invention is illustrated in the accompanying drawings, in which—

10 Figure 1 is a longitudinal section through a commutator provided with my improved insulation, and Fig. 2 is a front view of the commutator.

15 The commutator consists of joined parts *a* and *b*. The part *b* carries the usual metal laminæ *c* and insulation laminæ *d*, which in the present instance consist of calcined mica.

20 It is known that the safety of operation of electrical machines depends on the commutator running free from sparks.

25 The cause of sparking is the uneven wearing away of the insulation and metal laminæ. If the insulation be of fibrous material—such as glazed board, fiber, asbestos, or paper—step-like elevations are formed in the direction of running, while insulation layers of mica stand out between the metal bars and insulation pressed from pulverulent material readily crumbles away.

30 Even in commutators insulated with Canadian mica, which is known to be the softest in quality, formation of sparks takes place when

the metal is no longer hard, the machine out of order, or the construction in any way defective.

35 The object of this invention is to overcome this objection by providing an insulating material which will wear equally with the metal.

To this end I employ mica calcined under pressure. When hard mica is calcined, its internal structure is so altered that the mica becomes softer than the softest quality known. So that in this operation the mica will not lose its form it is preferable to conduct the process under pressure. The mica may therefore be pressed between two plates of suitable material which are placed in a calcining-furnace and the mica removed therefrom after the calcination is complete.

40 Commutators insulated with such material run free from sparks for the reasons above specified.

What I claim as my invention, and desire to secure by United States Letters Patent, is—

55 Insulation laminæ for commutators consisting of calcined mica.

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

MAX MEIROWSKY.

Witnesses:

WILLIAM KUEPPERS,
JOH. SCHOLZ.