

L. C. CHARBONNEAU.
 MUFFLER FOR ELECTROSTATIC MACHINES.
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1,096,601.

Patented May 12, 1914.

Fig. 1.

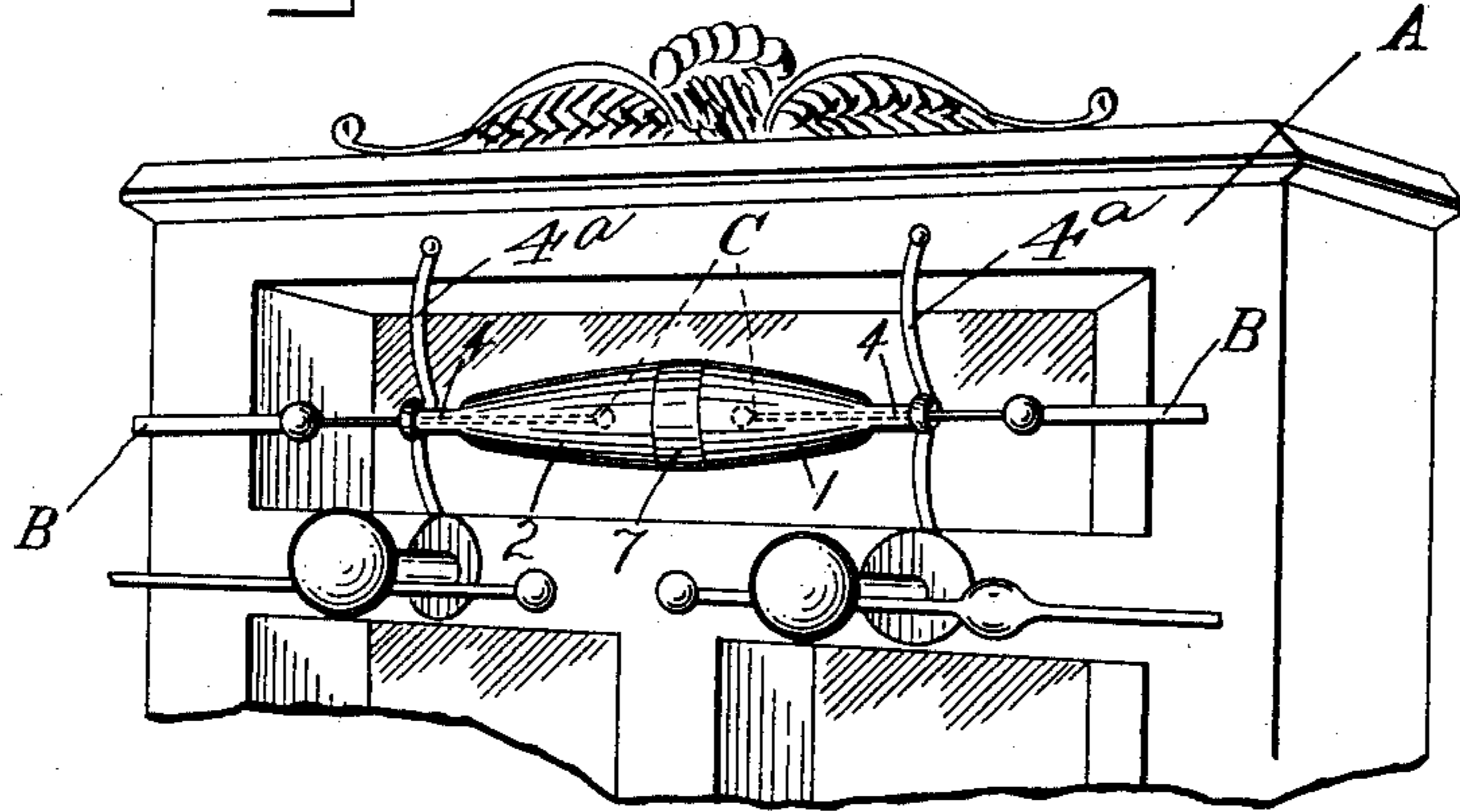


Fig. 2.

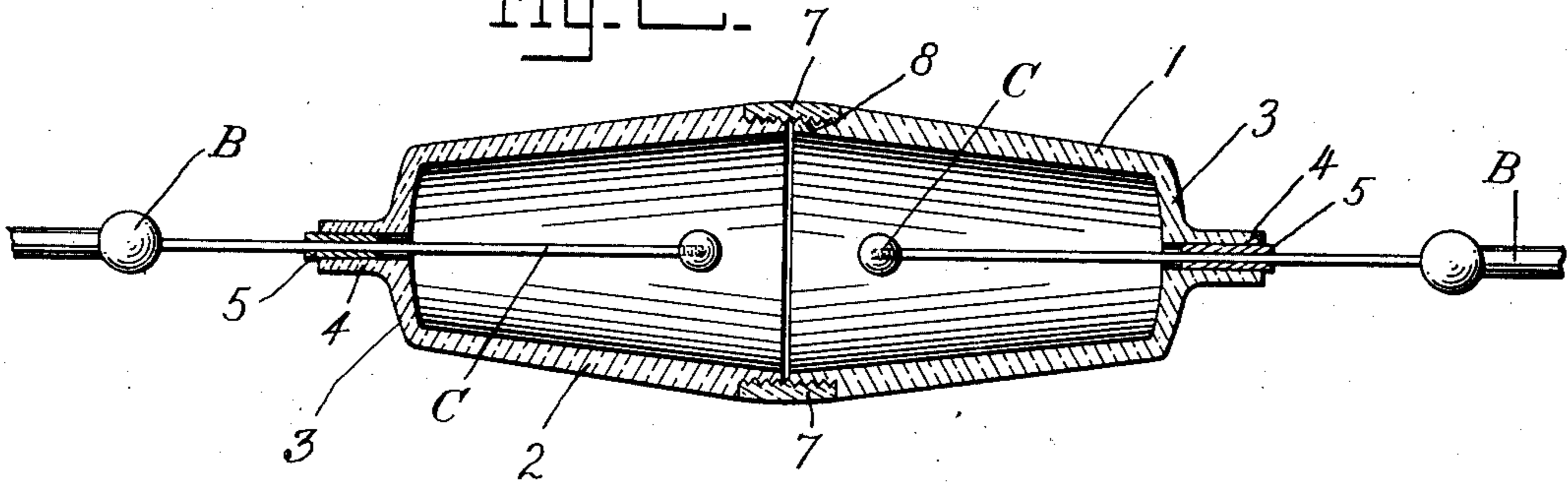
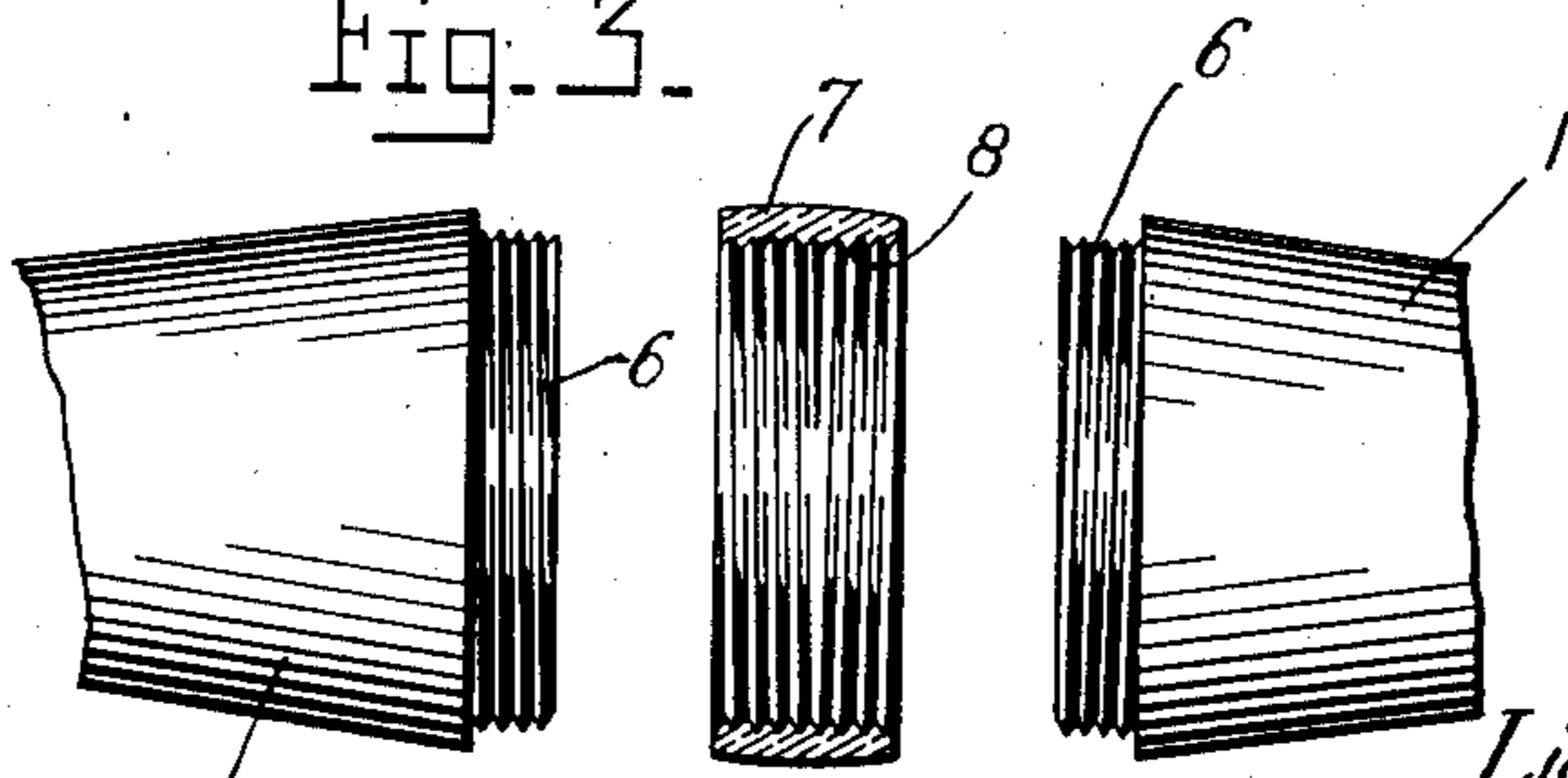


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MUFFLER FOR ELECTROSTATIC MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LIONEL C. CHARBONNEAU, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Mufflers for Electrostatic Machines, of which the following is a specification.

The present invention relates to mufflers for electro-static machines, and consists in the constructions, combinations and arrangements herein described and claimed.

The use of the electro-static machine by physicians for electro-therapeutic treatment of patients has the disadvantage that poisonous gases (oxids of the nitrogen group) are produced by high frequency sparks between the poles, and which gases being inhaled by both physician and patient alike are objectionable and highly injurious to the health. And there is the further objection of the sharp cracking sounds produced by the discharge of high potential currents across the air gaps with its attending shocks to the nerves.

To overcome the above mentioned disadvantages, it is herein proposed to equip the static-machine with a muffler having for its purpose to completely inclose the space immediately surrounding the sparking terminals of the poles and confine therein the noxious gases produced by the discharge; and likewise to reduce the volume of or deaden the noise incident to such discharge.

With these and other objects in view, the invention consists in the arrangement and combination of parts hereinafter claimed, and, while the invention is not restricted to the exact details shown and described, still, for the purpose of disclosure, reference is had to the accompanying drawing, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 illustrates the application of the device to a static-machine; Fig. 2 is a longitudinal sectional view of the muffler, and showing the poles of the static machine in elevation; and Fig. 3 is a fragmentary elevational and sectional view of the sections of the muffler disassembled.

Referring to the construction in detail, A

designates a static machine of the usual type and having the sliding pole bars B between whose terminals C the sparking occurs.

The muffler consists of a pair of conical members or cups 1 and 2, whose closed ends 3 have formed integrally therewith tubular projections 4 that are adapted for mounting within suitable bearings on the brackets 4^a on the machine for supporting the muffler after that manner illustrated in Fig. 1. Said sections 1 and 2 are constructed of glass, porcelain or other suitable non-conductive material.

The terminal bars C of the poles B pass through the tubular extensions 4, which are provided with tubular packings 5 of cork or rubber whereby to give a tight fit for the sliding bars C and form a substantially perfect closure as will be understood.

The adjacent ends of the cups 1 and 2 are reduced and provided respectively with right and left hand screw-threads 6 to receive complementary threads 8 on the collar 7 which connects said sections 1 and 2 and forms the inclosure, as illustrated in Fig. 2.

From the foregoing it will be clearly seen that the muffler will effectively confine the poisonous gases until the sections are separated, as shown in Fig. 3, and it will also be apparent that such sounds as occur will be muffled or deadened and consequently not heard to any appreciable extent.

It is obvious that those skilled in the art may vary the details of construction and arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to such features except as may be required by the claims.

Having thus described the invention, what I claim as new and desire to protect by U. S. Letters Patent, is:

1. The combination with the sparking terminals of an electro static machine of a muffler therefor comprising a pair of conical members each closed at the small end, the large ends being juxtaposed; and a collar engaging with said conical members at the large ends thereof and providing therewith a closed chamber, and said sparking terminals slidably passing through the closed ends of said conical members, substantially as described.

2. The combination with the sparking terminals of an electro static machine of a muffler therefor comprising a pair of conical members each closed at the small end, the
5 large ends being juxtaposed and provided with screw threads; and a collar screw threaded on the threads of said conical members and providing therewith a closed chamber; and said sparking terminals slidably

passing through the closed ends of said conical members, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

LIONEL C. CHARBONNEAU.

Witnesses:

MARGT. CONWAY,
SAMUEL COLEMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."