

No. 774,115.

PATENTED NOV. 1, 1904.

J. SPLITDORF.
CONDENSER.

APPLICATION FILED OCT. 19, 1903.

NO MODEL

Fig. 1.

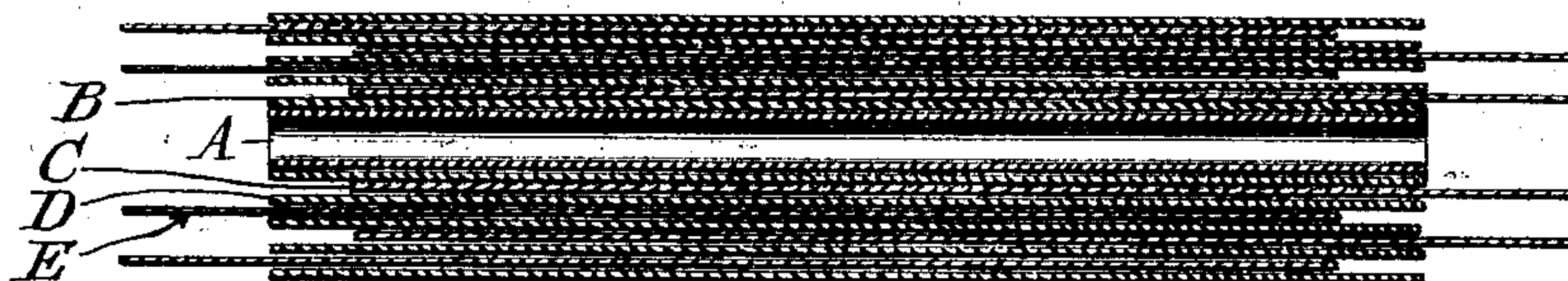


Fig. 2.

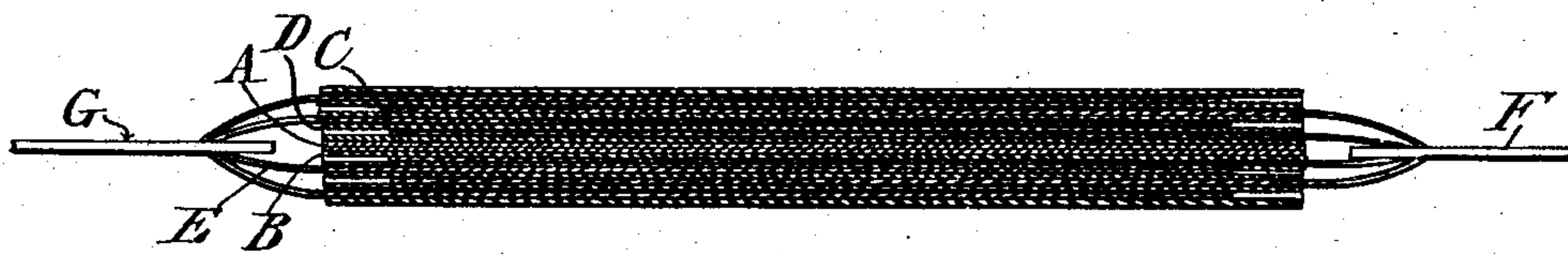
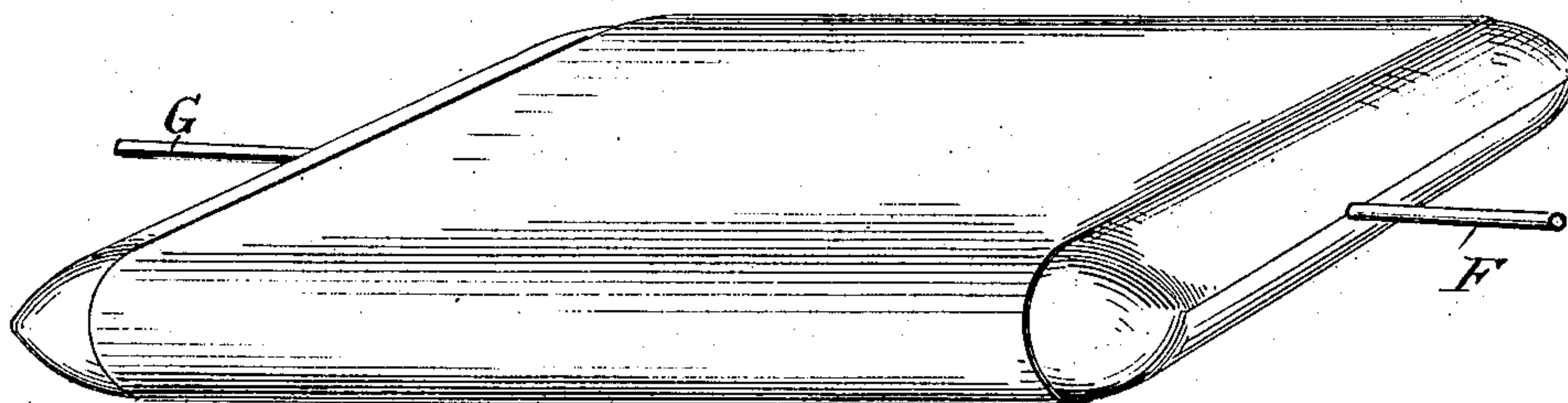


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN SPLITDORF, OF NEW YORK, N. Y.

CONDENSER.

SPECIFICATION forming part of Letters Patent No. 774,115, dated November 1, 1904.

Original application filed June 13, 1903, Serial No. 161,325. Divided and this application filed October 19, 1903. Serial No. 177,636.
(No model.)

To all whom it may concern:

Be it known that I, JOHN SPLITDORF, a citizen of the United States of America, and a resident of the borough of Manhattan, in the city,
5 county, and State of New York, have invented certain new and useful Improvements in Condensers, of which the following is a specification.

This invention relates to an improved electrical condenser, being a division of my application, Serial No. 161,325, filed June 13, 1903, and it includes a novel structure of condenser or relative arrangement of the several elements thereof adapted to promote an improved
15 facility of charging and discharging.

In brief, my improved condenser may be described as composed of continuous alternate conductor-strips, each separated by a dielectric or insulating strip and formed into a roll,
20 opposite outside edges of the conductor-strips being exposed, respectively, beyond the outside edges of the dielectrics and the opposite inner edges of said conductor-strips being lapped over the intervening dielectrics. Maintaining
25 strictly this relative arrangement the several strips are disposed in the order of a dielectric, a conductor of one sign placed thereagainst with its inner edge lying within one lateral boundary of the dielectric and its outer edge
30 extending exposed beyond the opposite lateral boundary of said dielectric, a second dielectric disposed against said conductor in contiguity with said first dielectric, and a second conductor of opposite sign placed thereagainst
35 with its inner edge lying within one lateral boundary of said second dielectric and its outer edge extending exposed beyond the opposite lateral boundary of said second dielectric. Thus the opposite conductor-strips of corresponding width are spread laterally against the
40 respective surfaces of an intervening dielectric strip. In a roll formed of these members another dielectric is added, being placed against that conductor which is to lie inwardly in the
45 roll formation, whereby in the second turn it lies upon and insulates the other conductor-strip. Thus it will be seen that throughout the various convolutions the conductor-strips of opposite sign have an unlike but uniform con-

tiguity with the dielectrics. In a roll of desired capacity thus formed I may flatten it out by pressure, and in this form the multiply exposed side edges of one conductor may be conveniently soldered or otherwise connected together. Similarly the multiply exposed side edges of the other conductor may also be soldered or otherwise connected together. Suitable terminals are provided for the opposite conductors and may be connected through the soldering previously referred to
60 or otherwise.

In the drawings accompanying this application, Figure 1 is a sectional view through a roll of the component elements comprising my improved condenser. Fig. 2 is a view of
65 the same as flattened out, and Fig. 3 is a perspective plan view of a pile of conducting and dielectric strips forming a condenser.

In the figures, A indicates a tube of collapsible material, as pasteboard or the like,
70 which latter is intended to form a core for the condenser.

B indicates a strip of paper or other dielectric wound upon the tube A. C indicates a strip of tin-foil or other conducting material,
75 D a strip of paper or the like, and E another strip of tin-foil or the like. The arrangement of the said strips B C D E and the manner in which the same are wound upon tube A are as indicated in the drawings—that is to say, one
80 being placed against the other in the order named and all wrapped about the core, or said order may be modified within the bounds of practicability.

The particular relative arrangement of the
85 respective elements in forming the condenser is clearly shown in Figs. 1 and 2, where it is seen that the two dielectrics are in like (though separated) contiguity throughout the bundle and that the opposite conducting-strips lap
90 each other over an intervening dielectric throughout the bundle, thus providing for induction, but said conducting-strips, respectively, extending laterally beyond the dielectrics, at opposite sides thereof, to provide
95 terminals of opposite polarity.

When a condenser of desired capacity has been wound upon the tube A and its free ends

suitably secured, as by soldering, then either with the tube A remaining in the center of the bundle or upon removing same the bundle may be flattened out, as indicated in Figs. 2 and 3, and thereupon the exposed edges of the strip C may be connected, as by soldering, and provided with a common terminal, as F, while the exposed edges of the strip E may also be connected, as by soldering, and provided with a common terminal, as G.

Having now described my invention, I declare that what I claim is—

An improved condenser consisting of two

continuous conducting-strips and an intervening dielectric rolled into a bundle whose opposite terminals allow connection with a source of electricity whereby the discharge will be across the roll instead of lengthwise of said strips.

Signed at New York this 5th day of October, 1903.

JOHN SPLITDORF.

Witnesses:

BART. P. HOULIHAN,
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