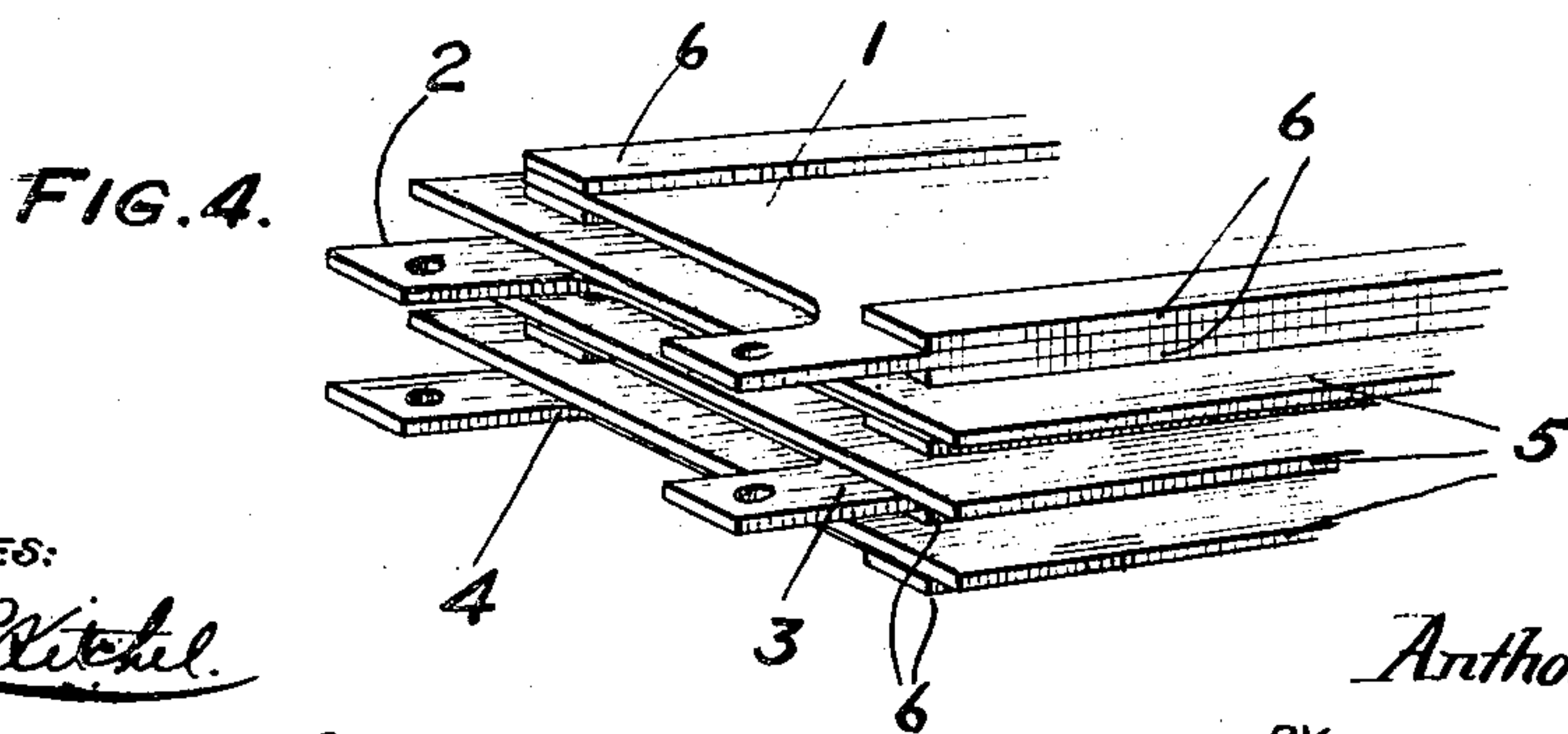
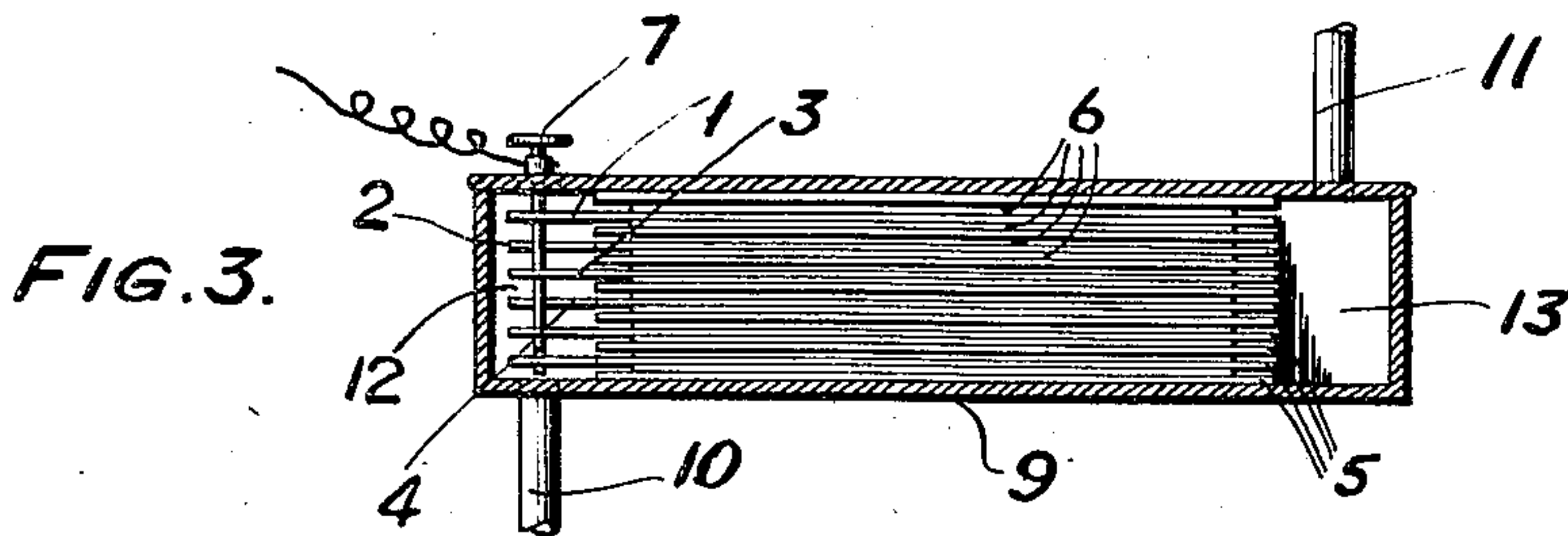
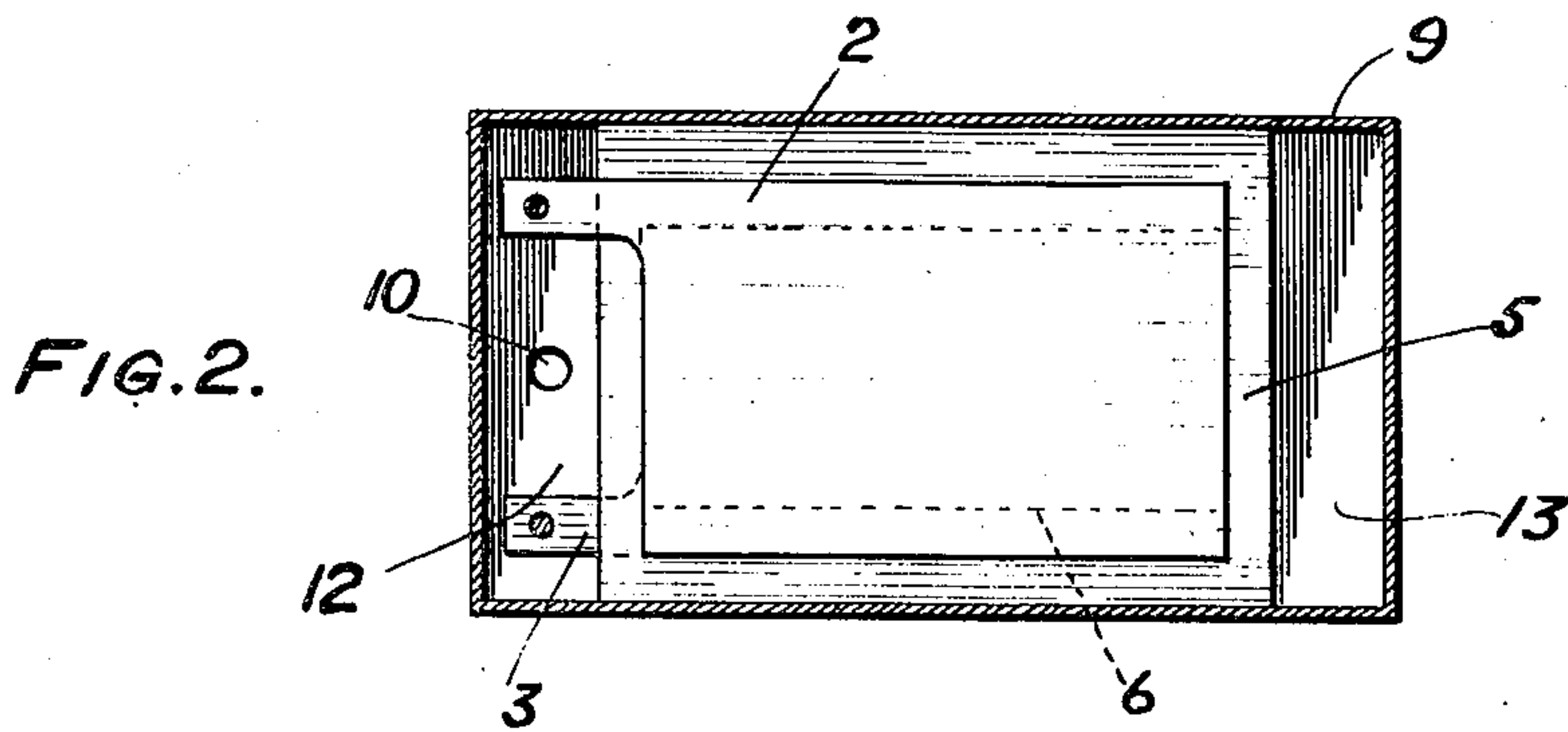
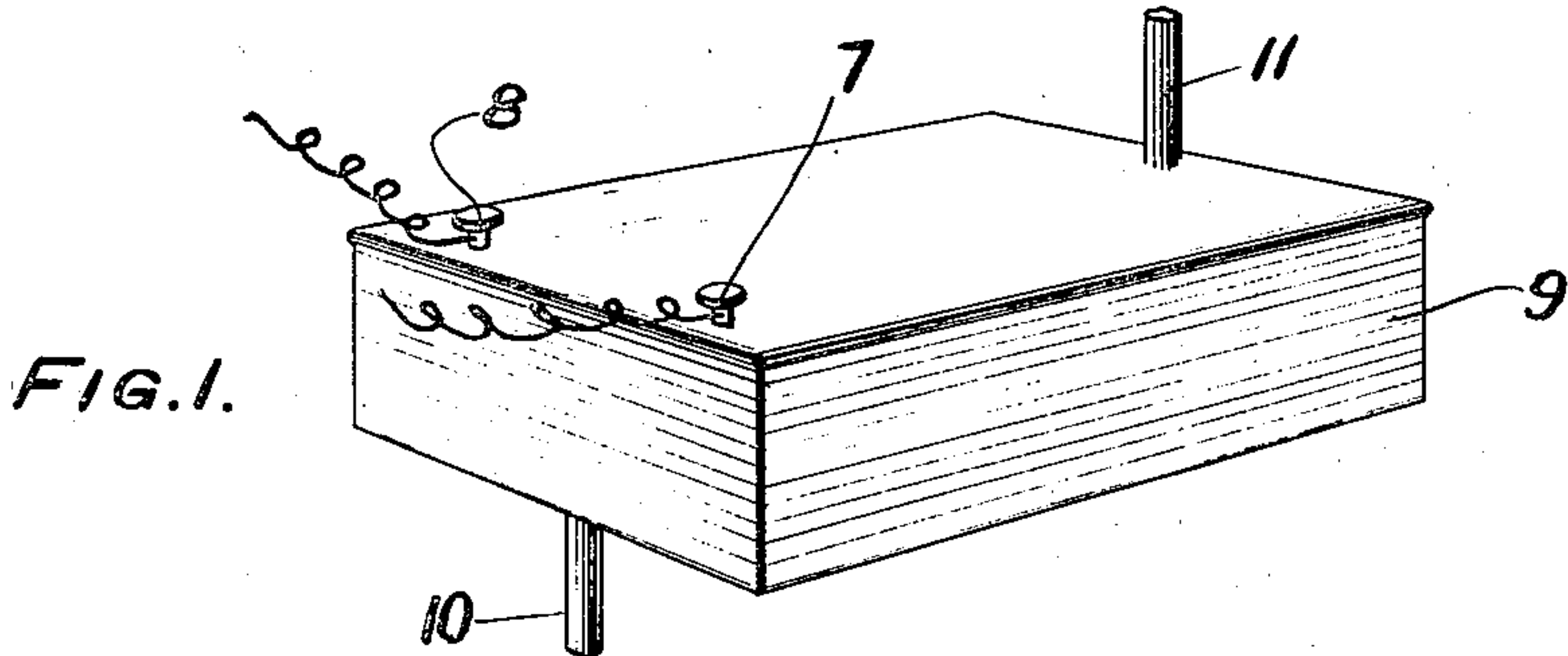


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OZONIZER.

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955,818.

Patented Apr. 19, 1910.



WITNESSES:

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OZONIZER.

955,818.

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To all whom it may concern:

Be it known that I, ANTHONY LOHMAN, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Ozonizers, of which the following is a specification.

The principal object of the present invention is to provide a simple, compact, reliable and efficient ozonizer which in operation shall be comparatively free from accidents of all kinds and shall produce a relatively large percentage of ozone and economically apply the same.

The invention will be claimed at the end hereof, but will first be described in connection with the accompanying drawings illustrating one embodiment thereof, and in which—

Figure 1, is a perspective view of an ozonizer embodying features of the invention. Figs. 2, and 3, are respectively a horizontal and a transverse section thereof, and Fig. 4, is a detached view illustrating features of construction.

There is a series of dischargers 1, 2, 3, 4: Each of these dischargers consists of a flat imperforate plate and the invention is not limited to the number of such plates. Aluminum is the best material from which to make these plates. Between each pair of plates of the series is interposed a dielectric 5, which may be of any appropriate material; micanite being an example, and these dielectrics consist of flat plates which are larger than the dischargers and extend beyond the latter all around the edges thereof; the purpose of this is to oppose any tendency that may arise for the discharge to jump from discharger to discharger around, instead of through the dielectrics.

6, are insulating strips, as of glass, which are interposed between the faces of each discharger and the adjacent dielectric. These strips may be arranged at the margins of the dischargers and also intermediate of the margins. In the drawings they are shown only at the margins, because the type of dischargers chosen for illustration is comparatively small.

Alternate dischargers as 1—3, etc., are connected to one terminal 7, and the intermediate dischargers are connected to the

other terminal 8. This can be accomplished by providing the dischargers with lugs or other terminal connections which are electrically connected with suitable terminals or binding posts. The terminals 7 and 8, are connected to the opposite sides of an appropriate alternating current circuit so that at each reversal of the alternating current there is a discharge from one side or the other of the discharger, thus the discharge considered as a whole, is practically continuous. The pile or stack of dielectrics and dischargers is arranged in a suitable housing 9, provided with an inlet 10 and an outlet 11 for air or other gas to be treated by the apparatus. It is sufficient for the purposes of description to refer to the treatment of air.

As shown the dielectrics extend from side to side of the housing or casing, but not to the ends thereof, so that spaces 12 and 13 are left at the ends thereof. In the space 12, the terminal connections are arranged.

In use air entering at 10, passes between the dielectrics and dischargers and reaches the space 13. In doing this it is subjected to the discharge which takes place between the dischargers and is ozonized. While I have not shown means for cooling the apparatus it is evident that the housing or case, can be inclosed in a water jacket or otherwise cooled.

What I claim is:

1. An ozonizer comprising the combination of imperforate plates constituting dischargers, dielectrics consisting of plates interposed one between each pair of dischargers with space between and extending beyond the edges of the same in all directions, insulating strips interposed between the faces of each discharger and the adjacent dielectric to afford air passages, a casing inclosing said parts and fitted to the sides of the dielectrics and extending beyond the ends of the same to form chambers, an inlet and outlet for the chambers, and alternating current connections one side of which is connected with the alternate dischargers and the other side with the intermediate dischargers, substantially as described.

2. An ozonizer comprising a casing having at one end an inlet and at the other end an outlet, dielectrics consisting of plates extending from side to side of said casing and

stopping short of the ends thereof to provide chambers, dischargers interposed one between each pair of dielectrics with space between and of less area than the latter and
5 consisting of imperforate plates provided with terminals, insulating strips interposed between the dischargers and dielectrics, and electrical connections connecting the alternate dischargers in one series and the inter-

mediate dischargers in another series, substantially as described.

In testimony whereof I have hereunto signed my name.

ANTHONY LOHMAN.

Witnesses:

FRANK E. FINCH,
A. B. STOUGHTON.