

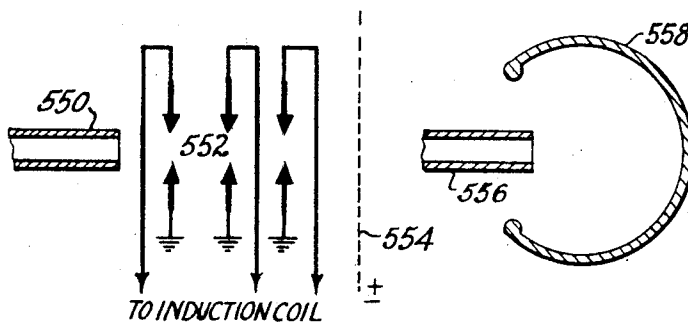
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HIGH VOLTAGE GENERATOR

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HIGH VOLTAGE GENERATOR

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315,279, which is a division of Serial No.
684,328, August 9, 1933. Divided and this ap-
plication March 24, 1942, Serial No. 435,960

5 Claims. (Cl. 171—329)

My present invention has as its main object the provision of methods and means for generating very high potentials or voltages at high energy levels.

This application is a division of my copending application Serial No. 315,279, filed Jan. 23, 1940, now Patent No. 2,308,884, Jan. 19, 1943, which in turn is a division of my previously filed application, Serial No. 684,328, filed Aug. 9, 1933, now Patent No. 2,210,492, Aug. 6, 1940.

A further and more specific object of my present invention is to provide systems which utilize my improved contact and induction principles, described in greater detail in my parent applications referred to above, for charging gases. A description of my invention will be given in greater detail with the aid of the accompanying drawing which, however, is not to be considered in any way limitative of my present invention but is to be considered only illustrative.

The accompanying drawing illustrates diagrammatically apparatus for charging a metallic container to a high voltage by the use of gases.

Air is blown through a pipe 550 past a plurality of discharge points 552 whose terminals, as illustrated, are connected to ground and to the high voltage side, of for example, an induction coil. The ionized air is then blown through a metallic screen 554 which may be maintained at a positive or negative potential, depending upon the character of ions desired. The screen 554 will remove ions of opposite polarity as a result of which ions blown through glass tube 556 impinge upon the shell 558 and lose their charge to charge up condenser or storage device 558 to a polarity opposite that of screen 554.

The ions emanating from glass tube 556 need not, however, be used for charging purposes but may be inhaled for medical treatment, that is to say, used therapeutically. If desired, a series of screens 554 may be arranged at the same polarity but of different values or at the same values of potential so as to insure obtaining ions of only one polarity. For medical purposes, ions of either polarity may be used to the exclusion of others depending upon which type is found more helpful.

Various changes will readily suggest themselves in carrying out the principles of my present invention. Accordingly, my present invention is not to be considered limited by the illustration given but on the other hand is to be given the full scope indicated in the appended claims.

What is claimed is:

1. A high voltage system comprising a fluid circuit having a plurality of electrodes whose low voltage terminals are connected to ground and high voltage terminals to a high voltage source, and means for passing said fluid by at least one of said electrodes and through a metallic screen maintained at a positive potential.

2. A high voltage system comprising a fluid circuit having a plurality of electrodes whose low voltage terminals are connected to ground and high voltage terminals to a high voltage source, and means for passing said fluid by at least one of said electrodes and through a metallic screen maintained at a negative potential.

3. A high voltage system comprising a gas circuit passing through an insulating chamber, said gas circuit having a plurality of electrodes whose low voltage terminals are connected to ground and high voltage terminals to a source of high voltage, and means for passing said gas through a metallic screen maintained at a predetermined desired potential whereby the gas passing through the screen contains ions of substantially only one polarity.

4. A high voltage generating system comprising a fluid circuit with inlet and outlet means, a screen member, a plurality of discharge points arranged in pairs each pair having high and low voltage terminals, said screen member and discharge points interposed between said fluid inlet and outlet means, a storage device arranged to be maintained at a potential different from that of said screen member, a source of high voltage connected to the high voltage terminals of said discharge points, a ground connection to the low voltage terminals of said discharge points, and means for passing fluid from said inlet through said screen member to said storage device whereby said storage device is charged to a high potential.

5. Apparatus for medical treatment comprising a gas circuit with inlet and outlet means, a screen member, a plurality of discharge points arranged in pairs each pair having high and low voltage terminals, said screen member and discharge points interposed between said gas inlet and outlet means, means for directing the gas against the human body, a source of high voltage connected to the high voltage terminals of said discharge points, a ground connection to the low voltage terminals of said discharge points, whereby the gas directed against the human body contains ions of substantially only one polarity.