direct current voltage source **15**. If it is desired to reverse the direction of thrust by 180°, so that the direction is along arrow **29**, then the arm on selector switch **27** will be shifted whereupon electrode **20***b* will be connected to the positive terminal.

In a similar manner, the direction of the lateral thrust along arrow **30**, or reversed along arrow **31**, can be obtained by energizing electrodes **22***a* or **22***b*, and the direction of lateral thrust along arrow **32**, or reversed along arrow **33**, can be obtained by energizing electrodes **24***a* or **24***b*.

In conclusion, it is to be understood that while the foregoing embodiment constitutes one practical construction for the thrust producing device, various modifications of the construction and arrangement of component parts are possible within the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A device for producing thrust in response to the application of electrical potentials to the electrodes thereof comprising a support member, a first main electrode mounted on said support member, a second main electrode having an expanded surface with respect to said first main electrode and which is also mounted on said support member in longitudinally spaced relation to said first main electrode, means for applying a high potential between said first and second main electrodes thereby to develop a thrust on said support member longitudinally thereof, a first auxiliary electrode carried by said support member, a second auxiliary electrode disposed in spaced relation laterally of said first auxiliary electrode, and means for applying a high potential between said auxiliary electrodes thereby to develop a thrust on said support member laterally thereof.

2. A device for producing thrust in response to the application of electrical potentials to the electrodes thereof comprising a support member, a first main electrode mounted on said support member, a second main electrode having an expanded surface with respect to said first main electrode and which is also mounted on said support member in longitudinally spaced relation to said first main electrode, means for applying a high potential between said first and second main electrodes thereby to develop a thrust on said support member longitudinally thereof, a first auxiliary electrode carried by said support member, a plurality of second auxiliary electrodes arranged in spaced relation about the axis of said support member and located in spaced relation laterally of said first auxiliary electrode, and means for applying a high potential between said first auxiliary electrode and a selected one of said second auxiliary electrodes thereby to develop a thrust on said support member laterally thereof.

3. A device as defined in claim **2** wherein said first auxiliary electrode is constituted by a cylinder of electrically conductive material.

4. A device as defined in claim **2** wherein said first auxiliary electrode is constituted by a cylinder of electrically conductive material and said plurality of second auxiliary electrodes are arranged in pairs located on diametrically opposite sides of said support member.

5. A device as defined in claim **2** for producing thrust wherein said second auxiliary electrodes are comprised of electrically conductive portions of a ring which surrounds said first auxiliary electrode, said electrically conductive ring portions being insulated from each other by ring portions of dielectric material.

No references cited.

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