

What is claimed is:

1. A filter bank for filtering air in an air stream comprising:

a first filter panel having a front end and a back end;

a second filter panel having a front end and a back end;

said front end of said first filter panel disposed adjacent to said front end of said second filter panel such that said first and second filters are disposed at an angle with respect to each other; and

a cowling having a curved aerodynamic front end and a back end, said cowling disposed with said back end adjacent to said first end of said first filter panel and said first end of said second filter panel, said curved aerodynamic front end of said cowling facing the air stream flowing through said first and second filters.

2. A filter bank in accordance with claim 1, wherein said cowling is hollow and said filter bank further comprises a power supply disposed within said cowling.

3. A filter bank for filtering air in an air stream comprising:

a first filter panel comprising a respective top frame and a respective bottom frame;

a first hinge, having a first attachment portion, a second attachment portion and a first pivot portion coupling said first attachment portion to said second attachment portion, said top frame of said first filter panel being attached to said first attachment point of said first hinge and said bottom frame of said first filter panel being attached to said second attachment portion of said first hinge such that said top and bottom filter holding frames of said first filter panel are hinged with respect to each other by said first pivot portion;

a second filter panel comprising a respective top frame and a respective bottom frame;

a second hinge, having a first attachment portion, a second attachment portion and a second pivot portion coupling said first attachment portion to said second attachment portion, said top frame of said second filter panel being attached to said first attachment point of said second hinge and said bottom frame of said second filter panel being attached to said second attachment portion of said second hinge such that said top and bottom filter holding frames of said second filter panel are hinged with respect to each other by said second pivot portion; and

a third hinge, having a first attachment portion, a second attachment portion and a third pivot portion coupling said first attachment portion to said a second attachment portion, said first attachment portion of said third hinge being connected to said first hinge and said second attachment portion of said third hinge being connected to said second hinge such that said first filter panel and said second filter panel are hinged with respect to each other by said third pivot portion.

4. An apparatus comprising:

a first active field polarized media air cleaner having a first resistive center screen;

a second active field polarized media air cleaner having a second resistive center screen;

and

a high voltage power supply having a first output voltage terminal coupled to said first resistive center screen and to said second resistive screen.

5. An apparatus in accordance with claim 4, wherein said first active field polarized media air cleaner further includes a first conductive outer screen, and said second active field polarized media air cleaner further includes a second conductive outer screen and said high voltage power supply further includes a second output voltage terminal coupled to said first and second conductive outer screens.

6. A filter media comprising:

a first pad of dielectric filter material;

a second pad of dielectric filter material being substantially the same shape and area as said first pad of fibrous dielectric material;

a center screen disposed between said first and second pads of dielectric material, said center screen being substantially the same shape and area as said first and second pads of dielectric material; and

a dielectric media support frame having an inner side and outer side, said inner side enclosing said first and second pads of dielectric material, said filter holding frame having on the inner side thereof a shelf for holding said center screen between said first and second pads of dielectric material.

7. A filter media in accordance with claim 6, wherein said dielectric media support frame further comprises a protrusion on the outer side thereof.

8. A filter media in accordance with claim 7, wherein said dielectric media support frame further comprises flexible fins extending from said protrusion.

9. A filter media in accordance with claim 7, for use in an active field polarized media air cleaner, said active field polarized media air cleaner further comprising:

a first conductive outer screen;

a first conductive holding frame for holding said first conductive outer screen;

a second conductive outer screen;

a second conductive holding frame for holding said second conductive outer screen;

said first and second holding frames being disposed substantially parallel to each other on either side of said dielectric media support frame, whereby said protrusion on the outer side of said dielectric media support frame is substantially in contact with and held between said first and second conductive holding frames.

10. An active field polarized media air cleaner, said active field polarized media air cleaner comprising:

a first pad of dielectric filter material;

a second pad of dielectric filter material;

a center screen disposed between said first and second pads of dielectric material;

a first conductive outer screen of sufficiently rigid material so as to lie substantially flat when placed against said first pad of dielectric filter material;

a first conductive holding frame for holding said first conductive outer screen;

a second conductive outer screen of sufficiently rigid material so as to lie substantially flat when placed against said second pad of dielectric filter material;

a second conductive holding frame for holding said second conductive outer screen;

said first and second conductive holding frames being disposed substantially parallel to each other on either side of said first and second pads of dielectric filter material, whereby said first and second conductive outer screens are substantially flat and substantially parallel to each other.

11. An active field polarized media air cleaner in accordance with claim 10, wherein said first and second conductive outer screens each comprise a perforated sheet of solid material.

12. In an active field polarized media air cleaner, said active field polarized media air cleaner comprising in combination a first conductive outer screen, a first pad of dielectric filter material, a center screen, a second pad of dielectric filter material, and a second conductive outer screen, an improvement comprising:

a high-voltage probe passing through said conductive outer screen; and

an insulating shield attached to said first conductive outer screen, said insulating shield surrounding said high-voltage probe.

13. A combination in accordance with claim 11, wherein said high-voltage probe comprises a spring contact.

14: A combination in accordance with claim 12, further comprising a contact attached to said center screen, said contact positioned so as to contact said high-voltage probe.

15: A combination in accordance with claim 14, wherein said contact comprises:

a fastener having a head and a shank, said shank passing through said center screen, said head of said fastener being in contact with said high-voltage probe.

16. A combination in accordance with claim 15, further comprising a metallic disk disposed on the shank of said fastener, said metallic disk being in contact with said center screen.

17. A combination in accordance with claim 12, further comprising a second insulating shield attached to said second conductive outer screen, said second insulating shield disposed opposite said first insulating shield.