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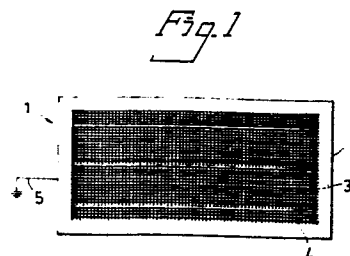
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54 **Method and apparatus for screening off aerosol particles in display screen environments.**

57 A screen (1) is provided for screening off aerosol particles in display screen environments, and includes an electrically conductive earthed frame (2) across which is stretched a fine mesh net (3) of an electrically non-conducting material and electrically conductive wires (4) in contact with the net (3) and extending between opposing portions of the frame (2), said screen neutralizing particle flows generated by electric fields between display screen and display reader.



Method and Apparatus for Screening Aerosol Particles in Display Screen Environments

The present invention relates to a method and apparatus for screening aerosol particles in display screen environments.

5 More and more readers of display screens are becoming affected by skin troubles, as well as eye and throat irritation. Display screens namely generate an electric field with potentials up to + 15 000 V. The display reader also becomes charged, e.g. by rubbing the feet on the floor. The potential for the reader is
10 + 3 000 V to - 6 000 V. The field strength between the display unit and reader can reach 40 000 V/m. The particles in the surrounding air become electrically charged, and this leads to a flow of particles in the electric field between screen and reader. These particles become deposited on the reader's face, where they
15 adhere, causing the afflictions mentioned above.

The present invention has the object of providing a method and an apparatus for inhibiting the infringement of such particles on the reader.

In accordance with the invention, this object is attained by a
20 method and apparatus, the characterizing features of which will be seen from the following description of an inventive apparatus, illustrated by way of example on the accompanying drawing.

Figure 1 is a view of the apparatus in accordance with the invention.

25 Figure 2 is a vertical cross section through the apparatus of Figure 1.

Figure 3 is a cross section as in Figure 1, but through a modified apparatus in accordance with the invention.

The apparatus depicted in Figures 1 and 2 includes a screen 1, which is shown to be rectangular, although it may be square, or have another shape, and it has sufficient area to cover a display screen, in front of which it is intended to be placed.

5 The inventive screen comprises a rectangular, electrically conductive frame 2 with a fine mesh nylon net 3 stretched over it, and with electrically conductive wires 4 stretched between opposing parts in the frame 2, in contact with the net 3, as illustrated in Figures 1 and 2. The numeral 5 denotes the frame
10 connection to earth potential. The number of wires 4 is suited to the size of the frame 2, and in turn the latter is adjusted to the size of the display screen in front of the image tube of a visual display unit. Instead of being applied according to Figures 1 and 2, the wires 4 may be woven into the nylon net,
15 or intertwined to a greater or less extent with it, i.e. they may run adjacent to, and across the netting threads.

The described screen 1 is mounted in front of the appropriate display screen, as used in visual display units. The particle flows generated by the electrical field between reader and display screen will thus become neutralized by the screen 1, with
20 its nylon netting 3 carrying the electrically conductive wires 4, which are connected to the earthed (grounded) frame 2, so that the reader's face is not subjected to any particle bombardment, whereby skin trouble and eye or throat irritation do not occur.
25 The electrical properties of the net 3 and the electrically conductive wires 4 are namely sufficient to screen off said electric field.

The screen 6, depicted in Figure 3 includes, as with the screen 1, an electrically conductive frame 2 with a nylon net 3 stretched
30 across it, but the wires 4 of screen 1 have been replaced by an electrically conductive layer 7, applied for transparency, and electrically connected to the frame 2.

The screen 6 is suitably mounted so that the conductive layer 7 will be nearest the display screen, i.e. facing it. This embodiment of the screen effectively inhibits the flow of particles
35 towards the reader also, particularly towards his face.



The embodiment of the screen may be modified within the scope of the invention. For example, the frame may be constructed solely from two opposing frame portions, which may be mounted in holders or on the display unit to be read. The means arranged
5 for screening the electric field, i.e. the nylon netting and wires or coating may also have other suitable embodiments. Instead of nylon any other electrically insulating plastic material may be used.

CLAIMS

1. Method of screening aerosol particles in display screen environments characterized in that an electric field present in front of a display screen is substantially
5 screened off by a screen (1, 6), having an electrically conductive earthed frame (2) carrying a fine mesh net (3) of an electrically non-conducting material and electrically conductive wires (4) or layer (7) in contact therewith, being mounted between the display
10 screen and a reader.
2. Apparatus for screening off aerosol particles in display screen environments, characterized by a screen (1, 6) intended for placing in front of a display screen, and including an electrically conductive frame (2) intended
15 for earthing (grounding), there being stretched over said frame a fine mesh net (3) and electrically conductive wires (4) or a transparent electrically conductive layer in contact with the net (3) and in electrically conductive communication with said frame (2).
- 20 3. Apparatus as claimed in claim 2, characterized therein, that said fine mesh net (3) is a nylon net.

Fig. 1

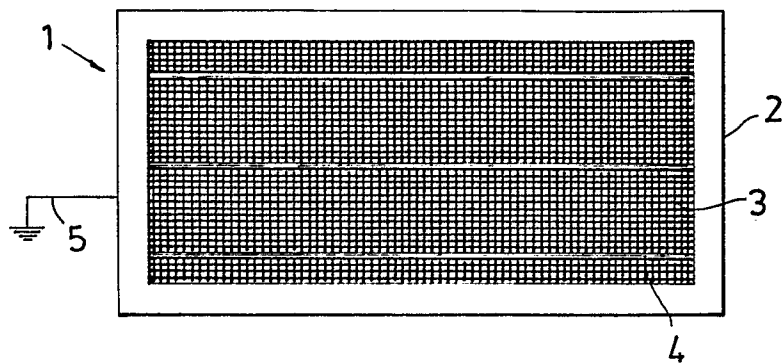


Fig. 2

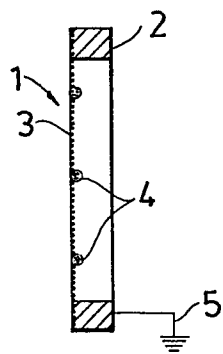


Fig. 3

