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[Continued on next page]

(54) Title: COMPACT AUTOMATED CELL COUNTER

(57) Abstract: Biological cells in a liquid suspension are counted in an automated cell counter that focuses an image of the suspension on a digital imaging sensor that contains at least 4,000,000 pixels each having an area of 2 x 2 μm or less and that images a field of view of at least 3 mm^2. The sensor enables the counter to compress the optical components into an optical path of less than 20 cm in height when arranged vertically with no changes in direction of the optical path as a whole, and the entire instrument has a footprint of less than 300 cm^2. Activation of the light source, automated focusing of the sensor image, and digital cell counting are all initiated by the simple insertion of the sample holder into the instrument. The suspension is placed in a sample chamber in the form of a slide that is shaped to ensure proper orientation of the slide in the cell counter.

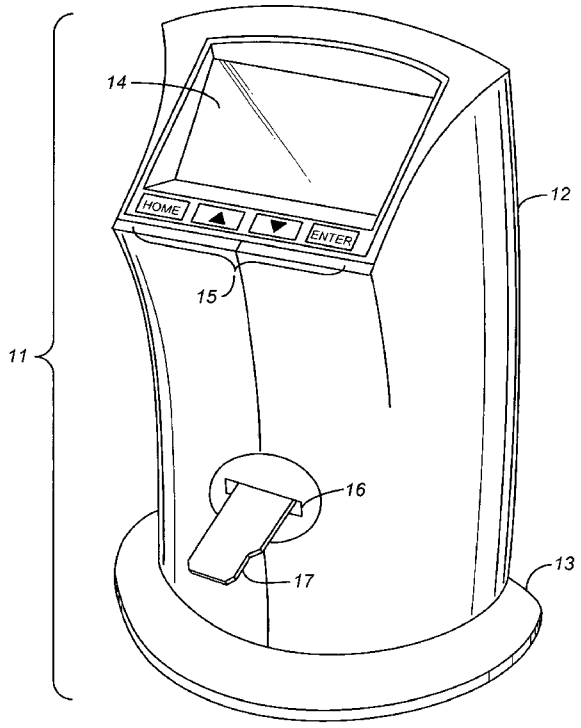


FIG. 1

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