

US005688328A

United States Patent [19]

Tong et al.

Patent Number: [11]

5,688,328

Date of Patent: [45]

Nov. 18, 1997

[54] APPARATUS FOR IMPROVED COATING OF A CRT DISPLAY SCREEN

[75] Inventors: Hua-Sou Tong, Arlington Heights, Ill.; Chun-Min Hu, Keelung, Taiwan

[73] Assignee: Chunghwa Picture Tubes, Ltd.,

Taoyuan, Taiwan

[21] Appl. No.: 527,420

Sep. 13, 1995 [22] Filed:

Int. Cl.⁶ B05C 11/11

U.S. Cl. 118/505; 118/500; 118/52; 118/319; 269/908

Field of Search 118/319, 320, 118/500, 504, 52, 505; 313/478, 479; 269/908

[56] References Cited

U.S. PATENT DOCUMENTS

4,695,045	9/1987	Chase et al	269/152
4,930,015	5/1990	Dougherty et al	358/246
5,489,369	2/1996	Bjornard et al	118/504

Primary Examiner-Donald E. Czaja Assistant Examiner—Calvin Padgett Attorney, Agent, or Firm-Emrich & Dithmar

ABSTRACT

Apparatus for applying an antistatic and/or antireflective coating to the outer surface of a curved glass display screen of a cathode ray tube (CRT) includes a spin coating arrangement for rotating the CRT about its longitudinal axis after the coating solution is deposited on a center portion of the display screen. Centrifugal force and gravity urge the coating solution outwardly toward the edges of the display screen in forming a thin layer of uniform thickness on the display screen. A curved shield shaped in accordance with the display screen's curvature is disposed above the display screen in closely spaced relation thereto to form a chamber of stable air above the display screen and eliminate air turbulence and its tendency to spread the coating nonuniformly. The curved shield may include a center aperture for permitting the coating solution to be deposited upon the display screen prior to rotation and is adapted for easy attachment to and removal from the CRT's peripheral implosion protection band.

6 Claims, 2 Drawing Sheets

