

Title (en)  
ELECTRO-COAGULATION PRINTING APPARATUS

Title (de)  
VORRICHTUNG ZUM DRUCKEN MITTELS ELEKTROKOAGULATION

Title (fr)  
APPAREIL D'IMPRESSION PAR ELECTROCOAGULATION

Publication  
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Application  
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Abstract (en)  
[origin: CA2178679C] An electrocoagulation printing apparatus comprises a positive cylindrical electrode having a central longitudinal axis extending horizontally and a passivated surface defining a positive electrode active surface, the positive electrode being formed of an electrolytically inert metal; a drive mechanism for rotating the positive electrode about the longitudinal axis thereof at a substantially constant speed; a coating device for coating the positive electrode active surface with an olefinic substance and a metal oxide to form on the surface micro-droplets of olefinic substance containing the metal oxide; and a printing head for forming on the olefin and metal oxide-coated positive electrode active surface a plurality of dots of colored, coagulated colloid by electrocoagulation of an electrolytically coagulable colloid in the presence of a coloring agent, the dots of colored, coagulated colloid being representative of a desired image. The apparatus of the invention further comprises a transfer device for bringing a substrate into contact with the dots of colored, coagulated colloid to cause transfer of the colored, coagulated colloid from the positive electrode active surface onto the substrate and thereby imprint the substrate with the image; and a cleaning device for cleaning the positive electrode active surface to remove therefrom any remaining coagulated colloid, the cleaning device being disposed under the positive electrode and below the coating device. Such an apparatus is capable of printing images of high definition.

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