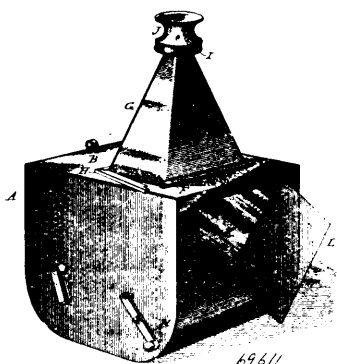


No. 69,611. Apparatus for developing Photographic Films. (*Appareil pour développer les pellicules photographiques.*)



Arthur McCurdy, Washington, District of Columbia, U.S.A., 6th December, 1900; 6 years. (Filed 24th October, 1899.)

Claim.—1st. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, and a flexible open apron or support mounted wholly within said receptacle and adapted to receive and hold a flexible photographic film. 2nd. In a portable apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, and a flexible apron or support mounted wholly therein and adapted to receive and support a flexible photographic film. 3rd. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted wholly therein and adapted to receive and hold a flexible photographic film, and means for permitting the necessary re-agents used in the process of development to circulate in and about the apron and around the film supported thereon. 4th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, an apron or support mounted therein means for winding said apron or support about itself, and means for holding a flexible photographic film upon said support with its sensitized face out of contact with itself and said support. 5th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, means mounted within said box for winding the film about itself, and means for reversing the direction of movement of the film and winding it about itself in the opposite direction. 6th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted therein, means for winding said apron about itself, means for holding a film thereon with its sensitized face out of contact with itself and the apron, and means for winding said apron and the film in the reverse direction, substantially as described. 7th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted therein, means for winding said apron about itself, and means for holding a cartridge or film down in close contact with the apron, substantially as and for the purpose described. 8th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted therein, means winding said apron about itself, mean for carrying a cartridge and holding it down in close contact with the apron as the apron is wound up with the film thereon, and a rotatable support for the cartridge spool, substantially as described. 9th. In an apparatus for developing photographic films, the combination of a suitable box or casing closed against actinic rays, a flexible apron mounted therein means for winding said apron about itself in both directions a spring actuated follower serving to hold a cartridge down in close contact with the apron, and a rotatable support for the cartridge spool. 10th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a shaft journaled therein, a flexible apron, means for detachably connecting one end of said apron to said shaft, and rotary devices also mounted within said box and connected to the other end of the apron, substantially as and for the purpose described. 11th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a shaft rotatably mounted therein, a flexible apron also mounted therein, a flexible apron also mounted within said receptacle and detachably connected at one end to said shaft, means for locking said shaft and apron together, rotary devices also mounted in the receptacle and connected to the opposite end of the apron, and a spool support carried by said rotary devices. 12th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a shaft journaled therein, a flexible apron mounted within said box and detachably connected to said shaft, means for

locking the shaft and apron together, rotary devices also mounted within the box and connected to the opposite end of the apron, a spool support carried by said rotary devices, and a spring actuated device also mounted within the casing and adapted to hold the spool down upon the apron as said apron is wound around the shaft, substantially as described. 13th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a slotted shaft rotatably mounted therein, discs or heads mounted upon said shaft, means for locking one of said discs to the shaft, a flexible apron connected to said discs, rotary devices also mounted within said box and connected to the opposite end of said flexible apron, spool supports carried by said rotary devices, and a spring actuated follower mounted within the box and adapted to hold the spool and film in close contact with the flexible apron as it is wound about the shaft. 14th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a slotted shaft rotatably mounted therein, discs mounted upon said shaft, means for locking one of said discs to the shaft, a flexible apron connected to said discs, discs W, Y, rotatably mounted in the sides of said box or receptacle, connections between said discs and one end of the apron, a cross bar connecting said discs, and a spring clasp mounted upon said cross bar. 15th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a slotted shaft rotatably mounted therein, discs carried upon said shaft, means for locking one of said discs to said shaft, a flexible apron connected at one end to said discs, discs W and Y rotatably mounted in the side of said box in rear of the shaft, connections between said discs and one end of the apron, spring retaining devices carried by said discs, and a spring actuated follower for holding a cartridge or film in close contact with the apron as it is wound about the discs carried by the shaft. 16th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle provided with a removable cover, a tube G adapted to be mounted over an opening therein, an eye piece carried at the upper end of the tube and provided with a suitable actinic proof material, and an actinic proof window formed in the forward face of the box. 17th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, means mounted within said box for holding a film, a draw off provided at the lower side of the box, a vent tube extending from the interior of the box to the outer face thereof, and inspection openings formed in the walls of the box, substantially as described. 18th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted therein, means for winding said apron about itself, and means for supporting two films side by side upon said apron and holding them in such position, substantially as described. 19th. In an apparatus for developing photographic films, the combination of a suitable box or receptacle closed against actinic rays, a flexible apron mounted therein, means mounted within the box for removing and winding up the light proof covering from a photographic film, and means for winding up the apron and with drawing the film from its spool onto said apron, substantially as described. 20th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, means contained within said box for holding a flexible photographic film in an extended position therein, and means for subjecting the entire film at one end the same time to the necessary re-agents for its development. 21st. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, means contained within said box for holding a flexible film in separated layers, and means for subjecting the entire film at one and the same time to the necessary reagents for its development. 22nd. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, means contained within said box for holding a flexible film in an extended position in a series of separated layers, and means for subjecting the entire film at one and the same time to the necessary re-agents for its development. 23rd. In a portable apparatus for developing flexible photographic films, the combination of a box or receptacle closed against actinic rays, means for unrolling wholly within said closed receptacle a flexible photographic film or cartridge placed therein, and means for submitting the film to the necessary re-agents for its development. 24th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, means for withdrawing wholly within said receptacle the protecting covering from a flexible photographic film, or cartridge placed within the box and unwinding the film, and means for submitting the film to the necessary re-agents for its development. 25th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, an apron or support provided with raised edges mounted therein, means actuated from without the box for winding said apron or support about itself within said box, and means also actuated from without the box for winding the apron support in a reserve direction, substantially as described. 26th. In a portable apparatus for developing flexible photographic films, the combination of a suitable box or receptacle closed against actinic rays, and a flexible apron or support mounted therein and provided with raised edges, adapted and designed to receive and