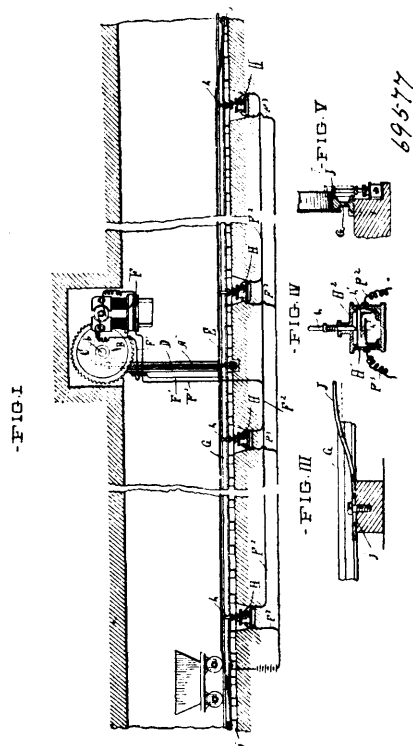


receiving chamber through the heating chamber, a settling chamber connected to the discharge ends of the tubes, a rising tube connected to the settling chamber and extending through the heating chamber to a point above the receiving chamber, substantially as set forth.

No. 69,577. Mine Trap Door. (Porte de mines.)



Alvin Hurford, Canton, Ohio, U.S.A., 4th December, 1900; 6 years.
(Filed 6th December, 1899.)

Claim.—1st. An air-trap for mines comprising a roller supported in suitable bearings, a flexible door or curtain mounted on said roller; an electric motor connected to said roller; means operated by a passing car for cutting said motor into circuit to roll up the curtain, and means for cutting out and subsequently cutting in the motor, comprising a switch operated by a contact device carried near the lower end of the curtain. 2nd. In a mine trap door or curtain-operating device, the combination with a roller, of a weighted curtain, an electric motor for operating said roller during the upward movement of the curtain, and a switch device for first cutting out and subsequently cutting in the motor, said switch device being operated by a contact device on the curtain. 3rd. An air-trap for mines comprising a roller provided at one end with a gear wheel, a door of curtain mounted on said roller and adapted to roll up thereon, an electric motor in gear with said gear-wheel, electrical connections for supplying current to said motor, means for cutting the motor into circuit to raise the curtain, and device carried by the curtain for cutting the motor out of circuit after the curtain is raised to permit the curtain to descend by gravity. 4th. In an air-trap for mines, the combination with the flexible door or curtain, of a roller operating said curtain, a motor operating the roller and a cut-out switch located at the upper end of the trap-frame, said switch operated by a projection on the curtain to cut off the current to the motor and permit the curtain to unroll and descend by gravity, substantially as shown and described.

No. 69,578. Sensitizing Paper for Photographic Printing. (Appareil à sensibiliser le papier pour photographies.)

Bedfield Benjamin West, Guilford, Connecticut, U.S.A., 4th December, 1900; 6 years. (Filed 10th May, 1900.)

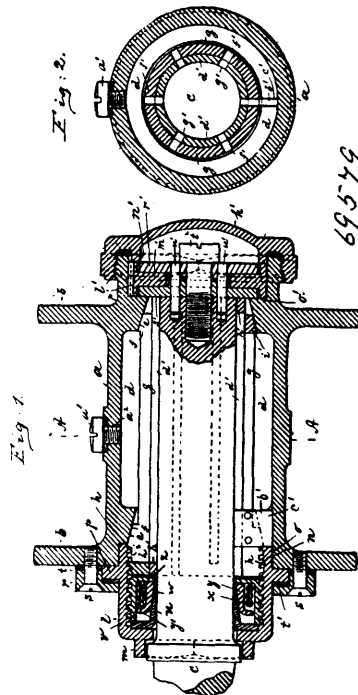
Claim.—The herein described composition for sensitizing paper, consisting of a soluble nitro prusside, ammonio-citrate of iron and water, in the proportions substantially as described.

No. 69,579. Shaft and Axle Bearings. (Cousinnet pour essieux.)

Theodore Miller, New York City, New York, U.S.A., 4th December, 1900; 6 years. (Filed 31st August, 1900.)

Claim.—1st. In a bearing, an oil-chamber surrounding the shaft or axle, a packing ring of soft or pliable material, and a spring-

influenced ring for pressing said packing ring against the shaft or axle, substantially as specified. 2nd. In a bearing, a cone-seated



adjusting sleeve *g*, an adjusting nut *l*, engaging said sleeve, and means for securing the adjusting nut to the bearing so as to admit of its being rotated for the purpose of setting the adjusting sleeve, substantially as specified. 3rd. In a bearing, the bearing sleeve *d*, slotted axially, the axially slotted and cone-seated adjusting sleeve *g*, an oil-chamber surrounding said sleeves, a packing ring *u*, of soft or pliable material for retaining the lubricant within said oil-chamber, and means for adjusting said sleeves, substantially as specified. 4th. In a bearing, an oil chamber *d*, surrounding the bearing, a packing ring *u*, of soft or pliable material, a spring-influenced conical ring *v*, that forms a fluid-tight contact between said packing ring *u*, and the shaft *c*, and means for clamping said packing ring *u*, against the oil chamber, substantially as specified. 5th. In a bearing, an oil chamber *d*, surrounding the bearing, a circumferentially adjustable bearing sleeve *d*, a cone-seated adjusting sleeve *g*, slotted lengthwise, and a packing ring *u*, of soft or pliable material spring-seated upon the shaft or axle, substantially as specified. 6th. In a bearing, an oil-chamber *d*, surrounding the bearing, a spring-seated packing ring *u*, of soft or pliable material for retaining the lubricant within the oil-chamber, an end thrust-ring secured to the oil chamber, and an end thrust-ring secured to the shaft, substantially as specified. 7th. In a bearing, an oil-chamber *d*, surrounding the bearing, a packing ring *u*, of soft or pliable material surrounding the shaft, a ring *y*, engaging the packing ring, and a spring *x*, for forcing said ring *y*, axially against the packing, substantially as specified. 8th. In a bearing, the combination of an inner slotted sleeve with a surrounding outer slotted sleeve, a hub, cone-bearings between the outer sleeve and hub, and an adjusting nut engaging the outer sleeve, substantially as specified. 9th. In a bearing, the combination of a hub with a cone-seated slotted sleeve, an intervening oil chamber, and means for setting the sleeve longitudinally within the hub, substantially as specified. 10th. In a bearing, the combination of a hub with a cone-seated slotted outer sleeve, an intervening oil chamber, a slotted inner sleeve embraced by the outer sleeve, and a nut that engages the outer sleeve and is adapted to set the same longitudinally within the hub, substantially as specified. 11th. In a bearing, a flexible tapering packing adapted to engage the shaft or axle, a flanged tapering ring engaging the packing, and a spring which engages the flanged ring and is adapted to slide the same over the packing, substantially as specified. 12th. In a bearing, the combination of a hub with an enclosed cone-seated slotted outer sleeve, an intervening oil-chamber, a slotted inner sleeve, a nut that engages the outer sleeve, a threaded ring enclosed by the nut, a tapering flexible packing within the threaded ring, and a spring influenced tapering ring that engages the packing, substantially as specified.