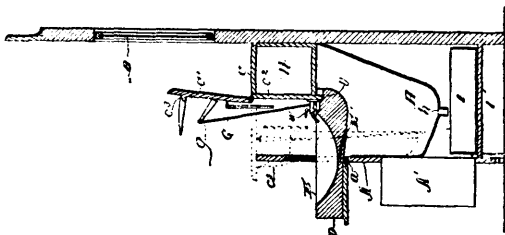


sustained in proper position by weighting the said air boxes or chambers, substantially as described. 6th. In a coupling of the character described, the combination of draw-heads, air boxes or chambers mounted in said draw-heads and having air pipes connected to the bottom portions of the same, and having a flexible diaphragm above the air pipes, and a tubular link having bottom entrance openings adjacent to the ends thereof, adapted to communicate with the said air brake pipes through an opening of the diaphragm, substantially as described. 7th. In a coupling of the character described, the combination of draw-heads having chambers therein, air boxes adjustably mounted in said chambers, of the draw-heads having chambers in the bottom portions of the same with bottom openings, an elastic diaphragm mounted over said chambers in the air boxes or chambers and having legs depending therefrom and openings therein, air brake pipes passing through elongated openings in the bottom portions of the draw-heads and attached to the lower chambers of the said air boxes or chambers, a metallic strip across the front edge of each of said diaphragms, an adjustable cam in the upper portions of said air boxes or chambers, and a tubular link having bottom openings adjacent to the ends thereof communicating with the openings in the said diaphragm, substantially as described. 8th. In a coupling of the character described, the combination of draw-heads having chambers therein, air boxes adjustably mounted in said chambers, of the draw-heads having chambers in the bottom portions of the same with the bottom openings, an elastic diaphragm mounted over said chambers in the air boxes or chambers and having legs depending therefrom and openings therein, air brake pipes passing through elongated openings in the bottom portions of the draw-heads and attached to the lower chambers of the said air boxes or chambers, and a tubular link having bottom openings adjacent to the ends thereof communicating with the openings in the said diaphragm, substantially as described. 9th. In a coupling of the character described, the combination of draw-heads having chambers therein, air boxes adjustably mounted in said chambers of the draw-heads, having chambers in the bottom portions of the same with bottom openings, an elastic diaphragm mounted over said chambers in the air boxes or chambers, and having legs depending therefrom and openings therein, air brake pipes passing through elongated openings in the bottom portions of the draw-heads and attached to the lower chambers of the said air boxes or chambers, a metallic strip across the front edge of each of said diaphragms, and a tubular link having bottom openings adjacent to the ends thereof, communicating with the openings in the said diaphragm, substantially as described. 10th. In a coupling of the character described, the combination of draw-heads having chambers therein, air boxes adjustably mounted in said chambers of the draw-heads, having chambers in the bottom portions of the same with bottom openings, an elastic diaphragm mounted over said chambers in the air boxes or chambers, and having legs depending therefrom and openings therein, air brake pipes passing through elongated openings in the bottom portions of the draw-heads and attached to the lower chambers of the said air boxes or chambers, and a pressure device such as a cam to bear against the link and hold it in close contact with the diaphragm, and a tubular link having bottom openings adjacent to the ends thereof, communicating with the openings in the said diaphragm, substantially as described.

No. 43,486. Combined Washstand and Dressing Case.
(*Lavabo et nécessaire de toilette combinés.*)

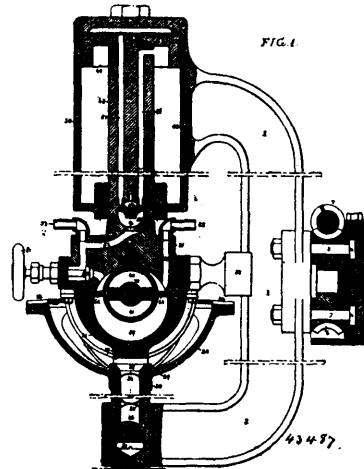


Axel Wettervik and Julius Alfred Olsson, both of Chicago, Illinois, U.S.A., 5th July, 1893; 6 years.

Claim.—1st. In a combined washstand and dressing case, the combination of the main frame A, having the water reservoir W, with the base D having the basin E, and pivotally secured to the front of the frame, the lid c' having the cleat c' to engage the base D, the rods G and pieces g, connected together and uniting the said base and lid, and adapted to hold the latter in an upright position, substantially as described. 2nd. In a combined washstand and dressing case, the combination of the frame A, having the mirror B with the reservoir W, having the hinged lid c, faucet x, and lug or projection u, and located in the upper part of the frame, the base D pivotally secured to the front of the frame, and having the basin E provided with the extended outlet E', and soap receptacle F, having the door f, with extended part f' to engage the lug u on the reservoir, the lid c' having the cleat c' to engage the base when in an upright position, the rods G secured at their lower ends to the base D, and having at their upper ends the pieces g secured to the

lid c' and adapted to raise said lid and to hold it in an upright position, all constructed, arranged and operating substantially as and for the purpose set forth.

No. 43,487. Power Driven Tool. (*Moteur pour outils.*)



Frank Henry Cathcart, Philadelphia, Pennsylvania, U.S.A., 5th July, 1893; 6 years.

Claim.—1st. The combination of a rotated motor, a casing within which said motor is contained, a tool shank operatively connected to and rotated by said motor, and a fluid pressure cylinder adapted to continuously feed the motor and tool toward the work, substantially as specified. 2nd. The combination of a rotated motor, the casing within which said motor is contained, a tool shank operatively connected to and rotated by said motor, and a fluid pressure cylinder adapted to advance and retract both the motor and tool toward and from the work, substantially as specified. 3rd. The combination of a supporting and guiding frame, a motor casing guided by the frame, a motor contained within said casing, a tool shank operatively connected to and rotated by said motor, a cylinder, as 50, carried by the frame, and a piston connected to the motor casing and adapted to be travelled within said cylinder, substantially as specified. 4th. The combination of a casing, a fluid motor contained therein, a tool shank operatively connected to and rotated by said motor, a pressure cylinder, a piston within said pressure cylinder, a piston rod connecting the piston to said casing, communicating fluid passages in the piston rod and in the casing, controlling valves, a fluid supply, as 53, and an exhaust, as 82, substantially as specified. 5th. The combination with a rotated tool, of a feeding device for advancing and retracting said tool, said feeding device comprising a pressure cylinder, as 50, a piston within said cylinder, a piston rod, as 48, forming communication between the piston and the tool, fluid passages in said rod and communicating with a chamber, as 55, supply and escape passages also communicating with said chamber and a controlling valve in said chamber, substantially as specified. 6th. The combination, of a rotated motor, a casing within which said motor is contained, a tool mandrel operatively connected to and rotated by said motor, and an axis for said tool mandrel secured to or forming part of said motor casing, substantially as specified. 7th. The combination, of a rotated motor, a casing within which said motor is contained, a tool mandrel, a cup like body, as 25, secured to or forming part of said tool mandrel, gear teeth on said cup like body, and a pinion rotated by said motor and meshing with the gear teeth on said cup-like body, substantially as specified. 7th. The combination, of a rotated motor, a casing within which said motor is contained, an axis, as 26, secured to or formed integral with the casing, a hollow body, as 25, mounted on said axis, a tool shank secured to said hollow body, gear teeth on said hollow body, and a pinion rotated by the motor and meshing with said gear teeth, substantially as specified. 9th. The combination of a motor, a pinion rotated by said motor, a casing within which said motor is contained, an axis, as 26, secured to or formed integral with said casing, a loose sleeve, as 30, surrounding said axis, a hollow body, as 25, partly surrounding the motor casing, and secured to said sleeve 30, a tool shank secured to said hollow body, and gear teeth on said hollow body, meshing with the teeth of the said pinion, substantially as specified. 10th. The combination, in a rotated tool, a plunger, a frame, by which said plunger is carried, fluid passages in the piston of said plunger, a valve for controlling the same, and a fixed cylinder enclosing said plunger, substantially as specified. 11th. The combination, of the frame 1, a supporting arm 2, therefore, a worm wheel carried by said frame 1, and a worm carried by said arm 2, and meshing with said worm wheel, substantially as specified. 12th. The combination, of the frame 1, the worm wheel, carried thereby, the arm 2, having an undercut circular slot, a series of bolts pro-