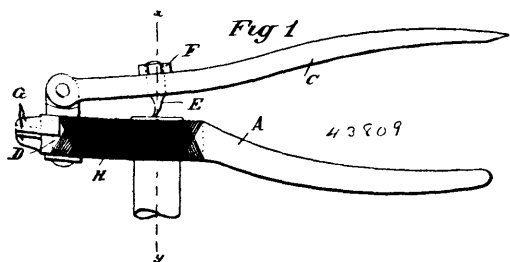


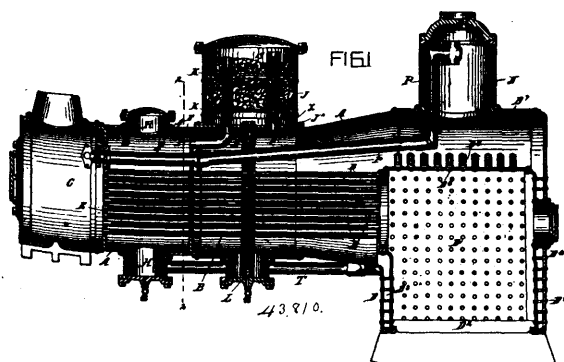
No. 43,809. Tool for Exchanging Percussive Caps in Empty Cartridge Cases. (*Outil pour changer les capsules à percussion dans les étuis de cartouches vides.*)



Nils Gustaf Hanson, Stockholm, Sweden, 2nd August, 1893; 6 years.

Claim.—1st. In a tool for exchanging percussion caps in empty cartridge cases where the cartridge is secured in one pair of legs of a three legged set and a pin in the other leg is caused to penetrate into the percussion cap, the arrangement for the cartridge carrying portion of two pivotally connected legs such as A which on their opposing faces are provided with recesses such as B whereby the same tool may be used for cartridges of different calibres by the cartridges being gripped between the legs A, substantially as described and illustrated in the accompanying drawings. 2nd. In a tool such as described, the combination with the holding legs A, of a revolvable pivot such as D, to which is jointed a leg such as C, provided with a pin or claw E, the whole so arranged that the leg C may, owing to the pivot D, be turned round and a spent percussion cap may be extracted by means of the claw at the one side of the leg or a percussion cap may be pressed into the cartridge by means of the other side of the leg, substantially as described and illustrated in the accompanying drawings.

No. 43,810. Boiler. (*Chaudière.*)



John R. Brownell, Dayton, Ohio, U.S.A., 2nd August, 1893; 6 years.

Claim.—1st. In a steam boiler the combination of the compartment G, receiving heat from the adjacent portions of the boiler, and the filtering compartment J, conduit L for conveying liquid from compartment G to compartment J, and conduit for conveying the filtered water from compartment J on its way to the boiler, substantially as and for the purposes specified. 2nd. The compartment G occupying a portion of the barrel or main portion of the boiler, and the compartment J having filtering material, and located at the top portion of the boiler and connected with compartment G by conduit I, whereby the water from the latter compartment is delivered to the compartment J, the latter compartment being connected with the boiler by an opening or conduit for enabling the water in the compartment J to be delivered into the boiler, substantially as and for the purposes specified. 3rd. The compartment G occupying a portion of the barrel or main portion of the boiler, and the compartment J having filtering material, and located at the top portion of the boiler and connected with compartment G by conduit I, whereby the water from the latter compartment is delivered to the compartment J, the latter compartment being connected with the boiler by an opening or conduit for enabling the water in the compartment J to be delivered into the boiler, and steam conduit D', whereby steam is conveyed from the boiler to compartment J for the purpose of raising the temperature of the water in the filtering compartment, previous to entering the boiler, substantially as and for the purposes specified. 4th. In a boiler, the filtering compartment J, having shelf or shelves, as K, holding filtering material, and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above

said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the chamber, and which pipe extends down directly through the bottom of said chamber X, and into the boiler, substantially as and for the purposes specified. 5th. In a boiler, the filtering compartment J, having shelf or shelves K, holding filtering material and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the chamber, and which pipe extends down directly through bottom of said chamber X, and into the boiler, and the inlet pipe for supplying water to the said filtering compartment, passing through the boiler and up through the chamber X, and through the filtering material to the upper portion of compartment J, substantially as and for the purposes specified. 6th. In a boiler, the filtering compartment J, having shelf or shelves K, holding filtering material, and having the inlet water pipe I, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X in said compartment J, and conduit L, connected to the chamber X and to the boiler and chamber G located in the boiler, the pipe I receiving its water from said chamber G, substantially as and for the purposes specified. 7th. In a boiler, the filtering compartment J, having shelf or shelves K, holding filtering material, and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the chamber, and which pipe extends down directly through the bottom of said chamber X, and into the boiler, and extending down through the boiler to the lower portion thereof, substantially as and for the purposes specified. 8th. In a boiler, the filtering compartment J, having shelf or shelves as K, holding filtering material, and having the inlet water pipe I, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X in said compartment J, and conduit L, connected to the chamber X and to the boiler, and extending down to the lower portion or bottom of the boiler, and chamber G located in the boiler, the pipe I receiving its water from the said chamber, substantially as and for the purposes specified. 9th. The compartment G, located in the boiler, and the filtering compartment J, having filtering means, substantially as described, and connected to the upper portion of the compartment G, by means of the conduit I, having its outlet in the upper portion of compartment J, and outlet pipe I, connecting the lower portion of the said compartment J, with the lower portion of the boiler, substantially as and for the purposes specified. 10th. The compartment G, extending from the bottom to the top of the boiler and receiving water at or near the bottom of the said boiler, and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I, delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 11th. The compartment G, extending from the bottom to the top of the boiler, and receiving water at or near the bottom of the said boiler, and delivering it near the top thereof, and conduit I, located within the boiler, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 12th. The compartment G, occupying a transverse section of the boiler, and receiving water at or near the bottom of said boiler, and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler, substantially as and for the purposes specified. 13th. The compartment G, occupying a transverse section of the boiler and receiving water at or near the bottom of the said boiler and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 14th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G to the compartment J, and the pipe L, delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 15th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, located within the boiler, connecting the compartment G to the compartment J, and the pipe L, delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 16th. The compartment G, occupying a transverse section of the boiler,