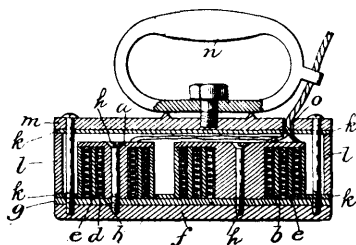


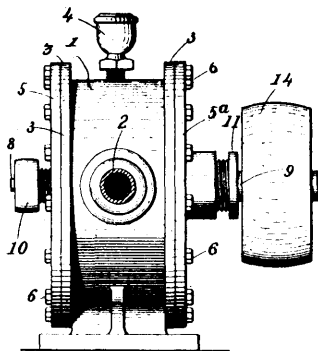
*Claim.*—1st. In an electric heating apparatus, a metallic part to be heated, a metallic core, layers of resistance wire arranged on the



60756

core and insulated therefrom, a metallic strip, between said layers of resistance-wire and insulated therefrom, said strip in metallic contact with the part to be heated. 2nd. In an electric heating apparatus, a metallic plate to be heated, a metallic core attached thereto, an insulated layer of resistance-wire arranged on the core, a metallic shell in metallic contact with said plate, a layer of insulated resistance-wire arranged on the metallic shell. 3rd. In an electric heating apparatus, the combination of an outer casing, a heating-coil arranged with said casing, said casing composed of separate parts consisting of the heating plate, side portions and top, poor heat-conducting material separating the side portions from the heating-plate and poor heat-conducting material separating the side portions and said top, substantially as described.

**No. 60,757. Rotary Pump. (Pompe rotatoire.)**

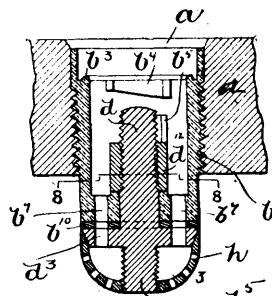


60757

William Henry Slade, assignee of John William T. Briggs, both of Buffalo, New York, U.S.A., 2nd August, 1898; 6 years. (Filed 19th March, 1897.)

*Claim.*—1st. In a rotary engine or pump, the combination with an oblong outer case, having inlet and outlet openings, and its upper and lower sides in the form of a semi-circle, of a circular slideway cylinder, its upper portion fitting the upper semi-circular portion of the case and mounted on the driving-shaft so as to fit and turn in said semi-circular portion, circular depression located centrally in each flat side of said cylinder, a stationary corresponding oblong cam secured to the inner side of each cover for the case and located in each circular depression, and means for securing the covers to the case, the cams being in the form of a semi-circle at the top and bottom, and a series of sliding plates fitted to slide radially in the slideway cylinder and interposed between the innersides of the case and periphery of the cams, substantially as described. 2nd. In a rotary pump, the combination with the cylinder carrying the sliding plates, of a series of rubber packing portions inclosed transversely within said cylinder, a series of transverse openings in the periphery of the cylinder located over said rubber portions, and a series of leather packing strips in said openings having their lower or base portions rest against said rubber portions, substantially as described. 3rd. In a rotary pump, the combination with the inclosing case and stationary cams, of a cylinder having a series of radial slideways and mounted on a shaft within said case, a sliding plate mounted in each slideway, spiral springs secured in the sliding plates and a ball interposed between each spring and the peripheries of the cams, substantially as described. 4th. In a rotary pump, the combination with the inclosing case and stationary-cams, of a cylinder having depressions on each side and a series of radial slideways in its periphery and mounted on a shaft within said case, a sliding plate mounted in each slideway, spiral springs and balls in one end of each sliding plate and a packing of leather secured to the opposite ends of said sliding plates, substantially as described.

**No. 60,758. Tap. (Robinet.)**



60758

The Rochester Bunting Apparatus Company, Rochester, New York, assignee of Rudolph F. Staul, Boston, Massachusetts, U.S.A., 2nd August, 1898; 6 years. (Filed 20th May, 1898.)

*Claim.*—1st. A tap comprising in its construction a bushing formed with a web provided with one or more ports and a valve-stem aperture, a valve-stem arranged in said aperture, a disc carried by said stem and arranged to seat against the inner face of said web, and means upon said valve-stem upon the opposite side of said web for adjustably holding said valve against its seat, said means comprising a member arranged to turn with the valve-stem and to engage the web or some part of the bushing, and a nut to engage said member to force the latter against its support and the valve against its seat. 2nd. A tap comprising in its construction a bushing formed at its lower end with a web provided with one or more ports and a valve-stem aperture, the walls of said aperture being extended to form an upwardly projecting flange, a valve-stem arranged in said aperture and provided with an apertured valve-disc adapted to seat against the lower face of said web, a winged washer locked on said stem and resting on said flange, and a nut on said stem adapted to engage said washer and to force said valve against its seat, said wings being adapted to stand over the ports when said disc is turned to close communication into the cask. 3rd. A bushing comprising in its construction a cylindrical body having an off-set flange at its upper end and a shoulder  $b^3$  within said flange and surrounding the opening in said bushing, cams  $b^4$  projecting from the inner wall of said bushing, a stop-rib  $b^5$  arranged below one of said cams, the lower end of said bushing being formed with an apertured web. 4th. The combination with a bushing having cams on its inner face, and recessed at its upper end, terminating in an upwardly projecting rib, a projecting stop-rib arranged below one of said cams, a valve mechanism arranged in the lower end of said bushing, comprising a nut having wings adapted to protect the ports in said valve mechanism when the latter are closed, combined with a delivery-tube having a washer adapted to engage the rib  $b^3$ , and complementary cams and rib adapted to engage the cams, and a stop-rib in the interior of the bushing. 5th. A tap comprising a bushing formed at its outer end with a web provided with one or more ports and a valve-stem aperture, a valve-stem arranged in said aperture, a disc carried by said stem and adapted to seat against said web, a winged washer locked on said stem or said web and formed with wrench-engaging means, as lugs  $t^4$ , and means for holding said disc against its seat. 6th. A tap wrench comprising a shell formed on its lower end with holding members, a rotatable spanner arranged in said shell and formed on its lower end with parts adapted to engage a nut. 7th. A spanner comprising a shell having radial lugs or projections  $t^2$  and axial lugs or projections  $t^3$ , a rod arranged to rotate in the said shell and provided at one end with a nut-engaging means, and provisions on said rod for turning the latter. 8th. A cleaning tool for the ports of taps for casks or barrels, comprising one or more fingers shaped at their working ends to enter said ports, the main body of the finger or fingers being shaped to engage lugs or other members of the interior walls of the tap to guide said fingers and cause the working ends to properly register with the said ports. 9th. A tap comprising a bushing formed at its lower end with a web provided with one or more ports and a valve-stem aperture, a valve-stem arranged in said aperture, a disc carried by said stem and adapted to seat against the lower side of said web, and a winged washer locked on said stem or said web and formed with wrench engaging means, as lugs  $t^4$ , a nut on said stem adapted to engage said washer to force said valve against its seat, said nut being accessible from the exterior of the cask.

**No. 60,759. Wheel Tire and Fastening.**

(*Bandage et attache de roues.*)

The Leather Pneumatic Tire Company, 3 Bloomfield Square, London, assignee of Charles Ernest Squier, 203 Upper Thomas Street and Francis Windham, 73 Victoria Street, of London aforesaid, 2nd August, 1898; 6 years. (Filed 9th May, 1898.)

*Claim.*—1st. In a tire, a flexible backing, in combination with arched sections B, sewn independently to the said backing, substan-