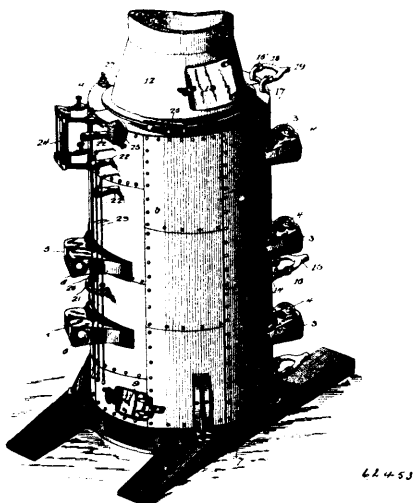


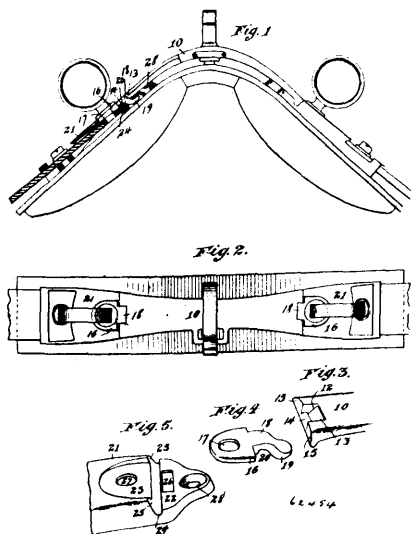
No. 62,453. Steam Boiler. (*Chaudière à vapeur.*)

Nelson Fillmore Anderson and William Thomas Anderson, both of Hardid, State of Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. In a boiler of the character described, the combination of parti-cylindrical hollow sections hinged together and provided with clusters of inwardly projecting water tubes, and means for securing the sections together, substantially as set forth. 2nd. In a boiler of the character described, the combination of parti-cylindrical hollow sections hinged together and provided with inwardly projecting water tubes arranged in parallel horizontal rows and parallel vertical rows, and means for securing the sections together, substantially as described. 3rd. In a boiler of the character described, the combination with the parti-cylindrical hollow sections hinged together and provided with inwardly projecting water tubes and a tubular connection between the sections of said boiler, whereby a uniform water level is obtained in both sections, substantially as set forth for the purpose described. 4th. In a boiler of the character described, the combination with the parti-cylindrical hollow sections hinged together, water tubes projecting inwardly from said sections and having screw-threaded engagement therewith, said tubes arranged in horizontal rows and in vertical rows, and means for securing the sections together, substantially as set forth.

No. 62,454. Harness Saddle Tree.

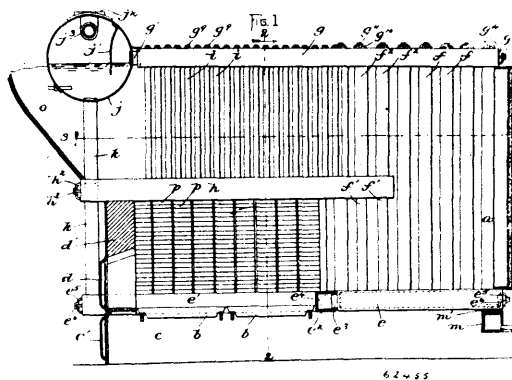
(*Bois de selle de harnais.*)



Charles Jesse Cooper, Moline, Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—1st. In a harness saddle tree, the combination with a yoke having at its end an aperture and cross-bar and stop shoulders located on each side of such aperture, of a jockey-plate rebated to receive the end of the yoke and having stop shoulders to abut against those of the yoke and an aperture, and a connecting plate having a body portion adapted to be secured to the jockey-plate and a hooked

end passing over the cross-bar and through the apertures in the yoke and jockey-plate, substantially as described. 2nd. In a harness saddle tree, the combination with a yoke having at its end a recess provided with an aperture and cross-bar, with stop shoulders located on each side of said aperture, of a jockey-plate rebated to receive the end of the yoke, provided with an aperture and having a recess for the connecting plate and stop shoulders to abut against those of the yoke, and a connecting plate having a body portion adapted to fit within the recess of the jockey-plate and be secured therein and having a tongue adapted to fit within the recess of the yoke and provided with a hooked end to pass over the cross-bar and through the apertures in the yoke and jockey-plate, said yoke plates having a flush or continuous upper surface, substantially as described.

No. 62,455. Steam Boiler. (*Chaudière à vapeur.*)

Richard Hutchinson, Somerville, Massachusetts, U.S.A., 25th January, 1899; 6 years. (Filed 5th December, 1898.)

Claim.—1st. In a sectional water-tube boiler, a grate, an upper series of manifolds arranged at the base of the boiler, back of the grate, a back series of tubes connecting the upper and lower manifolds, an intermediate series of manifolds arranged above the grate and terminating forward of the said back tubes, the latter manifolds being arranged in contact, side by side, and collectively constituting a baffle, a front series of tubes connecting the intermediate and upper manifolds, and an outlet for the products of combustion. 2nd. In a sectional water-tube boiler, a lower series of manifolds arranged at the base of the boiler, an upper series of manifolds arranged at the top of the boiler, an intermediate series of manifolds, a back series of relatively long upright tubes connecting the upper and lower manifolds, a front series of relatively short upright tubes connecting the upper and intermediate manifolds, and means in the top sides of the upper manifolds for permitting the removal, insertion, and cleaning of the tubes of both series. 3rd. A sectional water-tube boiler comprising a grate, a lower series of manifolds arranged at the base of the boiler and formed with apertures in their ends, means for closing said apertures, an upper series of manifolds arranged at the top of the boiler and formed with apertures in their ends, means for closing said apertures, a steam-drum connected with the said upper manifolds, a downtake leading from said drum, an intermediate series of manifolds formed with apertures in their ends, means for closing said apertures, a series of upright tubes connecting the upper and lower manifolds, a second series of upright tubes connecting the upper and intermediate manifolds, the upper manifolds being formed with apertures above the several tubes, permitting the removal, insertion, and cleaning thereof, and means for closing said apertures. 4th. A sectional water-tube boiler comprising a grate, a lower series of manifolds arranged at the base of the boiler, back of the grate, an upper series of manifolds arranged at the top of the boiler, an intermediate series of manifolds arranged in contact side by side, and constituting a baffle, a series of upright tubes connecting the upper and lower manifolds, a second series of upright tubes connecting the upper and intermediate manifolds, and a third series of upright tubes connecting the lower and intermediate manifolds. 5th. In a water-tube boiler, a grate, and a plurality of independent manifolds arranged at the end across the end thereof, for the purpose specified. 6th. In a water-tube boiler, two transverse manifolds, and a series of tubes connecting the same, one of said manifolds having opposite the tubes provisions for access thereto, and the other manifold having an imperforate wall opposite the tubes.

No. 62,456. Steam Boiler. (*Chaudière à vapeur.*)

George Herbert Watson, Chicago, Illinois, U.S.A., 25th January, 1899; 6 years. (Filed 9th September, 1898.)

Claim.—1st. In a steam boiler having an internal furnace, the arrangement of one or more circulating pipes extended directly and continuously through said furnace and communicating at one end with the lower part of the boiler below one end of the internal furnace and discharging into the upper part of the boiler at its other end, to promote the circulation and effect a rapid generation