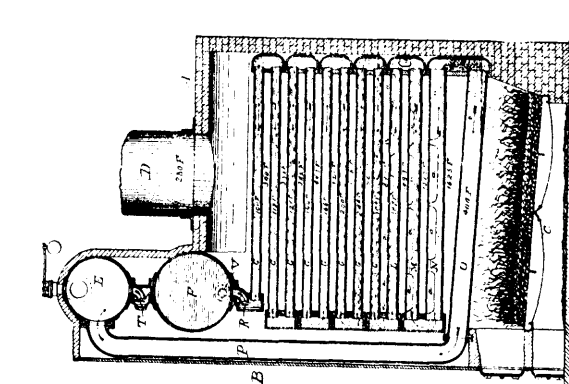


to the axis of revolution of the wheel, and inclined in a direction opposed to the inclination of the blades on the driving wheel, and an inlet for the admission of the actuating fluid to the centre of the motor, and an outlet for its exhaust from the periphery, substantially as specified. 2nd. A radial flow steam turbine motor consisting of a disc like driving wheel having concentric sets of blades or vanes projecting from its face or faces, the blades of each set being arranged parallel to the axis of revolution and inclined secant to their circle of revolution, a casing enclosing the said wheel convex as to its interior surface, and having concentric sets of blades or vanes projecting from said convex surfaces to the surfaces of the driving wheel (but without contact therewith) and intermeshing with the sets of blades on the driving wheel, the blades to stand parallel to the axis of revolution of the wheel, and be inclined in a direction opposed to the inclination of the blades on the driving wheel, the extremities of the blades in the several sets to be in the same plane of revolution, but the length of the blades in the different sets to be controlled by the nature and extent of the curvature or convexity given to the surface of the casing, this curvature be such as to establish and control the effluent velocity of the steam within the limits designed for the engine, an inlet for admission of steam to the centre of the motor, and an outlet for its exhaust, substantially as specified. 3rd. In a steam turbine motor, a driving wheel consisting of a hub, and a web or disc having grooves concentric to the hub and blades or vanes, the bases of which are contained and fastened in the grooves, in combination with a steam tight casing provided with grooves concentric with the hub, and stationary blades or vanes, the inner ends of which are fastened in the grooves and intermesh with the blades or vanes on the driving wheel, substantially as specified. 4th. In a steam turbine motor a driving wheel consisting of a hub and a web or disc having grooves concentric with the hub and blades or vanes, the bases of which are contained and fastened in the grooves, in combination with a steam tight casing provided with grooves concentric with the hub, blades or vanes, the inner ends of which are fastened in the grooves, intermeshing with the blades or vanes of the driving wheel, and an outlet for admission of steam to the centre of the motor, and an outlet for its exhaust from the periphery, substantially as specified. 5th. A steam turbine motor embracing in its construction a disc like driving wheel having a concentric set of blades or vanes projecting from its side faces, the blades of each set standing parallel to the axis of revolution, and inclined as to their width secant to their circle of revolution, and arranged to rotate with increased velocity of flow of steam through the blades, graduated to conform to the increasing diameter of the sets of blades, substantially as specified. 6th. A steam turbine motor embracing in its construction a disc like driving wheel having concentric sets of blades or vanes projecting from its side faces, the blades of each set standing parallel to the axis of revolution, and inclined as to their width secant to their circle of revolution, and arranged to rotate with increased velocity of flow of steam through the blades, graduated to conform to the increasing diameter of the sets of blades, in combination with a casing enclosing the driving wheel having concentric sets of blades or vanes intermeshing with the sets of blades or vanes on the driving wheel, the blades of each set being arranged parallel to the axis of revolution of the wheel, and being inclined in a direction opposed to the inclination of the blades on the driving wheel, and an inlet for the admission of the actuating fluid to the centre of the motor, and an outlet for its exhaust from the periphery, substantially as specified.

**No. 64,693. Steam Generator. (Générateur à vapeur.)**

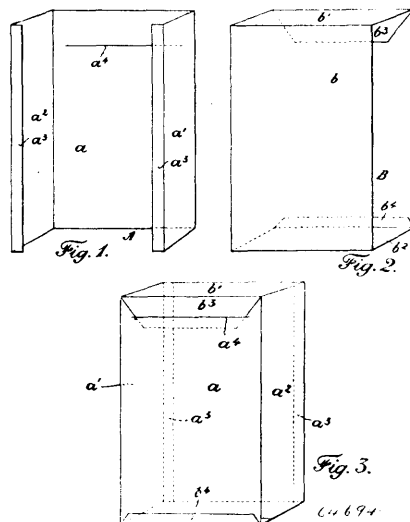


John Clinton Parker, San Francisco, California, U.S.A., 2nd November, 1899; 6 years. (Filed 21st January, 1899.)

*Claim.*—1st. In a steam generator, series or units of evaporating tubes disposed in tiers in a heating furnace, connecting to superimposed steam and water chambers, such tubes increasing in size in the direction of flow approximately as the volumes of steam and water therein, and from the top downward in the furnace, substan-

tially as herein explained and described. 2nd. In a steam generator, separate superimposed chambers for steam and water, the steam chamber set above and draining into the water chamber by a connection between the two, a series of evaporating tubes of successively increasing size connecting through a heating furnace from the water to the steam chamber and arranged for the passage of water from the top downward, or from the coolest to the hottest portion of the heating furnace, substantially as hereinbefore described. 3rd. In a steam generator, separate superimposed chambers for steam and water, a communicating passage between these chambers and a check valve therein, evaporating tubes of successively increasing size connecting to and extending downwards from the superimposed water chamber, a check valve or valves to prevent upward or back flow from the evaporating tubes, or from the water to the steam chambers, in the manner and for the purposes substantially as herein explained.

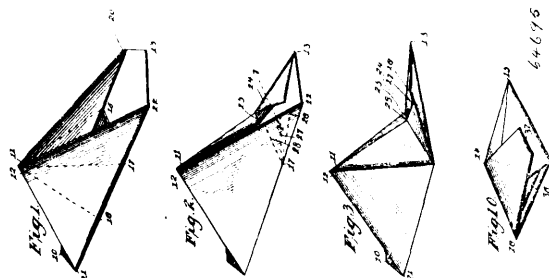
**No. 64,694. Box. (Boîte.)**



Arthur Hickman Windsor, Horley, Surrey, England, 2nd November, 1899; 6 years. (Filed 25th March, 1899.)

*Claim.*—1st. A box made of two strips such as A, B, the part A forming the front and two sides and the part B forming the back, top and bottom, substantially as described and illustrated. 2nd. A box, consisting of two strips A and B, the strip A being folded or bent so as to form the parts  $a$ ,  $a'$  and  $a''$ , the parts  $a'$  and  $a''$  being bent or folded at their edges so as to form flaps or equivalents  $a^3$  and the central part  $a$  having a slit  $a^4$ , and the strip B being folded or bent so as to form the parts  $b$ ,  $b'$  and  $b''$ , the parts  $b'$  and  $b''$  being respectively folded or bent so as to form flaps or equivalents  $b^3$  and  $b^4$  respectively, the flap or part  $b^3$  having its corners cut off, for the purposes and substantially as described and illustrated. 3rd. A box as herein described and illustrated, said box being strengthened and having the interstices between the flaps  $a^3$  and the back  $b$  closed by means of an external label or equivalent, substantially as set forth. 4th. A box, consisting of two strips which are cut, bent or folded and joined, substantially as described and illustrated.

**No. 64,695. Hat Bag. (Sac à chapeau.)**



Martin L. Horning, Albion, Michigan, U.S.A., 2nd November, 1899; 6 years. (Filed 6th May, 1899.)

*Claim.*—1st. A pyramidal bag, box or receptacle formed of a square sheet of paper stiffened to form the bottom by means of a square of pasteboard or similar material secured centrally thereto,