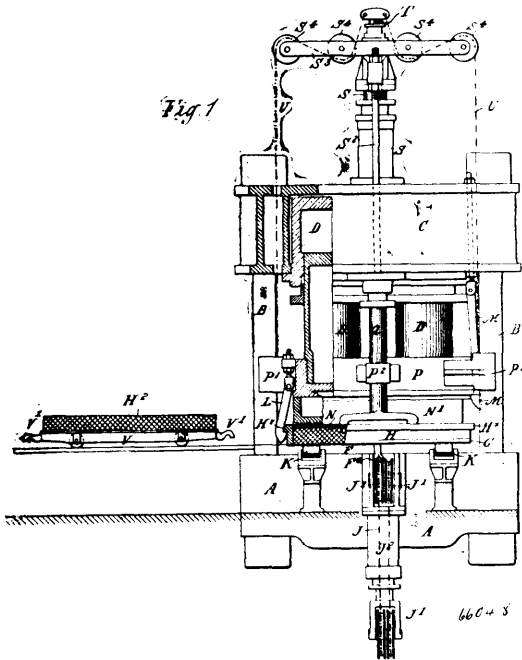
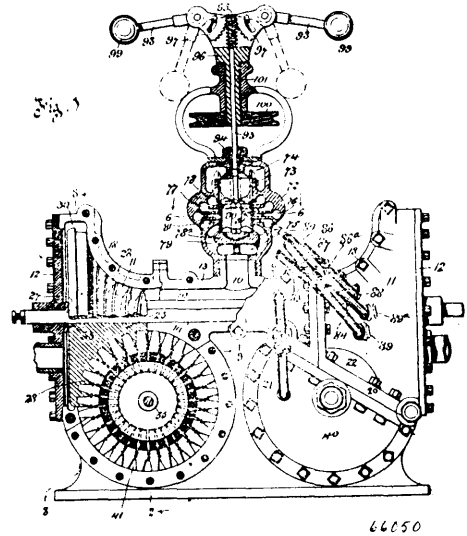


plate provided upon the said grooved lower surface, means for preventing the slab material from being pressed into the perforations



cithern-like instrument having separately grouped bass and chord strings, and provided with an opening extending to the interior thereof, combined with a harmonica or mouth harp connected with said opening, substantially as and for the purpose set forth.

No. 66,050. Rotary Engine. (Machine rotatoire.)

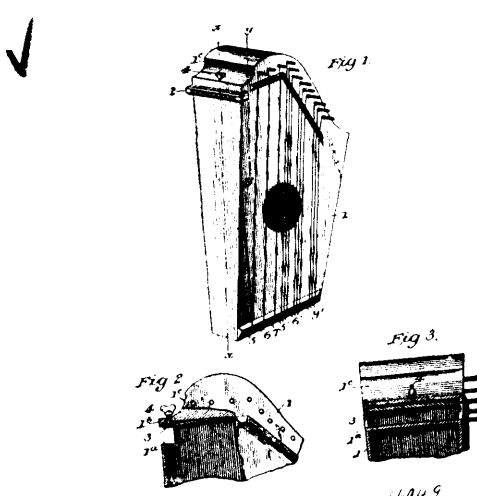


Charles Havelock Taylor, Westmount, Montreal, Quebec, Canada, 1st February, 1900; 6 years. (Filed 17th January, 1900.)

Claim.—1st. In a rotary engine, the combination with a cylinder and a part to be driven, of means for forming a series of spiral chambers within said cylinder, means for operatively connecting said chambers to the part to be driven, said spiral chambers being of progressively increasing capacity from the fluid intake port of said cylinder to the exhaust port thereof, and means for causing said fluid to pass successively through said chambers, for the purpose set forth. 2nd. In a rotary engine, the combination with a cylinder and a part to be driven, of means for forming a series of spiral chambers within said cylinder, means for operatively connecting said chambers to the part to be driven, said spiral chambers being of increasing capacity from one end thereof to the other, means for supplying an expansible fluid direct to several of said chambers, means for automatically decreasing or increasing the number of said supplies, and means for causing said fluid to pass successively through all of said chambers, for the purpose set forth. 3rd. In a rotary engine, a cylinder, a spiral piston located within said cylinder and increasing in diameter from one end to the other, said cylinder closely fitting the periphery of said piston, an exhaust port from said cylinder at the end of greatest diameter, means for supplying steam to said cylinder at points of different diameter along said spiral piston, and means for automatically decreasing or increasing the number of points to which steam is supplied, for the purpose set forth. 4th. In a rotary engine, a cylinder, a shaft extending through said cylinder, a spiral vane formed integrally with and entwined about said shaft from end to end of the portion thereof within said cylinder, said cylinder corresponding in form to and fitting closely the periphery of said vane, supply and exhaust ports to and from said cylinder and located respectively at the opposite ends thereof, the spiral space formed by said vane, the surface of said shaft and the inside face of said cylinder increasing in capacity from the supply end to the exhaust end thereof, a series of diaphragms adapted to intermesh with said vane and completely bisect the spaces between the convolutions thereof, means for carrying said diaphragm and means for causing same to travel axially of said shaft during the revolution thereof, for the purpose set forth. 5th. In a rotary engine, a cylinder, a concavo-conoidal shaft extending through said cylinder, a spiral vane formed integrally with and entwined about said shaft from end to end of the portion thereof within said cylinder, said cylinder corresponding in form to and fitting closely the periphery of said vane, supply and exhaust ports to and from said cylinder and located respectively at the ends of minimum and maximum diameter thereof, a circular box extending laterally in an axial plane from said cylinder, a hub mounted rotatably within said box, a series of diaphragms adapted to completely bisect the spaces between the convolutions of said vane, and means for yieldingly connecting said diaphragm radially to the periphery of said hub, and means for packing the line of juncture of said box and cylinder and the points at which said diaphragms intersect said line of juncture, for the purpose set forth. 6th. In a rotary engine, a cylinder, a concavo-conoidal shaft extending through said cylinder, a spiral vane formed integrally with and entwined about said shaft from end to end of the portion thereof

n the said table and plate, and means for holding the charged mould upon the table, substantially as described for the purpose specified, whether the grooves in the pressing die are provided or not with non-return flap valves for the purpose set forth.

No. 66,049. Musical Instrument. (Instrument de musique.)



The Harp-o-Chord Company, assignee of Carl Ernest Brown, all of Columbus, Ohio, U.S.A., 1st February, 1900; 6 years (Filed 27th December, 1899.)

Claim.—1st. A cithern-like instrument provided with an opening extending to the interior thereof and having means to removably receive a harmonica or mouth harp in said opening so that the tones of said harmonica or mouth harp may be introduced into the body of the cithern-like instrument, substantially as described. 2nd. A cithern-like instrument provided with an opening extending to the interior thereof and a harmonica or mouth harp attached thereto in said opening, so that the tones from the harmonica or mouth harp shall be introduced into the body of the cithern-like instrument, substantially as described. 3rd. A stringed instrument provided with an opening to receive a wind instrument so that the tones of the wind instrument shall be modified by the stringed instrument, said stringed instrument being recessed adjacent said opening, substantially as indicated at 1c for the purpose explained. 4th. A