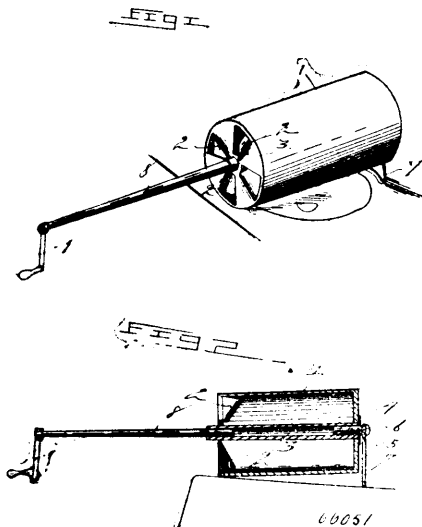


within said cylinder, said cylinder corresponding in form to and fitting closely the periphery of said vane, supply and exhaust ports to and from said cylinder and located respectively at the ends of minimum and maximum diameter thereof, a circular box extending laterally in an axial plane from said cylinder, a hub mounted rotatably within said box and having a series of radial borings formed in the periphery thereof, a series of tapered wedge-shaped resistance heads 62, each formed with a plug 67 adapted to take into said borings, said resistance heads being adapted to completely bisect the space between the pair of convolutions adjacent thereto of the vane, a series of coiled springs adapted to take over said plugs and bear between said resistance heads and the 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. 7th. 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 pair of sleeves formed in one with and extending axially in opposite directions from the exterior of said box, a hub mounted rotatably within the said box and having a series of radial borings formed in the periphery thereof, a series of tapered wedge-shaped resistance heads 62, each formed with a plug 67 adapted to take into said borings, said resistance heads being adapted to completely bisect the space between the pair of convolutions adjacent thereto of the vane, a series of coiled springs adapted to take over said plugs and bear between said resistance heads and the hub, a series of packing pins located in registering grooves in the adjoining edges of said resistance heads, a pair of pins located respectively in contact with each side edge of each head, said hub being formed with oppositely extending sleeves adapted to take into said before mentioned sleeves, a spindle passing through said sleeves and enlarged and screw-threaded at one end to take into the screw-threaded interior of one end of the outer sleeves, the exterior of the adjacent inner sleeve being circumferentially grooved, and a series of packing rings L-shaped in cross section encircling said sleeve and taking into the grooves thereof, substantially as described and for the purpose set forth. 8th. An automatic cut-off device, comprising a casing 72, formed with a cylindrical valve chamber 73, a steam supply to the upper end of said valve chamber, a series of channels 75, 76, 77 and 78, communicating with the cylinder of the engine and each communicating independently with the valve chamber 73 at a different points along the length thereof, of a tray 178 supported a short distance beneath the lower end of said valve chamber, a valve 90 of hollow cylindrical form slidable within and longitudinally of said valve chamber, and means under control of a moving part of the engine for sliding said valve to cut off the steam supply to said channels as the speed of said moving part becomes excessive. 9th. A governor for actuating a cut off device, consisting of a slidable stem 93 formed at its upper end with a rack 95, a rotatable bracket 96, a pair of toothed segments 97 pivoted to said bracket and intermeshing with said rack 95, a pair of rods 98 connected rigidly at their inner ends to said racks and carrying governor balls 99 at their outer ends, and a pulley 100 mounted rigidly upon said bracket 96, as described and shown.

No. 66,051. Peanut Roaster. (*Torréfacteur de pistache.*)

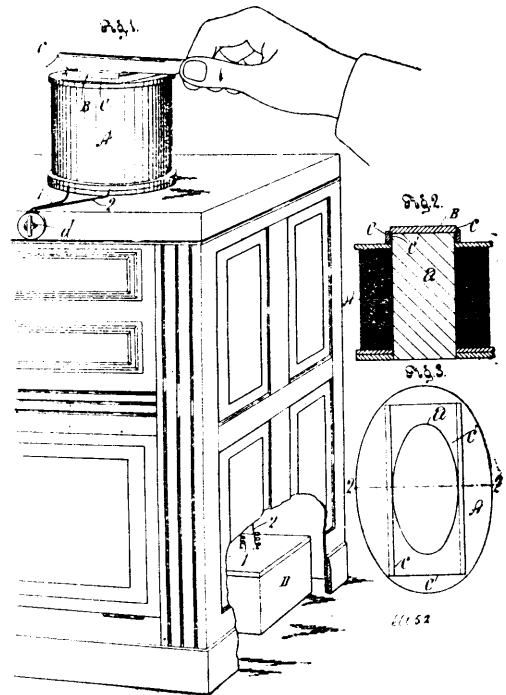


Nelson R. H. Burnett, Clay Brook, Tennessee, U.S.A., 1st February, 1900; 6 years. (Filed 17th January 1900.)

Claim.—The shell 1, formed with the closed rear end, and having its front end formed with inwardly projecting radial blades, the axial tube fixed in said shell, the stud shaft fixed in one end of said tube, the supporting bracket loosely mounted on said stud shaft, and the removable crank shaft mounted in the opposite end of said sleeve, substantially as shown and described.

No. 66,052. Electro-Magnetic Hone.

(*Pierre electro-magnetique.*)



Theodore R. Smith, Los Angeles, California, U.S.A., 1st February, 1900; 6 years. (Filed 12th January, 1900.)

Claim.—1st. The combination of a hone and an electro-magnet arranged with such relation to the hone that the lines of effective magnetic force through the hone toward one pole of the magnetic only. 2nd. The combination of an electro-magnet, a hone, and a holder for holding the hone on the electro-magnet. 3rd. The combination of an electro-magnet having a projecting core, a hone holder with slot to seat the projecting core and with a hone seat in its upper face, and a hone in said hone seat. 4th. An electro-magnet with cone oblong in cross section, a hone, and means for holding the hone above the core. 5th. The combination of a magnet and a superposed hone which lies wholly in the field of a single pole of the magnet.

No. 66,053. Car Coupler. (*Attelage de chars.*)

Hylas Sabine, Marysville, Ohio, U.S.A., 1st February, 1900; 6 years. (Filed 17th January, 1900.)

Claim.—1st. A car coupling, comprising a drawhead, a jaw, a pin pivoting the jaw to the drawhead, and a series of balls interposed between the under side of the jaw and the drawhead, and arranged in grooves therein on different sides of the pin, the walls of said grooves being arranged on inclined planes, substantially as and for the purpose specified. 2nd. A car coupling, comprising a draw head, a jaw, a pin pivoting the jaw to the drawhead, a series of balls interposed between the drawhead and the jaw and arranged in grooves in the drawhead and the jaw and on different sides of the pin, the upper and lower walls of said grooves being inclined tangentially, for the purpose specified. 3rd. A car coupling, comprising a drawhead, a jaw, a pin pivoting the jaw to the drawhead, a ball interposed between the jaw and the drawhead and arranged in a groove in the drawhead, the lower wall of which is inclined tangentially relatively to the pivot pin, and also radially with reference thereto. 4th. A car coupling, comprising a drawhead, a jaw, a pin pivoting the jaw to the drawhead, a ball interposed between the under side of the jaw and the draw-head, and arranged in grooves in the drawhead and in the jaw, said grooves being inclined tangentially with reference to the pivot pin and also radially relatively thereto. 5th. A car coupling, comprising a drawhead, a jaw, a pin pivoting the jaw to the drawhead, a grooved block arranged in a recess of the drawhead around the pin and below the jaw, and one or more balls arranged therein. 6th. A car coupling, comprising a drawhead, a jaw, a pin pivoting