

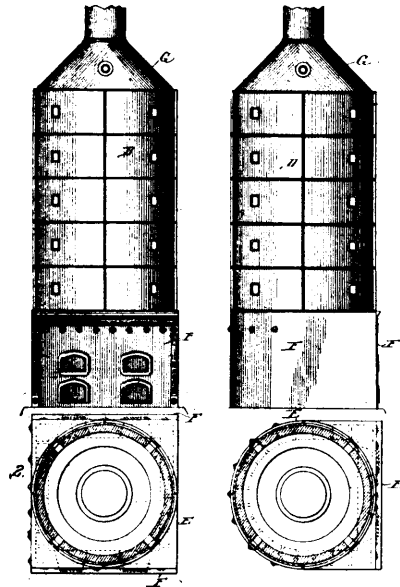
collected, of gearing operating said chuck and mandrel, a leading screw, a slide rest and a tail stock operated by said screw, a rod operated by the slide rest and adapted to throw the leading screw out of gear with the chuck and reversing gear to enable the slide rest and tail stock to be reset in starting position, substantially as set forth.

No. 63,394. Explosive. (Explosif.)

David William Nightingale, 152 Wyndham Road, Camberwell and Richard Clere Parsons, 39 Victoria Street, Westminster, both of London, England, 7th July, 1899; 6 years. (Filed 24th December, 1898.)

Claim.—1st. The manufacture of a safety explosive by adding to potassium chlorate and the carbonaceous matter usually combined therewith, a sensible proportion of sodium carbonate, substantially as and for the purpose set forth. 2nd. A safety explosive, containing potassium chlorate, carbonaceous matter, a sensible proportion of sodium carbonate and paraffin or other wax or stearine, as and for the purpose set forth.

No. 63,395. Steam Boiler Settings. (Chaudière à vapeur.)



63395

Edward Selden Townsend Kennedy, Larchmont, New York, U.S.A., assignee of John Herron Williamson, Bethel, Connecticut, U.S.A., 7th July, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. A steam boiler setting, provided with a lower or fuel chamber having an enclosing casing, and having a self-sustaining lining of brick work supported independently of the casing, and an upper chamber for the circulation of the products of combustion, said upper chamber being supported independently of the brick work of the lower chamber and having its walls over the brick lining of the lower chamber but separated therefrom by an intervening expansion space. 2nd. A steam boiler setting, provided with a lower or fuel chamber having an enclosing casing, and having a self-sustaining lining of brick work supported independently of the casing, and an upper chamber for the circulation of the products of combustion, said upper chamber having inner walls and an outer envelope or casing enclosing but not supporting said inner walls, said inner walls being supported from the casing of the lower chamber independently of the brick work lining of said lower chamber, and separated therefrom by an intervening expansion space. 3rd. A steam boiler setting, provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products of combustion, said lower chamber being provided with an enclosing casing, and brackets extending from the said casing and supporting the upper chamber. 4th. A steam boiler setting, provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products of combustion, said lower chamber being provided with an enclosing casing, a shelf upon which the upper chamber rests, and brackets extending from said casing and supporting the shelf and upper chambers. 5th. A steam boiler setting, provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products of combustion, said lower chamber being provided with an enclosing casing, a shelf upon which the upper chamber rests, and brackets extending from said casing and supporting the shelf and upper chamber, said brackets comprising diagonal and horizontal members and uprights. 6th. A steam boiler setting, provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products

of combustion, said lower chamber being provided with an enclosing casing, a shelf upon which the upper chamber rests, and brackets extending from said casing and supporting the shelf and upper chamber, said brackets comprising diagonal and horizontal members and uprights, the diagonal members extending from angles of the casing. 7th. A steam boiler setting provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products of combustion, said lower chamber being provided with an enclosing casing, and brackets extending from the said casing and supporting the upper chamber, said brackets being located in enlarged recesses of the brick work, so as to be independent of expansion of the latter. 8th. A steam boiler setting, provided with a brick lined lower or fuel chamber, an upper chamber for the circulation of the products of combustion, a shelf upon which the upper chamber rests, and brackets for supporting the shelf independently of the brick work of the lower chamber, said brackets comprising diagonal and horizontal members and uprights and being located in enlarged recesses of the brick work, so as to be independent of expansion of the latter. 9th. A steam boiler setting, provided with a brick lined lower or fuel chamber provided with an enclosing casing, an upper chamber for the circulation of the products of combustion, a shelf upon which the upper chamber rests and brackets for supporting the shelf independently of the brick work of the lower chamber, said brackets comprising diagonal and horizontal members and uprights joined to the enclosing casing of the lower chamber, and being located in enlarged recesses of the brick work, so as to be independent of the expansion of the latter. 10th. A steam boiler setting, provided with a brick lined lower or fuel chamber, said lower chamber being provided with an enclosing casing angular in cross section, and an upper chamber for the circulation of the products of combustion, said upper chamber being of general circular contour, a shelf upon which the chamber rests and diagonal shelf supporting bracket pieces extending from the angles of the casing of the lower chamber. 11th. A steam boiler setting, provided with a brick lined lower or fuel chamber, said lower chamber being provided with an enclosing casing angular in cross section, and an upper chamber for the circulation of the products of combustion, said upper chamber being of general circular contour, a shelf upon which the upper chamber rests and shelf supporting bracket pieces extending from the angles of the casing of the lower chamber, one of said bracket pieces being horizontal and one being diagonal the said bracket pieces being located in enlarged recesses of the brick work, so as to be independent of expansion of the latter. 12th. A steam boiler setting, provided with a brick lined lower or fuel chamber, said lower chamber being provided with an enclosing casing angular in cross section and an upper chamber for the circulation of the products of combustion, said upper chamber being of general circular contour, a shelf upon which the upper chamber rests, diagonal shelf supporting bracket pieces extending from the angles of the casing of the lower chamber, and an auxiliary shelf supporting stringer or girder member, spanning the angles of the casing, said shelves supporting bracket pieces and stringer being located in enlarged recesses of the brick work so as to be independent of expansion of the latter. 13th. A steam boiler setting, having a superstructure of substantially cylindrical contour, for the circulation of the products of combustion, and a subjacent deflecting furnace having a substantially rectangular grate surface and having an enclosing casing and an independently supported brick lining, the superstructure being supported from the said enclosing casing independently of the said brick lining, and the deflecting furnace having a rectangular front. 14th. A steam boiler setting, having a superstructure of substantially cylindrical contour, for the circulation of the products of combustion, and a subjacent deflecting furnace having a substantially rectangular grate surface and having an enclosing casing and an independently supported brick lining, the superstructure being supported from the said enclosing casing independently of the said brick lining and the deflecting furnace having a rectangular front and front and rear firing doors.

No. 63,396. Gas Jet Lighter and Extinguisher.

(Appareil à allumer et éteindre le gaz.)

The Automatic Gas Lighting and Extinguishing Company, 14 Lombard Chambers, St. George's Terrace, assignee of Henry Hoare, Perth Gas Works, and Matthew Joseph Kennedy, 218 Wellington Street, all of Perth, Australia, 7th July, 1899; 6 years. (Filed 21st November, 1898.)

Claim.—1st. The herein described method of automatically lighting and extinguishing gas jets, burners or flames, consisting in utilizing the pressure in the gas main or source of supply for the purpose of opening or closing a way or passage for the gas by means of the displacement and replacement of an elastic fluid or liquid, substantially as and for the purposes herein described and set forth and as illustrated in the accompanying drawings. 2nd. An apparatus consisting essentially of a bifurcated or Y-shaped pipe, tube or chamber, the trunk end of which is placed in a sealing liquid, and the other branches being in connection with the gas main and burner respectively, the junction of such branches and trunk providing or forming means whereby a passage is opened or closed respectively for or against the gas current by the utilization of the pressure in the manner as above claimed, and substantially as and for the purposes herein described and set forth. 3rd. An apparatus consisting essentially of a chamber as M, in which is confined a