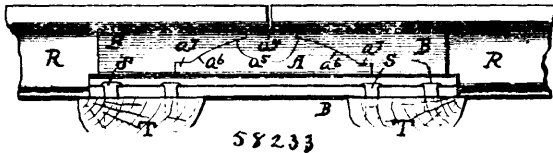


tank, a pipe connecting said tank and the reservoir, and a pumping-apparatus to force the water from said tank into said reservoir, substantially as described.

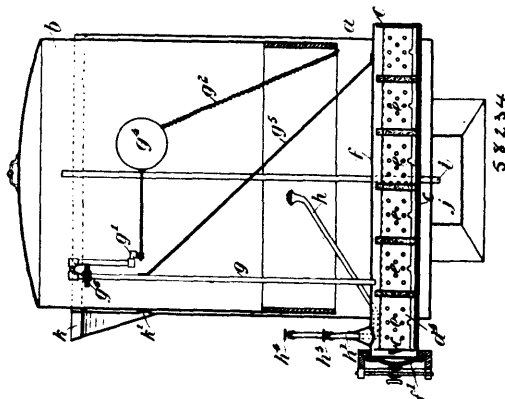
**No. 58,233. Rail Fastener. (Attache de rails.)**



Jacob E. Smith, Homestead, Pennsylvania, U.S.A., 1st December, 1897; 6 years. (Filed 2nd April, 1897.)

**Claim.**—1st. In a railway rail joint, the combination of a key-piece consisting of two sides, each extending along the web of the two rails, and fitting close against the web head and foot, and having its lower edge rebated, and provided near the ends with pins engaging perforations in the feet of the rails, and its upper edge shortened by a shoulder and sloped off convexly, and said sides connected by a central rigid connection of angular longitudinal section adapted to pass through a corresponding perforation in the rail web, and a pair of fish-plates fitting the rails close and each extending in cross-section from the underside of the head around the edge of the foot, and having a central recess or perforation which is the exact counterpart of the side of the key-piece and making close butt joints therewith, and the ends of the rail webs notched to form an angular perforation when the two rail ends are brought together to receive the transverse connection of the key-piece, substantially as set forth. 2nd. In a railway rail joint, the combination with the web of the rail ends of notches forming when the two rail ends are brought together an angular perforation, and a key-piece consisting of two sides rigidly connected transversely by a central part fitting the perforation in the rail web ends and fitting close against the webs and the underside of the heads and the upper faces of the feet of the rails and having on its lower edges at each end a pin engaging the corresponding perforation in the feet of the rails, substantially as set forth. 3rd. In a key-piece for a railway rail joint, the combination of two sides each fitting against the web and the underside of the head and the foot of the rail, a transverse centre of angular section rigidly connecting said sides, a rebate at the lower edge of each side, a central segmental recess in the lower edge of each side, and an upper edge shortened by offsets and convexly sloping ends, substantially as set forth. 4th. In a fish-plate for a railway rail joint, the combination of a plate extending from the underside of the head of the rail down the web and over and around the edge of the foot and fitting close upon the same, and a central recess the exact counterpart of the side of a key-piece which it is adapted to receive, substantially as set forth. 5th. In a railway rail joint, the combination of a pair of rail ends having the ends of their webs notched to form when brought together an angular perforation, a key-piece A, having two sides transversely connected by a centre adapted to pass through the perforation in the web of the rails and having in its lower edges pins engaging the rails, and the upper edges of the sides shortened by offsets, a pair of fish-plates B, each having a recess which is the exact counterpart of the side of the key-piece adapted to pass over and receive and interlock with the same, and spikes S driven close against the edges of the fish-plates, substantially as set forth.

**No. 58,234. Apparatus for Preparing Acetylene Oil. (Appareil pour préparer l'huile acétyline.)**



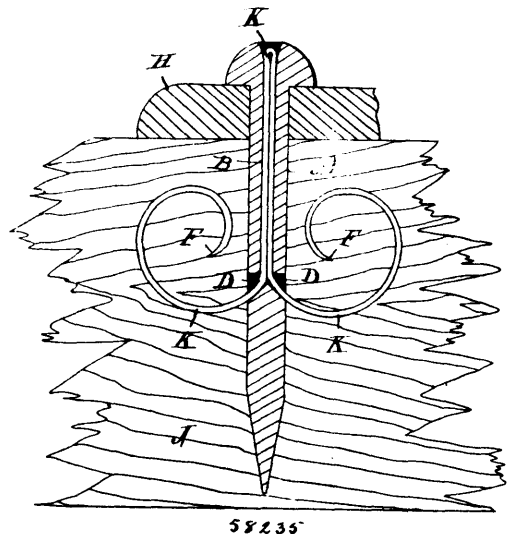
Frederick S. Thorn and Charles Huddle, both of London, England, 1st December, 1897; 6 years. (Filed 15th June, 1897.)

**Claim.**—1st. In apparatus for generating, storing and cooling acetylene gas, wherein a gas-holder or gasometer is used, the employment of one or more hermetically closed holders, each located in the

gas-holder and preferably surrounded by the water contained therein, and designed to contain a calcium carbide container divided into a series of compartments of predetermined size by partitions, and each of the said holders having two outlets into the interior of the gas-holder, one of which is controlled by a cock or valve, substantially as described. 2nd. In apparatus for generating acetylene gas wherein a gas-holder and one or more calcium carbide containers each having two outlets into the gas-holders are employed, controlling the generation of the gas by means of a valve operated by the movement of the sliding cylinder of the gas-holder, which valve is fitted to the outlet of the generated gas into the gas-holder, so that the up and down movement of the sliding cylinder controls the flow of gas into the gas-holder from one outlet, and the flow of water into the containers through the other outlet, substantially as hereinbefore described. 3rd. The combination with apparatus of the kind described, of a cooling chamber arranged at the bottom of the gas-holder, and of a pipe passing from the top of the gas-holder into the cooling chamber through the water contained in the gas-holder, substantially as described. 4th. In apparatus of the kind described in claim 1, forming the partitions, which divide the calcium carbide containers into compartments, with openings or notches at their upper ends and with gauze or perforated metal funnels or tubes and providing the compartments with channels or passages formed by perforated plates placed longitudinally between the partitions on either side or on both sides of the containers, substantially as described. 5th. The combination and arrangement of parts forming the improved apparatus for generating, storing and cooling acetylene gas hereinbefore described and illustrated in the accompanying drawings.

**No. 58,235. Nail, Spike, Bolt, Screw, etc.**

(Clou, cheville, bouton, vis, etc.)



Christopher J. Lancaster, Deptford, England, 1st December, 1897; 6 years. (Filed 30th August, 1897.)

**Claim.**—1st. A spike, screw, bolt or nail having a hole, channel, or groove B, through a portion of its length, terminating in two opposite holes D, D, leading outwardly, or one only, in combination with a staple, cotter, split or other pin K, of greater length than the channel B, having its feet or extremities bevelled, the said staple, cotter or pin forced through the channel after the spike or the like has been driven home, so that the legs project beyond the spike or the like and penetrate the timber or other material, substantially as and for the purpose described.

**No. 58,236. Game. (Jeu.)**

Hugh B. Cowper, Montreal, Quebec, Canada, 1st December, 1897; 6 years. (Filed 16th November, 1897.)

**Claim.**—1st. A game comprising a board with pockets, a ball or balls, and movable guard for such pockets, as shown and described. 2nd. A game comprising a board with pockets, a ball or balls, a chute or chutes, pin holes to receive guards in front of said pockets and movable guard pins for such pockets, as shown and described. 3rd. A game comprising a board with pockets, a ball or balls, a chute or chutes, pin holes to receive guards in front of said pockets and movable guard pins for such pockets, the pin holes numbering in excess of the guard pins employed, as shown and described. 4th. A game comprising a board with a central and outer pockets and a