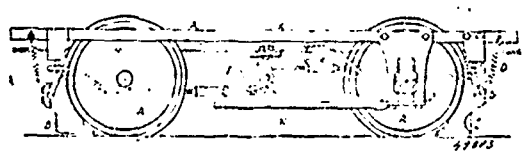
the carbon, substantially as described. 3rd. In an arc lamp, the combination, with a carbon carrying rod, of a lever, an abutment thereon adapted to engage with said rod, and a sliding rod or bar for pressing said carbon carrying rod against said abutment, thereby forming, with the abutment, a clutch which grasps and holds said carbon carrying rod, and means for actuating said clutch for permitting the carbon to feed, substantially as described. 4th. In an arc lamp, the combination, with a carbon carrying rod, of a lever, an abutment thereon adapted to engage with said rod, a sliding rod bearing against said carbon carrying rod and so actuated by a spring as to press said carbon carrying rod against said abutment, an abutment for counteracting the pressure of said spring to permit the feeding of the carbon as said lever moves in a corresponding direction, and means for actuating said lever for the purpose of feeding the carbon, substantially as described. 5th. In an arc lamp, the combination, with a carbon carrying rod, of a lever having an abutment to engage with said rod, a sliding rod carried by said lever and likewise having an abutment adapted, in conjunction with the first-named abutment, to grasp said carbon carrying rod, a spring acting on said sliding rod, and an adjustable abutment coacting with said sliding rod to release the carbon carrying rod at a suitable point in the travel of said lever and so to permit feeding of the carbon, and means for actuating said lever for the purpose of feeding the carbon, substantially as described. 6th. In an arc lamp, the combination, with a carbon carrying rod B, a lever D extending substantially at right angles thereto, and an abutment *b* on said lever to engage with said rod B, of a sliding rod carried by said lever and likewise having an abutment *f* adapted in conjunction with said abutment *b* to grasp said rod B, an adjustable spring acting on said sliding rod as the lever moves, and means for actuating said lever to permit of feeding of the carbon, substantially as described. 7th. In an arc lamp, the combination of a rod B, a longitudingally adjustable lever, a clutch to connect said rod and lever, a laterally adjustable pivotal connection for said lever and means for actuating said lever for the purpose of feeding the carbon, substantially as described. 8th. In an arc lamp, the combination of a rod B, a longitudinally adjustable lever having a pivot *a*, a clutch to connect the lever and said rod, a bracket F for said lever, a slot in which said pivot works, and means for actuating said lever for the purpose of feeding the carbon, substantially as described. 9th. The combination of a carbon carrying rod, a longitudinally adjustable lever, a clutch to support the rod carried by said lever, a bracket or pivotal support for said lever, means for adjusting said bracket or support and means for actuating said lever for the purpose of feeding the carbon, substantially as described. 10th. The combination of a rod B, a lever, a clutch carried by said lever, an adjustable abutment *i*, to operate said clutch with a screw or the like *j*, to adjust said abutment, substantially as described. 11th. The combination of a carbon carrying rod B, a lever a sliding rod carried by said lever to support the rod B, and a counter-balance to equalize the weight of said lever, substantially as described. 12th. In an arc lamp, a globe having a cover or disc movably connected therewith to permit escape of gases and to prevent the admission of air, said cover having an opening for the passage of a carbon, said opening being substantially the same size as the thickness of the carbon so that the carbon will fit snugly in said opening to prevent the escape of gases, substantially as described. 13th In an arc lamp, a globe having a cover or disc movably connected therewith, combined with a spring to hold the cover and globe together and permit a separation of said parts to allow escape of gases, substantially as described. 14th. In an arc lamp, a globe having a flange at its open end, combined with a cover or disc over said open end, to engage said flange and a spring acting to hold said rod against the flange and cover on the globe, substantially as described. 15th. In an arc lamp, a globe having a flange at its open end combined with a cover or disc over said open end, a rod having a projection to engage said flange and a spring acting on said rod and cover to hold the latter to the globe, substantially as described. 16th. In an arc lamp, a globe having a flange at its open end, combined with a cover or disc over said open end, a rod having a projection to engage said flange, and a nut on said rod, and with a spring surrounding said rod and bearing at one end against said cover or disc, and at its other end against the nut on the rod, substantially as described. 17th. In an arc lamp, the combination of a casing to contain mechanism, a rod depending therefrom and a cover or disc carried thereby, a globe to rest its open end against said disc and a spring for holding said globe against said cover or disc, substantially as described. 18th. In an arc lamp, the combination, with a globe inclosing the arc and having an opening in its top for the passage of a carbon, and a movable cover or valve mounted upon the carbon, covering said aperture and preventing the passage of air therethrough, and adapted to permit of lateral motion of the carbon, substantially as described. 19th. In an arc lamp, the combination with a globe inclosing the carbons, of a cover closing the open end of said globe and having an opening therein of a size sufficient to permit of lateral movement of the carbon, and means mounted upon the cover for permitting lateral movement of the carbon without admitting air to the interior of the globe, substantially as described. 20th In an arc lamp, the combination, with a globe inclosing the carbons, of a cover or disc closing the open end of said globe and having an opening therein for the passage of a carbon, of a larger size than said carbon, and a movable cover or valve, perforated to permit the passage of the carbon therethrough and fitting closely to the carbon, and adapted to close said opening in the said cover or disc, whereby lateral motion of the carbon is permitted, but the admission of air to the interior of the globe is prevented, substantially as described. 21st. In an arc lamp, a globe having a cover and an opening in said cover to permit the entrance of a carbon, combined with a carbon holder to pass through said opening, said holder being approximately of the same external diameter as the carbon, said carbon fitting snugly in said opening, substantially as described. 22nd. In an arc lamp, a globe having a cover or disc to close its open end, said cover having an aperture to permit the passage of a carbon, combined with a disc or the like N to cover said opening, and a carbon carrying rod B carrying said disc, substantially as described. 23rd. In an arc lamp, a globe and a cover or disc resting against its open end, said cover having an aperture to permit the passage of a carbon, combined with a rod B, a carbon holder carried thereby and of a greater transverse diameter than said rod, and with a disc N carried by said rod and resting upon the carbon holder, and adapted to close the opening in the cover when the carbon holder passes therethrough, substantially as described. 24th. In an arc lamp, a tightly closed globe having an aperture to permit the entrance of a carbon combined with a carbon carrying rod, and a disc carried by said rod to cover said opening when the carbon passes within the globe, substantially as described.

No. 49,803. Car Brake. (*Frein de chars.*)



Archibald Wayne Dingman, and Thomas Henry Allen, both of Toronto, Ontario, Canada, 28th August, 1895; 6 years.

Claim.—1st. In a car-brake, the combination of brake-shoes carried outside the wheels of the truck, and formed to engage the wheel and rail, a crank-shaft extending horizontally and carrying and connecting a pair of shoes, arms on the crank-shaft, and means connected to the arms to operate the crank-shaft, as set forth. 2nd. In a car-brake, the combination of brake-shoes formed to engage the wheel and rail, a crank-shaft extending horizontally and carrying and connecting a pair of shoes slotted hangers depending from the truck frame and supporting the ends of the crank-shaft, and suitable means to operate the crank-shaft, as set forth. 3rd. In a car-brake, the combination of brake-shoes carried outside the wheels of the truck, and formed to engage the wheel and rail, a crank-shaft extending horizontally and carrying and connecting a pair of shoes, arms on the crank-shaft, an oscillatory bar pivoted in hangers on the truck frame, arms on said bar, connecting rods between the arms on the crank-shaft and the arms on the oscillatory bar, and suitable means to operate the said bar, substantially as described, and shown. 4th. In a car-brake, the combination of the brake-shoes, carried outside the wheels of the truck, formed in one piece and adapted to engage the wheel and rail, a crank-shaft extending horizontally and carrying a pair of shoes, slotted hanger for the crank-shaft and means to operate the crank-shaft, substantially as described and shown. 5th. In a car-brake, the combination of the brake-shoes, arranged outside of the wheels of the truck, each shoe being formed in substantially one piece and adapted to engage the periphery of a wheel and the rail, a shaft having cranks extending through each pair of shoes, hangers for the ends of the shafts, discs, with arms on said shafts, an oscillatory bar extending parallel with and midway between the crank-shafts, arms on said bar connected to the arms on the crank-shafts, a lever turning on a vertical axis above the oscillatory bar and engaging with an arm on the latter, and connections extending from the ends of the said lever to the operating means at each end of the bar, as set forth. 6th. In a car-brake, the combination of the brake-shoes, carried outside of the wheels of the truck, each shoe being formed to engage the periphery of a wheel and a rail, crank-shafts extending horizontally, each carrying and connecting a pair of shoes, arms on the crank-shafts, an oscillatory bar pivoted in hangers secured to the truck frame, arms on said bar, connecting rods between the arms on the crank-shafts and the arms on the oscillatory bar, said connecting rods being provided with turn buckles, a lever turning on a vertical axis and adapted to engage an arm of the said bar, and suitable means to operate the lever, substantially as described and shown.

No. 49,804. Valve for Steam Radiators.

(*Soupape de radiateurs.*)

Sylvanus Sawyer, Fitchburg, Massachusetts, U.S.A., 28th August, 1895; 6 years.

Claim.—1st. In an air and vacuum valve for steam radiators and other purposes the combination of a casing or body provided with a discharge passage near the upper end and with two opposing valve seats surrounding a common passage, a perforated plug located below said seats and passage, an air valve located between said plug and lower seat, and provided with a stem extending through said plug and adapted to be moved upward to close the passage through