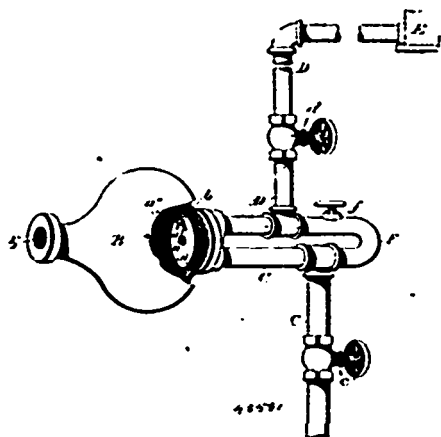


tact K, of an electro-magnet C, C, responsive to variations in the main circuit, and the axially movable helices C<sup>1</sup>, C<sup>2</sup>, supported by the adjustable spring Z, and arranged to close the contact K, when the magnets C, C are excited to a predetermined degree, substantially as set forth. 10th. the combination of the coil, as C, a second coil as C<sup>2</sup> adapted to respond to variations of potential in the main circuit of a dynamo, and a third coil as C<sup>1</sup>, repelled by the coils C and C<sup>2</sup>, and arranged to close a shunting switch, whereby an increase of load acts to increase the potential of the delivered current.

**No. 48,581. Oil or Gas Burner. (Brûleur d'huile et gaz.)**

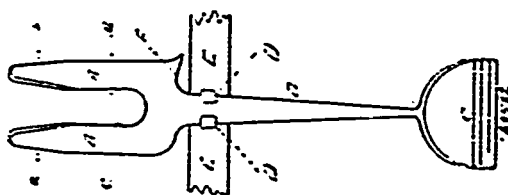


Colin William Claybourne, Indianapolis, Indiana, U.S.A., 2nd April, 1895; 6 years.

*Claim.*—1st. A burner for oil or gas, having a suitable body with the small passage, the deflector extending inward and forward at an angle across the path of a jet issuing from such passage, the second passage, and the bulb with its interior expanding forward from around the mouth

of the two passages, and then tapering forward, and a discharge mouth on the forward end of the tapering part of the bulb, substantially as and for the purpose set forth. 2nd. In a burner for hydro-carbon, in combination with a suitable body having the steam passage, a smaller oil passage, and the deflector extending forward and inward at an angle to a jet issuing from the oil passage, the bulb on the body having the chamber within it expanding forward from around the place, where the steam and oil passages enter, and then reduced forward to a discharge mouth larger than the mouth of the steam passage, means for feeding the oil through its passage under pressure, and a source of supply of steam connected with the steam passage, so that the steam will enter the bulb at a rate that will cause the discharge from the burner to be at a low pressure, substantially as and for the purpose described. 3rd. In a burner for hydro-carbon, in combination with a suitable body provided with the large central passage, the smaller passage to one side of the other, and the deflector extending forward and inward, at an angle to a jet issuing from the smaller passage, the bulb attached to the body, having its interior suddenly expanding forward from around the mouths of the passages, and then contracted, and having on its forward end a discharge mouth or nozzle, and source of supply of steam and the hydro-carbon, under pressure, one connected with one passage, and the other, with the other, substantially as and for the purpose specified. 4th. As an improvement in oil burners, in combination with a mixing chamber, an opening for the admission of a fluid under pressure, an opening for the admission of oil, and a curved surface in front of the oil opening to be impinged upon by the oil, and the same thereby radiated into the steam issuing out of the steam opening, substantially as and for the purpose described. 5th. As an improvement in oil burners, in combination with a mixing chamber, an opening for the admission of a fluid under pressure, an opening for the admission of oil, a plate extending into the chamber adjacent to the oil opening, and a spherically curved base upon such plate, in line with the oil opening, substantially as and for the purpose specified. 6th. An oil burner having a detachable tip, whereby the discharge mouth of the burner may be varied in size, substantially as and for the purpose shown.

**No. 48,582. Car Coupler. (Attelage de chars.)**

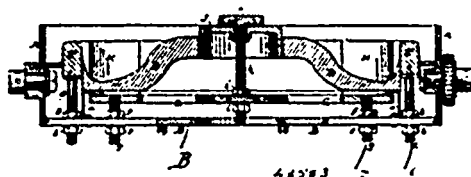


Aldus Mowry, Peterboro', Ontario, Canada, 2nd April, 1895; 6 years.

*Claim.*—A device for coupling cars comprising jaws A, shaft B, handle C, and shoulder F, all formed as and for the purpose herein before set forth.

**No. 48,583. Pattern for Car-wheel Moulds.**

(Patron pour moules de roues de chars.)

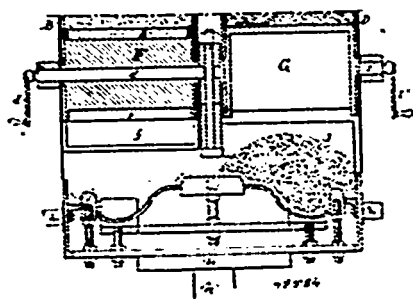


The Wilkes-Barre Moulding Machine Company, assignee of Joseph J. Carr, both of Wilkes-Barre, Pennsylvania, U.S.A., 2nd April, 1895; 6 years.

*Claim.*—1st. The combination of the mould box, with a pattern consisting of the web or plate pattern, the tread ring surrounding the same, the series of rib prints and the hub print projecting through openings in said web pattern, and means for mounting said parts of the pattern whereby the vertical relation of either in respect to each of the others may be altered, substantially as specified. 2nd. A box or frame having fixedly mounted thereon a pattern for the web or plate of the wheel, in combination with a tread ring surrounding said pattern and a series of rib prints and a hub print projecting through the same said tread, rib and hub prints being independently adjustable, so that they can be caused to project more or less in respect to the said web pattern, substantially as specified. 3rd. The combination in a mould box for moulding car-wheels of a box or frame having a pattern for the web or plate of the wheel rigidly mounted thereon, a tread ring carried by adjustable studs, a secondary frame also carried by adjustable studs and provided with a series of rib prints, and a hub print adjustably mounted on said secondary frame, substantially as specified.

**No. 48,584. Mould for Casting Car-wheels.**

(Moule pour roues de chars.)



The Wilkes-Barre Moulding Machine Company, assignee of Joseph J. Carr, both of Wilkes-Barre, Pennsylvania, U.S.A., 3rd April, 1895; 6 years.

*Claim.*—1st. The mode herein described of preparing moulds for casting car-wheels, said mode consisting in distributing sand over the face of a preliminary pattern, shaping the upper or back face of the sand so as to cause it to accord approximately with the face of the said pattern, applying to said shaped face of the sand a flask conforming thereto, withdrawing the preliminary pattern and forcing a final pattern into the impression formed by said preliminary pattern, substantially as specified. 2nd. The mode herein described of forming moulds for casting car-wheels, said mode consisting in distributing the sand over the face of a pattern, shaping the upper or back surface of the sand so as to accord approximately with the face of the pattern, applying to said shaped face of the sand a flask conforming thereto, reversing the flask and mould so as to bring said flask undermost, and then forcing a pattern into the sand so as to press it downward within or against said flask, substantially as specified. 3rd. The mode herein described of forming a mould for casting car-wheels, said mode consisting in distributing the sand over the face of a preliminary pattern, shaping the upper or back surface of the sand so as to cause it to accord approximately with the face of the pattern, applying to said shaped face of the sand a flask conforming thereto, reversing the flask and mould so as to bring said flask undermost, removing the preliminary pattern and forcing a final pattern into the impression formed by said preliminary pattern, so as to compress the same within or against the flask, substantially as specified. 4th. The mode herein described of forming a mould for casting car-wheels, said mode consisting in rotating the pattern, and while the same is so rotated, delivering in a thin stream onto the face of the same a layer of fine sand or facing material, filling in behind the same a mass of moulding sand, shaping the upper or back face of said moulding sand to accord approximately with the face of the pattern, applying to said shaped face of the moulding sand a flask conforming thereto, and impressing a pattern into the sand so as to