

a small jet pipe, the vapour being superheated and reduced to a fixed gas within the retort, a steam supply and superheater in which the steam is reduced to a fixed gas, and means for mingling the fixed gas formed from the steam with that formed from the hydrocarbons, substantially as shown and described. 30th. In an apparatus for producing gas from hydrocarbons, the combination, with a furnace, of a vaporizer, a heater in communication therewith, a retort within the furnace consisting of a series of pipes, one of which is in communication with the vaporizer, and a steam supply and superheater in communication with one pipe of said retort by means of a pipe, as 24, substantially as shown and described. 31st. In an apparatus for producing gas from hydrocarbons, the combination, with a furnace, of a retort, a vaporizer in communication therewith, the retort being provided with an inner inclosed tube, as 23, an annular space closed at one end being formed between the walls of the retort and said tube, and a superheated steam supply pipe communicating with said annular space, substantially as shown and described. 32nd. In an apparatus for producing gas from hydrocarbons, a retort consisting of two or more pipes, one of which is provided with diaphragms or plates, as 21, and the other with a tube, as 23, forming an annular space within the retort closed at one end, and a superheated steam supply pipe, as 24, communicating with said annular space, substantially as shown and described. 33rd. In an apparatus for producing gas from hydrocarbons, the combination, with a furnace, of a retort arranged therein, a vaporizer outside of said furnace and in communication with the retort, the furnace being provided with a central longitudinal opening or chamber G, H, and flues or passages in communication therewith and with the vaporizer, whereby the escaping products of combustion are conducted through the vaporizer, substantially as shown and described. 34th. In an apparatus for producing gas from hydrocarbons, the combination of a furnace and vaporizer, the furnace having the longitudinal opening or chamber G, H, the flues 26, in communication with the chamber G, H, the flues 27 in communication with the flues 26, and the flues 29, in communication with the flues 27, the flues 27, being also in communication with the vaporizer, substantially as shown and described. 35th. In an apparatus for producing gas from hydrocarbons, a furnace having the central longitudinal opening or chamber G, H, the flues 26, in communication therewith, the flues 27, in communication with flues 26, and the flues 29, in communication with the flues 27, in combination with a retort and vaporizer, and means for conveying the products of combustion through the vaporizer, substantially as shown and described. 36th. In an apparatus for producing gas from hydrocarbons, a retort furnace having the central longitudinal opening or chamber G, H, the diving flues 26, communicating with said chamber G, H, the flues 27, communicating with said flues 26, and extending backward, downward and forward, and the flues 29, communicating with each end of flues 27, substantially as shown and described. 37th. In an apparatus for producing gas from hydrocarbons, a retort furnace provided with the central longitudinal chamber G, H, the diving flues 26, communicating with the top of said chamber, the flues 27, extending backward, downward and forward, and in communication with the flues 26th, the flues 29, in communication with the flues 27, and the hot air chambers or flues 32 extending backward, downward and forward, in communication with the chamber G, H, by means of the passages 34, substantially as shown and described. 38th. A vaporizer consisting of an inner and an outer tube or casing, an annular space closed at the top and bottom between said tubes or casings, the inner tube being grooved and provided with a steam coil, substantially as shown and described. 39th. In an apparatus for producing gas from hydrocarbons, the combination of a vaporizer, a gas retort consisting of two or more tubes, one of which is in communication with the vaporizer, and a second vaporizer consisting of an inner and outer casing forming an annular chamber, also in communication with the said tube of the retort, the inner casing being open at both ends, and a pipe or pipes forming a communication between another tube of the retort, and the said central casing of the vaporizer, substantially as shown and described. 40th. In an apparatus for producing gas from hydrocarbons, the combination of a vaporizer having an inner and an outer tube or casing, a gas retort, one end of which is in communication with the space between said casings and a pipe or pipes connecting the other end of the retort with the central tube or casing of the vaporizer, whereby the heated gases from the retort are caused to assist in the process of vaporization, substantially as shown and described. 41st. In an apparatus for producing gas from hydrocarbon, the combination of a vaporizer, and the retort consisting of the pipes or branches C, D, one of which is in communication therein, the other branch of the retort being provided with an inclosed tube, as 23, one end of which is enlarged or flanged so as to fit tightly the inner wall of the retort, and a superheated steam pipe in communication with the annular space between the walls of the retort and the inner tube 23, substantially as shown and described. 42nd. The combination, in an apparatus for producing gas from hydrocarbons, of a hydrocarbon heater in communication with a hydrocarbon supply, a vaporizer in communication with the heater by means of a pipe, a hydrogen box or receptacle in communication with a hydrogen supply and with the vaporizer by means of pipes, and a retort also in communication with the vaporizer above the bottom thereof, substantially as shown and described. 43rd. The combination, in an apparatus for producing gas from hydrocarbons, of a hydrocarbon heater in communication with a

hydrocarbon supply, a vaporizer in communication with the heater, a hydrogen box or receptacle in communication with a hydrogen supply, with the vaporizer and with a seal, and a retort also in communication with the vaporizer above the bottom thereof, the construction being such that the residuum, or substances that cannot be vaporized, is discharged from the vaporizer through the hydrogen box, substantially as shown and described. 44th. In an apparatus for producing gas from hydrocarbons, the combination, with a hydrocarbon vaporizer and means for supplying hydrocarbons thereto, of a hydrogen box or receptacle in communication therewith, and with a hydrogen supply, and provided with a steam coil located therein, substantially as shown and described. 45th. The combination, in an apparatus for producing gas from hydrocarbons, of a hydrocarbon vaporizer in communication with a hydrocarbon supply, a hydrogen box or receptacle in communication therewith, and with a hydrogen supply, the hydrogen box or receptacle being also provided with a steam coil located therein, communication with a steam supply, the hydrogen supply being in communication with a perforated tube or pipe located within the box or receptacle, substantially as shown and described. 46th. The combination, with the vaporizer B, of the hydrogen supply receptacle in communication therewith, provided with a pipe 42, in communication with the receptacle near the bottom thereof, and with a seal 43, and the pipe 44, in communication with the receptacle near the top thereof, and with the pipe 52, substantially as shown and described. 47th. The combination with the hydrocarbon vaporizer B, in communication with a hydrocarbon supply, of a hydrogen box or receptacle in communication therewith near the bottom thereof, and also in communication with a hydrogen supply, a seal connected with the receptacle by means of a pipe which communicates therewith near the bottom thereof, and with a pipe which communicates therewith near the top thereof, substantially as shown and described. 48th. The combination with a vaporizer B, of a hydrogen receptacle, as 35, in communication therewith, the receptacle being provided with a steam supply 49, and with a discharge pipe 42, substantially as shown and described. 49th. In an apparatus for producing gas from hydrocarbons, the combination with a series of vaporizers in communication with a hydrocarbon supply, of a hydrogen supply, and a seal in communication with the hydrogen receptacle by means of communicating pipes, one of which communicates with said receptacle at or near the bottom thereof, substantially as shown and described. 50th. In an apparatus for producing gas from hydrocarbons, the combination with a series of vaporizers each of which is in communication with a hydrocarbon supply, of a hydrogen receptacle in communication with a hydrogen supply and with each of the vaporizers, near the bottom thereof, and a seal in communication with the hydrogen box or receptacle, and the receptacle being also provided with means whereby the residuum or substances that cannot be evaporized are discharged from the vaporizer through the hydrogen box or receptacle into the seal, substantially as shown and described.

No. 40,811. Apparatus for Assisting Parturition.

(Appareil pour aider la parturition.)

Peter McCahey, Philadelphia, Pennsylvania, U.S.A., 2nd November, 1892; 6 years.

Claim.—1st. The hereinbefore described method of assisting parturition, which consists in applying to the head or other desired part of the child a cup, exhausting the air in said cup and moving the child by operating said cup. 2nd. In an apparatus for assisting parturition, in combination, a cup or similar receptacle having a yielding edge, and means, substantially as described, for exhausting the air from said cup. 3rd. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of a yielding substance, and means, substantially as described, to exhaust the air from said cup. 4th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of rubber, and means, substantially as described, to exhaust the air from said cup. 5th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of a yielding substance, and means, substantially as described, to exhaust the air from said cup, and a handle secured to said cup. 6th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle having a yielding edge, means, substantially as described, for exhausting the air from said cup, and a handle secured to said cup. 7th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of rubber, means, substantially as described, to exhaust the air from said cup, and a handle secured to said cup. 8th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of a yielding substance, means, substantially as described, to exhaust the air from said cup, a handle secured to said cup and an orifice through said handle. 9th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle having a yielding edge, means, substantially as described, for exhausting the air from said cup and a handle secured to said cup and an orifice through said handle. 10th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle formed of rubber, means, substantially as described, to exhaust the air from said cup, a handle secured to said cup and an orifice through said handle. 11th. In an apparatus for assisting parturition, in combination, a cup or similar receptacle having a yielding edge, and means, substantially as described, for exhausting the air from said cup and a plunger connected with said cup. 12th. In an apparatus for