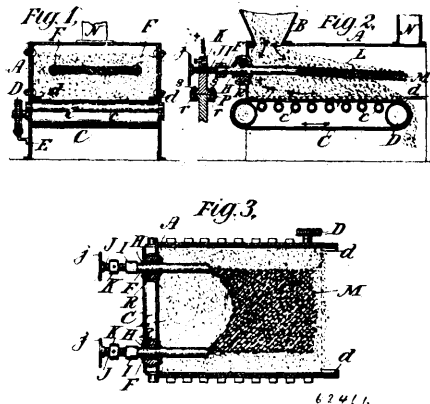


one of the extensions, substantially as described. 8th. In a clamping device, a fixed and movable part, each provided with an extension the one adapted to fit the other to permit the parts to be initially adjusted, and means for finally adjusting the movable part with relation to the fixed part and securing the desired pressure, substantially as described.

No. 62,466. Process of and Apparatus for the Manufacture of Metallic Carbides. (*Procédé et appareil pour la fabrication de carbure métallique.*)



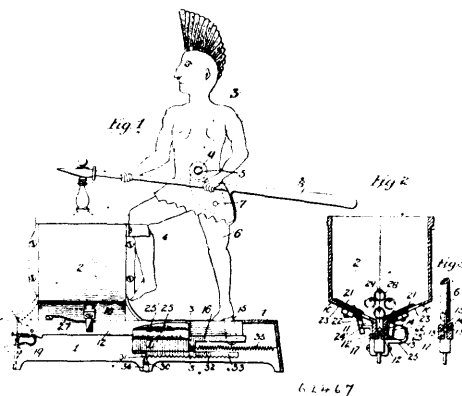
Thomas L. Wilson, St. Catharines, Ontario, Canada, assignee of Isaiah Lewis Roberts, of Niagara, State of New York, U.S.A., New York, 26th January, 1899; 18 years. (Filed 27th July, 1897.)

Claim.—1st. As an improvement in the art of metallurgy, the process of converting or changing an ore, substantially an insulator of electricity, which consists in establishing between electrodes within a non-conducting mixture of pulverized or granulated ore or oxide and a reducing agent, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into a conductive body, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, substantially as described. 2nd. As an improvement in the art of metallurgy, the process of converting or changing an ore substantially an insulator of electricity, which consists in establishing between electrodes within a non-conducting mixture of pulverized ore or oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into a conductive body, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current, through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conductive body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, substantially as described. 3rd. As an improvement in the art of metallurgy, the process of converting or changing an ore of calcium commingled with carbon, substantially an insulator of electricity, which consists in establishing between the electrodes within a non-conducting mixture of pulverized or granulated calcium oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into calcium carbide, and gradually drawing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of mixture, substantially as described. 4th. As an improvement in the art of metallurgy, the process of converting or changing an ore of calcium commingled with carbon, substantially an insulator of electricity, which consists in establishing between the electrodes within a non-conducting mixture of pulverized or granulated calcium oxide and carbon, a conducting path of material which will be heated to incandescence by the passage of a current, passing electricity through said path and by the heat therefrom converting the adjacent portions of the mixture into calcium carbide, and gradually passing the mixture between the electrodes in a direction transverse to the direction of flow of the current through said path, whereby successive portions of the mixture are successively brought into the heating field and thereby

converted into a conducting body and caused to act as an incandescent conductor to reduce the adjacent portions of the mixture, and maintaining the resulting slab of carbide within a surrounding cover of the unconverted material, substantially as described. 5th. The process of producing metallic carbides, which consists in surrounding horizontal electrodes with a mass of pulverized oxide and carbon, in establishing a temporary conducting path between said electrodes, in passing the pulverized mass of oxide and carbon horizontally between the electrodes without breaking contact with the produced carbide, in gradually widening the said slab of produced carbide by the gradual withdrawal of the electrodes, and in finally forming carbide by moving the mixed mass between parallel electrodes extending in the direction of travel of the mass, thereby forming such slab of carbide of the full width of the distance between the electrodes, and in supplying sufficient unconverted material to surround the electrodes and the slab so formed, and in simultaneously moving said unconverted material onward again with the so formed carbide, substantially as described. 6th. In an apparatus for effecting metallurgical operations, the combination of a continuous horizontal, mechanical conveyor, two electrodes located in proximity thereto, and means for feeding a mass of material to be treated into said conveyor above and below said electrodes, thereby enclosing them in a mass of the material to be treated in their operation, substantially as described. 7th. The combination in an apparatus for effecting metallurgical operations of an endless, continuous, horizontal, mechanical conveyor, and two horizontally adjustable electrodes placed in proximity thereto, capable of taking a parallel position, thereby affecting material moved by said conveyor, substantially as described. 8th. In an apparatus for the treatment of substances by electrical heat, the combination of a conveyor made of wire cloth, the wires of which are severally covered with asbestos, and two electrodes, located in proximity to said conveyor, substantially as described. 9th. The combination in an apparatus for effecting an electrical conversion, of a continuous, horizontal, mechanical conveyor, and two horizontal electrodes arranged in proximity to its upper surface, substantially as and for the purposes described. 10th. The combination in an apparatus for affecting electrical conversion, of a continuous, horizontal, mechanical conveyor, two horizontal electrodes arranged in proximity to its upper surface and means for causing the said electrodes to travel above said conveyor and in the same horizontal plane, substantially as described. 11th. The combination in an apparatus for effecting electrical conversion, of the belt C, horizontally adjustable electrodes F in proximity thereto, the adjustable supports R located above the belt and aiding in supporting the electrodes, and the plates P, located outside of the casing of the apparatus and carrying the moving holders of the electrodes, substantially as described.

No. 62,467. Cigar Cutter and Match Igniter.

(*Coupe-cigare et allume allumette.*)



William Henry Thompson, of East Stroudsburg, Pennsylvania, U.S.A., 26th January, 1899; 6 years. (Filed 16th November, 1898.)

Claim.—1st. In combination in a match igniting device, a hopper, a pair of feed-plates reciprocating therein, means for giving said plates a reciprocating movement in opposite directions, a discharge-channel leading from the hopper and a plunger working in said channel, substantially as described. 2nd. In combination, the hopper having a discharge-channel the discharge-plunger for the match, the alternately-reciprocating feed-plates and the cams moving with the discharge-plunger for reciprocating said plates, substantially as described. 3rd. In combination, a hopper having the flanges with the feed-channel between, the feed-plunger working in said channel, the cam-plates moving with said plunger, the feed-plates reciprocating along the hopper-bottom toward the feed-channel in the hopper and the arms extending from said feed-plates into the path of the cams, substantially as described. 4th. In combination, the hopper, the feeding device, and the separating and distributing means independent of said feeding device, comprising a plurality of yield-