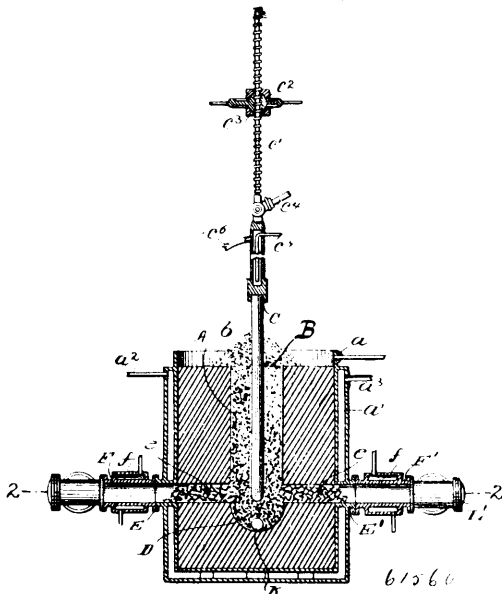


outlet flues or passages opening into the furnace chamber and filled with granulated or broken carbon, together with gas connections with said inlet and outlet flues or passages for the supply of gas to the furnace chamber and the removal of the same therefrom, as and for the purpose set forth. 4th. In an electric furnace, a furnace chamber adapted to be charged at the top, and having a central adjustable electrode extending down into the chamber, lateral gas inlet and outlet flues or passages opening into the furnace chamber and filled with granulated or broken carbon, together with gas connections with said inlet or outlet flues or passages for the supply of gas to the furnace chamber and the removal of the same therefrom, and means for reversing the flow of gas through the inlet and outlet flues, as and for the purpose set forth. 5th. The combination in an electric furnace, of an electric furnace chamber having electrical connections for the passage of an electric current through the same, of pipes connected therewith for the inflow of gas and air and for the outflow of gas, and means for the reversal of the direction of the flow of gas through the electrically heated field of the furnace chamber, as and for the purpose set forth. 6th. The combination in an electric furnace, of an electric furnace chamber having electrical connections for the passage of an electric current through the same, of pipes connected therewith for the inflow and outflow of gases, a reversing valve in operative relation to said pipes to reverse the flow of gas through the electrically heated field, and an air pipe connected with the gas supply pipe outside of the reversing valve, as and for the purpose set forth.

No. 61,560. Electric Furnace. (*Fournaise électrique.*)



Alfred H. Cowles, Cleveland, Ohio, U.S.A., 2nd November, 1898; 6 years. (Filed 25th May, 1898.)

Claim.—1st. In an electric heating apparatus, the combination with a chamber, of an electric circuit connected therewith and adapted to produce a zone or area of electric heat, separate gas inlet and outlet passages connected with said chamber, and means for periodically reversing the flow of gas therethrough, as and for the purpose set forth. 2nd. In an electric furnace, the combination with a furnace chamber of an electric circuit connected therewith and adapted to create a zone of electrical heat within the furnace chamber, of separate inlet and outlet gas flues and interstitial bodies in the path of the inflowing and outflowing gases, together with means for reversing the flow of gas therethrough, as and for the purposes set forth. 3rd. In an electric furnace, the combination with a furnace chamber of an electric circuit connected therewith and adapted to create a zone of electrical heat within the furnace chamber, of inlet and outlet gas flues, and interstitial bodies contiguous to the zone of electrical heat and in the path of the inflowing and outflowing gases, together with means for reversing the flow of gas therethrough, as and for the purpose set forth. 4th. The combination with an electric furnace chamber, of lateral compartments filled with broken carbon and forming gas passages for inflow and outflow of gas, in combination with gas pipes connected with said apartments, and a reversing valve to control the direction of the flow of gas through the furnace, as and for the purpose set forth. 5th. In an electric furnace or apparatus, in which there is a field, zone or area of electric heat, with means for passing a gas therethrough, bodies of carbon on opposite sides of the field or zone of electric heat, with interstices or channels through the said bodies for the flow of gas therethrough, and means for reversing the flow of gas through the same, as and for the purpose set forth.

6th. A furnace and furnace chamber, having carbon-lined flues or channels extending outward therefrom, and adapted to form gas passages for the flow of gas to and from the furnace chamber, together with means for directing the flow of gas, in through one group of carbon-lined flues or channels to the furnace chamber, and out through another group of the same, and a reversing valve for directing the flow of the gas, as and for the purpose set forth. 7th. The combination with a furnace chamber of outwardly extending flues filled with broken carbon, and forming gas passages for the inflow and outflow of the gas or gases, in combination with gas pipes connected with said flues, and a reversing valve to control the direction of the flow of the gas through the furnace, as and for the purpose set forth.

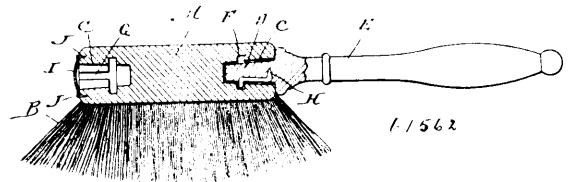
No. 61,561. Artificial Stone Compound.

(*Composé de pierre artificielle.*)

Thomas McConnell, Toronto, Ontario, Canada, 2nd November, 1898; 6 years. (Filed 20th June, 1898.)

Claim.—1st. A composition of matter for making artificial stone, brick, tile and paving blocks, composed of sand, fine blue clay, ore or rock, iron and ashes, or potash in the proportions and for the purposes herein set forth. 2nd. The process herein described for manufacturing artificial stone, brick, tile and paving blocks for building purposes, drains and paving, and for all other purposes to which the same can be applied, using the said composition of sand, fine blue clay, ore or rock, iron and ashes, or potash in the proportions and manner herein specified and set forth, and the composition in the desired form and substantially in the proportions described and for the purposes herein set forth.

No. 61,562. Brush. (*Brosse.*)



Walter Wilkinson and Irvine Wilkinson, both of Philadelphia, Pennsylvania, U.S.A., 2nd November, 1898; 6 years. (Filed 18th June, 1898.)

Claim.—1st. A brush consisting of a back, having suitable bristles attached thereto, sockets formed in each end of the back, and a handle having a shank adapted to be inserted in either of the sockets, as specified. 2nd. As a new article of manufacture, a brush consisting of a back having a socket in each end thereof, and a handle having a shank carrying a key whereby it may be locked to the back, as specified. 3rd. The herein described combination of a back having two sockets therein, each socket having a circular groove and a longitudinal groove leading thereto, a handle, a shank formed therewith, and a key attached to the shank for engagement with the grooves of the sockets, as specified.

No. 61,563. Golf Scorer. (*Marqueur de golf.*)

Frederick Walsingham Meredith, 65 Dawson Street, Dublin, Ireland, 2nd November, 1898; 6 years. (Filed 2nd June, 1898.)

Claim.—1st. In a golf scorer, the combination of small dials for indicating the scores in each hole, a larger dial for indicating the strokes as they are made, means for operating said dials and a suitable framing or casing therefor, substantially as set forth. 2nd. In a golf scorer, the combination of the small dials *a*, each representing a golf hole, discs *c*, having numerals for indicating the scores in each hole, pivoted behind said dials, knobs *d*, operating the discs *c*, so that the required numerals show through the openings *b*, large dial *e*, similarly provided with disc *g*, and operating knob *h*, for indicating the strokes as they are made, framing *i*, and cover *j*, substantially as set forth. 3rd. In a golf scorer, the combination of the small dials *a*, each representing a golf hole, pointers *b*, for indicating the scores on said dials, card *k*, forming the framing and serving as a larger dial and pointer *m*, for indicating upon the large dial the strokes as they are made, substantially as set forth. 4th. In a golf scorer, the combination of the small numeral rollers *o*, each representing a golf hole, spindles *q*, and milled or roughened pinions *r*, for operating said numeral rollers *o*, to indicate the scores in each hole, casing *u*, large dial arranged on said casing and pointer for indicating thereon the strokes as they are made, substantially as set forth. 5th. In a golf scorer, the combination of the small dials *a*,