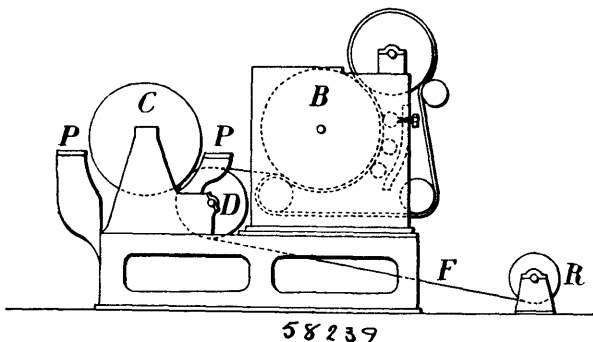


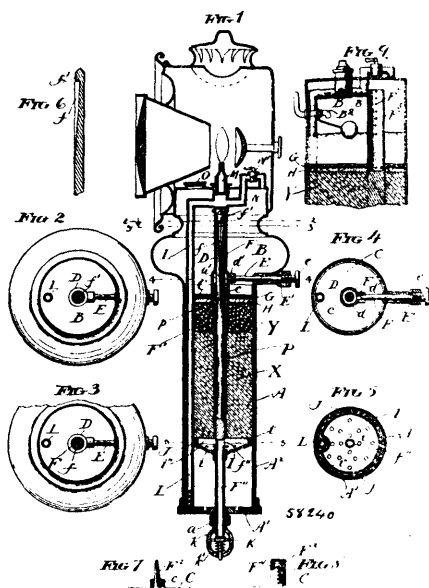
pressing apparatus causing the tesserae to cohere and adhere to this backing, substantially as described. 2nd. The construction of the



composing cylinder with numerous holes to receive plugs variously slotted to hold the blades that separate or mark out the spaces of the pattern, substantially as described. 3rd. The modified method of manufacture of mosaic floor cloth by arranging the tesserae in composing plates which being passed tangentially in contact with the backing fabric the pinned drum have tesserae transferred to the backing on which they are fixed by pressing apparatus, substantially as described. 4th. For operating as set forth, the use of stencil and pressing plates to determine the positions of the tesserae on the composing plate, substantially as described. 5th. The modified method of manufacture by placing the tesserae directly on the backing fabric on which their positions are indicated, as by being marked in colours or by the image of a magic lantern slide, substantially as described.

No. 58,240. Gas Generating Apparatus.

(Appareil à générer le gaz.)



John Schumacher, Chicago, Illinois, U.S.A., 1st December, 1897; 6 years. (Filed 5th February, 1897.)

Claim.—1st. In an apparatus for generating gas from a metallic carbide and water and for arresting the generation when desired, the combination of a generating chamber adapted to contain the carbide and having an inlet for water, means for introducing into said chamber, through said inlet, during the period of generation, a regulated quantity of water, means for confining the residue where it forms, between the water inlet and the body of carbide, whereby it is made to serve as a medium through which the water is fed to the carbide and whereby, in order to arrest the generation of gas, the dry carbide may be allowed to fall away from the residue and leave the latter undisturbed where it is formed, and means for keeping the water and carbide apart when the carbide and residue are thus separated, substantially as set forth. 2nd. In an apparatus for generating gas from a metallic carbide and water and maintaining the quantity generated practically constant throughout the entire period of generation, the combination with a chamber adapted to contain the carbide and having a water inlet, of means for confining the residue where it forms, between the water inlet and the body of carbide, whereby it is made to serve as a medium through which the water is fed to the carbide, means for continuously supply-

ing the residue, throughout the period of generation, with a limited quantity of water, and means for gradually and continuously increasing, throughout the entire period of generation, the quantity of water supplied to the residue, whereby the quantity of gas generated and consequently its pressure within the generating chamber, are kept practically constant throughout the entire period of generation, substantially as described. 3rd. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain carbide and having a water inlet at top, a pervious body crossing the chamber from side to side below the water inlet, means for holding the carbide in contact with said pervious body, means for introducing a regulated quantity of water on top of said pervious body, means for confining the residue where it forms between the pervious body, and the body of carbide, whereby it is made to serve as a medium through which the water is fed to the carbide, and means for gradually increasing, throughout the period of generation, the quantity of water supplied to the residue, substantially as set forth. 4th. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet, of means for supplying the chamber with a regulated quantity of water, means for confining the residue where it forms opposite the water inlet whereby it is made to serve as a medium through which the water is fed to the carbide, and means operated by force resulting from the expansion of the material during the reaction for gradually increasing, throughout the period of generation, the quantity of water supplied to the residue, substantially as set forth. 5th. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet, of a movable part adapted to be moved by force resulting from the expansion of the material during the reaction, and means operatively connected with said movable part for controlling the admission of water, substantially as set forth. 6th. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet, of a movable part adapted to be moved by force derived from the expansion of the material during the reaction, and a device operatively connected with said movable part for controlling the admission of water, said device having means whereby, as it is moved, a gradually increasing quantity of water is admitted, substantially as set forth. 7th. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet, of a movable part arranged in contact with the solid material and adapted to be moved thereby, and a valve, operatively connected with said movable part, for controlling the admission of water, substantially as set forth. 8th. In an apparatus for generating gas from a metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet, of a movable part arranged in contact with the solid material and adapted to be moved thereby, and a valve, operatively connected with said movable part for controlling the admission of water, said valve having means of increasing the quantity of water admitted to the chamber, as it is moved, substantially as set forth. 9th. In an apparatus for generating gas from a metallic carbide and water, the combination of a chamber adapted to contain the carbide and residue and having a water inlet, a movable part arranged in contact with the solid material and adapted to be moved thereby, and a sliding valve operatively connected with the follower and fitting in the water inlet, said valve having a graduated passage, substantially as set forth. 10th. In an apparatus for generating gas from metallic carbide and water, the combination of means for confining the carbide and residue on all sides and holding them together in the form of a body of regular shape, said means being extensible so as to permit the body to expand, and means for supplying the carbide with water, substantially as set forth. 11th. In an apparatus for generating gas from metallic carbide and water, the combination with a chamber adapted to contain the carbide and residue and having a water inlet at top, of means for holding the body of carbide in contact with the underside of the body of residue with a yielding force, whereby the body of carbide may be displaced downward by the force resulting from the expansion of the material during the reaction, substantially as set forth. 12th. In an apparatus for generating gas from metallic carbide, the combination of a chamber adapted to contain the carbide and residue and having a water inlet at top, means for normally supporting the carbide and holding it in contact with the underside of the body of residue, and means for removing the carbide from contact with the body of residue, substantially as set forth. 13th. In an apparatus for generating gas from a metallic carbide and water, the combination of a chamber adapted to contain the carbide and residue and having a water inlet at top, a movable follower upon which the body of carbide rests, means for holding the follower, with a yielding force, in position to support the body of carbide, and means for lowering the follower at will and thereby permitting the body of carbide to fall away from the body of residue, leaving the latter confined where it formed, substantially as set forth. 14th. In an apparatus for generating gas from a metallic carbide and water, the combination of a chamber adapted to contain the carbide and residue and having a water inlet at top, a follower having frictional contact with the sides of the chamber, for supporting the body of carbide, and means for lowering the follower at will, sub-