

stantially as shown and described. 6th. In an apparatus for washing, condensing and absorbing gases, the combination, with the trough, of gas-cooling pipes in the same, the box E in which the gas-cooling pipes terminate, absorption vessel and pipes extending from the box E to the bottoms of the absorption vessels, substantially as shown and described. 7th. In an apparatus for condensing, washing and absorbing gases, the combination, with a series of vertical cylindrical vessels connected with each other, of spiral pumps mounted on tubular shafts, and tubes connecting the upper ends of the absorption vessels with the tubular shafts of the spiral pumps, substantially as shown and described.

### No. 25,707. Brick and Tile Machine.

(Machine à Briques et Tuiles.)

James C. Anderson, Highland Park, Ill., U.S., 12th January, 1887; 5 years.

**Claim.**—1st. In a machine for pressing substances into form, the method herein described of feeding the material into the moulds, which consists in forming a vacuum in the mould box, to draw the material to be compressed into the same through suitable ducts or openings, as set forth. 2nd. In a brick or tile machine, the method herein described of filling the moulds with the material to be compressed, which consists in bringing the upper and lower plungers together within the mould, and then separating them to produce a vacuum within the mould, which action draws the material from the feed spouts uniformly into the mould cavity by the force of suction, as set forth. 3rd. The method herein described of making ornamental brick or tiles of clays of different colours, the same consisting in reducing the clays to finely divided condition and conducting it to the moulds through a plurality of spouts, as set forth. 4th. The method herein described of ornamenting the face of bricks or tiles with clays of different colors, the same consisting in feeding the dry clay powder through a plurality of spouts in the face edge of the mould in connection with the spouts, for filling in the clay forming the main body of the brick or tile. 5th. In a machine for pressing substances into form, the moulds of which are provided with feed ducts or spouts in their sides, as described, whereby the material to be compressed, is fed into the moulds between the plungers while said plungers are within the moulds. 6th. In a machine for pressing substances into form, the double sets of plungers and cams for operating them located on the outside of the frame of the machine, and the pinion wheels and mechanism for operating the cams and plungers located within the sides of the frame of the machine, as set forth. 7th. In a brick and tile machine, the plungers P and R, located on the outside of the machine and adapted to work in a horizontal direction, as described, whereby the clay is fed into the side of the mould box by the combined action of suction and gravity. 8th. In a brick and tile machine of the character described, the plungers of which are moved towards each other to compress the clay by means of eccentric cams, as described, and moved in an opposite direction by means of cam slots or grooves engaging with studs or pins on the plunger frames, as set forth. 9th. In a brick or tile machine of the character described, the cams V adapted to work in the grooves 3, formed in the walls of the open space W of the yoke or cross-head S, in combination with the cam groove discs located outside of the plunger frames and connected thereto by means of a stud working in said cam groove, as set forth. 10th. In a brick and tile machine of the character described, the horizontal mould boxes A connected to, and communicating with the feed spouts above end thereof, whereby the clay is fed into said moulds by gravitation, as set forth. 11th. In a brick and tile machine of the character described, the horizontal mould boxes A connected to, and communicating with the horizontal reciprocating plungers operated as described, whereby the supply of clay is fed into the mould box and moved forward to the solid portion of the mould before compression takes place, and an excess of air prevented from entering the moulds, as set forth. 12th. In a brick machine of the character described, the bar G provided with the head H in combination with the pivoted lever M and cam groove R, whereby the newly formed bricks are pushed out of the path of the plungers, as set forth. 13th. In a brick machine, of the character described, the pins or plugs G connected to the shaft I, as described, said shaft being provided with a bell crank lever L, friction stud e, f, in combination with the discs B provided with the cam slot g, whereby the pins or plugs are moved back and forth at the proper time, to allow the compressed air in the moulds to escape, as set forth. 14th. In a brick machine of the character described, cross-head N, carrying the plungers P and R, adapted to travel in guides O, in combination with the portions S provided with the extensions T, adapted to work in the guides V, as set forth. 15th. In a brick machine of the character described, the yokes S provided with the oil-receiving grooves 3, as and for the purpose set forth.

### No. 25,708. Base Burning Boiler for Steam Heating. (Chaudière à Foyer Bas pour Chauffage à Vapeur.)

William B. Dunning, Geneva, N. Y., U. S., 12th January, 1887; 5 years.

**Claim.**—In a steam heating apparatus, a set of tubes or flues U leading from and through the crown sheet passing through the water and steam space S, and through the upper head of boiler directly over the smoke tubes or flues T, and provided with plugs or caps for closing the same, all arranged substantially as and for the purpose specified.

### No. 25,709. Retort Furnace for Making Wood Creosote. (Four à Cornue pour Fabriquer le Créosote de Bois.)

Ludvig Hansen and Andrew Smith, Wilmington, N. C., U. S., 12th January, 1887; 5 years.

**Claim.**—1st. A furnace A, having fire-place provided with arch a and flues a<sup>2</sup> at opposite sides, through the inner end of said arch,

and a retort or cylinder B, set in the said furnace above said arch and surrounded by an air-space b, in combination with transverse partitions b<sup>1</sup>, b<sup>2</sup>, dividing alternately the lower and the upper half of the said space b, for circulating the heat round the said retort, in the manner hereinbefore set forth. 2nd. The combination of the double furnace A, provided with the arches a<sup>1</sup> and flues a<sup>2</sup>, with the retort B, and the air-space b surrounding the said retort and divided by alternate transverse partitions b<sup>1</sup>, b<sup>2</sup>. 3rd. The combination of the double furnace A, provided with the arches a<sup>1</sup> and flues a<sup>2</sup>, with the retort B, and the air-space b surrounding the said retort and divided by alternate transverse partitions b<sup>1</sup>, b<sup>2</sup>, and having ventilating end doors D. 4th. The combination of the double furnace A, provided with the arches a<sup>1</sup> and flues a<sup>2</sup>, with the retort B, having end-doors D provided with latches c, and the air-space b surrounding the said retort and divided by alternate transverse partitions b<sup>1</sup>, b<sup>2</sup>, and having ventilating end-doors G. 5th. The combination, with a retort furnace A, B, having openings g leading to its flues, of a fan or blower H connected to said openings to force a current of air through said flues for the rapid cooling of the retort. 6th. The combination of the retort double furnace A having around its retort air spaces or flues b provided with ventilating end-doors G, with the fan blower H connected to force a current of air through the said flues, at opposite sides of the partition a dividing the said furnace.

### No. 25,710. Bullet Mould. (Moule à Balles.)

Amory Jewett, Somerville, Mass., U.S., 12th January, 1887; 5 years.

**Claim.**—1st. The expansive moulds B, B, pivoted together and being connected to their rear ends, the plate A having the core or projection a on its inside for the purpose of forming a cavity or recess in the base of the bullet, as set forth. 2nd. The expansive moulds B, B and screws or pins e, e, in combination with the plate A having slots a, a and interior core or projection a<sup>1</sup>, with centering shoulder a<sup>2</sup>, as and for the purpose set forth. 3rd. The expansive bullet moulds B, B, having mould cavities b, b and semicircular ribs b<sup>1</sup>, b<sup>1</sup>, b<sup>2</sup>, as described, in combination with the self-centering back plate A having core or projection a<sup>1</sup>, for the formation of the rear cavity in the base of the bullet, as set forth.

### No. 25,711. Mailing Case. (Valise de Poste.)

Joseph Davis, New York, N. Y., and Norman W. Stearns, Boston, Mass., U. S., 12th January, 1887; 5 years.

**Claim.**—1st. A mailing case consisting of an outer shell or casing, an inner shell and a cap applicable to the top of both shells. 2nd. A mailing case of wood, metal, papier-mâché, or other suitable material, having its interior provided with an impervious or water-proof lining of cement, paraffine, wax, tar, or other liquid repellent. 3rd. A mailing case for bottles, etc., consisting of a shell or casing, in combination with a cushion of soft elastic absorbent material interposed between the interior of the shell and frangible object to be protected thereby, substantially as set forth. 4th. A mailing case consisting of an outer shell or casing, an inner metallic shell and a screw-cap for closing the mouth of the chamber therein, substantially as described. 5th. A mailing case having a receiving chamber and provided on its outside with a coating, covering or shell impervious to liquids, in combination with a cushion of soft elastic and absorbent material, and a cap for closing the mouth of the chamber, as specified. 6th. In combination with a shell or casing and a screw-cap for closing the chamber therein, an elastic washer for sealing the joint between them and for locking the screw-cap to the casing, as specified. 7th. In combination, an outer shell or casing, an inner impervious lining of metal, cement, paraffine, tar, etc., a screw-cap for closing the mouth of the chamber therein, and an elastic washer which serves both the function of sealing the joint between, and a device for locking the cap to the casing, as shown and described. 8th. A mailing case consisting of an outer shell or casing, an inner tightly fitting shell, movable metallic shell, a soft elastic and absorbent cushion interposed between the metal shell and the bottle or other frangible object, and a cap for closing the chamber within the case, as set forth. 9th. A screw-cap having a milled edge in combination with a shell or casing, and an elastic washer for sealing the joint between them, and for locking them together, as described.

### No. 25,712. Flat Wire Nail.

(Clou de Fil de Fer plat.)

Charles W. Dean and Albert G. Godfrey, Taunton, Mass., U.S., 12th January, 1887; 5 years.

**Claim.**—1st. A nail blank having a sharp pointed stem and a flat head, whose parallel inner and outer edges or faces, respectively, form right angles with the corresponding edges of the stem, and which head terminates in a bevelled and hook-like point, as described. 2nd. A nail cut from bar metal with a stem and a head, substantially at right angles to each other, formed by the cut that severs said nail from the bar and having a short point projecting from said head parallel with the stem, substantially as described.

### No. 25,713. Car Brake. (Frein de Char.)

The Masterman Automatic Brake Equalizer Company, San Francisco, (assignee of William H. Masterman, Alameda), Cal., U. S., 13th January, 1887; 5 years.

**Claim.**—1st. The brake-lever and the rod through which power is applied thereto, in combination with an interposed weighted lever, and an arm connected therewith having a locking device to bind when the weight is raised, substantially as herein described. 2nd. The weight upon the bell-crank lever through which power is applied to the brake-lever, and having shoulders O formed upon each side, in combination with the lever pivoted to the weight and its supporting-arm, and provided with a locking device at its upper end to slide upon the fixed rod or bar when the weight is down, and to bind upon said rod when the weight is raised, substantially as herein described.