

said casing and revolving therewith, rod *h*, cam *i*, and the mechanism for actuating said cam consisting of the gearing *k*, *k*₁, *k*₂, face wheel *l*, the shaft *l*, the work wheel *m*, worm *n*, pinion *o*, and gear wheel *d*₂, substantially as and for the purpose hereinbefore set forth.

No. 23,772. Hulling Machine.

(Machine à Eplucher.)

Sigmund Spitzer, Chicago, Ill., U.S., 7th April, 1886; 5 years.

Claim.—The combination of the movable bisected casing *C*, set-screws *c*, *c*₁, having pointers *n*, indicator scales *m*, and a hulling stone, substantially as and for the purpose hereinbefore set forth.

No. 23,773. Grain Tally. (Compteur à Grain.)

Thomas Bellaire and John Bousha, Bello River, Ont., 7th April, 1886; 5 years.

Claim.—1st. The combination, in a grain tally, of the reciprocating platform *D* carrying the slide *F*, and provided with the slotted curved bar *E*, substantially as and for the purposes hereinbefore set forth. 2nd. The combination, in a grain tally, of the hinged lever *J*, the connecting rod *K*, levers *S* and pawl *T*, for rotating the wheels *U* and *V*, which operate the pointers on the dials *I*₂ and *I*₃, substantially as described and for the purposes specified. 3rd. In combination with a grain tally, the dials *I*₁ and *I*₄ provided with two pointers, each of which are operated from the interior of box *H* by disks *e*₁, *e*₂, *e*₃ and *e*₄, substantially as described and for the purposes specified. 4th. In combination with a grain tally, the tunnel *L*, supported from the frame *A* by the standards *M*, substantially as and for the purposes hereinbefore set forth.

No. 23,774. Portable Ventilating Apparatus. (Appareil Portatif de Ventilation.)

Robert E. Walsh, New York, N.Y., U.S., 7th April, 1886; 5 years.

Claim.—In a portable ventilating apparatus, the combination of the box *A*, and the box *B* having the racks *a* upon their sides, with the frame *G* carrying the pinions *a*₁, shaft *a*₂, ratchet *a*₃, and pawl *a*₄, whereby the boxes *A* and *B* and their connections may be raised or lowered at will, substantially as herein shown and described.

No. 23,775. Blast Pipe for Locomotive Engines, etc. (Tuyère d'Echappement pour Locomotives, etc.)

Henry Adams and William Adams, London, Eng., 7th April, 1886; 15 years.

Claim.—1st. An engine with a blast-pipe, having an annular orifice, and a mouth communicating with the interior of the annulus, and facing or adjacent to the extremities of the lower boiler tubes. 2nd. An engine with a blast-pipe, having an annular orifice, and the mouth communicating with the interior of the annulus so screened as to cause the passage through the annulus to be supplied mainly or entirely by the gases drawn from the lower boiler tubes. 3rd. An engine with a blast-pipe having an aperture of annular or elongated form, and a mouth facing or adjacent to the lower boiler tubes. 4th. A blast-pipe with an aperture of annular form, and an expanded mouth facing or adjacent to a tube or passage from which air or gas is drawn into the interior of the chamber, all substantially as and for the purpose hereinbefore set forth.

No. 23,776. Spring Board Waggon.

(Voiture Planche.)

Edward Stone and Charles E. Rhicard, Waterloo, Que., 7th April, 1886; 5 years.

Claim.—1st. The combination, with the bolster *A*, and rear axle *B*, of the side bars *C*, and flexible platform *D* consisting of slats *G*, and cleats *E*, supported from the bolster and rear axle by springs *F*, as set forth. 2nd. The blocks *I* interposed between the platform and springs, and having a curved face to take the bearing of the springs in the direction of their length when the platform is depressed for the purpose set forth. 3rd. The spring *K* having a flat portion secured to slats of the platform, and upturned ends secured to the base of the seat, as set forth.

No. 23,777. Wood Preserving.

(Conservation des Bois.)

Joseph P. Card, St. Louis, Mo., U.S., 7th April, 1886; 65 years.

Claim.—1st. The herein-described mode of introducing dead-oil into wood for its preservation, which consists in introducing dead-oil into the wood, and then, by the introduction of a second fluid into the wood, causing the dead-oil to be distributed further into the wood. 2nd. The herein-described mode of introducing liquid dead-oil into wood for its preservation, which consists in introducing liquid dead-oil into the wood and then, by the introduction of a soluble antiseptic solution, suitable for wood-preserving in conjunction with dead-oil, causing the dead-oil to be distributed farther into the wood, substantially as described.

No. 23,778. Electric Signal Device.

(Appareil de Signal Electrique.)

William Hand, Hamilton, Marcus C. Wright and Francis A. Pocock, Toronto, Ont., 7th April, 1886; 5 years.

Claim.—1st. As a danger signal for railroads, one or more torches placed in proximity to the track and connected to an electrical device by which the torch may be fired from one or more points on the railroad. 2nd. As a danger signal for railroads, one or more detonating cartridges placed in proximity to the track, and connected to an electrical device by which the detonating cartridge may be fired from one or more points on the railroad. 3rd. As a danger signal for rail-

roads, one or more torches arranged in connection with one or more detonating cartridges placed in proximity to the track, and connected to an electrical device by which each pair of torches and detonating cartridges may be simultaneously fired from one or more points on the railroad. 4th. An open-ended vessel pivoted at its base, overbalanced by a weighted arm, and supported by the armature of an electro-magnet, so that the charging of the magnet or the breaking of the current shall cause the armature to release the pivoted vessel and permit it to discharge its contents on to the fuse of a torch or detonating cartridge, substantially as and for the purpose specified. 5th. An electrical device in which the armature of an electro-magnet is arranged to hold a spring plunger until actuated by a current of electricity, when the said plunger is caused to strike a percussion cap, or its equivalent, by which the detonating cartridge or torch is fired, substantially as and for the purpose specified.

No. 23,779. Injector. (Injecteur.)

Horace B. Murdock, Detroit, Mich., U.S., 7th April, 1886; 5 years.

Claim.—1st. In an injector, a delivery tube constructed with its entrance end, and relief orifices opening into the same overflow chamber and, in connection therewith, an escape valve located below the entrance to said tube, said valve constructed to open automatically under the pressure of water in the overflow chamber, when the same has risen to a level a little below the entrance end of the delivery tube, and to automatically close when the water has wasted below said level, substantially as described. 2nd. An automatic injector consisting of the combination, with a force tube and a combining tube, of a delivery tube having its entrance end, and relief orifices opening into said overflow chamber, and a single escape valve, said valve constructed to automatically open whenever the pressure within the overflow chamber equals or exceeds that exerted by a column of water at a level a little below the entrance end of the said delivery tube, and to automatically close, and to remain closed whenever there is less pressure within said chamber, substantially as described. 3rd. The combination, with an injector having an overflow chamber *G*, a steam inlet *B*, a water inlet *C*, and a vertical delivery tube *F*, provided with an entrance and located within the overflow chamber, of an escape valve *G* arranged below the upper entrance end to said delivery tube, and opened automatically by the column of water before the latter can rise to said upper entrance end, substantially as described. 4th. In an injector, a reversible forcing tube adapted, by reversing the tube, to present its discharge end at a different distance from the mouth of the combining tube, substantially as and for the purpose described. 5th. In an injector, a delivery tube adapted to be inserted through an opening in the end of the case, said case provided with a screw-cap adapted to close said opening and clamp said delivery tube rapidly in position, substantially as shown and described.

No. 23,780. Art of Making Dry Sand Cores and Apparatus therefor. (Art de Faire les Noyaux en Sable Gras et Appareil pour cet objet.)

James H. Blessing, Albany, N.Y., U.S., 7th April, 1886; 5 years.

Claim.—A core-box for forming cores of the character herein described, consisting of the corresponding parts *C*, semi-cylindrical slides *D*, and destructible model *B*, the said several parts being constructed, combined and arranged to produce the required form of said core, in the manner substantially as specified.

No. 23,781. Oil Burner. (Foyer à Huile.)

Evan A. Edwards, Chicago, Ill., U.S., 7th April, 1886; 5 years.

Claim.—1st. The combination of the gas-generating retort, the tube *T* opening thereto at a level with the floor of the retort and connecting the same with the vent-tube, the vent-tube *T* situated under the retort, and having vents upon its upper side, inverted funnel-shaped flues situated above such vents and passing through the retort, and the deflector situated above the retort, all being constructed and combined substantially as and for the purpose set forth. 2nd. The combination, in an oil-burner, substantially as described, of a gas-generating retort, constructed as shown, with inverted funnel-shaped flues passing upward therethrough, a gas pipe, the mouth of which is on a level with the floor of the retort, and gas-vents connected with the retort by such pipe, and situated beneath the mouth of the flues, substantially as set forth, whereby the flame is caused to heat the upper portion of the retort in excess of the bottom of the retort where the oil is vaporized, so that the oil is subjected to a moderate heat and the vapor is subjected to excessive heat.

No. 23,782. Pencil and Tool Holder.

(Porte Crayon et Porte-Outil.)

Stephen W. Wood, New York, N.Y., U.S., 7th April, 1886; 5 years.

Claim.—1st. A pocket implement herein described and shown, consisting of a casing open at both ends, a sliding tool-carrier within said casing capable of movement back and forth, a stop or stops on said casing to engage and hold said carrier at the limit of its movement in either direction, and in a central position, substantially as herein set forth. 2nd. In an implement of the character described, a sliding hollow tool-carrier with longitudinal openings in its side or sides, the edges of said openings turned inward to form substantially radial flanges, in combination with an inclosing casing, and a stop or stops projecting into said openings, substantially as herein set forth. 3rd. In an implement of the character herein described and shown, the combination of a tubular casing, a tool-carrier capable of moving back and forth therein, and having slots in its opposite sides, each slot having a wide and a narrow part, the wide portions being in opposite sides of a central point, and headed stops on the casing, the heads adapted to the wide parts of the slots, and the necks to the narrow parts, whereby the slide is engaged and held in a central position, substantially as set forth.