

stiff and durable, consisting of a mixture of one hundred parts of resin and forty each of tallow and paraffine, substantially as described.

No. 30,022. Means of Conveying Postal Matter, Bullion, Valuables and the like at sea. (*Appareil pour le transport par eau des mailles, de la monnaie, des valeurs et autres objets semblables*)

William W. Fuzley, Havelot, Guernsey, 20th October, 1888; 5 years.

Claim—1st. The hereinbefore described improved means of conveying mail or postal matter, bullion, valuables, and the like at sea, and of floating the same and saving life in cases of emergency. 2nd. In apparatus used for the purpose of the invention, in combination, the buoyant watertight casing 1, strong hinged with surrounding bands 2 and adapted with life lines 10, top railing 19, cylinder 12 and continued buoy 13 and watertight doors 8, with an inner partitioned watertight lining 3 partitioned off into a ballasting compartment 21, buoyant compartments 5 and watertight compartments for reception of mail or other matter and adapted with watertight doors 7, substantially as hereinbefore described. 3rd. The method of securing such buoyant casing and lining thus respectively adapted to the deck of a vessel, by forming the chamber with conical foot 14 fitting into like shaped recessed sockets 16 projecting from the deck, and lashing the casing to the deck by cord 18 passing through staples 15, 17, respectively projecting from the said casing and deck, substantially as hereinbefore described.

No. 30,023. Theatrical Appliance. (*Conissées de théâtre*)

John T. Kilham and Josephine L. Beach, Lowville, N.Y., U.S., 20th October, 1888; 5 years.

Claim—1st. A scene composed of sets of interchangeable sections, the sections of one set being constructed to alternately hide and expose those of the other set, substantially as described. 2nd. A plurality of sectional scenes, combined with means for interchanging them, as set forth. 3rd. Two sectional curtains, the sections of one curtain being constructed and arranged to be either exposed over or concealed beneath the sections of the other curtain, as set forth. 4th. The combination, with a stationary sectional curtain, of a movable sectional curtain, the sections of which move between the sections of the stationary curtain, as set forth. 5th. The combination, with a stationary sectional curtain, of two or more movable sectional curtains, and means for simultaneously moving all of the sections of one curtain, independently of the sections of the other curtain, substantially as set forth for the purpose described. 6th. The combination, with a sectional stationary curtain, of two or more movable sectional curtains, the sections of which move between the sections of the stationary curtain, substantially as and for the purpose specified. 7th. A series of curtain sections adapted to be moved either vertically or horizontally, and to be reversed in order to expose to view the opposite face, substantially as described and for the purpose specified. 8th. A curtain composed of separate sections, each carrying a portion of a scene, and arranged when overlapped to form a complete scene, substantially as described. 9th. A curtain composed of separate reversible sections, each carrying a portion of a scene, and arranged when overlapped to form a complete scene, substantially as described.

No. 30,024. Blotting Pad. (*Coussinet-buward*.)

Moses Aflalo and James A. Gamo, London, Eng., 20th October, 1888; 5 years.

Claim—1st. A blotting pad mounted on a stiff backing, and furnished with a loop *b* for encircling the finger, or fingers, of the user, substantially as herein described. 2nd. A blotting pad mounted on a backing or lining *a*, and formed with a projecting tab *c* which, when folded over and secured to the stud *d*, forms a loop for the thumb, the pad being further provided with a loop, or loops, such as *e*, adapted for encircling the hand, or hand and wrist, of the user, and for engaging with the stud or studs *e*, substantially as and for the purpose set forth.

No. 30,025. Manufacture of Implements and Tools having Cutting Edges. (*Fabrication des instruments et outils tranchants*.)

Josephus Hooper, Louisville, Ky., and Thomas Clark, New Albany, Ind., U.S., 22nd October, 1888; 5 years.

Claim—The method of making implements and tools with steel cutting edges from cast-iron, which consists in first casting a blank or hard casting of a form approximating that of the finished article, but of greater and uniform thickness of that portion intended for the cutting edges, then partially decarbonizing said blank, then working the partially decarbonized blank at its cutting edges until it assumes the shape of the finished article, at the same time condensing the grain at said edges and finally tempering said edges, substantially as described.

No. 30,026. Drier for Pottery, etc. (*Séchoir pour poterie, etc.*)

George W. Sharor, Terre Haute, Ind., U.S., 22nd October, 1888; 5 years.

Claim—In a drier, the combination of the drying chambers having flues under the bottoms, furnaces having flues communicating with the flues beneath the drying chambers, the air ducts *C* and *C'* in the side walls of the furnaces, and air ducts *c* and *c'* formed in the divisional walls of the furnace flues, and delivering into the air ducts of the drying chambers, and the air ducts *c* being connected with duct *c* by lateral passages, and air ducts *c'* being connected together by the duct *c'* and by it with passage or duct *c*, substantially as described.

No. 30,027. Improvements in Electricity Meters, parts of which improvements are applicable to Dynamo-Electric Generators and Motors. (*Perfectionnements dans les compteurs à électricité, en partie applicables aux générateurs et moteurs dynamo-électriques*.)

George Hookham, Birmingham, Eng., 22nd October, 1888; 5 years.

Claim—1st. An electricity meter for measuring currents of constant, or nearly constant, electro-motive force, consisting of an electro-motor with constant field arranged substantially as hereinbefore described and illustrated in the accompanying drawing, so that the driving force is proportional to the current to be measured, the said electro-motor being combined with an electric brake also moving in a constant, or nearly constant, field, preferably the same field as that in which the armature rotates, substantially as herein described and illustrated in the accompanying drawings. 2nd. An electricity meter for measuring electrical energy, consisting of an electro-motor arranged as hereinbefore described and in part illustrated in the accompanying drawings, so that the driving force is proportional either to the quantity of the current to be measured, or to its electro-motive force, and, therefore, to the product of these quantities, the said electro-motor being combined with a variable electric brake, the field of which brake is kept constant, either by the use of saturated electro-magnets, or electro-magnets made by a current of constant electro-motive force, or by the use of permanent magnets kept constant and capable of regulation by the means described, also the exciting of the electro-magnets, both of the motor and separate brake by the same shunt current, substantially as described. 3rd. In an electricity meter, the armature compound wound with a shunt circuit, having separate commutator and brush arrangements, for the purpose set forth. 3rd. *a* In an electricity meter, the armature and magnets compound wound with a shunt circuit of the conductor carrying the current to be metered, for the purpose set forth. 4th. *b* In an electricity meter, the armature compound wound with a shunt circuit, and the commutator brushes arranged with a positive lead on the commutator, for the purpose set forth. 4th. In electricity meters, the containing a constant field either for the brake, or the armature, or both, by the use of electro-magnets of such construction and dimensions that they are kept in a state of saturation by a shunt current of the circuit in which they are employed, substantially as herein described. 5th. In electricity meters for currents of constant electro-motive force, and in electric brakes, the employment of permanent magnets arranged as described, with polar surfaces very large in proportion to the space between them, unoccupied by iron for the purpose of maintaining their field constant, and the means described, for regulating the same when, or if necessary, substantially as herein described and in part illustrated in the accompanying drawings. 6th. In electricity meters, the construction and arrangement of parts forming a divided commutator, making contact by means of mercury placed in insulated vessels, substantially as hereinbefore described and illustrated in the accompanying drawings, and the use of the divided commutator in, and in connection with, dynamo machines or electro-motors, as described. 7th. The construction and arrangement of parts forming a commutator making contact by means of mercury placed in insulated vessels, the axis of revolution of the commutator being vertical, substantially as herein described. 8th. In an electricity meter, the pole pieces of the electro-magnets, or permanent magnet, having radial, or nearly radial, grooves formed in them, as and for the purpose described. 9th. In an electricity meter, the combination, with the brake disc, of wire wound in sector form on same, and having their ends joined up to the commutator, substantially as and for the purpose described. 10th. The arrangement and combination of parts hereinbefore described, and illustrated in the accompanying drawings, for diminishing the friction of the rotating axis of the motor in its bearings.

No. 30,028. Adding Machine.

(*Machine pour additionner*.)

Eugene W. Vest, Keokuk, Iowa, U.S., 22nd October, 1888; 5 years.

Claim—1st. In an adding-machine, a disk having a spiral series of holes, and a stop adapted to be inserted in any one of said holes, in combination with the registering-wheels, means for rotating them, and a stop carried by one of said wheels, and adapted to impinge against the stop first named for arresting the movement of the parts, substantially as set forth. 2nd. The combination, with the revolvable registering-wheels, of a disk having a spiral series of holes, a stop-pin adapted to be inserted in any one of said holes, and a stop carried by one of said wheels and adapted to impinge against the stop-pin for arresting the rotation of said wheels, substantially as set forth. 3rd. In an adding-machine, the combination, with the registering-wheels and a movable stop-bar having connection with the units-wheel, of a disk having a spiral series of holes, a stop-pin adapted to be inserted in any one of said holes, and means for moving the end of the stop-bar, the distance between two adjacent rows of holes each time there has been a complete revolution of the units-wheel, substantially as set forth. 4th. In an adding-machine, the combination, with the revolvable registering-wheels and a sliding stop-bar movable in unison with the units-wheel, of a fixed disk having a spiral series of holes, a movable stop adapted to be inserted in any one of said holes, and means for moving the sliding stop-bar, the distance between two adjacent rows of holes at each complete revolution of the units-wheel, substantially as set forth. 5th. In an adding-machine, the combination, with the registering-wheels and a disk having a spiral series of holes, and a spiral cam groove, of a stop-pin adapted to be inserted in any one of said holes, and a stop-bar moved by the cam-groove the distance between two adjacent rows of holes each time the units wheel makes a complete revolution, substantially as set forth. 6th. In an adding-machine, a disk having a spiral series of holes and a corresponding cam-groove, in combination with a shaft passing centrally through it, a movable stop-bar carried by said shaft and engaging in said cam-groove, the registering mechanism actuated by the rotation of the shaft, and a stop-pin