

**No. 5996. Improvements in Pumps.**

*(Perfectionnements dans les pompes.)*

William Lott, Elmwood, Ill., U. S., 24th April, 1876, for 5 years.

*Claim.*—1st. A double acting pump having a main stock provided with a spout and pistoted handle or lever carrying the piston rods provided with bucket valves, the reservoir or tank *f* connected with the upper and lower tubing *h, g*, by means of a plate *A* the upper end of lower tubing being fastened thereto by a strap plate *B*, and screw bolts. 2nd. The bucket valve made in two sections *B, C*, the upper section *B*, being connected to the piston rod *d*, and secured to the lower section by means of the rods *e, b*, and screw nuts and having a downwardly projecting stop *m*, to prevent the valve *A*, from coming out of the opening in which it works in combination with the adjustable ring *z*.

**No. 5997. Type Setting Machine.**

*(Machine à poser les caractères.)*

Samuel W. Green, New York, U. S. (Assignee of Charles W. Dickinson); 24th April, 1876, for 5 years.

*Claim.*—1st. The front rest formed by the edge of the glass plate for giving a support to the face end of the type, as it is ejected from the case, before the bottom end is disconnected from the line in the case so as to hold the type from turning and secure its delivery with the proper side down. 2nd. A guiding apparatus consisting of a fixed inclined back plate on which the type grooves are formed and a removable inclined plane of glass, or similar smooth transparent substance, which completes the channels and on which the types slide down upon one of their sides from the case to the race in which they are to be set; 3rd. A vibrating tumbler in combination with the plunger which expels the type and with the reciprocating clutch which gives motion to the plunger so arranged that it will not engage with the reciprocating clutch until it is brought into connection by the action of the key pressed to set a type. 4th. The combination of the two followers for pressing forward the line of type which is fed into the type channel by the conductor, one of which has a short reciprocating movement and the other of which pushes forward the entire line out of the channel into the galley when enough type has been set up to form a single line of a column; 5th. In combination with the principle slide rest, the temporary rest for supporting the type as they are moved down the channel during the time when the principal slide is out of action; 6th. The combination of the slide rest of the machine with the apparatus for separating the line of type of the length required for a column so that when the slide rest has been moved far enough to form a line of the required length it will automatically set in action the second follower and the apparatus for making up the line into a column; 7th. The selecting mechanism which is automatically locked while a single line of type is being moved out of the channel, in combination with a temporary rest which is brought into position to receive type which may be conducted into the channel during the transfer of the forward line. 8th. The combination with an apparatus for moving a line of type out of the race where it is formed into the galley, of an automatic apparatus for leading the line of type and for moving it sidewise out of the track of the slide rest. 9th. A friction clutch for so controlling the slide rest that it is held pressed against its slide when moving in one direction and is automatically liberated to run freely in the opposite direction; 10th. The combination of a mechanism in which types are selected by keys with an apparatus which automatically makes up each completed line of types into column.

**No. 5998. Improvements on Refrigerators.**

*(Perfectionnements aux rafraichisseurs.)*

Edgar B. Jewett, Buffalo, N. Y., U. S., 24th April, 1876, for 5 years.

*Claim.*—1st. The combination with the ice receptacle *A*, of the inclined air cooling chamber *C*, provided with an air inlet and escape openings, and the overflow apertures *d*, arranged near the highest point of the air chamber; 2nd. The combination with the air cooling chamber *C* of the inclined gutters *E*, said gutters being arranged directly underneath the projecting ridges of the lower plate of said chamber and emptying into the main gutter *F*, for the purpose of conveying the drippings from said plate to the exterior of the refrigerator. 3rd. The combination with the side plates *H, I*, of the ice receptacle *A*, of the gutters *h, i*, said gutters being formed by bending the lower inclined edge of said plates upwardly; 4th. The jacketed gutter *F*.

**No. 5999. Car-coupler. (Accoupleur de wagons.)**

James B. Smith, Amabel, Ont., 24th April, 1876, for 5 years

*Claim.*—1st. A curved guard-spring *C*, extending over the hook *B*, in combination with a draw-head *A*, provided with a spur-shaped base *O*, with a lever *N*; 2nd. The pin *M*, passing through the plate *L*, and block *F*, in combination with the springs *D*, and *D'*, held within the draw-head *A*, by the spring plates *E*.

**No. 6000. Type Distributing Machine.**

*(Machine à distribuer les caractères.)*

Samuel W. Green, New York, U. S. (Assignee of Charles W. Dickinson), 24th April, 1876, for 5 years.

*Claim.*—1st. The detaching type driver combined with actuating means, whereby it is forced against the type, first by a feeble spring pressure, sufficient only to detach the type from its connection with the line of type, and afterwards, when the type has been detached, by a stronger spring pressure for the purpose of carrying the type into a position when it is controlled by another mechanism in the distributing machine; 2nd. The combination with a type driver and a type carrier, of an elastic tongue, which is moved to advance of the movement of the type driver, and which constitutes a guide for leading the type into the carrier, as it is forced in by the type driver and which opens the clutch of the type carrier. 3rd. Type carriers each so constructed as to receive and hold a type, each carrier being a complete independent removable instrument for that purpose by itself. 4th. In combination with the type carriers two plungers moving in opposite direction the one operating on the front and the other on the rear of carriers, or other equivalent devices for moving a number of type carriers with an intermittent motion permitting an interval of rest for the purpose of removing the type; 5th. In combination with the type carriers two drivers moving in opposite directions simultaneously acting the one forcing one carrier from

the front to the rear row, and the other forcing one carrier from the rear to the front row with an intermittent motion; 6th. The combination of cams *Q*, and *Y*, with the plungers and drivers for presenting a constant succession of type carriers to the driver a single one at each stroke of the type driver for the purpose of receiving the type. 7th. In combination with the type carriers the two pairs of channel ways for the movement of the carriers so that the rows of carriers in each pair will be moved in lines parallel to each other and in opposite directions. 8th. The combination of the hook or catch for ejecting the type from the carrier with a sliding detent for dropping the hook into action and a slide armed with projecting pins for determining the denomination of the type in the carrier. 9th. The combination of independent travelling carriers carrying type to be distributed with a series of hooks or catches for ejecting the type from the carrier at the appropriate places; 10th. The combination of a movable finger *C*, with the cut off plunger *A*, and the controlling lever *E*, 11th. In combination with the type carrier, the improved ejector for throwing the type out of the carrier operating without a spring; 12th. In combination with the type carrier a stop *Q*, so arranged that the ejector is held back, as the carrier is driven forward to the initial point of the carrier movement. 13th. The combination of the ejector hooks, with vibrating toes or cams, for the purpose of elevating the hooks independent of their own movement; 14th. The combination of the rocker arm *Y*, with hook *W*, operated by the cam *V*.

**No. 6001. Improvements on Grain Separators.**

*(Perfectionnements aux séparateurs des grains.)*

Hermann Kurth and Edward P. Allis, Milwaukee, Wis., U. S., 24th April, 1876, for 5 years.

*Claim.*—1st. The combination of a revolving cylinder, having a perforated surface with a self-adjusting roller revolving about an axis parallel to the axis of the cylinder and situated directly over the cylinder, so that outer surfaces of cylinder and roller are always in contact, whereby any grains lodging in the perforations of the cylinder are forced back into said cylinder by the weight of the roller coming upon them. 2nd. The combination of a revolving cylinder, having indentations in its inner surface, with a cylinder of a smaller diameter having a perforated surface, and revolving in an opposite direction a self-adjusting roller a revolving brush, a catch board, covered trough and endless conveyer.

**No. 6002. Improvements in Globe Valves.**

*(Perfectionnements dans les soupapes à boule.)*

Nathaniel C. Locke, Salem, Mass., U. S., 24th April, 1876, for 5 years.

*Claim.*—1st. The prolongation or extension *H*, to valve stem seat *b*, constructed and formed to closely fit within and to continuously surround the valve opening *E*. 2nd. The combination with the prolongation or extension *H*, of valve stem seat *b*, constructed to closely fit within and to continuously surround the valve opening *E*, of the seat *a*, located relatively to the valve opening *E*. 3rd. The end of the prolongation *H*, to valve stem seat *b*, bevelled. 4th. The combination of the seat *a*, of the valve case constructed with a recess *g* with the seat *b*, of the valve stem all so as to leave the recess *g* open and clear when the seat *b*, of the valve stem is closed against the seat *a*.

**No. 6003. Improvements on Horse Rakes.**

*(Perfectionnements aux râles aux chevaux.)*

John F. Thomas, Hion, N. Y., U. S., 24th April, 1876, for 5 years.

*Claim.*—1st. A driving wheel *B*, for a horse hay rake having its hub provided with a detachable clutch or ratchet wheel *E*. 2nd. The combination of a rake wheel *B* having a cast iron hub and a detachable clutch or ratchet wheel applied to said hub. 3rd. The combination of the wheels *B*, provided with toothed clutches *E*, and sliding rods *F* mounted on the axle. 4th. In combination with the clutches *E* the sliding spring rods *F*. 5th. In combination with the rods *F*, the plungers *G* and *H*, links *I*, and lever *K*. 6th. In combination with the plunger *G*, mounted on the axle the stop arm *L*, mounted on the frame. 7th. The combination of the axle *A*, and the frame united by the hooks. 8th. The plates *O*, each adapted to hold two rake teeth secured upon the axle.

**No. 6004. Improvements on Churns.**

*(Perfectionnements aux barattes.)*

William Divell Burnhamthorpe, Ont., 27th April, 1876, for 5 years.

*Claim.*—In combination with the shaft *D*, the block *C*, having attached by means of hinges, the two wings *E* in combination with the stay *F*.

**No. 6005. Stove-pipe Thimble.**

*(Duville de tuyau de poêle.)*

John T. Hall, Caseville, Mich., U. S., 27th April, 1876, for 5 years.

*Claim.*—The combination of an outer sheet metal casing *A*, and a lining *B*, in sections of fire clay brick or other non-combustible material polygonal or of cylindrical form corrugated on one or both peripheries with or without the cast or sheet metal heads *C* having lugs *b*, and inwardly projecting wire or flange on lower end of casing *A*.

**No. 6006. Apparatus for the Manufacture of Illuminating Gas from Petroleum, &c.**

*(Appareil de fabrication du gaz d'éclairage avec du pétrole, &c.)*

John McLarty, Racine, Wis., U. S., 27th April, 1876, for 5 years.

*Claim.*—The combination of the oil supply pipe *a*, steam pipe *b*, coil *c*, and retort *B*, with a bech of coal gas retorts provided with pipes *f, g, g'*.

**No. 6007. Improvements on Advertising Devices.**

*(Perfectionnements aux appareils de publicité.)*

Robert D. Bannister and Samuel Milligan, Geelong, Australia, 27th April, 1876, for 10 years.

*Claim.*—Making advertising compartments *A*, so as to receive a number of cards and with a spring *B*, to press them forward.