

pipe than the said octaves from responding. 5th. An octave coupler, consisting of a set of pipes having the octaves of any pipe grouped together, with diagonal grooves between the adjoining octaves, and partitions for preventing any other pipe than the said octaves from responding. 6th. A pipe organ, having a set of pipes common to two stops or slides representing different qualities of tones of the organ, and means for affording air communication between the octaves of one stop and the octaves of another stop. 7th. A pipe organ, having a set of pipes common to two stops or slides, representing different qualities of tones of the organ, the pipe or pipes of any note and its octaves being grouped together, and means for affording communication between the octaves of one stop and the octaves of another stop. 8th. A pipe organ, having a set of pipes common to two stops or slides, representing different qualities of tones of the organ, the pipe or pipes of any note and its octaves being grouped together, and diagonal grooves for affording communication between the octaves of one stop and the octaves of another stop. 9th. A pipe organ, having a set of pipes common to two stops or slides, the air with communication between the octaves of one stop or slide and the adjoining octaves of another slide, valves operated by the keys controlling the admission of air to the pipes, and means for preventing the indiscriminate speaking of the pipes when the keys are actuated. 10th. A pipe organ having a set of pipes common to two stops or slides, means for affording air communication between the octaves of one stop and the octaves of another stop, valves operated by the keys controlling the admission of air to the pipes, and longitudinal partitions interposed between the said valves and slides. 11th. A pipe organ, having a set of pipes common to two stops or slides, the pipe or pipes of any note and its octaves being grouped together, means for affording communication between the octaves of one stop and the octaves of another stop, valves operated by the keys controlling the admission of air to the pipes, and longitudinal partitions interposed between the said valves and slats. 12th. A pipe organ having a set of pipes common to two stops or slides, diagonal grooves affording communication between the octaves of one stop and the octaves of another stop, valves operated by the keys permitting the admission of air to the pipes, and longitudinal partitions interposed between the said valves and slides. 13th. In a pipe organ, a partitioned valve seat, substantially as and for the purpose described. 14th. An organ having the octaves of the pipe or pipes of the different qualities of tones and notes arranged in groups, those of the same pipe and its octaves being arranged in the same group, whereby economy of space is secured. 15th. An organ having the pipe or pipes of the different qualities of tones and notes, and their octaves of the chromatic scale arranged in groups alternately at opposite sides of the organ, whereby economy of space is secured. 16th. An organ having the rollers or rock shafts of the roller board corresponding to the different keys arranged to bring the valves corresponding to the octaves of any note together in groups. 17th. An organ having the rollers or rocks of the roller shafts board corresponding to the different qualities of tones and notes, and their octaves of the chromatic scale arranged to bring the valves corresponding to the octaves of any note together in groups, alternately in groups, alternately on opposite sides of the organ. 18th. An organ having the rollers or rock shafts of its roller board composed of metal tubes with a plug in the ends thereof, and a journal pin extending from said plug, substantially as and for the purpose set forth. 19th. In a pipe organ, a rotary valve 82 having suitable perforations, substantially as and for the purpose described. 20th. The combination with the slides of an organ, of two stops for each slide, each of which stops is positively connected together and is pushed in or out by operating the other, and left in whatever position it is placed by the operation of the other, and connections intermediate the stops and slides, for the purpose described. 21st. The combination with the slides of an organ of two stops for each slide, a T-lever for each set of stops, to an arm of which T-lever each of the stops is respectively connected, and connections from the third arm of the T-lever to the slides, substantially as and for the purpose set forth. 22nd. In an organ, the combination of a bellows, means for actuating the same, an inflatable storage reservoir, and a plurality of pipes connecting the storage reservoir with the bellows at different points, whereby vibration of the storage reservoir is prevented. 23rd. In an organ, the combination of a bellows, and foot means or treadles for actuating the same by suitable connections, an inflatable storage reservoir at the bottom of the organ beneath the bellows, and means for affording air communication between the said bellows and reservoir and between the latter and the wind chest.

#### No. 40,831. Printers' Chase. (*Châssis d'imprimeur.*)

Elmer Heffelfinger, Shamokin, Pennsylvania, U.S.A., 2nd November, 1892; 6 years.

*Claim.*—1st. The combination, with a chase having side sticks with portions of their inner faces plane and other portions serrated, of a bar extending across the chase and having square ends bearing against said plane faces, catches connected to said bar, and means for projecting them beyond its extremities to engage said serrations and for retracting them, substantially as described. 2nd. The combination, with a chase, the inner edges of whose side sticks are provided with ratchet teeth inclining toward the centres from their ends, of a pair of bars extending across the chase, and catches at the

ends of said bars having bevelled outer faces detachably engaging said teeth, substantially as described. 3rd. In a printer's chase, the combination, with the chase having inwardly facing serrations on its side sticks, of a bar extending transversely across the chase, catches at the ends of said bar detachably engaging said serrations, the catches being pressed normally outward by springs, and handles connected to said catches and having their inner ends projecting from the bar, so as to be within reach of the operator, as and for the purpose set forth. 4th. In a printer's chase, the combination, with a chase, the inner edges of whose side sticks are provided with ratchet teeth, of a pair of bars extending across the chase, sliding catches at the ends of said bars, having bevelled outer faces detachably engaging the teeth, the catches at the ends of one bar only of the pair being pressed normally outward by coiled springs, flexible handles connected to said catches and passing through the springs, and loops at the projecting inner ends of said handles, as and for the purpose set forth. 5th. In a printer's chase, the combination, with the chase, its side sticks having grooves along their inner edges and serrations at the bottoms of said grooves, of a bar extending across the chase with its extremities resting in the grooves, said bar being recessed at its ends, a moving catch within each recess, and means for preventing the dislocation of the catches from said recesses in the bar, all as and for the purpose hereinbefore set forth. 6th. The herein described chase, the same composed of two parallel inner bars, two parallel outer bars, each comprising two members embracing the inner bars, and all the bars being provided with holes through their bodies at regular intervals, screws or pins detachably connecting the bars at their points of intersection, and bracing blocks outside said points, one end of each bracing block being reduced and the other end slotted to fit, respectively, between the members of the outer bar astride the inner bar, each and all as and for the purpose hereinbefore set forth.

#### No. 40,832. Apparatus for Casting Metals in Vacuo.

(*Appareil pour la fonte des métaux dans le vide.*)

William Speirs Simpson, London, England, 2nd November, 1892; 6 years.

*Claim.*—1st. The apparatus shown in the annexed drawings, consisting of an upper vessel with ladle, and a lower vessel with mould, the two vessels being separated by a fusible diaphragm, as described. 2nd. Arranging a ladle of molten in chamber, and placing the mould in another chamber, exhausting the air from both chambers, and providing the upper vessel with appliances for turning the contained ladle therein for the fluid metal to run into the lower vessel, as and for the purpose set forth.

#### No. 40,833. Door Check. (*Arrête-porte.*)

Charles H. Timms, John Day, Oregon, U. S. A., 2nd November, 1892; 6 years.

*Claim.*—1st. In a door stop and retainer, substantially as described, the combination, with the stops provided on its upper side with flanges, having corresponding longitudinal slats provided with an offset at their forward ends, of the slidable gravitating latch having a pivot, stud or lug projecting from opposite sides, and arranged to play in the slots and offsets of the flanges on the stop, substantially as and for the purpose specified. 2nd. In a door stop and retainer, substantially as described, the combination, with a bracket having an attaching flange, a semi-circular wall as *c*, and a lug arranged in advance of the wall *c*, and below the horizontal plane of the same, and provided with the vertical eye or aperture and the corrugated or ratchet like face, of the stop having the rounded lug *g* at its inner end, provided with a corrugated or ratchet like face adapted to engage the corresponding face of the bracket lug, and having an aperture corresponding with the aperture of said bracket lug, a pivot bolt taking through the aperture of the bracket lug, and the stop lug, and a wing nut mounted on said pivot bolt, substantially as specified. 3rd. The improved door stop and retainer described, comprising a bracket to be secured to the base or sill board of a room, a stop and a pivot bolt and a set nut for adjustably connecting the stop to the bracket, said stop being also provided on its upper side with flanges having corresponding longitudinal slots provided with an offset at their forward ends, and the slidable gravitating latch, having a pivot, stud or lug projecting from opposite sides, and arranged to play in the slots and offsets thereof, substantially as specified.

#### No. 40,834. Saw Straining Device.

(*Appareil de tension pour les scies.*)

Melvin Jinks, Cohocton, New York, U. S. A., 2nd November, 1892; 6 years.

*Claim.*—The combination of the saw frame constructed substantially as described with the strap *E*, having forwardly projecting eyes, the lever *F*, having a rearwardly projecting eye pivoted between those of the strap, the stirrup *G*, connected to said lever, and the straining rod *H*, all substantially as and for the purposes set forth.