

*Claim.*—A box for steaming lumber composed of sections, so that the size of the box or chamber can be increased or decreased at will, as shown; 2nd. The combination of the boxes *a, h* and frame *r*, as described.

No. 4286. EDINGTON B. DECKER, New-York, U. S., 21st. January, 1875, for 5 years: "Improvements in Boots and Shoes." (Perfectionnements dans les chaussures.)

*Claim.*—The india rubber or gutta percha shank piece *A*, as set forth.

No. 4287. WENDELL R. KING, Chicago, Ill., U. S., 21st January, 1875, for 15 years: "Baling Plastering Hair." (Emballage du poil à crépir.)

*Claim.*—The bale *B*, of plasterer's hair, consisting of several bundles *A*, containing a bushel each by weight, inclosed or incased in paper bags or similar material, and united compressed and secured to form a package as specified.

No. 4288. WILLIAM ASCOUGH, Buffalo, N. Y., U. S., 21st January, 1875, for 5 years: "Combination Square." (Equerre à combinaison.)

*Claim.*—The combination with a bevel square having a pointed tongue *B*, of the protractor *E*, spirit level *N*, and compass point *O*, all arranged to operate as described; 2nd. The combination with the stock *A*, of the moveable tongue *B*, and protractor *E*, when the same are turning upon the common pivot *C*, and moveably attached to each other by means of the thumb screw *G*, in the manner described; 3rd. The combination with the stock *A*, of the tongue *B*, protractor *E*, sights *I* and *L*, and thumb screw *K*, as described; 4th. The combination with the stock *A* of the pointed tongue *B*, and adjustable point *O*, as described.

No. 4289. WILLIAM INGLIS, Bolton, Eng., and JAMES INGLIS, Montreal, Que., 21st January, 1875, for 15 years: "Grain Storage Boat." (Bateau-magasin à grain.)

*Claim.*—1st. The floating vessel or boat, for storing or carrying grain, consisting of tank *A*, with outer bottom *B*, with inclined inner bottom *C*, and fenders or protecting boat, raft or boom *F*, as described; 2nd. The combination of floating tanks or bins *A*, with separate protecting boat, raft or boom *F*, as set forth.

No. 4290. HENRY RYDER, Somerville, Mass., U. S., 21st January, 1875, for 5 years: "Furnace Grate." (Grille de fourneau.)

*Claim.*—1st. The combination of a shaft *a*, having arms *c*, and legs *b*, not only with a grate frame *C*, provided with bearings *f*, for the feet of the said legs, but with a series of grate bars *B*, having notches or recesses *A*, to receive the arms at their ends as specified; 2nd. The combination of the stationary and moveable grate bars *A, B*, and the operative mechanism of the moveable bars *B*, with a series of friction rollers *l*, applied to support the moveable bars, and to them and the grate frame; 3rd. The combination of a friction roller *l* and a separate axle *m*, going through and supporting it with each moveable grate bar *B*, and the support frame *C* thereof; 4th. The friction rollers *l*, provided with grooves or slots to receive such extensions as described; 5th. The grate support frame *C*, provided with stationary tenons *n*, in combination with the stationary grate bars *A*, provided with grooves, slots, or mortises to receive such tenons; 6th. Not only in a grate support frame *C*, a series of moveable grate bars *B*, machinery for moving the latter back and forth longitudinally but in rollers *l*, applied to the frame and to support, as described, the grate bars while in motion, all being as specified; 7th. The shaft *a* having each foot grooved as shown at *n* in figure 13 in combination with the bearing *f*, provided with the curved projection *h*, to enter said foot as shown; 8th. The bars of one set of grate bars having their upper edges or teeth extending above the upper edges of the bars of the other set, as set forth; 9th. The inclined guards *D, D*, combined with the furnace and two sets of grate bars as described.

No. 4291. FRANK RHIND, Brooklyn, N. Y., U. S., 21st. January, 1875, for 5 years: "Improvements in Lamps." (Perfectionnements aux lampes.)

*Claim.*—1st. A combined lamp-extinguisher and flame spreader formed of two pivoted wings that move up over the flame from the ends of the wick and cause the flame to spread as set forth; 2nd. The combination of the spring *z*, bent as shown and secured to the under side of the burner with the slotted pivoted wings *a*, the wings being made to open backward when an upward pressure is applied to the under side of the spring, as set forth; 3rd. The combination of the hand plate *d*, having ring *e*, attached to its upper end with the operating rod *c* as shown; 4th. The combination of the rod *c*, having the ring *b*, secured to its upper end with the

bent spring *z*, and hinged and slotted extinguisher *a*, as shown; 5th. A lamp bowl or other vessel having a tube *u*, open at both ends, passing through it, the said tube being blown with the bowl or vessel, as set forth.

No. 4292. ROBERT C. BROOKS and ABRAHAM J. VAN WINKLE, San Francisco, Cal., U. S., 22nd January, 1875, for 5 years: "Process and Apparatus for distilling Alcohol Extract from Wort." (Procédé et appareil de distillation de l'alcool extrait de mout.)

*Claim.*—1st. The process of producing alcoholic spirits free from fusil oil by a single distillation; the same consisting in first vapourizing and removing the ether from the still, and then increasing the temperature until the alcohol vapourizes and passes off without raising the temperature in the still high enough to vapourize the water and fusil oil in the charge of wort, as described; 2nd. Alcoholic spirits obtained by first separating and removing the ether from the charge of wort, and then vapourizing and distilling the alcoholic spirits without vapourizing or separating the water and fusil oil from the wort, as described; 3rd. The column or still *R*, consisting of two or more chambers, in combination with the condenser and separator *P*, vat *A*, and condensing tank *D*, when combined and connected as described and arranged to operate as specified; 4th. The improvement consisting in extending the stand or induction pipes *12* above the surface of the wort in the chambers of the still as described; 5th. A low temperature condensing tank or separator *P*, constructed as described and located between the upper chamber of the still and the main condenser *D*, when provided with a draw off pipe, as described; 6th. In combination with the condenser and separator *P*, the pipe *25* and tank *27*, as specified; 7th. The closed vat *A* having the main vapour pipe *14*, coiled inside of it so that the vat will serve as a preparatory heating chamber, or fourth chamber of the still, and connected with the upper chamber of the still by a conducting pipe *1*, as described; 8th. The pipes *4* and *6*, which connect the chambers of the still, when regulated by valves *3* and *5* in combination with vat *A*, with its conducting pipe *1* and its valve *2* as described; 9th. The combination whereby the temperature of the still can be automatically regulated, by maintaining a current of water through the condensers, the same consisting in the water tank *D*, with its overflow pipe *32* which leads into the condenser and separator *P*, and also the separator overflow pipe *34*, the temperature being rendered automatic by the intermittent action of the still as specified; 10th. The improvement in distilling apparatus, consisting in providing pipes of sufficient size for vapour to pass through freely without creating a pressure in the body of the still, as described; 11th. The process of utilizing the low wines or third run of the purating still for reducing the proof of the second run, for the purpose specified.

No. 4293. JOSEPH K. FEICK, Berlin, Ont., 23rd January, 1875, for 5 years: "Last for making Seamless Boots." (Forme pour faire des chaussures sans coutures.)

*Claim.*—1st. The combination of a last or tree for seamless felt boots, gaiters, shoes and slippers, made in three pieces, the heel-piece *A*, the lengthening piece *B*, and the widening piece *G*, having a notch *D*, as described with the block *D*, the inner ring *E*, the outer ring *F*, and the bale *G*; 2nd. The combination of the block or top piece *D*, the inner ring *E*, and the outer ring *F* with a boot last *A*; 3rd. The combination of the bale *G*, its arms *h, h*, and clamping screw *H*, with the block *D*, and the last *A, B, C*.

No. 4294. WAREHAM S. WISNER, Brantford, Ont., (Assignee of C. P. BROWN,) 23rd January, 1875, for 5 years: "Improvements on Seed Sowing Machines." (Perfectionnements aux machines à semer les grains.)

*Claim.*—The valve *I*, as and for the purposes set forth.

No. 4295. CHARLES C. MOORE, Elizabeth, N. J., U. S., 23rd January, 1874, for 5 years: "Pencil Holder for Slate Frames." (Porte-crayon d'ardoise.)

*Claim.*—1st. In combination with a slate frame having recesses *A*, and *B* and shaft *D*, provided with a pin *f* or equivalent holding and operating device, and the spring *E* as described; 2nd. The combination with the shaft *D*, and pin *f*, of slot *C*, in the slate frame; 3rd. In combination with a slate frame having recesses *A, B*, shaft *D*, and spring *E*, the slot *C*, when provided with bevelled edges *H*, as described.

No. 4296. JOHN C. PEACOCK, London, Eng., 23rd January, 1875, for 5 years: "Gas and Fuel Stove." (Poele à gaz et à combustible.)

*Claim.*—1st. The general form of construction which allows any sort of fuel and gas to be burned in the same apparatus; 2nd.