ing the flanged part of its counter and counter stiffener laid flat on the lift *e* inserted between the counter and sole, and nailed or pegged thereto, while the upper of the shoe, from the shank forward, is secured to a wale or ridge of the sole by stitches which do not penetrate the entire substance of the sole as common in turned work.

No. 13,327. Hammock Chair. (*Chaise-hamac.*)

Samuel R. Robinson, Antrim, N. H., U. S., 29th August, 1881; for 5 years.

Claim.—1st. The sack bottom A, back bars *a*, leg bars *e*, connecting links *b c* pivoted between them, and rounds or bars *g f d* combined with the suspension ropes *l m* connected with the said back bars and connecting links, whereby the parts supported by the suspension ropes are held in balanced position, when the back pieces and sack bottom are in position for a chair and for a hammock. 2nd. In a swinging chair convertible into a hammock by the horizontal extension of the back bars and leg bars of the chair, the foot rest and its flexible suspension cords supported with relation to the round *f* which serves as the joint between the arm links and leg bars to permit the foot rest to move longitudinally in the direction of the length of the leg bar, when the chair is converted into a hammock. 3rd. A swinging chair convertible into a hammock, and its suspension ropes provided with loops m^2, combined with the tripod having hooks or projections to support the chair.

No. 13,328. Improvements in Hose Couplings. (*Perfectionnements aux manchons des boyaux.*)

Peter Lord, Eusébe Mignault and Jean B. Vinet, Montreal, Que., 29th August, 1881; for 5 years.

Claim.—1st. The combination of the bush A having flange E, with the bush B having groove F, and flange G. 2nd. The combination of the bush A having flange E, with bush B having groove F, flange G and collar I with nut H.

No. 13,329. Improvements in Ironing Boards.

(*Perfectionnements aux planches à repasser.*)

Richard Troy and George O. Roberts, Oshawa, Ont., 29th August, 1881: for 5 years.

Claim.—1st. The combination of the board A with the arms C, lever I, set screw J and cross rails E F. 2nd. The combination, with the vertical legs O and notches *n*, of the pressing board N with the slot B in the board A.

No. 13,330. Process for Refining Sugar, Saccharine, Oil, &c. (*Procédé pour raffiner le sucre, les matières succharines, l'huile, &c.*)

Bernhard H. Remmers and John Williamson, Glasgow, Scotland, 29th August, 1881; for 5 years.

Claim.—The treatment of sugar, liquors and oils, with pulverized vegetable charcoal.

No. 13,331. Improvements in Barrel Hoops.

(*Perfectionnements aux cercles des barils.*)

James Naylor, Jr., Rochester, N. Y., U. S., 29th August, 1881; for 5 years.

Claim.—1st. The method of dressing hoop blanks, which consists in cutting off the stock to form the level and round the corners from the same side of the blank, and at one and the same operation. 2nd. The method of forming a barrel hoop from a cut blank, which consists in cutting the level on the checked side, and coiling the same with the checked side out. 3rd. As an improved article of manufacture, in a barrel hoop formed of a cut blank coiled with the checked side out, and having the whole bilge thereon upon the inside thereof.

No. 13,332. Improvements on Flower Stands.

(*Perfectionnements aux jardinières.*)

William D. McCallum, Truro, N. S., 29th August, 1881: for 5 years.

Claim.—1st. In a flower stand made with an outwardly projecting bevelled flange along its edges, and with a series of shelves' hangers and pedestals. 2nd. The combination, with the flower stand A, of the outwardly projecting flange R along the upper edges. 3rd. The combination, with the flower stand A, of the shelves S and the upright rods H having ornemental arms E at the top. 4th. The combination, with flower stand A, of the shelves S, the rods H having ornamental arms E, and the pedestals L. 5th. The combination, with the shelves S, of the rod L, the plate Z and the binding screw Q. 6th. The combination, with the flower stand A, of the pans or vessels Z and the sides of the pan or vessel provided with flanges overlapping the upper edges of the vessels.

No. 13,333. Improvements on Hoop Coiling Machines. (*Perfectionnements aux machines à rouler les cercles.*)

Alexander F. Ward, Chatham, Ont., 29th August, 1881; for 15 years.

Claim.—1st. In a hoop coiling machine and as a means of giving an intermittent motion thereto, the combination of a pulley D, counter shaft E and friction wheel H, oscillating box F, spring *b*, connecting rod J and treadle I with the main driving pulley C of the machine. 2nd. In combination with the coiling disk K and its holding dog L, the spider N sleeved on the main shaft B and provided with a hub *l* and adapted to simultaneously push the hoop coil off the disk and release the dog by means of a counter balanced treadle lever R, and the connecting levers between the same and the spiders. 3rd. In combination with the rotating coiling disk K, the strap U pivotally secured to the plate T (which is provided with the adjustable nipper b^2), and to the counter balanced lever V and the guard Y. 4th. As a means of projecting and retracting the spider N and its attachments, and adjusting the guard finger P, the weighted treadle lever R, rock shaft A, crank arms *s*, lever *u p r* and bell crank *o* pivotally secured to the frame. 5th. The swinging plate T provided with an adjustable pivot *u*, for the purpose of regulating the distance between it and the guide bar Y to the relative width of different hoops operated upon, and to guide them properly in the act of coiling.

No. 13,334. Combined Harrow, Seeder and Roller. (*Herse, semoir et rouleau combinés.*)

Robert Lang and James B. Lang, Lindsay, Ont., 29th August, 1881: for 5 years.

Claim.—1st. The combination, with the rotary harrows I J, of the runners L attached, at their front and rear ends, to pivoted frame H, the forward part of the runners being made sharp and thin, to enter the ground and allow the harrow teeth to operate. 2nd. The combination, with the hinged frame H and the rotary harrow I J, of the bar W carrying the drill teeth V and the draw rods X, whereby the seed will be deposited in soil mellowed by the harrow. 3rd. The combination, with the roller A, the top frame S and the seed hopper R, of the friction wheels Z, the cone pulleys and band Y *a b*, the pulleys and band *e g f*, the grooved sub-dropping cylinder *h* and the slotted apron *i*, whereby the seed is taken from the seed hopper, and discharged into the conductor tubes by the advance of the roller.

No. 13,335. Improvements in Wash Basins.

(*Perfectionnements aux cuvettes de toilette.*)

Charles H. Moore, Yonkers, N.Y., U.S., 29th August, 1881: for 5 years.

Claim.—1st. The combination, with a wash basin, of a float operating loosely in an enlarged float chamber, and arranged to a valve having a conical or flat seat, by means of a spindle, or its equivalent, in a manner to lift said valve when water increases in the basin above a certain height. 2nd. In a wash basin, bath tub or water closet, a float fitted loosely to a spindle and arranged to open a valve to permit the escape of any accidental accumulation of water. 3rd. The combination, with a wash basin, of a water retainer fitted upon the spindle of the outlet valve, and provided with a small aperture at or near the bottom.

No. 13,336. Improvements on Harvesters.

(*Perfectionnements aux moissonneuses.*)

Samuel D. Maddin, St. Paul, Min., U.S., 29th August, 1881; for 5 years.

Claim.—1st. In a mower or reaper, a frame supported by the wheels, a frame A carrying the cutter bar, and centrally pivoted, at the rear, to the main frame, and a driving crank arranged upon the shaft concentric with the pivot, and connected to the cutter bar to operate the same. 2nd. The combination of the frame J carried by the wheels, the frame A centrally pivoted to the frame J, the crank wheel C, a side crank shaft H and rods or links connecting the cranks of said shaft to the cutter bar and to the driving wheel. 3rd. The combination of the frame J, frame A and appliances for raising and depressing the rear bar of the frame A. 4th. The combination of the frame J, the frame A having a shank A^2 with bars e e^1 fitting in sockets of said shank, bearing wheels at the forward end of the frame A and appliances for raising and depressing the rear bar of said frame. 5th. The combination, with the frame A pivoted as set forth, of the independent crank shafts M M^1 connected each to the rear bar and frame, and devices for adjusting said shafts separately or together. 6th. The combination of the crank shafts M M^1 having notched hubs e^3 e^4, the notched bracket e^5, slides e^5 e^6, pawl e^9 and cranks e^7 e^8. 7th. The combination, with the frame A, of bearing wheels 3 arranged back of the cutters, and appliances for raising and depressing the rear portion of the frame. 8th. The combination of the frame A and the guards 15, and jointed shields and gathering plates 16 17. 9th. The frame A consisting of tubes and corner pieces d^1 d^1 d d, the latter provided with appliances for securing the bars of the frame after adjustment. 10th. The combination of the pivoted frame A, frame J and diagonal stays *h*. 11th. The combination of the guards, a knife in two sections and rock frames at each side of the frame, each connected to the adjacent knife section, and with the driver from a central wheel C. 12th. The combination of the rope or cord X^1, the standard f^1 having eyes for the passage of the cords below the line of horizontal draft, and the whiffletrees X X secured to the ends of the cords. 13th. The combination of the elbows d^1 d^1 or their equivalent tubular bar e^3, and guards e^3 secured to the same, with means for turning the bar e^3. 14th. The combination of the bars e^3, crank shafts H H^1, cutters and appliances, whereby each cutter is driven through two fingers or guards at each stroke. 15th. The combination, with the jointed and pivoted frames, of the balanced seat J.

No. 13,337. Improvements on Car Replacers.

(*Perfectionnements aux replaceurs des chars.*)

Johnson Bremer, Bloomfield, Ont., 29th August, 1881: for 5 years.

Claim.—The sectional platforms 3 3 3 3 having diagonal rails 4 and a front incline, the outer portion of the platforms level with the top of the rails of the track, and the inner portion below the same, the platforms having a plate iron covering forming a flange 5, whereby the displaced car is mounted to the level of the rails by the incline of the platform and swung into position on the rails by the diagonal rails 4.

No. 13,338. Improvements on Locks. (*Perfectionnements aux serrures.*)

George M. Hathaway and Benjamin S. Taylor, Jersey, N.J., U. S., 29th August, 1881: for 5 years.

Claim.—1st. The spring hasp having lock chamber and keeper chamber combined with a permutation lock and keeper. 2nd. The hasp B having sleeve C and circular recess G, surrounded by the surface H having figures thereon, combined with the shank E, plate F, hinged plate F^1 and lock mechanism. 3rd. The combination of the disks D D^1 having pins d^1 d^2 and recess d d^3, with the pivoted pawl K *k*, and bolt L^1 having the arm L and recess *l*. 4th. The single spring J formed at one extremity into independent spring arms J which bear upon the disks, and the other extremity bearing against the shoulder K, of the pawl combined with the disks D, pawl K and lock bolt L L^1 *l*. 5th.