No. 14,725. Improvements in Knock Down Return Barrels. (*Perfectionnements aux barils brisés.*)

Francis S. Olmsted and George Huffman, Cedar Falls, Iowa, U.S., 4th May, 1882; for 5 years.

Claim.—The cylinder staves *a*, the flexible bands *b* connected thereto, the fastenings *c* connecting the staves to the bands, the band connecting bolts, end flanges *d*, spring catches R. bottom *e* and head *h*.

No. 14,726. Improvement in Process for Burning Lime. (*Perfectionnement des procédés pour cuire la chaux.*)

Fred B. Livington, Morrisville, Vt., U. S., 4th May, 1882; for 5 years.

Claim.—The process for burning lime from a crystalline carbonate of lime which crumbles in the kiln when being heated, and consisting of the addition, in sufficient quantity, of silicious sand to coat the exterior surface of, and impregnate the fragments with a silicate of lime which is formed by the sand and lime under the influence of the heat in the kiln, while the lime is being burned.

No. 14,727. Improvements on Curtain Fixtures. (*Perfectionnements aux bâtons des rideaux.*)

Chauncey Buckley, Meriden, Ct., U.S., 4th May, 1882; for 5 years.

Claim.—1st. A curtain fixture in which a wood roll is employed, and which has a longitudinal chamber at one end, and constructed with a longitudinal concentric hole extending from the opposite end inward, and of the same or less diameter than the body of the gudgeon to be introduced. 2nd. A curtain fixture consisting of the wood roll, having a longitudinal chamber at one end to receive the spring and spindle, a mechanism between the spindle and roll which will permit the roll to turn freely in drawing down the curtain, also to turn freely when the curtain is being wound rapidly onto the roll, but automatically engage the roll and spindle, when the winding up of the curtain is retarded, the roll at the other end constructed with a longitudinal concentric hole extending from the end inward, and of the same or less diameter than the body of the gudgeon to be introduced. 3rd. In a curtain fixture, the combination of the roll, spindle and spring arranged therein, the pawls *s t* hung to the roll, constructed and arranged to engage the spindle.

No. 14,728. Improvements on Hoop Planing Machines. (*Perfectionnements aux machines à planer les cercles.*)

Henry F. Campbell, Corcord, N. H., U. S., 4th May, 1882; for 15 years.

Claim.—1st. In a machine for dressing or planing hoops, the elastic bed roll D and cutter head B parallel therewith, having their axis in fixed bearings combined with the pressers to act upon the woody side of the hoop to be dressed, and imbed the knots, warts and protuberances at its bark side, into the surface of the said elastic bedroll, whereby the hoop may be dressed smoothly on its woody side irrespective of, and without weakening it at or opposite its knots, warts or protuberances. 2nd. The angularly grooved lower feed roll, and the upper feed roller provided with the shouldered groove to receive a sawed hoop, combined with the elastic bedroll and cutter head, having their axis held in stationary bearings, and with the presser located in front of the bed roller, to act upon the hoop and imbed its projections at the bark side, into the said elastic bedroll. 3rd. The annularly grooved lower feed roller, and the upper feed roller grooved annularly to approximate in shape and receive the hoop to be dressed, and the guide at the rear of the said feed rolls to direct the movement of the said hoop, combined with a presser located in front of the bedroller and with the cutter head and elastic bedroller, each having its axis held in substantially fixed bearings. 4th. The elastic bedroll and cutter head, having their axis in substantially fixed bearings, and the pressers located each side thereof, to imbed the knots, warts and protuberances at the bark side of the loop into the said elastic bedroll, combined with annularly grooved feeding rollers, and with the drawing rollers, that one of the drawing rollers to engage the bark side of the hoop being covered with india rubber. 5th. The improvement in the art or method of dressing flexible hoops, which consists in temporarily straightening the crooked hoop in front, and at the rear of the top of, and imbedding the knots, warts and protuberances at the back side of the hoop, into an elastic bedroll, the surface of which is made to yield to said protuberances, and at the same time dressing or planing the back or woody side of the hoop, by a blade which always moves in the same path with relation to the axis of the bedroll, whereby the proper amount of woody material is retained in the hoop opposite the knots, warts or protuberances thereon. 6th. The cutter-head and elastic bed roller, combined with the india rubber over drawing rollers, and the corrugated drawing rollers above them. 7th. The cutter-head, bed-roller and feed-rollers, combined with the guide having a series of passages and provided with guide rollers to bear against the sides of, and direct each hoop independently. 8th. The cutter-head, and means to support the material being planed, combined with the curved carrier bar, and presser foot mounted thereon, to rise and fall. 9th. The cutter-head, the elastic bed roller and the curved carrier bar, combined with a series of independent presser feet placed side by side thereon, to rise and fall in a curved path. 10th. The presser foot and its rollers, combined with the curved carrier bar. 11th. The cutter-head and elastic bed-roller, presser foot and its rollers, and curved carrier bar, combined with the levers and means to vary the pressure of the said lever on the foot, according to the work to be done. 12th. The cutter-head, elastic bed roller, the series of presser feet, the curved carrier bar, and means to vary the pressure of the said feet on the material being planed, combined with the guide having a series of passages and rollers.

No. 14,729. Improvements on Halters.

(*Perfectionnements aux licous,*)

Charles S. Upton and Charles E. Coates, Spencerport, (Assignees of Henry Rorebeck, Parma,) N.Y., U. S. 4th May, 1882; for 5 years.

Claim.—The combination, with the leather head piece A and nose piece B, of the rope or strap C provided with the two bights or branches C_1 C_1, said bights being permanently attached to the ends of the nose piece, thence extending upward and passing loosely through the loops on the ends of the head piece, thence extending downward joining together and having a loop at the bottom through which the main end of the rope passes, thus forming a noose.

No. 14,730. Improvements in Tuyeres.

(*Perfectionnements aux tuyères.*)

William M. Riggin and Abram A. Riggin, (Assignees of George W. Riggin,) Madisonville. Ky., U. S., 4th May, 1882; for 5 years.

Claim.—1st. The circular hollow water chamber formed with hollow transverse grate bars connecting and opening therein, and pipe connections. 2nd. The circular hollow water chamber formed with hollow transverse grate bars, pipe connecting means and fastening lugs, in combination with the chamber and tuyere pipes. 3rd. The circular hollow water chamber formed with connecting transverse grate bars, the tuyere pipe and chamber formed with the projecting piece, and the movable bottom.

No. 14,731. Improvements in Folding Beds.

(*Perfectionnements aux lits pliants.*)

Fitzallan B. Williams and Waldo A. Williams, Chicago, Ill., U. S., 4th May, 1882; for 5 years.

Claim.—1st. In a folding bed, a shifting fulcrum consisting of two segments, or of a segment and straight projecting cleat, in combination with the upright frame and folding frame. 2nd. The head-board provided with weights and hinged to the head end of the folding frame and at a point above the fulcrum so that the leverage of the weight shall be increased during the first half of the operation of folding the bed. 3rd. A shifting fulcrum, in combination with the weight hinged to its lever, at a point above the level of the fulcrum. 4th. The weight hinged to its lever, at a point considerably above the level of its fulcrum. 5th. The head board made hollow and provided with one or more doors or shelves, and arranged to slide up and down on the upright frame. 6th. A rod *g*, in combination with lug g^1 upon the leg, and pivoted levers H H_1.

No. 14,732. Improvements in Knitting Machines. (*Perfectionnements aux machines à tricoter.*)

The Shaw Glove Company, Boston, (Assignee of Herbert C. Shaw, Needham,) Mass., U. S., 4th May, 1882; for 5 years.

Claim.—1st. The combination of two or more separate sets of latch needles provided with studs arranged in each set, with carriers for supporting and guiding such needles, and with two cam bars provided with cams, and with mechanism for alternately reciprocating each of such cam bars across the separate series of needles, one of such cam bars being at rest, while the other may be in movement. 2nd. The combination of two or more separate sets of latch needles, provided with studs arranged in each set with carriers for supporting and guiding such needles, carrier sustaining shoes, arranged, supported and provided with mechanism for adjusting them, and with two cam bars provided with cams, and with mechanism for alternately reciprocating such bars. 3rd. The combination of the two alternately reciprocating cam-bars and carriage N, the said carriage and its support bar M, the three rotary toothed wheels *u u r*, the shaft *s*, lever catch *w*, pawl q_1, abutments *x*, tripping levers *y* and the bar F. 4th. The combination of the movable abutment or back bar T provided with means of moving it into and supporting it in each of its extreme positions, with two or more sets of latch needles, (arranged in carriers and provided with studs) and with two cam bars having cams, and also having means for alternately reciprocating such cam bars across the needles.

No. 14,733. Improvements on Portable Houses. (*Perfectionnements aux maisons portatives.*)

James Rielly, Sherbrooke, Que., 4th May, 1882; for 5 years.

Claim.—1st. An improved house or building, constructed in portable sections, detachably connected together. 2nd. An improved house or building having its sides, ends and roof constructed each in sections detachably joined together, and the said sides, ends and roof detachably connected together. 3rd. An improved house or building having its sides and ends made of two walls or thicknesses, and divided into sections, said sections detachably joined together by means of the compound joint. 4th. An improved house or building, having its roof constructed of two thicknesses, provided with an intermediate air space, and divided into sections detachably joined together. 5th. An improved house or building having its roof divided into halves, said halves detachably held together with the angle irons F, the halves constructed of sections joined together, and the whole detachably secured to the sides of the building by means of the angle irons G. 6th. An improved house or building, having a double roof provided with an intermediate air space and divided into halves detachably held together with the angle irons F, said halves constructed of sections joined together, and the whole detachably secured to the sides of the building by means of the angle irons G. 7th. The roof provided with the double bead at the joints. 8th. The double roof having the intermediate air space, and layer or layers of waterproof material, and the cleats having each a wave line surface, and provided with grooves meeting the lowest points of said wave lines in face. 9th. The metallic chimney, composed of an upper section, and a reduced lower portion or pipe enclosing a second pipe with an intervening air space, and provided with the stove pipe extending through said lower portion and projecting into the upper section.