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INVENTIONS PATENTED.

No. 11,869. Improvements on Vices. (Perfection remembers of the provements of the control of the

tionnements aux étaux.)
Fortonato C. Zanetti, Bryan, Texas, U.S., 13th October, 1880; for 5 years.

Claim—1st. The clamping jaws C C1, connected with the lower end of the fixed jaw of the vice, having a spherical socket and adjusting serew b, in combination with the ball D on standard c attached to the bench or table, whereby a ball and socket connection is made between the vice and table, for the purpose of allowing the vice to be set in various positions. 2nd. The plug E held in socket d by guard f passed through slot g, and provided with a set screw h passed through the lower end of the jaw, so as to bear against the plug, in combination with the vice and the ball and socket connection or joint of the same, to furnish a support for the vice outside of the ioint.

No. 11,870. Improvements on Steam Valves, &c. (Perfectionnements aux soupapes de vapeur, &c.)

James Morrison, Toronto, Ont., 13th October, 1880; for 5 years.

Claim.—An elastic rubber cover or jacket adapted to be applied to a metallic handle or knob.

No. 11,871. Adjustable Whiffletree Clip.

John H. Harford, Indianapolis, Ind., U.S., 13th October, 1880; for 5 years.

Claim.—1st. The clip composed of the broad curved parts B B: provided with spurs L Li, the binge C, the projection jaws D D: provided with holes K P, 2nd. In combination with the clip composed of the broad curved parts B B: provided with spurs L Li, and the projecting jaws D D: with holes K and P, the bolt E, nut F and hook H.

No. 11,872. Improvements on Explosive Compounds. (Perfectionnements aux composés explosibles.)

Max Tschirner, San Francisco, Cal. U.S., 13th October, 1880; for 15 years.

Claim.—1st. Pieric acid and chlorate of potash, in about the proportions specified. 2nd. The process of uniting or compounding pieric acid with chlorate of potash, or other oxydizing ingredients, consisting of mixing the same with pulverized resin, and saturating or sprinkling the mass with benzine, or other fluid or liquid which will easily evaporate or pass off and leave the mass adhesive and in a fit condition to be moulded into cartridges.

No. 11,873. Chain Stopper. (Bosse de chaine.)

David N. B. Coffin, jr., Boston, and Benjamin Woodward, Cambridge, Mass., U.S., 13th October, 1880: (Extension of Patent No. 5,473.)

No. 11,874. Improvements on Finger Nail Cutters. (Perfectionnements aux coupoirs à ongles.)

Alexander McDonald, Worcester. Mass., U.S., 15th October, 1880; for 5 years.

Claim.—1st. The metallic rod a with its perforation b, bevelled end c and cutting edges d d. 2nd. The combination, with the metallic rod a, perforation b, end c and cutting edges d d, of the cleaner g and file h. In combination with the hinged cutter bar a b c d, the cleaner g h and the single spring wire handle e. 4th. A tool handle consisting of two spring parts e e held rigidly together in one end, and capable of lateral expansion in

the other end. 5th. In combination with the duplex handle $e \iota e \iota$, the tool i with its projection $i \iota$ and the notch or recess $e \iota \iota$. 6th. In combination with the duplex handle $e \iota e \iota$, the nail cutter and $c \iota^0$ and b c d g h and the tool i.

No. 11,875. Improvement on Fruit and Vegetable Evaporators and Driers. (Perfectionnements aux évaporateurs et aux séchoirs pour les fruits et les légumes.)

John S. Rowen, Spencerport, and Elisha J. Potter, Knowlesville, N.Y., U.S., 15th October, 1880; for 5 years.

Claim. 1st. The combination, with the trays D D, of the side boards or valves E E. 2nd. The combination, with the chamber A, of the two trunks H I, one serving to draw off the damp air from the lower part of the chamber, and the other to admit dry hot air to the upper part of the chamber.

No. 11,876. Improvements on Fanning Mills.

(Perfectionnements aux tarares-cribleurs.)

William McKenzie, Morrisburg, Ont., 15th October, 1880; for 5 years.

Claim. The can B having the usual hole a in its face for the end of vibrating rod C, and either an odd number of eccentrics in its periphery or a slot in its face forming more than one eccentric, for the purpose of vibrating rod C oftener than once at every revolution. The guides D or their equivalents, for holding the end of rod C in place when it is in connection with the eccentrics. The combination of cam B, rod C, guide D and shake F, so that by the same cam rod and crank, the sieves of a fanning mill may be shaken either once or oftener at one revolution of the fans, as may be best for the work to be done.

No. 11,877. Improvements on Children's Chairs and Carriages. (Perfectionnements our chaises-voitures des enfants.)

Joseph W. Kenna and Reuben A. Hitchcock, Chicago, Ill., U. S., 15th October, 1880; for 5 years.

Claim.—1st. The supporting frame A, in combination with the chair frame C vertically pivoted thereto by one pair of legs and having, on each leg of the other pair, a spring catch adapted to engage automatically with either of two sets of pins and notches on the supporting frame, and mechan smarranged to operate at will for detaching the catches from either sets of pins and notches, so as to form of the two frames at pleasure a high or low chair. 2nd. A chair provided with a shelf pivoted horizontally to vertically pivoted hinge, for the purpose of suspending the shelf by the side of the chair when not in use. 3rd. The supporting frame A, in combination with the chair frame C provided with the pivoted handle L. 5th. The chair frame C provided with the pivoted handle L. 5th. The chair frame C provided with the pivoted handle L. 5th. The chair frame C provided with the shelf of the In combination with the pin ms on the free end of the shelf. 6th. In combination with a chair frame pivoted thereto, the supporting frame A provided with the wheels B B having their bearings atthe wheels Bs having their bearings at the ends of its front standards A. 7th. The chair frame C, in combination with the supporting frame A provided with the wheels Bs having their bearings at the ends of its front standards A. 7th. The chair frame C, in combination with the supporting frame A provided with the updated with the brace ac attached to the inner edges of the bars ac, so as not to interfere with the folding of the frame C into the frame A. 8th. The chair frame C, in combination with the supporting frame A provided with the upright standards a having their bearings at the provided with the upright standards a having their puper or forward ends projecting beyond the rest of the frame, so as to give a firmer joint to the structure when arranged as a high chair, and a longer base when arranged as a carriage.

No. 11,878. Improvements on Knitting Machines. (Perfectionnements aux machines à tricoter.)

George A. White, Halifax, N.S., 15th October, 1880; for 5 years.

Claim.—1st. The needle cylinder B provided with grooved ring f sustained by rods f at the upper end of cylinder. 2nd. The cone E for sustaining the upper needles, provided with grooved ring e at its base sustained by arms or rods e combined with needle cylinder B. 3rd. The latch