rigidly attached handle at an angle to the body of the same, a spring forcing the said rod inwardly into the barrel, and a handle having a longitudinal slot to receive and admit of a longitudinally sliding movement of the thumb-piece or handle of the slide rod, as set forth. 13th. The combination of the tubular stock or barrel having a tapering annular recess at its lower end and provided with a tapering clamping cap or ferrule, the bit seated in the end of said barrel, the socketed and longitudinally slotted handle, the slide rod carrying the clamping jaws, and the spring coiled around and attached at its outer end to the said slide rod, and having its inner end hooked over the lower end of the barrel, whereby, when the said barrel is driven into place in the socketed handle, the hooked end of the spring is clamped and held between the said handle and barrel, as set forth.

No. 16,887. Improvements in Spike Extractors. (*Perfectionnements aux tenailles à clous barbelés.*)

Albert P. Prout, Woodhaven, N.Y., U.S., 14th June, 1883; 5 years.

Claim.—1st. An improved clawbar consisting of a lever having an enlarged end to which is hung a claw, and a supporting block, substantially as described and for the purpose specified. 2nd. The combination, with the lever A, the claw C hinged thereto, and the fulcrum bearing plate D, of the supporting block E hinged to said plate so as to swing under and form a support for the same, substantially as and for the purpose described. 3rd. The combination, with the lever A carrying hinged claw C, and provided with enlargement or wings B B1, as described, of the plate D bearing the fulcrums, and the bars hinged to said block, with slotted ends working on the projecting ends of rod *e* on said enlargement or wings, all substantially as and for the purpose specified. 4th. The combination, with the lever provided with the wings B B1, or corresponding solid enlargement of the plate D, carrying the rib fulcrum *b* and the roller fulcrum *n*, one or both together, with the claw C hinged to said lever, and the supporting block hinged to said fulcrum plate, so as to swing under the same, all substantially as and for the purpose specified. 5th. The combination, with the described spike extractor, of the tempered steel plugs a^2 inserted in the lower end of the head A, near the lugs *a a1*, and provided with roughened faces at their outer ends, as and for the purpose specified. 6th. The combination, with the described lever head of the claw represented in figure 7, consisting of the pivoted jaws L L1, the links r r^2 pivoted respectively to the said jaws and to the arm $p3$, as and for the purpose described. 7th. The combination, with the jaws L L1, of a spring which acts to close the same, as and for the purpose described.

No. 16,888. Improvement on Car-Couplings. (*Perfectionnement des accouplages de chars.*)

Columbus B. Tucker, Angerona, W.V., and Josephus Tucker, Coolville, Ohio, U.S., 14th June, 1883; 5 years.

Claim—1st. A draw-head having a link setting socket *a*, in the upper part of its rear, whereby the link may be held horizontally in the upper part of the cavity *b*, as described. 2nd. The tube *f* undercut at its lower end, and the screw *h*, both arranged on the top of a draw-head, in combination with a slotted slide *d*, as and for the purpose specified.

No. 16,889. Combined Wrench and Pinchers. (*Clé à écrou et pinces combinées.*)

Samuel L. Willmer, Shingletown, Cal., U. S., 14th June, 1883; 5 years.

Claim.—The stock or body A having the stationary jaw B of a monkey-wrench at one end, and the stationary jaw D of a pair of pinchers at the other end, in combination with the movable jaw C of the wrench, having a shank *c* extending within the stock, and a ratchet *a*, and the swinging jaw E of the pinchers pivoted in the stock A, and having a pawl F pivoted at its base, and engaging with the ratchet *a* under the influence of a spring G, said pawl having a pin or lug *m* extending through the stock A, and the ring or band H, all arranged and forming a combined wrench and pinchers, substantially as described.

No. 16,890. Machine for Applying Colouring Matter to Fibrous Material. (*Machine pour appliquer les matières colorantes aux matières fibreuses.*)

Henry W. Vaughan, Providence, R.I., U.S., 14th June, 1883; 5 years.

Claim.—1st. The combination, substantially as set forth, of a receptacle for colour charged powder in mass, suitable mechanism, as described, for producing a blast of air, and arranged to carry such powder against a passing sliver or sheet of fibrous material to be coloured thereby, and a bed for supporting the sliver constructed as described, to admit of a free passage of air through it, as and for the purposes specified. 2nd. The combination, substantially as set forth, of suitable mechanism, as described, for producing a blast of air, a perforated or open work revolving bed for supporting the sliver or sheet of fibrous material to be coloured, and a perforated or open work apron concentric with said bed, as and for the purposes specified. 3rd. The combination, substantially as set forth, of a receptacle for a mass of colour charged powder, suitable mechanism, as described for producing a blast of air, and arranged, as described, to carry said powder against a travelling sliver or sheet of fibrous material to be coloured thereby, a perforated or open work bed to support such material, and pressure or rubbing roller for condensing the sliver or sheet and incorporating the applied powder more intimately with the fibre, substantially as described. 4th. The combination, substantially as set forth, of a receptacle for colour charged powder in mass, suitable mechanism, as described, for producing a blast of air, and arranged to carry such powder against a passing sliver or sheet of fibrous material to be coloured thereby, devices, substantially, as described, for regulating the measured discharge of said powder from said receptacle into the air current, and a bed for supporting the sliver, constructed as described, to admit of a free passage of air through it, as and for the purposes specified.

No. 16,891. Method of Applying Dye Stuffs to Fibrous Material. (*Mode d'application des teintures aux matières fibreuses.*)

Henry W. Vaughan, Providence, R.I., U.S., 14th June, 1883; 5 years.

Claim.—1st. The method of applying dye stuffs to fibre suitable for textile fabrics, substantially as described, by spraying said fibre with oleaginous matter and blowing upon said fibre, the colouring matter, combined with a pulverulent vehicle, as set forth. 2nd. The method of applying dye stuffs and their mordants to fibre suitable for textile fabrics, substantially as described, by spraying the fibre with oleaginous matter and blowing upon said fibre the colouring matter, combined with a pulverulent vehicle and a mordant, as set forth.

No. 16,892. Method of Preparing Dye Stuffs. (*Méthode de préparer les teintures.*)

Henry W. Vaughan, Providence, R.I., U.S., 17th June, 1883; 5 years.

Claim.—1st. The method, substantially as described, of preparing dye-stuff or dye-stuffs for application in a finely powdered condition to fibrous matter, by first comminuting or grinding the colouring matter with an oleaginous constituent, and then incorporating therewith a pulverulent vehicle, which renders the coloured mass pulverulent and enables it to be worked in a finely powdered condition, as set forth. 2nd. The method, substantially as described, of preparing dye-stuff or dye-stuffs with a mordant for application in a finely powdered condition, by first comminuting or grinding the colouring-matter and a mordant with an oleaginous constituent, and then incorporating therewith a pulverulent material, which renders the coloured mass pulverulent and enables it to be worked in a finely powdered condition, as set forth.

No. 16,893. Improvements in Watch Cases. (*Perfectionnements aux boîtes des montres.*)

Edward A. Muckle, Rockford, Ill., U.S., 14th June, 1883; 5 years.

Claim.—1st. The outer case having the pendant rigidly connected to the rim thereof, a pusher extending through said pendant and capable of an axial movement therein, in combination with an inner or movement-containing case adapted to be turned within the outer case, substantially as and for the purpose set forth. 2nd. A pusher capable of an axial movement in the pendant of the outer case, in combination with an inner or movement-containing case, said pusher forming one of the pivots upon which the inner or movement-containing case may turn, substantially as and for the purpose set forth. 3rd. The combination, with the pusher and with the movement containing case pivoted thereto, of the packing *s* surrounding the stem of the pusher within the movement-containing case, to prevent the admission of dust or water thereto, as set forth. 4th. The combination, with the detent spring of the outer case and with the movement containing case, of a pusher capable of a limited axial movement to depress the detent spring and forming one of the pivots upon which the movement-containing case may turn, substantially as and for the purpose set forth. 5th. The combination, with the pendant, the spring detent and the movement containing case, of a pusher capable of a limited axial movement in the pendent, said pusher adapted to depress the detent spring, and having a pivotal connection with the movemen-containing case, and the inner end adapted to engage the winding mechanism of a movement contained within the case, substantially as and for the purpose set forth.

No. 16,894. Improvement in Waggon Yokes. (*Perfectionnement des jougs de wagons.*)

William A. Baker, Colona, Mich., U. S., 14th June, 1883; 5 years.

Claim.—1st. An improved yoke for supporting tongues of waggons, adapted to be suspended under the horses from the back-pads, substantially as and for the purpose set forth. 2nd. The yoke B, formed with the slots *e* and provided with the pins *e1*, whereby the straps *d d* and the holdback-straps *f f* may be attached to it, substantially as and for the purpose set forth. 3rd. The combination, with the short pole A, of the yokes B, pivoted to the said pole and provided with the straps *d f*, substantially as and for the purpose set forth.

No. 16,895. Improvements in Mowing Machines. (*Perfectionnements aux faucheuses.*)

Joseph Savoie, St. Germain de Grantham, Que., 14th June, 1883; 5 years.

Claim. 1st. A channel rearwardly decreasing in width, formed by flat upright cheeks made in sections overlapping rearwardly inside the sections, held together and flexibly hinged together in opposite by cranked distance rods and the cheeks supported on small wheels, the said attachment thus formed being carried by the reaper knife-bar suitably connected with, and held operated by a mowing machine. 2nd. The combination of the cheek sections flexibly hinged together, the lower edge of the rare sections in the channel provided with inwardly inclined serrated plates. 3rd. The combination of the front sections having horns or studs H, which carry double levers *l*. 4th. The combination of the front sections and the knife-bar K held therein in slots by pins and springs, and provided with shelves S.

No. 16,896. Improvements in Car-Couplings. (*Perfectionnements aux accouplages des chars.*)

Henry Keller, Corpus Christi, Texas, U. S., 14th June, 1883; 5 years.

Claim.—1st. A car-coupling link formed in two parts that couple