

part, constructed to swing within the draw-head of a lock block, a push block and a rod arranged to operate both the locking block and the push block, substantially as described. 4th. The combination, with a knuckle form coupler part, constructed to swing within the draw-head of a rocking lock block and a reciprocating push block, a rod connected to and operating both the lock and the push block, the rod being formed, substantially as described, to oscillate the lock block and reciprocate the push block, substantially as described. 5th. The combination, with a knuckle form coupler part, constructed to swing within the draw-head of an oscillating lock block, a reciprocating push block, and a rod passing through both blocks being free to move laterally in the lock block, and free to rotate in the push block, substantially as described.

No. 34,887. Wire Nail and Machinery for the Manufacture of Wire Nails.
(*Clou de fil de fer et machine pour sa fabrication.*)

William Osborne Tyers, Smethwick, Stafford, England, 22nd August 1890; 5 years.

Claim.—1st. Making on one or more of the sides of wire nails having a triangular or other angular figure in cross section, a series of cross or rib like projections either at right angles to the axis of the nail or inclined thereto, the said projections, when made on adjacent sides of the nail, preferably alternating with each other for the purpose, and substantially as hereinbefore described and illustrated in the accompanying drawings. 2nd. The combination, in machinery, for the manufacture of wire nails, of feeding rolls which also act as shaping rolls, that is, give a triangular or other angular figure to the cylindrical wire fed into the machinery, and when desired form cross or rib like projections on one or more sides of the shaped wire, substantially as hereinbefore described and illustrated in the accompanying drawings. 3rd. The construction of the feeding and shaping rolls, and the arrangement or combination, of parts for giving a reciprocating motion to the rolls for effecting the feeding and shaping of the cylindrical wire, and the formation of the cross or rib like projections on one or more sides of the wire, substantially as hereinbefore described and illustrated in the accompanying drawings.

No. 34,888. Knotter for Grain Binders.
(*Machine à nouer pour lieuses à grain.*)

John Senior Woodhouse, and Albert Ernest Woodhouse, Amberley, Canterbury District, New Zealand, 22nd August, 1890; 5 years.

Claim.—1st. A knotter, consisting of a shaft, a head extending laterally from the shaft, tapering at the end, and with one or more retaining grooves, substantially as described. 2nd. A knotter, consisting of a cylindrical head extending transversely from a revolving or vibrating shaft, said head being provided with a transverse opening, and a slot connecting said opening with the exterior of the head to admit the cord to the opening, substantially as described. 3rd. A knotter, consisting of a cylindrical head extending transversely from a revolving shaft, said head having a tapered outer end, a transverse opening at the base of the tapered portion, a transverse slot extending outward from the opening, said slot and opening forming reversely directed overlapping points, substantially as described. 4th. A knotter, consisting of a cylindrical head extending transversely from a revolving shaft, said head having a transverse inclined slot, a transverse opening at the base of said slot, and grooves upon its surface radiating from said opening, substantially as described. 5th. A knotter, consisting of a cylindrical head extending transversely from a revolving or vibrating shaft, said head having an inclined transverse opening, and an inclined or spiral slot extending into the opening and forming a hook upon the side of the slot opposed to the shaft, substantially as described.

No. 34,889. Needle. (*Aiguille.*)

Eva Jennie Hall, Stillwater, Minnesota, U. S., 22nd August, 1890; 5 years.

Claim.—1st. In a needle, in combination with the shank having the open sided eye, the spring for closing such eye extending upward close to the shank, and having its upper end bent outward to stand away from the side of the latter, a fixed hood on the shank having a so as to limit its outward movement and keep the portion of the spring below the bend close against the needle shank, while the poses set forth. 2nd. In a needle, in combination with the shank having the open sided eye, the spring attached to the shank below the eye and extending upward past the latter, and having its upper end bent outward and standing normally away from the shank, and the fixed hood having a tapering concave tongue extending downwards outside of and past the spring end, substantially as and for the purpose described.

No. 34,890. Saddle for Velocipedes.
(*Selle de velocipèdes.*)

Arthur Lovett Garford, Elyria, Ohio, U. S., 22nd August, 1890; 5 years.

Claim.—1st. In a saddle for a bicycle or tricycle, the substantially U-shaped spring B, having the rear end of its upper leg curved upward and provided with means for attaching thereto the back frame of the saddle seat, substantially as described. 2nd. In a saddle for a bicycle or tricycle, a substantially U-shaped spring, having the rear end of its upper leg curved upward, a clamp C, provided with a suitable hole in which the lower leg of said spring is adjustably held, and provided also with a second hole below the first and

adapted to fit the L saddle support of a tricycle or bicycle, and set screws for securing said clamp to said spring and saddle support respectively, substantially as described. 3rd. In a saddle support for a bicycle or tricycle, the combination of the substantially U-shaped spring, the upper leg of which is curved upward at its rear end, a substantially vertical spring secured to the forward end of said upper arm with a saddle seat suitably attached at its rear end to the upper end of the U-shaped spring, and at its front end to the free end of the other spring, substantially as and for the purpose specified. 4th. In a saddle for a bicycle or tricycle, in combination a substantially U-shaped spring, the upper leg of which is curved slightly upward at its rear end, a spring d, a clamp for securing one end thereof to the upper leg of the U-shaped spring, and a saddle seat suitably attached at its rear end to the upper end of the U-shaped spring and at its forward end to the free end of said spring d, substantially as and for the purpose specified.

No. 34,891. Process of Manufacturing Wheels. (*Appareil pour la fabrication des roues.*)

Thomas William Meachem, Syracuse, N. Y., U. S., 22nd August, 1890; 5 years.

Claim.—The process of manufacturing wheels, consisting in cutting from a sheet of rawhide a plurality of disks all of the same or approximately the same diameters, perforating said disks at coinciding positions, inserting a pin or pins vertically in the perforation or perforations of one of said disks, then slipping the remainder of the disks successively on to the aforesaid pin or pins, and piling said disks one upon the other and upon the first disk, and applying cement to the adjacent faces thereof, and then compressing the tier of disks in a direction at right angles to the planes of the disks.

No. 34,892. Multitubular Flue for Steam Boilers. (*Chaudière à vapeur multitubulaire.*)

William Cook, Salt Lake City, Utah, U. S., 22nd August, 1890; 5 years.

Claim.—1st. A flue tube of a steam boiler whose delivery end extends beyond the flue sheet, said extension being exteriorly screw threaded, in combination with an interiorly screw threaded ferrule, as and for the purpose set forth. 2nd. A flue tube of a steam boiler whose delivery end extends beyond the flue sheet, said extension being exteriorly screw threaded, in combination with an interiorly screw threaded ferrule, having oil ducts or passages, as and for the purposes set forth. 3rd. A flue tube of a steam boiler whose receiving end has a retaining lip formed with an annular chamber 8, for a packing gasket at the junction of the receiving end of the flue with the tube sheet 6, and whose delivery end extends beyond the flue sheet for a screw-threaded retaining ferrule formed with an annular chamber 10, for a packing gasket at the junction of the flue with the tube sheet 6.

No. 34,893. Hanger for Electric Lamps.
(*Support de lampe électrique.*)

Allen G. Ingalls, and Richard T. Allen, Ottawa, Ontario, Canada, 22nd August, 1890; 5 years.

Claim.—1st. A hanger for electric lamps, consisting of a pivoted arm, caused to steadily swing from the lowest to the higher level by means of a rack and pinion, which causes the lamp to be raised or lowered while being continually under the control of the operator, as set forth. 2nd. The combination, in an electric lamp hanger, with the arm B, having the base block d, the shaft e, and the screw or threaded part of the shaft f, the nut f', and the loose collar f'', the cross trees h, h, the arm i, and the part or number g, carrying the cables a, a, a, of the brace c, the elevating arm G, having the holes s, s, s, the brace t, the way k, k, the roller j, the link l, and rack E, substantially as set forth. 3rd. The combination, in an electric lamp hanger, with the pinion U, acting in its notched bearing, with the rack E, the link l, the brace t, and the arm G, substantially as set forth. 4th. The combination in an electric lamp hanger of the cam or detent n, with the rack E, as set forth.

No. 34,894. Washing Machine.
(*Machine à blanchir.*)

Andrew Fayette Boyle, (assignee of Joseph Warren Baker,) Corry, Pennsylvania, U. S., 22nd August, 1890; 5 years.

Claim.—The combination in a washing machine, of an oscillating tub A, having a semi-elliptical shaped bottom A', and a fluted wash board B therein, with a fluted compression roller M, mounted in vertically moving bearings L, L, having compression springs k, k, secured to said bearings and to the frame, substantially as and for the purpose set forth.

No. 34,895. Pitman. (*Bielle.*)

James M. Lockey, Faulkton, S. Dak., U. S., (assignee of Charles Wies, of same place,) 22nd August, 1890; 5 years.

Claim.—1st. An improved pitman, having its head formed with upper and lower arms toothed on their adjacent faces, and arranged to engage the diametrically opposite edges of the same wheel in reverse movements of the pitman, substantially as set forth. 2nd. The combination of the toothed wheel, the pitman having its head formed with upper and lower toothed arms arranged to alternately engage the opposite sides of said toothed wheel, and devices by which the said arms may be alternately held in engagement with the wheel, substantially as set forth. 3rd. The combination of the