

No. 11,330. Improvements on Telegraphs and Telephones. (*Perfectionnements aux télégraphes et aux téléphones.*)

Thomas A. Watson, Everett, and Charles Williams, jr., Boston, Mass., U. S., 5th June, 1880; for 5 years.

Claim.—1st. A switch board, for telegraphic or telephonic purposes, having a series of conducting strips, each of which is connected to one of the circuits of the system, a series of conducting strips crossing or crossed by the strips which are connected to the circuits, and a series of metallic connectors or contacts, each of which is connected to one of the strips of one series is capable of being moved into contact with the strips of the other series and, when released by the operator, is automatically forced against and maintained in contact with said strip; 2nd. The combination of a series of conducting strips, each of which is connected to a circuit, a series of insulated metallic rods or plates, one for each strip, each connected to an annunciator, or other device for receiving signals, and a series of movable metallic connectors or contacts, each connected, respectively, to a strip connected to a circuit and capable of being connected to the corresponding metallic rod or plate; 3rd. The combination with the switch board, having a series of conducting strips, crossed by another series of conducting strips and having a series of movable metallic connectors for connecting the strips of one series to the strips of the other series, of a telephonic apparatus and signalling apparatus, either of which may be connected at will to one or more of the strips of one series, and to one or more of the strips of the other series by means of the movable metallic connectors; 4th. The combination of the metallic parallel bars B B, each connected to a circuit, the parallel rods C C, arranged under the rods B B, at right angles to the same, and the metallic connectors C C, each sliding on one of the rods B and capable of being forced against, and maintained in contact with the rods C C, when released by the operator; 5th. The combination with the bar B, of the slotted rod D, or its equivalent, and the spiral spring G, or its equivalent, on said rod; 6th. The combination with the cylindrical rod C, of the rod D, or its equivalent, provided with a notch in the lower end of the same; 7th. The combination with the rod C of the sliding rod D, and pointer K on the same; 8th. The combination with the rod B, of the rod D, on the same, and the bent piece H inserted in the rod D.

No. 11,331. Improvements on Vehicle Axles.

(*Perfectionnements aux essieux des voitures.*)

Elias A. Wible, Folsom, Cal., U. S., 5th June, 1880; for 5 years.

Claim.—1st. The axle formed of the tube A, provided with the sockets a on the ends, to form boxes for the bearings of the spindle-shafts and curved or arched to the centre to give the proper set to the wheels, and the wooden stock B combined with the interposed sheet or layer of rubber b, to form a cushion, the said parts being secured together by clips c; 2nd. The combination of the grooved sleeve, set screw, clip having cross-bar and tubular axle, whereby the set screw works in a groove of sleeve and serves the double purpose of holding the sleeve to the axle and drawing upward on the clip.

No. 11,332. Improvements on Car Coupling.

(*Perfectionnements aux atlag's de chars.*)

William P. Cutter, Everett, Mass., U. S., 5th June 1880; for 5 years.

Claim.—The combination of the slotted draw-bar d, jointed to the fulcrum bolt e, the oscillating frame b and the yielding springs g, h, i, i.

No. 11,333. Improvements in Spring Beds.

(*Perfectionnements aux lits à ressorts.*)

Henry B. Clark, Toronto, Ont., 5th. June 1880; for 5 years.

Claim.—The spiral spring A properly attached, in connection with the braces or springs B B and bolt D.

No. 11,334. Machine for Attaching and Trimming Heels (*Machine à poser et finir les talons.*)

James W. Brooks, Boston, (assignee of Hadley P. Fairfield, Boston, Gordon McKay, Cambridge, and Charles W. Glidden, Lynn,) Mass., U. S., 5th. June, 1880; (extension of patent No. 5,366).

No. 11,335. Machine for Attaching and Trimming Heels. (*Machine à poser et finir les talons.*)

James W. Brooks, Boston, (assignee of Hadley P. Fairfield, Boston, Gordon McKay, Cambridge, and Charles W. Glidden, Lynn,) Mass., U. S., 6th. June 1880; (extension of patent No. 5,360).

No. 11,336. Machine for Trimming Heels.

(*Machine à finir les talons.*)

James W. Brooks, Boston, (assignee of Charles W. Glidden, Lynn, and Stephen A. Simmons, Lawrence,) Mass., U. S., 6th. June 1880; (extension of patent No. 5,353.)

No. 11,337. Heeling Machine. (*Machine à talons.*)

James W. Brooks, Boston, (assignee of Alvin D. Elliott, George E. Fellows and Stephen A. Simmons, Lawrence,) Mass., U. S., 6th. June 1880; (extension of patent No. 5,359.)

No. 11,338. Machine for Trimming Heels. (*Machine à finir les talons.*)

James W. Brooks, Boston, (assignee of Charles W. Glidden, Lynn, and Stephen A. Simmons, Lawrence,) Mass., U. S., 7th. June, 1880; (extension of patent No. 5,358.)

No. 11,339. Heeling Machine. (*Machine à talons.*)

James W. Brooks, Boston, (assignee of Alvin D. Elliott, George E. Fellows and Stephen A. Simmons, Lawrence,) Mass., U. S., 7th. June 1880; extension of patent No. 5,359.)

No. 11,340. Improvements on Railway Rails, and Tools and apparatus for the same. (*Perfectionnements aux lisses des chemins de fer, et outils et appareil pour cet objet.*)

Stephen W. Balwin, Yonkers, N. Y., U. S., 8th June, 1880; for 15 years.

Claim.—1st. The improvement in converting rail ends into "billets" by subjecting them to compression or percussion applied in lines at right angles to the plane of the "web" while the rail end is confined against bodily movement; 2nd. Converting rail-ends into "billets" by subjecting the foot or the head of the rail-end, or both of them, either simultaneously or consecutively, to compression or percussion, applied in lines at right angles to the plane of the "web" of the rail end, while the web of the rail-end is firmly confined against all lateral or longitudinal movement; 3rd. The combination with jaws for clamping a rail-end by its "web," and suitable mechanism for operating said jaws, of a pair of dies, scored to receive the edge of the foot" of a rail-end and suitable mechanism for operating said dies, for upsetting the foot; 4th. The combination with clamping jaws for holding a rail end by its "web," of a pair of dies adapted to reduce the "head" of a rail-end, in a plane corresponding with that of the "web," and suitable mechanism for operating the jaws and dies; 5th. The combination with a pair of longitudinally scored "foot" dies, and a pair of "head" working dies, of clamping jaws interposed between them, and suitable mechanism for operating the jaws and dies; 6th. The combination with clamping jaws and one or more pairs of compressing dies for working rail ends into "billets," of a system of levers, and a separate steam or hydraulic operating cylinder for the jaws, and for each pair of dies, whereby the jaws and the pairs of dies may be separately operated; 7th. The combination with suitable operating mechanism, a pair of clamping jaws adapted to firmly clamp a rail-end by its "web," a pair of longitudinally scored "foot" dies, and a pair of inclined face head dies and a pair of finishing "foot" dies, and a pair of finishing "head" dies; 8th. The combination with suitable operating mechanism, a pair of initial dies for working on a rail-end "foot" or "head," and a pair of finishing dies for working on a rail end "foot" or "head," of clamping jaws common to all the dies, whereby one of the jaws may operate as a bed, on which a partially formed "billet" may be supported while being pushed from one pair of dies to the other; 9th. The combination with suitable operating mechanism and clamping jaws, of four sets of dies simultaneously operated, whereby the "foot" and "head" of a rail-end may be partially worked in the forming of a "billet," by two sets of dies, while the finishing operation is performed by the other two sets of dies.

No. 11,341. Improvements in Saw Mills. (*Perfectionnements dans les scieries.*)

De Witt C. Prescott, Marinette, Wis., U. S., 9th June, 1880; for 5 years.

Claim.—1st. The log carriage in combination with a steam cylinder of about the same length as the greatest distance to be traversed by the carriage, and provided with a piston and piston rod, and the steam valve either the cylinder or the piston rod being connected directly with the carriage; 2nd. The log carriage in combination with a steam cylinder of about the same length as the greatest rim of the carriage, a piston fitted within the cylinder and connected directly with the carriage, the steam valve and mechanism, whereby the motion of the carriage and operation of the steam feeding device may be regulated; 3rd. The steam cylinder A, in combination with the piston D, piston-rod E, bracket G attached to the log carriage F, valve chest I, provided with the valve K_r and supply and exhaust ports, and hand lever L_r connected with the valve stem; 4th. The valve chest I, in combination with the cylinder A, provided with the passages H h H₁ h₁, the valve seat K and the valve K_r so constructed that the exhaustion of steam is into the exhaust pipe through the end of the valve seat and not through the valve; 5th. The cylinder A, provided with the passages H h H₁ h₁, in combination with the valve chest I, valve seat K, having the grooves K₁ K₂, the valve K_r constructed as described, and the supply part h₂ so placed as to open only into the tubular portion of the valve, so that the supply of steam is through the tubular portion of the valve and the exhaustion around the valve.

No. 11,342. Improvements on Valises, &c.

(*Perfectionnements aux valises, etc.*)

Warren K. Crofford and John W. Van Dyke, Grimsby, Ont., 9th June, 1880; for 5 years.

Claim.—1st. The combination of the grip handle a, draw string bb, wooden slats c, c, c, &c., curtain and lining e, e, e, pockets f, f, fasteners g, g, leather straps h, h, h, tacks or rivets i, i, i, and elastic straps k, k, k.

No. 11,343. Improvements in Boots and Shoes. (*Perfectionnements dans les chaussures.*)

John C. Daggett, Neponset, Mass., U. S., 9th June, 1880; for 5 years.

Claim.—1st. A boot or shoe having an upper made of leather and provided with a lining of cloth cemented thereto.

No. 11,344. Improvements in Grain Separators. (*Perfectionnements aux séparateurs des grains.*)

John Bennett, Lucknow, Ont., 9th June, 1880; for 5 years.

Claim.—1st. The combination of the screens c c, with a slotted distributing board; 2nd. The combination of the screens c c having a slotted distributing board, and one or more with an imperforate bottom and deflectors or cleats with the shoe A having the lateral openings e e; 3rd. The combination of the screens E E, slotted distributing board F, board g, deflector and side openings h in the shoe A from the bottom E₂; 4th. The combination of