

screw-nail formed of wire and having a head of solid stock, a continuous ratchet thread, and the pyramidal point extending from the end of said thread, substantially as described and for the purpose specified. 2nd. As a new article of manufacture, the herein-described screw-nail formed of wire, and having a continuous sunken ratchet thread, the pyramidal point extending from the end of said thread, and a head adapted to be engaged by a driver for turning the screw-nail axially, all substantially as described and for the purpose specified.

No. 27,538. Improvements in Apparatus for Generating Steam and Heating Rooms. (*Perfectionnements aux générateurs de vapeur pour le chauffage des maisons.*)

Omar A. Stemple and Ferdinand Meyrose, St. Louis, Miss., U. S., 1st September, 1887; 5 years.

Claim.—1st. The combination of the case or drum A, the lamp C within the same, and a boiler I consisting of the chamber *i*, the annular water-leg extending downward therefrom and over the flame of the lamp having perforations *i* near the top, and the pipes *j* projecting downward within the chamber formed by the water-leg, substantially as set forth. 2nd. The combination, with the lamp U and the boiler I consisting of chamber *i*, the annular water-leg *z*, projecting downward therefrom over the flame having perforations *i* at top, and pipes *j* projecting downward within the chamber formed by said water-leg, of the cup K extending downward from the bottom of the leg and perforated at the bottom for the admission of the burner, substantially as set forth.

No. 27,539. Improvements on Machines for Making Picket-Fences. (*Perfectionnements aux machines à clôtures de pals.*)

John C. Haag, Lansing, Mich., U. S., 1st September, 1887; 5 years.

Claim.—1st. In a machine of the kind described, the combination of two wrapping wheels having a common axis of rotation, and provided with corresponding radial slots and eccentric apertures, a bifurcated frame to which said wrapping wheels are journaled, and having slots communicating with the radial slots in the wrapping wheels, and suitable mechanism for revolving the wrapping wheels, all arranged to operate substantially as described. 2nd. In a machine of the kind described, the combination of two wrapping wheels having a common axis of rotation, and provided with corresponding radial slots and eccentric apertures, a bifurcated frame to which said wrapping wheels are journaled, and having slots communicating with the radial slots in the wrapping wheels of the intermeshing drive wheel placed at right angles to the wrapping wheels of the hand brace for communicating the motion thereto, all substantially as described. 3rd. In a machine of the kind described, the combination of two wrapping wheels having a common axis of rotation, and provided with corresponding radial slots and eccentric apertures, a bifurcated frame to which said wrapping wheels are journaled, and having slots communicating with the radial slots in the wrapping wheels of the intermeshing drive wheel, placed at right angles to the wrapping wheels of the hand-brace adapted to communicate motion to the drive wheel and of the rest B, all arranged, constructed and operating substantially in the manner and for the purposes described.

No. 27,540. Machine for Pointing and Lapping the ends of Blank Hoops. (*Machine à tailler les bouts des ébauches de cercles.*)

Fitsland L. Wilson, West Bay City, Mich., U. S., 1st September, 1887; 5 years.

Claim.—1st. In a hoop pointing and lapping machine, the combination, with a cutting block K rigidly secured to the machine frame of a reciprocating V-shaped pointing knife *ki*, a pressure foot *p* above the cutting block and adapted to pass between the shaped blades of the pointing knife, and devices imparting a reciprocating movement to the pointing knife, substantially as and for the purpose set forth. 2nd. The combination, in a hoop pointing and lapping machine, with devices for pointing and lapping the ends of blank hoops, and with endless carrying chains extending across the machine, and devices for imparting an intermittent movement to the chains, whereby the hoop blanks are carried from one operating device to another, of devices for stopping and holding the chains while the hoop blanks are being operated upon consisting substantially of a break wheel *h* secured to the chain propelling shaft, a break *h* upon the wheel, a lever *li* connected with the break, and a revolving cam pit operating upon the lever to apply the break, substantially as and for the purpose set forth. 3rd. In a hoop pointing and lapping machine, the combination, with devices, substantially as described, for pointing and lapping the ends of blank hoops, and endless chains extending across and supported on sprockets on opposite sides of the machine, and provided with outwardly projecting lugs, of a piece *j* having the groove *j* for supporting and guiding the chain between the sprockets substantially as and for the purpose set forth. 4th. In a hoop pointing and lapping machine, the combination, with devices for pointing and lapping the ends of blank hoops, the endless chains extending across the bed and mounted upon sprockets on opposite sides of the machine, of devices for transmitting a step-by-step movement to the chains, consisting substantially of the ratchet wheel *f* mounted upon the shaft *f*, carrying one of the said sprockets, the arm *e* loosely secured to the shaft, the pawl *g* pivoted to the arm and engaging with the ratchet, the track *dt* and pitman *e* connecting the crank with the arm *e*, substantially as and for the purpose set forth.

No. 27,541. Running Gear for Sleighs. (*Châssis de traîneau.*)

Robert E. Lee, Almont, Mich., U. S., 1st September, 1887; 5 years.

Claim.—1st. The combination, with a sleigh runner, having an

upward and inward curve, of a knee connected at the lower end to the main portion of the runner, in line with and forming a continuation of the curved portion of the runner, and a coupling connecting the upper end of the knee and the end of the curved portion of the runner together, substantially as described. 2nd. The combination, with a sleigh runner having an upward and inward curve, of a knee in line with and forming a continuation of the curved portion of the runner, a T-coupling connecting the end of the runner and the upper end of the knee together, and a bench connected to one branch of the said coupling, substantially as described. 3rd. A running gear for sleighs, consisting of tubular runners provided with runner irons, and bent upward and inward at the front ends, tubular knees and benches, the front knees being connected to the ends of the runners, and brace-rods connected to the runners, knees and benches, substantially as described. 4th. The combination, with a sleigh runner, of a knee having one end split or bifurcated to embrace said runner, and fastening devices securing the knee to the runner, substantially as and for the purposes described.

No. 27,542. Under Garment.

(*Vêtement de dessous.*)

Francis B. Brown, Boston, Mass., U. S., 1st September, 1887; 5 years.

Claim.—1st. The herein described combination garment, consisting of the body A and the legs B, B, permanently attached as a continuous garment, the leg portions extending from the front rearward at the waist-line to about the hip-line open at the rear with the flap C, attached to the back at the waist-line adapted to be brought forward between the legs, and provided with extensions D, D, and E, E, the said extensions D, D, adapted to be brought forward at each side, and to meet the extensions E, E, so as to secure the said flap, substantially as described.

No. 27,543. Lever Knife for Cutting and Trimming Horses' Hoofs and Cutting Wire and Horse Nails and other Materials. (*Couteau à levier, pour couper et dresser les sabots des chevaux, couper le fil de fer, le clou à cheval et autres objets.*)

Daniel H. Winters, Pictou, Ont., 1st September, 1887; 5 years.

Claim.—1st. The combination of the cutters *a*, *a*, and the levers *b*, *b*, and C, C, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of the levers *b*, *b* and C, C, substantially as and for the purposes hereinbefore set forth.

No. 27,544. Carriage Spring. (*Ressort de voiture.*)

Samuel W. Patton and Edward B. Guerin, Newark, N. J., U. S., 1st September, 1887; 5 years.

Claim.—In a vehicle, the combination, with the body and bars *d* thereof, of springs *c*, *c*, attached to said bars at their outer extremities, and having their inner ends all interlaced, forming a truss-like structure and also forming a series of separated bearings, the downward pressure on any given bearing being distributed throughout the series, substantially as set forth.

No. 27,545. Drawer Equalizer.

(*Régulateur de tiroir.*)

Joseph H. Knaus, Fayette, Miss., U. S. A., 1st September, 1887; 5 years.

Claim.—1st. The combination, with a drawer and its casing, of a shaft journaled in the drawer at right angles to the line of movement, and a cord or other flexible connection, as described, arranged at each end of the shaft and wound around the same, the said cords having their ends connected respectively to the front and back of the casing, substantially as shown and described. 2nd. The combination, with a drawer and its casing, of a shaft journaled in the drawer at right angles to the line of movement, spring bearings for said shaft, and a cord or other flexible connection, as described, arranged at each end of the shaft, and wound around the same, the said cords having their ends connected respectively to the front and back of the casing, substantially as and for the purpose described.

No. 27,546. Draft Attachment to Locomotive Furnace. (*Appareil de tirage pour fourneau de locomotive.*)

George W. Wheeler, Ogdensburg, N. Y., U. S. A., 1st September, 1887; 5 years.

Claim.—1st. In a draft attachment for furnaces, the air pipe F opening into the ash pit D, and extended to the outer atmosphere to feed the fire with fresh air, substantially as shown and described. 2nd. The combination, with a furnace, of one or more air pipes F discharging into the ash pit, the upper end provided with a journal-shaped cowl G adjustable to face in any direction, whereby air is supplied to the furnace under pressure of the wind or that of the moving locomotive, as set forth. 3rd. The combination, with a furnace, of one or more air pipes F discharging into the ash-pit, and having cowls G adjustable to collect the atmosphere, and a series of graduated plates J hung from the grate bars C to increase the draft and equalize the distribution to all parts of the furnace, as set forth. 4th. The combination, with the furnace A, of a pipe or pipes F feeding air to the ash-pit, and plates H adjustable within the ash-pit to direct the current of air in any desired direction, as set forth. 5th. The combination, with a furnace A, of a pipe or pipes F supplying air to the ash-pit D, plates H adjustable within the ash-pit to direct the inflowing air, and deflecting plates J hung to the grate bars to equally distribute the draft to the fuel, as set forth.