

secured to the brake beam 84. 7th. In combination, the rigid pedestals 55, of a car truck with the axle boxes 38 and lateral links 46 46, whereby the said boxes and links are held longitudinally rigid in relation to the truck, but are free to move laterally thereto.

No. 12,302. Improvements on Fog Signals. (*Perfectionnements aux signaux de brume*).

Felix Brown, New York, U. S., 1st February, 1881; for 5 years.

Claim.—1st. The combination, in a siren, of a suitable casing with one or more openings for admitting air, and two or more openings for discharging the air, and a fan wheel which revolves in the casing and serves to draw in the air through one set of openings in the casing and to discharge it in intermittent currents, through the other set of openings. 2nd. The combination, in a siren, of a cylindrical casing with openings in its periphery and in one of its heads, a fan wheel mounted on a shaft and adapted to revolve in the interior of the casing, openings in the jacket of the fan wheel which can be made to register with the openings in the casing, and wings of said fan wheel constructed to draw in air through one set of openings in the casing and drive it out intermittently, through the other set of openings. 3rd. The combination, with the casing A and its two sets of openings, of a fan wheel constructed to revolve in the casing, and of mechanism for adjusting the fan wheel in relation to the air escape openings.

No. 12,303. Improvements on Carpet Tackers. (*Perfectionnements aux cloueurs des tapis*).

Sidney S. Grannis, Red Wing, Min., U. S., 1st February, 1881; for 5 years.

Claim.—1st. In a carpet tack, a tubular tack conduit terminating in a driving hammer in combination with a suitable inclosing case having a tack exit. 2nd. A tubular tack conduit terminating in a series of contractable rods, in combination with a covering tube terminating in a conical or contracted tack exit, whereby said rods are contracted to form a compact driving head. 3rd. The combination of the conduit A provided with crook handle B C with the tube D provided with bottom pricking point G. 4th. The spring stop P upon the enclosing case, in combination with tube D provided with collar E. 5th. The combination, in a carpet tack, of a tubular tack conduit terminating in a series of contractable rods, to form a compact driving head, with an enclosing tube terminating in a conical or contracted exit and provided with spring jaws. 6th. The enclosing case for the tack conducting and driving mechanism provided with spring jaws arranged at right angles to each other, and one set above the other, for the purpose of directing the tack. 7th. The spring stop M on the enclosing case, in combination with the upper flange collar of the tube A for limiting the upward movement of the driving tube. 8th. The tubular tack conduit, terminating in a series of contractable rods, and provided with a crook handle, a covering tube for said conduit terminating in a contracted exit and a pricking point, the spring jaws, the hammer retracting spring and the inclosing case.

No. 12,304. Composition for Grinding Wheels, etc. (*Composé pour les tambours à émeri*).

Charles E. Stevens, Northampton, Mass., U. S., 1st February, 1881; for 5 years.

Claim.—A composition of emery or corundum, silex, carbonate of lime and oxide of manganese, in about the proportions specified.

No. 12,305. Improvements on Washing Machines. (*Perfectionnements aux machines à laver*).

Francis D. Taylor, Aston, near Birmingham, Eng., 1st February, 1881; for 15 years.

Claim.—An apparatus for washing or cleansing linen or other fabrics, clothes and other articles by means of steam and condensed water herein described, that is to say, the arrangement within an outer case or body A, to contain steam and having a condensing space or chamber at the top of a reticulated or perforated cage or receiver B, in which the linen fabrics or articles to be washed or cleansed are to be packed, the said cage or receiver being furnished with passages or flues I for the upward and lateral passage of the steam into and among the linen or articles and to the condensing chamber of the apparatus.

No. 12,306. Improvements on Car Brakes. (*Perfectionnements aux freins des chars*).

Alfred F. Gue and George F. Field, Boston, Mass., U. S., 1st February, 1881; for 5 years.

Claim.—1st. In a car brake, the horizontally vibrating lever E pivoted at one end, the pulley or sheave C for the wire rope at its other end, and the brake moving link G connected with the said lever between its ends combined with the wire rope brakes and connections between the link G and brakes. 2nd. The horizontally vibrating auxiliary brake lever E and its roller C combined with the curved support O and with the pulley C, and wire rope to move the lever. 3rd. In a car brake, the horizontally vibrating brake lever E and the wire rope to move it in one direction, combined with the adjustable pushing mechanism, to push the said lever backward, when the rope is released. 4th. In a car brake operating mechanism, a system of operating levers, a drum on the axle clutches G to engage such drum, and collars H sliding on the axle and having lubricant recesses L for oiling the same and connected with the operating levers and the clutches.

No. 12,307. Process for Producing Relief Line Printing and Embossing Plates. (*Procédé pour produire des planches à imprimer les lignes en relief et bosseler*).

Charles Snider, New York, U. S., 1st February, 1881; for 5 years.

Claim.—1st. The process of producing relief line plates, blocks, or types for printing, embossing and other like purposes, by securing a sheet or coating of suitable substance, upon a plate of glass, or other destructible material, placing the same in a suitable flask and pouring the molten metal into the same, so as to pass over the face of the matrix and carry the air and slag before it, prior to cooling and forming upon the same. 2nd. The process of

producing relief line plates, blocks or types in hard metal by forming a matrix of suitable compositions on a sheet of glass, or other destructible material and casting the hot metal upon the same in a suitable mould, whereby the glass or destructible plate will be destroyed, forming the escape for the gases developed by the hot metal in such manner as to obviate the formation of blow holes, bubbles and other imperfections. 3rd. The method of forming matrices for the construction of relief line plates, blocks or type for printing, embossing and other like purposes, by securing to a sheet of glass or other destructible material a coating of proper material and engraving through such material. 4th. The method of constructing a matrix for the formation or relief line, printing or embossing blocks, plates or types, by securing a sheet of proper material to a sheet of glass, engraving through such material and scoring or scratching the back of the glass. 5th. The method of constructing matrices for the formation of registering plates, blocks or types for printing and embossing by securing a suitable composition or material to a sheet of glass and suitable designs to the opposite side of the same, and cutting or engraving through the material the designs forming guides for cutting or engraving, whereby a series of accurately registering plates, block or type may be formed. 6th. The method of forming castings by causing the metal to flow over a matrix in a flask, so as to carry the air and slag before it and cool gradually on the face of said matrix. 7th. The method of forming metallic castings by causing the metal to collect against the face of a matrix having a destructible backing of glass or other material in a suitable mould. 8th. The mould constructed, as described, with a matrix having a destructible backing and passages for the escape of the gases, and provided with a gate for the admission of the metal, and a receptacle for the superfluous metal.

No. 12,308. Improvements on Nailing Machines. (*Perfectionnements aux machines à clouer*).

John H. Foster, Chicago, Ill., U. S., 1st February, 1881; for 5 years.

Claim.—1st. A nailing apparatus consisting essentially of a work supporting table, a reciprocating nail setting die, a nail driver reciprocating through said die, and a nail feeding mechanism, the hopper or carrier of which is vibrated by the reciprocations of the nail driver to cause the feeding operation. 2nd. A nail feeding mechanism consisting of a slotted guide plate 36 having an aperture 1, and a laterally reciprocating feeding plate 50 having a tongue 5, channels 23 and aperture 7. 3rd. The combination of the slotted guide plate 36 having an aperture 1, a laterally reciprocating feeding plate 50 having a tongue 5, channels 23 and aperture 7, with a chute 35 and a hopper. 4th. The combination, with the hopper 33, of guide plate 36 and chute 35, whereby nail channels 41, connecting the reservoir 39 and receptacle 40, are provided. 5th. The combination, with the nail channels 41 and chutes 35, of the corrugations 67 of the hopper 33, whereby nails are straightened so as to lie in a position to readily pass from the channels to the chutes. 6th. The combination, with a vibrating hopper 33 and a slotted plate 36, of an automatically operating controlling device that presses upon the nails in the slot 37, when the hopper tips rearward to prevent displacement of said nails contained in the said slot. 7th. The combination, with a hopper 33 and its slotted guide plate 36, of a spring seated jaw 10 that automatically operates to press upon and hold nails in the slot of said plate, when the hopper tips rearward. 8th. The combination of a hopper 33, its slotted guide plate 36, recessed support 42 and spring seated jaw 10. 9th. The combination of a hopper 33, its slotted guide plate 36, recessed support 42, spring seated jaw 10 and feeding plate 50. 10th. The combination, with the chute 35, of the stop gate for the purpose of presenting the feed of nails to the setting position. 11th. A nail setting die consisting of spring seated plates 55 56, having their inner faces cut away to provide a channel in which the driver 54 may descend without spreading the plates and inwardly projecting inclines 12 13, with which said driver engages to force said plates apart. 12th. A conveying device whereby a nail is presented beneath the driver consisting of a narrow inclined channel 14 for the nail shank, and a laterally extended channel 15 for the nail head, whereby the shank is carried forward faster than the head and the nail is brought into a vertical position as it enters beneath the driver. 13th. The combination, with the feeding recesses of a nail guiding die, of nail conveying tubes 48, arranged so as to be moved from one to another of such recesses, and thus convey nails to different setting points. 14th. The combination, with a work support and a single nail driver, of a nail guiding die having a series of inclined nail guiding channels, whereby a series of nails are simultaneously driven in angular positions. 15th. The combination, with a work support and a nail guiding channel, of a nail driver having means for moving it laterally during the driving operations. 16th. The combination, with a work support, a nail guiding die and a nail driver, of an adjustable plate 70.

No. 12,309. Improvements on Parlour Mantle Grates. (*Perfectionnements aux grilles des foyers*).

John L. Tressler and William H. Loomis, Alameda, Cal., U. S., 1st February, 1881; for 5 years.

Claim.—1st. The basket E, having curved flanges e, horizontal grate bars c and closed portions d, in combination with the rotary grate sections f g and spindle h. 2nd. The basket E with its curved flanges e and tilting grate sections, in combination with the removable cooking plate F, having legs u, lugs m, rear flange l and centrally placed opening provided with a lid o. 3rd. The combination, with the improved grate described, of a hot air casing having flues for the admission of cold air, a contracted neck, a wide mouth or opening for the escape of hot air and suitably arranged dampers. 4th. The combination, with improved grate herein described, of the casing PQ arranged as shown and having flue U and opening T, provided with dampers V.

No. 12,310. Improvements in Skates. (*Perfectionnements aux patins*).

Everett H. Barney, Springfield, Mass., U. S., 1st February, 1881; for 5 years.

Claim.—1st. The combination of the sole plate A, clamps B, screws M, hook supports a, standard 1, with its vertical ribs F having lateral extensions d of a bracket form, and standards 2. 2nd. The runner standard of a skate cast with double vertical strengthening ribs united, at their upper ends, by a lateral extension d of the rib having a bracket form for the support of the sole