outwardly projecting latch or horn, the horn being attached to the neck-band. 6th. A neck-band having an upwardly and outwardly projecting latch or horn, in combination with a slotted lever arranged to detachably engage or hook to the stopper and slide upon the horn. 7th. The metal cap piece B in combination with the flexible valve stopper having an elastic teat supported by cross-bars. 8th. A flexible stopper consisting of a rim to fit the mouth of a bottle, and an upwardly projecting teat supported by bars across the bottom, all moulded or formed in one piece. 9th. A valve consisting of an upwardly projecting elastic teat supported by cross-bars, said teat made to fit the hole in the downwardly projecting metal top. 10th. The combination of a flexible stopper having an elastic valve and a supported elastic teat with a metal cap-piece having an aperture. 11th. A flexible stopper consisting of a rim to fit the mouth of a bottle, and an upwardly projecting hollow-valve teat, all moulded or formed in one piece. 12th. The metal cap piece B provided with suitable means for connecting the same with a bottle neck, in combination with a hollow teat flexible valve stopper. 13th. A flexible stopper consisting of a hollow valve teat being supported by sections of cross-bars upon the bottom. 14th. A valve consisting of an upwardly projecting elastic hollow teat, said teat made to fit the hole in a downwardly projecting metal top. 15th. An elastic hollow teat, upwardly projecting and fitting a metal cap piece having an aperture. 16th. A flexible stopper having the parts z^1 y and C, and having the hole z provided with a metal top having a downward projection c and a tapering induct d. 17th. A discharge tube having collar g, packing j^1 and slits i, in combination with a valve stopper.

No. 15,752. Improvement on Saw Handles.

(*Perfectionnements aux bras des scies.*)

Carey W. Knapp, Geneva, Ohio, U. S., 7th November, 1882; for 5 years.

Claim.—1st. The arms H I jointed to the threaded stem F, in combination with the radial grooved plate and clamp plate. 2nd. In saw handles, the screw stem F extending through the handle provided at one end with a thumb nut, and the other jointed to the arms H I, in combination with a clamping plate on one side and a radial grooved plate on the other. 3rd. The threaded stem F and arms H I, in combination with the thumb nut, radial grooved plate, clamping plate and handle.

No 15,757. Improvements on Spray Nozzles for Fire-Extinguishers.

(*Perfectionnements aux lances-pulvérisateurs des extincteurs d'incendie.*)

Louis C. Desloovere, Salem, Mass., U. S., 7th November, 1882; for 5 years.

Claim.—1st. The improved spray nozzle, the same consisting of the body A, ducts D D D, annular opening C, orifice E, cap G, arms H and springs J.

No. 15,754. Improvements on Packing for Steam Valve Stems.

(*Perfectionnements aux garnitures des tiges des soupapes de vapeur.*)

Abram N. Matthews, St. John, N. B., 7th November, 1882; for 5 years.

Claim.—1st. The combination, in a packing for valve stems of the stem A, a detachable thimble D nearly filling the cylinder and abutting against the yoke at end R, and against the riding ring at end P, the latter serving the purpose of the usual follower and the packing rings K E to operate in the cylindrical projection of the steam chest N in the manner described. 2nd. The combination, with the steam chest provided with the cylindrical projection N, of the guide thimble D, one end of which forms the follower, the other end projecting into and beyond the walls of said chest, thereby lessening the resistance of the steam pressure, a riding ring F provided with the usual follower, by which a double recess is formed between said follower and thimble, for the reception of the packing rings and the valve stem and gland. 3rd. The combination, with the steam chest and the cylindrical projection N, of a detachable cylindrical cover or dust cap B, one end fitting with steam tight joint on the cylindrical projection N at C, and the other end slit in several places and provided with a thread and nut enabling the stem to be firmly held from operating as necessity may require, an oil cap on the upper side passing through the cylindrical cover B and a waste or water pipe on the under side of the cylindrical cover. 4th. The combination, in valve stem or piston rod packing, of the working cylinder C, thimble D and the metallic packing. 5th. The combination, in valve stem or piston rod packing, of the cylinder C, thimble D and the metallic packing, said cylinder having on its outer end a screw for the reception of the dust cap, and its inner edge adapted to fit the gland of a stuffing box.

No. 15,755. Improvements in Seeding Machines and Cultivators.

(*Perfectionnements aux semoirs-cultivateurs.*)

Joseph W. Thomas, Springfield, Ohio, U. S., 7th November, 1882; for 5 years.

Claim.—1st. In a seeding machine or cultivator, the hoes or teeth in combination with clearers and jointed pressure rods connecting said clearers with a lifting roller. 2nd. The combination, with the hoes or teeth and the devices for adjusting said hoes or teeth from a single line or row to a zigzag position and *vice versa*, of clearers, means for simultaneously adjusting the clearers to conform to such adjustment of the teeth, and jointed pressure rods for holding said clearers down to their work. 3rd. The combination of the hoes or teeth, the clearers arranged to alternate with said teeth, a lifting roller for adjusting said hoes and clearers and independent jointed pressure rods connecting said hoes and clearers with the lifting roller. 4th. The clearers in combination with the lifting roller, jointed pressure rods connecting the clearers with said roller, and means for shifting said clearers from a single line or row to a zigzag position and *vice versa*. 5th. The jointed pressure rod connecting the hoe or clearer with the lifting roller provided with the shoulders or locking joint between the parts G and G^1, the part G^1 having a groove or socket for the reception of, and in combination with, the sliding and adjustable extension piece G^2. 6th. The jointed pressure rods composed of the bifurcated and shouldered link G, bifurcated shouldered link G^1 having a socket formed in it, and the sliding extension piece G^2 adjustable in said socket, in combination with the spring I applied to the shouldered joint between the parts G and G^1. 7th. The combination, with the draw-bars, and the hoes or teeth pivoted thereto, of the jointed links composed of the parts K and K^1, bifurcated and shouldered at their adjoining ends and provided with the distending spring I^1 surrounding their connecting pin.

No. 15,756. Improvements on Sewing Machines.

(*Perfectionnements aux machines à coudre.*)

William Y. Allen, Rockland, Mass,, U. S., 7th November, 1882; for 5 years.

Claim.—1st. The combination, with the pressure foot having a downwardly projecting guide g for the goods, of the cloth plate provided with a recess or slot S into which said guide is adapted to project. 2nd. A presser foot for sewing machines, having a guide g for guiding the goods to be sewed, in combination with mechanism to move said presser foot horizontally and laterally relative to the line of sewing as it is, raised and lowered. 3rd. In a presser foot for sewing machines, having a guide g for guiding the goods to be served, a stationary plate M with its edge or abutment C, loose and fixed collars I L, spring f connecting said collars I L, in combination with the presser bar E and a presser spring J therefor. 4th. The combination, with a presser foot for sewing machines having a guide g for guiding the goods to be sewed, of the groove or channel a^1 in and along said guide g.

No. 15,757. Improvements in Hoisting Buckets.

(*Perfectionnements aux bâches des élevateurs.*)

George W. Calkins, (Co-inventor with John Woodhill,) Cleveland, Ohio, U. S., 8th November, 1882; for 5 years.

Claim.—1st. A hoisting bucket suspended upon pivots located so as to be above the centre of gravity of the empty bucket and below the center of gravity of the loaded bucket, whereby the loaded bucket, when released from its latching devices, will automatically dump and empty itself at either side, and when emptied the bucket will automatically return to and latch itself in an upright position. 2nd. The combination of a pivoted bucket having a notch latch with a bail provided with a recess or slot, and having a spring latch arranged with recess or slot, the devices and combination whereby rapid charging and discharging of the bucket is accomplished. 3rd. The combination, with the body A and bottom D, of the angle iron hoop B. 4th. The combination, with the body A and angle iron hoop B, of the cross bars C C and bottom D.

No. 15,758. Improvements on Fire-Escapes.

(*Perfectionnements aux sauveteurs d'incendie.*)

William E. Dean and Judson Dean, (Assignees of George W. Smith,) Harlansburg, Penn., U. S., 8th November, 1882; for 5 years.

Claim—1st. The combination, with the side wall of a house, of a fire escape consisting of a couple of guide-way tubes C, a balcony J fitted to slide on each tube, and a suspending and operating wire rope both of the balconies being attached to and balanced on the rope, said rope being continuous over guide pulleys from one tube to the other at the upper end. 2nd. The combination of a slotted guide-way tube C, balcony J, balancing support I provided with a central web K, and the T-bar F connected to said balcony support. 3rd. The combination of a pair of guide-way tubes C, a supporting and operating rope and slide working in said guide tubes, a pair of balconies sliding on such guide-way tubes and counterbalanced thereon by each other, and a self-acting safety brake L. 4th. A fire escape consisting of a balcony suspended and sliding on a guide way tube C and having a safety brake L, such brake having a cord O connected to it and arranged on the guide R to be worked by said cord from the ground. 5th. A fire-escape consisting of a balcony suspended and sliding on a guide-way tube by a rope G, T-bar F and balcony support I attached to the said bar, the toothed rack S in the tube, and the crank and pinion on the T-bar and balcony support to work the balcony. 6th. The combination, with a building, of a pair of vertical slotted tubes C, the tubular top D connecting the tubes, the guide sheaves or pulleys H, a suitable rope arranged in said tubes for the guide-ways and the suspending and operating device for a fire escape. 7th. A fire escape consisting of balconies balanced at the ends of a suspension rope and sliding on suitable guide-ways, the windlass a for connection of the rope and adjustment of the balconies with reference to each other.

No. 15,759. Improvements on Vehicle Wheels

(*Perfectionnements aux roues des voitures.*)

John Goble, Ingersoll, Ont., 8th November, 1882; for 10 years.

Claim.—The combination of the steel rim A, wooden hub and malleable iron bands, the steel spokes B with the threads, 18 threads to the inch at the hub end of the said spokes, and 20 threads to the inch where they are screwed into the rim of the wheel.

No. 15,760. Improvements in the Manufacture of Garments.

(*Perfectionnements dans la confection des vêtements.*)

Robert H. Anderson, Richmond, Va., U. S., 8th November, 1882; for 5 years.

Claim.—1st. A reinforcing piece for garments, consisting of a seat part having the contracted portion or neck b^2 and the two diverging tongues b^3. 2nd. A reinforcing piece for drawers or analogous gar-