

centre to circumference, all being made to revolve by a train of wheels, substantially as and for the purpose set forth. 6th. The combination, of a series of short arms connecting the spool plates with double convex plates, the said arms being made to loosely fit two slots in each of the main revolving disks to which a rotary motion is imparted for twisting the wires in the construction of the fence, substantially as described. 7th. The combination, of a concave slot made in a small collar attached to the main revolving disk into which operates a self adjusting lock, substantially as set forth. 8th. The combination, of a self adjusting lock having at one end a convex head to fit concave slot in collar of main revolving disk, the other end of lock or pin having also a convex head, substantially as set forth and described. 9th. The combination, of a self adjusting lock, having on each end a convex head, one end being made to fit concave slot in collar of main revolving disk and the other end to fit alternately V-shaped grooves in shifting bar, substantially as and for the purposes set forth. 10th. The combination, of a small cap or box fastened to the frame of machine carrying the self adjusting lock with double convex heads made to fit alternately a small concave slot in collar of main revolving disk and V-shaped grooves in shifting bar, substantially as and for the purposes described. 11th. The combination, of a shifting bar with V-shaped grooves made to receive the one end of self adjusting lock having a sliding movement through a cap or box attached to frame of machine, as set forth. 12th. In a wire weaving fence machine, the combination, of a collar on main revolving disk with concave slot into which fits a self adjusting lock or pin of suitable length, the mechanism operating said lock or pin being so constructed that when the grooves in main revolving disk are perpendicular in line with each other then the concave slot in small disk collar and V-shaped notch in shifting bar are exactly opposite each other for successfully operating the self adjusting lock, the object of which is to hold the shifting bar secure while the machine is in operation, and to hold the bar immovable only when in the proper position to shift the machine, substantially as described for the purposes set forth.

No. 39,329. Lightning Arrester. (Paratonnerre)

Frank Mansfield, Boston, Massachusetts, and Charles William Wason, Cleveland, Ohio, both in the U.S.A., 14th July, 1892; 6 years.

Claim.—1st. A lightning arrester comprising a ground connection having a series of branches, each branch having a so-called safety strip connected therewith, and intervening space incapable of permitting the passage of a normal current, substantially as indicated, of a gravity lever electrically connected with the electric wire system, such gravity lever being adapted to rest successively on the different safety strips, each safety strip in turn serving as a stop to limit the descent of the gravity lever, substantially as set forth. 2nd. The combination, with a series of ground connections, each provided with a safety strip included in a normally open circuit, substantially as indicated, of a gravity lever electrically connected with the electric wire system, such gravity lever being adapted to successively engage and rest on the different safety strips, substantially as set forth. 3rd. The combination, with a series of ground connections, each provided with a strip of fusible metal, each strip being fastened at the one end or removable binding post, said ground connections being included in normally open circuits, of a gravity lever connected with the overhead wire system, said gravity lever being adapted to successively rest on the fusible strips, substantially as set forth. 4th. The combination, with a series of ground connections, each provided with a safety strip and included in a normally open circuit, of a gravity lever adapted to rest successively on the different safety strips, and a switch adapted to cut out from the wire system the said gravity lever and fusible strips, substantially as set forth.

No. 39,330. Burner for Oil Stoves.

(Foyer pour poêles à huile.)

Elias Manchester Wright, Buffalo, New York, U.S.A., 14th July, 1892; 6 years.

Claim.—1st. A combined steam and flame spreader for oil lamps, consisting of two shells secured together so as to leave an open space between them, the peripheral edge of the upper shell projecting beyond the edge of the lower shell, a series of openings around the periphery of the lower shell and a tubular portion projecting down therefrom to connect with the water wick tube, for the purposes described. 2nd. The combination, with the water tank, of a water wick tube secured centrally within it at the top and bottom, a hollow steam and flame spreader having openings at the periphery of the lower shell and a means for connecting it to the water wick tube, an oil wick inclosed within a wick tube surrounding the water vessel and connected with an oil reservoir for supplying it with oil, a collar having inclined deflecting sides and an upward projecting rim surrounding its central opening for directing the flame toward the spreader, whereby the steam rising from the water wick will be conducted from the water wick to the steam and flame spreader and superheated, and from thence into the flame, substantially as described. 3rd. In an oil lamp provided with an annular oil tank, and oil wick tube located centrally within the oil tank central opening so as to leave air spaces between the oil wick tube and the oil reservoir, the combination of a circular tray secured centrally to the bottom of the water tank, for the purposes described. 4th. In an oil lamp, a water tank located centrally within the oil wick tube, in

combination with a water wick tube located centrally within the water tank, and a hollow flame and steam spreader connected with the water wick tube and provided with a copper rod extending down through the water wick for conducting the heat downward into the water wick, substantially as described. 5th. In an oil lamp, the combination therewith of a feed pipe extending down outside of the lamp case and then horizontally under the oil tank to the water tank, and a hinged cover at the top, for the purposes described. 6th. In an oil lamp, the combination, with the top of the lamp, of a hinged collar having an opening which permits it to be turned up without interfering with the flame spreader, thereby exposing the several parts below so they can be easily got at for renewing the wick, cleaning or other purposes, substantially as described. 7th. A hollow steam spreader having a series of small openings around its under periphery, a series of lugs by which it is supported on the top of the water tank, and a downward projecting pipe for connecting it with the water wick tube, substantially as described.

No. 39,331. Sash Balance. (Contre-poids de croisée.)

Joseph Thomas, Chandlee Cove, Amherst, Nova Scotia, Canada, 14th July, 1892; 6 years.

Claim.—1st. In a sash balance, the combination, with a cord C, of a pulley P, secured in the top corner of the sash frame, a pulley P', secured to the lintel near the centre, the bracket E, secured to the top rail of the top sash near the centre and adapted to hold the end of a cord in the centre line of said sash, the fixture F, secured to the top rail under the pulley P, and adapted to hold the other end of said cord removably, and a cord C, running over the pulleys P and P', and having its ends secured to the fixtures E and F, substantially as set forth. 2nd. In a sash balance, the bracket E, consisting of a plate having a cupped countersink *e*, with eye and a notch, or slot *e*¹, in the side edge and provided with a foot *E*¹, at a right angle to said plate, substantially as set forth. 3rd. In a sash balance, a fixture F, consisting of a box open at the bottom and rear and having one side extended to form a lug *f*, and the opposite side provided with a foot *f*¹, at a right angle, and having a slot *f*¹, in the top, substantially as set forth.

No. 39,332. Apparatus for Applying Electricity to the Human Body. (Appareil pour appliquer l'électricité au corps humain.)

Robert S. Mears, Newton, Kansas, U.S.A., 14th July, 1892; 6 years.

Claim.—1st. The combination, with the pile and its inclosing cell, a space being left between the front of the cell and the pile, of a binding post at the top of the cell and a flexible wire situated in the said space and provided with a metallic plate whereby the lower part of the pile is connected with the said binding post, substantially as set forth. 2nd. The combination, with the removable pile, of the cell inclosing the pile, the cell cover at the front of the cell, a space being left between the said cover and the pile, a binding post at the top of the cell, a flexible wire secured to the said binding post, and a wedge shaped plate secured to the said wire and adapted to be inserted at any part of the pile when the cell cover is removed, to vary the strength of the current, substantially as set forth. 3rd. The combination, with the removable pile, of the cell inclosing the pile, a binding post secured to the top of the cell, and a metallic spring adapted to connect the said binding post with the top of the pile and to hold the elements of the pile in position in the cell. 4th. The combination, with the inclosing cell provided with a cover at its front part, and the pile, a space being left between the said pile and cover, of a binding post at the top of the cell, a flexible wire provided with a contact plate and arranged in the said space, and adapted to connect the lower part of the pile with the said binding post, a second binding post at the top of the cell, and a spring adapted to connect the said second binding post with the top of the pile, and to retain the elements of the pile in position in the cell, substantially as set forth. 5th. The combination, with the cell and the pile inclosed therein, of the binding posts secured to the cell and connected to the opposite ends of the pile and provided with cylindrical portions projecting from the cell, and the conductors provided with tubes adapted to fit over the said cylindrical portions, substantially as and for the purpose set forth. 6th. The combination, with an electrode formed of a metallic disc provided with a loop, the back of the said disc and the loop being coated with insulating material, of a case for the electrode, consisting of a front plate of absorbent material, and a back plate of India rubber, provided with a slit through which the said loop may project, the said plates being secured together at their edges, substantially as set forth.

No. 39,333. Blank for Book Cover Protectors.

(Blanc-protecteur pour couvertures de livres.)

William Beverly Harison, New York, in the State of New York, U.S.A., 14th July, 1892; 6 years.

Claim.—1st. A blank for book cover protectors, consisting of a sheet of paper, parchment or similar material, which is provided with gummed surfaces at any two opposite edges, on one side of the paper, and with gummed surfaces at the corners on the opposite side of the paper. 2nd. A blank for book cover protectors, consisting of