

ner A, centered at one end on a projection on the connecting rod X and having a radiating, or movable end C connected by a link E to an overhung crank D, and by a simple lever G to a link H and to a T-piece O, which latter so vibrates, that its longer arm O1 is always parallel, or approximately parallel, with the link H, the rocking head of the said T-piece being also connected to the valve rod P by a link M, whereby an equal distribution of steam, or other gas, to both ends of the cylinder or cylinders, is effected, whether in full, or intermediate gear.

No. 15,652. Improvements in Sheds for Drying Bricks. (*Perfectionnements dans les hangars de dessiccation de la brique.*)

James Evans, Philadelphia, Pa., U.S., 20th October, 1882: for 5 years.

Claim.—1st. The covered skeleton rack, for drying bricks, consisting of the combination of a ground frame, vertical posts, roofs, movable sliding shelves resting on strips and stops for limiting the sliding movement of said shelves.

No. 15,653. Improvements on Barrel Rollers and Guides. (*Perfectionnements aux rouleaux et aux guides des barils.*)

Bernard H. Schonhoff, Cape Girardeau, Mo., U. S., 20th October, 1882: for 5 years.

Claim.—1st. The plates E journaled upon the pointed adjustable rods D, said plates being of a size equal to the headings of a barrel, or hoghead. 2nd. The adjustable pointed rods D, working in bearings, or sleeves b, formed upon the arms B C and provided with inches c, in combination with the plates E and thumb-screws d. 3rd. The handle A, having secured thereto the long-shaped arm B, and similarly shaped free arm C, pivotally connected to the arm B and secured and held in place by the sliding ring f, working upon the handle A, in combination with the adjustable pointed rods D, thumb-screws d and journaled plates E.

No. 15,654. Improvements on Fixtures and attachments for Electric Lamps. (*Perfectionnements aux garnitures et à la pose des lampes électriques.*)

Thomas A. Edison, Menlo Park, N. J., U. S., 20th October, 1882: for 15 years.

Claim.—1st. The combination of two bracket arms and a pivotal connection therefor, arranged to constantly maintain electrical connection from a conductor in the other, and a casing attached to one arm and inclosing and protecting the pivotal connection. 2nd. The combination of two bracket arms, one pivoted upon or within the other, so as to rotate freely, and means for constantly maintaining electrical connection between a conductor, or conductors, in each arm and a casing attached to one arm and inclosing and protecting the pivotal connection. 3rd. The combination of a bracket arm, provided with an insulated pivotal piece having thereon one or more metal rings, and a bracket arm having a box, or casing, to receive the pivotal piece and provided with a spring, or springs; constantly bearing upon the ring, or rings, and electrical connections from the spring, or springs, and ring, or rings, and a casing inclosing and protecting the springs and rings. 4th. A swinging electrical lamp bracket, composed of two or more arms, provided with means for constantly maintaining the proper electrical connections therethrough, and a casing inclosing and protecting the said means. 5th. A circuit controller for an electric lamp, in which the manipulative portion is a band, or ring, of insulating material mounted directly upon the lamp socket. 6th. The combination, with a broken electrical circuit of a circuit closer, attached to the interior of a band, or ring, of insulating material, mounted upon the base of the lamp. 7th. The combination, with the socket of an electric lamp, of a circuit controller, operated by a ring, or band of insulating material, encircling the socket. 8th. The combination, with an electrical circuit, of two pairs, whereat the circuit is broken, and a wedge for closing such break attached to the interior of a band, encircling and holding the pins and circuit connections. 9th. The combination, with a circular, or ring circuit controller, of means for limiting its motion. 10th. The combination, with a circular, or ring circuit controller, of means for audibly indicating when the proper amount of movement has been given.

No. 15,655 Improvements on Presses.

(*Perfectionnements aux presses.*)

Hiram M. Smith, Richmond, Va., U.S., 20th October, 1882: for 5 years.

Claim.—1st. The combination, with the reciprocating plunger, of the straight pitman G G pivoted to the plunger, the arms G2 G2 pivoted to the straight pitman, the shaft H carrying said arms G2 G2, and the supporting hangers H1 H1 inside of the arms G2 G2, whereby the pitman can be swung down to or beyond the vertical line of their pivots g without requiring the pitman to be bent. 2nd. The combination, with the reciprocating plunger of the press and the mechanism for reciprocating said plunger, of the shaft H, the spur segment or quadrant keyed to said shaft H, the devices for imparting power to said segment, and the devices which automatically disengage from said segment the power mechanism. 3rd. The combination, with a reciprocating plunger, the shaft H and the reciprocating devices connecting the plunger with said shaft of the cogged segment secured to said shaft, the power shaft I, the power wheel J, the loose pinion J1, the clutch K K1, the rocking lever M M1, the arm O, carried by said lever end, the tripping arm O, carried by the shaft H and adapted to engage with the arm O, to automatically throw the clutch out of engagement with the plunger. 4th. The combination, with the reciprocating plunger, of the shaft H, the reciprocating devices, which connect the plunger with said shaft, the means for imparting power to said shaft H during the operation of pressing the shifting lever for releasing the power devices, the arm O1 carried by said shifting lever, the slotted spring P adapted to engage with said arm, and the tripping

arm O, carried by shaft H and arranged to release the arm O1 from said spring P. 5th. The combination, with the reciprocating plunger, the rocking shaft H, the reciprocating devices which connect said shaft with the plunger, the quadrant, the detachable power devices adapted to be engaged with said quadrant, during the operation of pressing the devices which automatically disengage the power devices from said quadrant, and returning mechanism which carries the quadrant outwardly after its disengagement. 6th. The combination of the pressing valve, the plunger above the table, the means for moving the plunger down, the shaft H and the devices which support said shaft from the table. 7th. The combination, with the table and the plunger above the table, of the means for drawing the plunger toward the table and the devices for thrusting upward against the table in the line of the plunger, when it is drawn downward. 8th. The combination, with the plunger, of the pitman adapted to be brought into vertical position when the plunger is down, the means for bringing down the pitman, the arm O for throwing the pitman moving devices out of operation, and the crank arm, or curved arm H3 attached to said arm O and arranged to have its curved part lie immediately below the pitman when it is down. 9th. The combination, with the plunger, the pitman for drawing the plunger down and the devices which move the pitman, of the means which positively lock the pitman in its lowermost position. 10th. The combination, with the plunger, of the pitman, the shaft H, the segment L, the means for rotating the segment, the arms G2 and the intermediate devices which connect the segment with the arms G2. 11th. The combination, with the plunger, of the pitman, the shaft H, the devices which rock the shaft H to swing the pitman down, the means for throwing the power devices out of engagement, the arms O and the means for adjusting the position of said arm relatively to the shaft H, whereby the time at which the power devices are thrown out can be regulated. 12th. The combination, with the plunger and the pitman G, provided with two upwardly projecting threaded arms g2 g2, of the box g1 arranged to have both ends simultaneously adjusted upon the arms g2 g2.

No. 15,656. Improvements in Railroad Rail Joints. (*Perfectionnements dans les joints des rails de railroutes.*)

Francis Lightfoot, Media, Pa., U. S., 20th October, 1882: for 5 years.

Claim.—1st. Rails having their contiguous ends upset so as to be reduced in width, though retaining full weight, the upset ends lapping so as to form a tread about equal to that of the full rail. 2nd. A rail having longitudinally projecting lips C, in combination with a second rail, said lips being introduced into the space between the tread and the base of said second rail and overlapping the neck thereof.

No. 15,657. Improvements on Attachments to Harvesters. (*Perfectionnements aux dispositions aux moissonneuses.*)

Lorenz Spitzig, New Germany, Ont., 20th October, 1882: for 5 years.

Claim.—A harvester attachment for lifting pea-vines in cutting, consisting of two sections A E, hinged together in advance of the cutting knives, the section A having an opening J, to receive the point of the knife guards, and an extension D forward of the hinge, the end of said extension entering a slot G in a wall F of section E immediately of the point and hinge, whereby the section A will be motionless when attached to a bar on a harvester, and the section E have a rising and falling movement at the point, to freely follow the unevenness of the ground.

No. 15,658. Improvements on Grain Bag Fasteners. (*Perfectionnements aux attaches des sacs à grain.*)

William Hunter, Wawanosh, Ont., 20th October, 1882: for 5 years.

Claim.—The hinged metal collar A fastened around mouth of grain bag C by means of studs D engaging with slots E and secured to said bag by rivets B.

No. 15,659. Improvements on Knitting Machinery. (*Perfectionnements aux machines à tricoter.*)

Henry A. Fruitt, Philadelphia, Pa., U. S., 20th October, 1882: for 5 years.

Claim.—1st. The loop-retaining hook, or pin, having a cutting blade f secured to or forming part thereof. 2nd. The loop-retaining hook, or pin, having a blade f forming part thereof and having opposite cutting faces x x1. 3rd. The combination of the needles a and guides d of the knitting machine, with the loop-retainers b having knives f secured to, or forming part thereof.

No. 15,660. Improvements on Sinks.

(*Perfectionnements aux éviers.*)

Joseph A. Talpey, Somerville, Mass., U. S., 20th October, 1882: for 5 years.

Claim.—1st. A cast metal sink having a trap integral with the body thereof. 2nd. In a sink, the walls d m, guard G, dam H, pipe J, basin D and strainer E.

No. 15,661. Improvements on Devices for Uncoupling Cars. (*Perfectionnements aux appareils à découpler les wagons.*)

Benedict Hickok, Buffalo, N.Y., U.S., 23rd October, 1882: for 5 years.

Claim.—In a freight car, in combination with the usual draw-head a, link b and pin c, the uncoupling devices consisting of the rod d, at the end, or ends, of a car, said rod having a tongue, or projection d1, in connection with the coupling pin c, or attached thereto by a short chain d1, and provided with a handle f and a turned-up end i, the latter engaging in the catch h.