

having its inner edge hinged to the body of the ear at the rear edge of the closed door, and arranged to swing back flat against the ear body to allow the door to slide freely over it, and the springs S, S, or similar device for automatically swinging to said strip and retaining its outer edge against the rear edge of the door, all substantially as shown and described. 2nd. The herein described weather strip, consisting of the combination with the ear body and sliding door, of the strip A, having the curled edge B, the rod C, running through the latter the brackets B, B, in which the rod C is pivoted, the groove D, into which the edge E sets, and the springs S, S, all substantially as shown and described.

No. 37,188. Switch for Incandescent Lamp Sockets. (*Commulateur pour support de lampe incandescente.*)

The Bryant Electric Company, assignees of Waldo C. Bryant, all of Bridgeport, Connecticut, U.S.A., 22nd August, 1891; 5 years.

Claim.—1st. A switch for incandescent lamp sockets, consisting essentially of binding screws, a contact spring connected to one of the binding screws, a shaft having a contact bar, and a four-sided block with which the other binding screw is connected, and an independent spring bearing against the block and acting to hold the contact bar in either the open or closed position. 2nd. In a switch upper and lower insulating plates, standards to which said plates are secured, brackets secured to said plates respectively, and carrying binding screws, and a plate 5, connected to the standards under the lower insulating plate, in combination with a contact spring connected to one binding post, a shaft mounted in the standards and having a contact bar, and a four-sided plate and an independent spring secured to one of the insulating plates and engaging the block, substantially as described.

No. 37,189. Book Shelf. (*Rayon pour livres.*)

Louis Stockstrom and Charles Augustus Stockstrom, both of St. Louis, Missouri, U.S.A., 22nd August, 1891; 5 years.

Claim.—1st. A book-case having shelves provided with rollers, one or more of said rollers having flanges at the ends, substantially as and for the purpose set forth. 2nd. A book-case having roller shelves, one or more of the rollers of which have inclined flanges at the ends, substantially as and for the purpose set forth. 3rd. A book-case having roller-shelves, and a pull-bar or rod 10, in connection with a shelf having an upturned inner end, substantially as and for the purpose set forth. 4th. A book-case having roller-shelves, and a spring pull-bar or rod 10, in connection with a shelf having an upturned inner end, substantially as and for the purpose set forth. 5th. A book-case having roller-shelves and pull-bar or rod, in connection with a shelf having perforated upturned inner ends, and extension-pins passing through the perforations, and a spring 17, substantially as and for the purpose set forth. 6th. In a book-case, the combination of the roller-shelves, pull-bars having handles 18, adapted to fit between the inner ends of the sectional outer rollers, and springs for holding the bars in their inner positions, substantially as and for the purpose set forth. 7th. In a book-case having roller-shelves, the combination of pull-bars by which the books are withdrawn, and the shields 20, over the pull-bars between the front rollers of the shelves, substantially as and for the purpose set forth.

No. 37,190. Three-Spindle Boring Machine. (*Machine pour percer à trois mèches.*)

Jacob Herbert Mickler, William Stahlshmidt, and Jacob Emil Klotz, all of Preston, Ontario, Canada, 22nd August, 1891; 5 years.

Claim.—1st. A spindle A, having a friction pulley D, fixed to it and engaging with friction pulleys H, fixed respectively to a spindle O, in combination with the boring-spindles E, and F, each of which is connected to one of the spindles O, by means of a flexible joint, substantially as and for the purpose specified. 2nd. A spindle A, having a friction pulley D, fixed to it and engaging with friction pulleys H, fixed respectively to a spindle O, the boring spindles E, and F, each of which is connected to one of the spindles O, by means of a flexible joint, in combination with the adjusting spindle Q, arranged to operate the bearing-boxes of the spindles E, and F, substantially as and for the purpose specified. 3rd. A spindle A, having a friction pulley D, fixed to it and engaging with friction pulleys H, fixed respectively to a spindle O, the boring spindles E, and F, each of which is connected to one of the spindles O, by means of a flexible joint, in combination with the hinged plate G, supporting the driving and boring spindles, and the adjusting spindle Q, for independently operating the bearing-boxes of the spindles E, and F, substantially as and for the purpose specified. 4th. A spindle A, having a friction pulley D, fixed to it and engaging with friction pulleys H, fixed respectively to a spindle O, the boring spindles E, and F, each of which is connected to one of the spindles O, by means of a flexible joint, in combination with the hinged plate G, bar R, sleeve S, and pinch-screw T, substantially as and for the purpose specified. 5th. A spindle A, having a friction pulley D, fixed to it and engaging with the friction pulleys H, fixed respectively to a spindle O, which spindles are carried in elastically-adjustable boxes I, in combination with the boring spindles E, and F, flexibly connected to their respective spindles O, substantially as and for the purpose specified.

No. 37,191. Drilling Machine. (*Machine à percer.*)

Jacob Herbert Mickler, William Stahlshmidt, and Jacob Emil Klotz, all of Preston, Ontario, Canada, 22nd August, 1891; 5 years.

Claim.—1st. A central spindle A, in combination with supplemental spindles G, and H, supported by wings journaled on the central spindle A, and deriving motion from the said spindle by

gearing, substantially as and for the purpose specified. 2nd. The wings E, F journaled on the spindle A, the bars L, adjustably connected to the said wings and supporting the spindles G, H, in combination with the gear wheels J, pinions K, and jointed links I, substantially as and for the purpose specified. 3rd. The wings E, F, journaled on the spindle A, and provided with lugs M, and set-screws N, to rigidly connect the said wings to the stationary ring C, the bars L, adjustably connected to the said wings and supporting the spindles G, H, in combination with the gear wheels J, pinions K, and jointed links I, substantially as and for the purpose specified.

No. 37,192. Saw. (*Scié.*)

Andrew Krieger, Columbus, Ohio, and Elias C. Atkins, Indianapolis, Indiana, U.S.A., 22nd August, 1891; 5 years.

Claim.—1st. The combination of the saw blade having recesses, the edge whereof has regularly-formed even-spaced notches a, and the insertible tooth or follower having corresponding projections or flanges b, whereby the tooth may be securely held to a determinate position, substantially as set forth. 2nd. The combination, in a saw of the saw blade having recesses for the teeth, the edges whereof are provided with notches as shown, the teeth adapted to fit into said recesses, followers occupying the spaces in the rear of the saw teeth, and locking devices interposed between the saw teeth and followers, and an opposite surface in the recesses of the saw plate, the edge of the recess in the saw plate, and an edge of one of the parts coming in contact therewith being in each case respectively provided with regularly-formed even-spaced notches and projections, which engage with each other, substantially as shown and described. 3rd. A saw plate having recesses for insertible teeth, and teeth adapted to fit therein, the adjacent edges of said recesses, and said teeth being provided with regularly-formed even-spaced notches and projections which engage with each other, whereby said teeth may be moved forward from time to time as the points are worn away and securely held in position, substantially as set forth. 4th. The combination, in a saw, of the saw plate having recesses to receive insertible teeth, said recesses being beveled or V-shaped and provided with regularly-formed even-spaced notches throughout a considerable portion of their length, and saw teeth having corresponding edges with V-shaped grooves the lower ends of said teeth being provided with projections or flanges which enter said notches, and locking devices for holding the teeth in position, substantially as shown and described and for the purpose specified. 5th. The combination, in a saw, of the saw plate having recesses to receive insertible teeth, said recesses being beveled or V shaped, and provided with notches in the V-shaped beveled edge, and saw teeth having corresponding edges with V-shaped grooves and projections or ribs in said grooves, which fit into notches in the V-shaped edge of the saw plate, said notches and projections being completely covered and hid from view when the parts are in position, substantially as shown and described.

No. 37,193. Window Sash. (*Croisée de fenêtre.*)

Fealdon E. Watton and Joseph Dunsford, both of Altamont, Illinois, U.S.A., 22nd August, 1891; 5 years.

Claim.—1st. The combination, in a window sash blind or screen, of the bar 7, plates 8, and bar 10, suitably connected to the plates with springs forcing the bar 10, outward, substantially as and for the purpose set forth. 2nd. The combination, in a window sash blind or screen, of the bar 7, plates 8, secured therein, and a bar 10, adjustably connected to the plates by a pin passing therethrough and working in slots in the plates, substantially as and for the purpose set forth. 3rd. The combination, in a window sash blind or screen, of the bar 7, plates 8, secured therein, bar 10, connected to the plates 8, by pins 11, working in slots 9, of the plates and a spring 15, substantially as and for the purpose set forth. 4th. The combination, with a window sash blind or screen, of a side bar 10, plate 8, forming a guide for the bar 10, and spring forcing the bar outward, substantially as set forth. 5th. The combination, with a window sash blind or screen, of the plate 8, bar 10, spring 15, and the movable plate 15b, forming a bearing for the inner end of the spring, substantially as set forth.

No. 37,194. Concentrator for Ores. (*Concentrateur de minerais.*)

Silas Bertenshaw, Denver, Colorado, U.S.A., 24th August, 1891; 5 years.

Claim.—1st. In an ore-concentrator, the combination of a framing, a table, arms sustaining said table, bearings upon said arms permitting the table to swing, a cam for moving the table in one direction, means for rotating the cam, and a torsional spring-rod secured to its ends upon the framing and connected at its center by a depending arm to the table to move it in the other direction, substantially as set forth. 2nd. In an ore-concentrator, the combination of a framing, a table, arms sustaining said table, bearings at the ends of said arms, each bearing consisting of two knife-edges united by an arm 26, adjustably secured to the sustaining arm, a bearing-frame receiving the knife-edges, and means for reciprocating the table, substantially as set forth. 3rd. In an ore-concentrator, the combination, with the framing, the table, and the arms sustaining the table, of pivotal or rocking bearings, each consisting of a frame 20, receiving the centrally apertured bearing plate 22, provided with bearings 23, and two knife-edges 25, united by arm 26 and fitted upon a sustaining arm or rod 28, substantially as set forth. 4th. In an ore-concentrator, the combination of a framing, a swinging table, arms sustaining the table from the framing, a cam and means for rotating the cam, a torsional spring-rod adjustably clamped at either end, and an arm clamped to the center thereof and depending therefrom and taking against a projection upon the table, substantially as set forth. 5th. In an ore-concentrator, a table formed of cast-iron with its sides and bottom made integral and cast in one continuous piece, whereby a tremulousness may be imparted