

type wheel laterally after each reciprocation of the type wheel 22nd. The combination, substantially as hereinbefore set forth, of a type wheel having capital and small letters arranged alternately on its periphery, a reciprocating type wheel carriage, a key lever, and a stop connected therewith, to limit the range of movement of the type wheel, when capitals are to be printed. 23rd. The combination, substantially as hereinbefore set forth, of a type wheel, its carriage, a feed screw shaft, a ratchet feed, and link connections between the feed screw shaft and carriage, a rock shaft, a laterally sliding frame connecting the type wheel, screw shaft, and rock shaft, a pivoted spring arm carried by the rock shaft, and carrying a screw engaging with the screw shaft, a crank arm on the rock shaft, a dog acting thereon, and link connections for rocking the shaft to release the actuating arm from the screw shaft, when the type wheel is to be retracted to commence a new line. 24th. The combination, substantially as hereinbefore set forth, of a type wheel, its carriage, a feed screw shaft, a ratchet feed, and link connections between said screw shaft and carriage, a rock shaft, a laterally sliding frame connecting the type wheel, screw shaft and rock shaft, a pivoted spring arm carried by the rock shaft, and carrying a screw engaging with the screw shaft, a crank arm on the rock shaft, an impression cylinder, its paper feeding pawl, and link connections for simultaneously actuating the pawl and turning the rock shaft so as simultaneously to release the actuating arm from the screw shaft, when the type wheel is to be retracted, and simultaneously to feed the paper by actuating the pawl. 25th. The combination, substantially as hereinbefore set forth, of a type wheel, its reciprocating carriage, a type wheel actuating frame, mechanism carried thereby for feeding the type wheel laterally therein, a generator of electric currents, circuit connections, key levers controlling them to reciprocate the type wheel actuating frame, a stop plate on said frame, and stops actuated by the key levers which control other circuit connections, and mechanism actuated by said circuit connections which prints a character and actuates the type wheel feeding mechanism. 26th. The combination, substantially as hereinbefore set forth, of a type wheel, its reciprocating carriage, a reciprocating type wheel actuating frame, gearing for reciprocating the type wheel from the actuating frame, a source of electric energy, mechanism actuated therefrom to reciprocate the actuating frame, and automatic circuit shifting devices operated by the actuating frame to reverse its movements at the proper time. 27th. The combination, substantially as hereinbefore set forth, of a main frame, a type wheel, its carriage reciprocating in guides in the main frame, a type wheel actuating frame reciprocating in guides on the carriage, solenoids arranged end to end in pairs, on opposite sides of the main frame (the solenoids of each pair being oppositely wound) their armature cores connected directly with the actuating frame, and circuit connections by which the current is alternately shifted from one set of solenoids to the other, to rotate the type wheel. 28th. The combination, substantially as hereinbefore set forth, of a type wheel, its carriage reciprocating in guides on the main frame, a vibrating armature connected directly with this carriage, electro-magnets on opposite sides of said armature, and circuit connections automatically controlled by the reciprocation of the frame, alternately to shift the current through the magnets to print a character, and to retract the type wheel from the impression cylinder. 29th. The combination, substantially as hereinbefore set forth, of a main frame, a type wheel, its carriage, a type wheel actuating frame reciprocating in guides therein, solenoids arranged end to end in pairs on the main frame, (the solenoids of each pair being oppositely wound) their armature cores connected with the actuating frame, key levers, a contact bar or rocking frame resting thereon, and circuit controlling devices carried by the contact bar so as to shift the current from one set of solenoids to the other, on the depression of a key. 30th. The combination, substantially as hereinbefore set forth, of a type wheel, its reciprocating carriage, electro-magnetic devices actuating the latter a reciprocating type wheel actuating frame, electro-magnetic devices operating it, a stop plate carried by this frame, a yielding stop intersecting the path of the stop plate, a shifter bar or frame actuated by the stop plate and interposed stop, circuit connections, and circuit controlling devices actuated by the reciprocation of the type wheel carriage and actuating frame and of the shifter bar to shift the current through both sets of actuating magnets.

### No. 36,730. Fire Kindler. (*Allumoir.*)

Benjamin B. Jenkins and Sydney James Sanford, both of Barrie, Ontario, Canada, 3rd June, 1891; 5 years.

*Claim.*—As a new article of manufacture, a fire kindler composed of a block formed of asbestos, clay, borax, and glue, in the manner shown, in combination with the ring the stem of which extends partly through the kindler, as and for the purpose specified.

### No. 36,731. Attachment for Quilting Frames and Curtain Stretchers. (*Attache pour métier à piquer et métier à rideau.*)

William Hackley Church and Archibald Wilson, both of Fenelon Falls, Ontario, Canada, 3rd June, 1891; 5 years.

*Claim.*—1st. The combination, with a quilting frame having eyes D, on the inner face, of the side bars A, A, of the yokes T, T, having an angularly bent arm U at one end and a flexible hook V at the other end to engage said side bars and eyes respectively, and a flat bar R provided with holes S, and inserted through said yokes, as set forth. 2nd. An attachment to quilting frames, &c., consisting of the perforated bar R, and the yokes T, T, having an angularly bent arm U, at one end and a flexible hook V, at the other end, as set forth.

### No. 36,732. Die for Slotting Screw Heads. (*Filière pour faire les rainures sur les têtes de vis.*)

The American Screw Company, assignees of Charles D. Rogers, all of Providence, Rhode Island, U.S.A., 3rd June, 1891; 15 years.

*Claim.*—1st. A die for forging slotted screw heads, having in the surface surrounding the cavity in which the screw heads are to be formed slots or channels extending from such cavity in line with the slots to be formed in the screw heads, to receive the ends of a slot-forming tongue on the face of a heading hammer and permit the escape of surplus metal displaced by the tongue in forming the slot. 2nd. A die for forming slotted screw heads, having the surface surrounding the cavity in which screw heads are to be formed slots or channels extending from such cavity in line with the slot to be formed in a screw head, in combination with a heading hammer having across its face a tongue to form the slot in the screw head and to enter the slots in the die in line therewith to remove from the screw head surplus metal displaced in forging the slot. 3rd. The method herein described for forging slots across the heads of screws and open at the ends, by forcing into the metal of a screw head in the cavity of a die and into slots or channels formed in the surface surrounding such cavity and extending therefrom in line with the slots to be formed in the screw heads, a tongue formed on the face of a heading hammer the counterpart in cross section of the slot to be produced in the screw head.

### No. 36,733. Brick Machine. (*Machine à brique.*)

The Rugg and Barton Manufacturing Company, Chicago, Illinois, assignees of Robert F. Robinson, Kansas City, Kansas, U.S.A., 3rd June, 1891; 5 years.

*Claim.*—1st. In a brick making machine, a molding compartment having an open top and a feed hopper above said compartment, communicating therewith, in combination with a horizontally reciprocating presser moving in said compartment and beneath said hopper, said presser constituting one end of said compartment and controlling the communication between said compartment and hopper, a vertically reciprocating cover which opens and closes the open top of said compartment, a vertically reciprocating follower which reciprocates crosswise of the compartment beneath said cover and which lifts the finished brick out from said compartment, and a horizontally reciprocating counter presser, said counter presser constituting one end of said compartment, all of these four features, the presser, the counter presser, the top cover, and the follower exerting simultaneously pressure forces against the brick to be formed within said compartment, substantially as herein set forth. 2nd. In a brick making machine, the brick forming mechanism thereof, in combination with a shaft N<sup>1</sup>, having eccentrics O, P, P, and R, R, keyed thereto, which actuate said mechanism, a spur wheel N, on said shaft, a rotating drive shaft I, a pinion J, thereon, and an intermediate shaft J<sup>1</sup>, with pinion M, and spur wheel L, fastened thereto, said pinion M meshing with spur wheel N, and pinion J, meshing with spur wheel L, substantially as set forth. 3rd. In a brick making machine, the brick forming mechanism thereof, an eccentric shaft N<sup>1</sup>, with eccentrics O, P, P, and R, R, thereon, which actuate said mechanism, a spur wheel N, on said shaft, a pinion M gearing therewith, and keyed to the intermediate shaft J<sup>1</sup>, having a spur wheel L fastened to the same, which gears with a pinion J, provided with clutch mechanism K, in order to bring the entire mechanism into or out of connection with the rotating drive shaft I, respectively, as and for the purpose herein described. 4th. In a brick making machine, a molding compartment, a horizontally reciprocating presser, a reciprocating counter presser, a vertically reciprocating follower moving crosswise of said compartment, and a reciprocating top cover, in combination with a rotating eccentric shaft carrying a series of eccentrics with eccentric rods connecting the eccentrics with said presser and counter presser, and oscillating segment gear meshing into a gear wheel, which latter actuates by means of a cam lever, the follower and a connecting rod pivoted to said gear wheel and connected at its other end with the top cover in order to raise and lower the same, substantially as set forth. 5th. In a brick making machine, a molding compartment having an open top, a reciprocating presser moving in said compartment, a counter presser and top cover, in combination with a follower operated by means of a cam lever U, having a projection 2, which when acting against the end E, of follower G, will bring the top of follower G on a level with the bottom of the presser and counter presser, and thereby subjecting the brick within the molding compartment to a vertical pressure, as and for the purpose herein set forth. 6th. In a brick machine, and in combination with each other, a molding compartment having an open top, a presser, a counter presser, a follower, the latter actuated by means of a cam lever V, and so arranged that after the completion of the pressure force exerted vertically by the projection 2, of said cam, the return movement of cam U will elevate the follower with the finished brick resting thereon to the level of the receiving table, by means of the cam segment 1, to 3, and then holding the brick in suspended stationary position by reason of cam segment 3, to 4, acting against the point K, of follower G, substantially as set forth. 7th. In a brick making machine, a molding compartment having an open top, a vertically reciprocating cover, a follower, a horizontally reciprocating presser and counter presser, each one of these pressure exerting agencies provided with a dovetailed slot at their respective ends for the purpose of receiving end plates of flat or molded form so as to be made interchangeable at these points, so as to enable the operator to make flat or molded bricks at his will, substantially as shown and described.

### No. 36,734. Method of Washing or Scouring Cotton Waste and Fabrics. (*Mode de laver et dégraisser les bourres de coton et tissus.*)

Sir William George Montague Call, Pall Mall, London, Middlesex, England, 3rd June, 1891; 5 years.

*Claim.*—1st. The process herein described for cleaning cotton waste and other dirty materials or fabrics, and consisting in moving the material (if cotton waste after the excess of oil has been removed) slowly through a first bath composed of soap, common soda or potash, ammonia, and turpentine, with water in or about the pro-