

encies of work, a series or system of circular cutters placed coincident with the space α between said straining bars, means for rotating said cutters, and means for reciprocating the same, substantially as and for the purpose herein set forth. 24th. The combination of a series or system of circular cutters, with means for operating said cutters, straining bars A, A_1 , provided at their ends with vertical tongues B , brackets having vertical guides C^* , for receiving said tongues, and means, substantially as described, for adjusting the distance between the said straining bars, substantially as and for the purpose herein set forth. 25th. The combination of straining bars A, A_1 , screws A^* , for limiting the distance between the said straining bars, brackets having nuts W^* , and screw shafts H^* and I^* , acting to rigidly hold the said straining bars in position with reference to each other, substantially as and for the purpose herein set forth. 26th. The combination of brackets D^* , carrying straining bars A, A_1 , with a series or system of circular cutters placed coincident with the space between said straining bars, means for operating cutters and screws G^* , for adjusting said brackets and consequently the straining bars with reference to said cutting device or mechanism, substantially as and for the purpose herein set forth. 27th. The combination of the brackets D^* , having extensions E^* and nuts s^* , and carrying the straining bars A, A_1 , with the screws G^* , means, substantially as described, for preventing the longitudinal movement of the said screws, a series or system of circular cutters placed coincident with the space α between said straining bars, means for rotating said cutters, and means for reciprocating the same, all substantially as and for the purpose herein set forth. 28th. The combination of the straining bars A, A_1 , constructed with the vertical tongues B^* , with the brackets D^* , constructed with the vertical guides C^* , shoulder or nuts w^* and nuts s^* , the screw shafts H^* and I^* , guides for controlling the backward or forward movement of the brackets, screws G^* for affording such backward and forward movement, and means, substantially as described, for adjusting the space between the straining bars A, A_1 , substantially as and for the purpose herein set forth. 29th. The combination of the fixed dove-tail horizontal guides F^* , the brackets D^* constructed with extensions E^* , having longitudinal grooves corresponding to the guides F^* , the screws G^* for moving the extensions E^* , and consequently the brackets D^* upon the horizontal dove-tail guides F^* , the straining bars A, A_1 , carried by the said brackets, a series or system of circular cutters placed coincident with the space α between said straining bars, means for rotating said cutters, and means for reciprocating the same, all substantially as and for the purpose herein set forth. 30th. The combination, with the brackets D^* having extensions E^* and the guides F^* , of the straining bars A, A_1 carried by said bracket, the screws G^* and squared ends x^* , arranged to give motion to the said brackets, the collar n^* constructed with circumferential grooves u^* , the sleeve or bearing t^* , and tangential pin v^* passed through the said collar and with its side inserted in the circumferential groove of the shaft, substantially as and for the purpose herein set forth. 31st. The combination, with the rolls B^*, B_1 , the straining bars, the series or system of cutters arranged coincident with the space between the said straining bars and the series of rollers B_{11}, B_3, B_4 and C_1, C_2 , of which the pulleys a and b , the belt c , means for actuating the rolls B, B_1 , and means for actuating the cutters, all substantially as and for the purpose herein set forth. 32nd. The combination of the rolls B, B_1 and means for actuating said rolls, with straining bars A, A_1 , cutting mechanism arranged coincident with the space between the said straining bars, means for disconnecting the rolls B, B_1 from the driving or motive power, and means for applying a brake to neutralize the acquired momentum of the rolls simultaneously with the disengagement of the latter from the driving mechanism or motive power, substantially as and for the purpose herein set forth. 33rd. The straining bars A, A_1 , with cutting mechanism arranged to operate coincident with the space between said bars, rolls B, B_1 , means for driving said rolls from the shaft E_4 , means for driving said shaft lever h , rod g_3 having the laterally projecting inclined plane, means for operating said rod, and means operated by said rod for disconnecting the driving means of shaft E_4 from said shaft, all substantially as and for the purpose herein set forth. 34th. The combination, with the bar G_1 , means for reciprocating said bar, a shaft n and a series of cutters, said shaft and cutters being carried by said bar gearing for transmitting motion to said cutters from said shaft, and means for operating said shaft, of a bracket G^* made in two connected parts and provided with cheeks K_1 , and the collar K on the aforesaid shaft n , all substantially as and for the purpose herein set forth. 35th. The combination, with a bar G_1 , means for reciprocating said bar, a series of cutters carried by said bar, a shaft n mounted in bearings upon the said bar G_1 and having a spline formed thereon, and gearing for imparting a rotary motion from said shaft n to the cutters, of a pulley a provided with an internal groove for the reception of the spline on the said shaft, fixed bearings for said pulley, and means for operating said pulley, all substantially as and for the purpose herein set forth.

No. 19,309. Hand Grenade for Extinguishing Fires. (*Grenade à Main pour Éteindre les Feux.*)

John J. Harden, Chicago, Ill., U.S., 12th May, 1884; 5 years.

Claim.—1st. In a hand grenade for extinguishing fires, the combination with the liquid contents, of solid material of equal or greater specific gravity than the liquid, for the purposes herein set forth. 2nd. In a hand grenade for extinguishing fires, the combination, with the shell thereof, of a wire or metal band, substantially as and for the purpose set forth. 3rd. In a hand grenade for extinguishing fires, the combination, with the shell thereof, of a wire or metal band provided with a loop for suspending the grenade, substantially as described. 4th. In a hand grenade for extinguishing fires, the combination, with the shell thereof provided with a groove for retaining in place a wire, of a wire resting in said groove, substantially as and for the purpose set forth.

No. 19,310. Fare Box. (*Boîte à Billets.*)

Timothy B. Stewart, Hartford, Ct., U.S., 12th May, 1884; 5 years.

Claim.—1st. In a fare box, in combination, the frame a , having the receiving-section b , with trough d for guiding the fares, the in-

spection-section with side panes g, g', g'' , and the vertical cross partitions g_{11} of glass, the rotary cylinder c , with compartments at the bottom of the latter section, and the drawer f having the vertical partition b_1 , all substantially as described. 2nd. In a fare box of the within described class, the rotary cylinder c , having peripheral compartments, and fast to its axis that projects through the side of the box, the handle h with the flat surfaces co-operating with the spring impelled broad faced bolt i , whereby the cylinder may be held in place to receive the fares, or rotated in either direction to deposit them, all substantially as described.

No. 19,311. Carpet Sweeper.

(*Balayeuse de Tapis.*)

George W. Zeigler, Norwalk, Ohio, U.S., 12th May, 1884; 5 years.

Claim.—1st. In a carpet-sweeper, the combination of the driving wheel, the adjustable double arm bracket having belt tightening wheel, with the brush driving wheel, substantially as set forth. 2nd. A carpet-sweeper provided with operating mechanism, the combination, with said sweeper, of the carpet beater, as described, whereby the sand and dust is first loosened from the carpet and then taken up with the brush. 3rd. A carpet-sweeper provided with operating mechanism, in combination with a spring lever adjusting journal for the bearing of the brush spindle, whereby the brush may be adjusted vertically and held in the desired position by the lever of said spring journal, substantially as set forth. 4th. The combination, in a carpet-sweeper, having operating mechanism, such as described, with the spring adjusting journal, the long arm of said spring being provided with retaining devices, whereby the brush is held in the desired position and a rattling noise and jar is prevented, as set forth. 5th. The combination, in a carpet-sweeper having operating mechanism such as described, of the carpet-beater provided with rollers, whereby the beater is rotated, in the manner and for the purpose set forth. 6th. The carpet-sweeper having the end pieces, constructed as described, for the reception of the cover, in combination with the covers ribbed as shown, and with the removable shoe forming the mouth-piece (see Figs. 4, 6 and 7), whereby the said mouth-piece may be removed and interchanged, substantially as set forth. 7th. A carpet-sweeper having operating mechanism for rotating the brush, the end pieces of said sweeper being provided at their bottom ends with inwardly turned flanges for the reception of, and in combination with, the sliding bottom, whereby the dust gathered into the sweeper by the brush may be removed from the box of the sweeper without the remitting the floating dust within the sweeper to again fly about the room, as set forth. 8th. The combination, in a carpet-sweeper having the flanged ends, as described, of the sliding bottom with the ring m , and with spring t , for closing the bottom when open, and for retaining it in position and to prevent rattling, as set forth. 9th. A carpet-sweeper, such as described, having a rotating brush, in combination with a comb or cleaner having the edges parallel with the hairs of the brush, whereby the brush is cleaned without cutting the hairs by the reason of the teeth of the comb being adapted to pass between the hair of said brush, substantially as set forth. 10th. The combination of a removable shoe with the mouth-piece of the sweeper, said shoe being adapted to fit over and upon said mouth-piece, as set forth. 11th. The comb or cleaner, constructed as described, as an article of manufacture. 12th. The journal adjusting spring and lever, as an article of manufacture. 13th. The combination, with a carpet-sweeper of the slitted handle piece provided with the section of screw (see Fig. 10) by means of which the handle is screwed in, and with the projecting piece n , and with the disc formed on the side of the sweeper in such manner that the handle is kept in a vertical position when desired. 14th. The combination, with a sweeper, of the slitted socket, having the section of screw with a handle provided with a screw to fit therein and with the sleeve K , the coiled spring and the shaft, all arranged substantially as set forth.

No. 19,312. Decoy Duck. (*Appeau-Canard.*)

Henry K. Humphreys, Toronto, Ont., 12th May, 1884; 5 years.

Claim.—1st. A board A , having a hole B made in it, as specified, and a wire C , in combination with a duck E , set into the hole B , and held in position by the wire C , substantially as and for the purpose specified. 2nd. The board A having a hole B cut through it, the wire C , extending from its top side, and the notches D , cut in the back edge of the board, in combination with the duck E , arranged substantially as and for the purpose specified. 3rd. In combination with a duck E , a board A having a hole B cut through it, and corks F packed on its bottom side, substantially as and for the purpose specified.

No. 19,313. Improvements in Typography. (*Perfectionnements dans la Typographie.*)

Charles H. Davids, Brooklyn, N. Y., U. S., 12th May, 1884; 5 years.

Claim.—1st. The combination of the key levers K, t , impression-lever I, l , link u , toggle-joint 12 13, slider 14, puppets p and type punches t, p , arranged substantially as and for the purpose set forth. 2nd. The key levers K, t , and impression-lever I, l , with an adjusting device 11, and train of connections to the type-punch t, p , substantially as shown. 3rd. The key levers K, t , impression levers I, l , and its adjustments o, o_1 , in combination with a train of connections to the type-punch t, p , substantially as shown and described. 4th. The combination of the key levers K, t , the impression lever I, l , the connections from the impression lever I, l , and including the slider 14 and the return stop 18, arranged substantially as and for the purpose specified. 5th. A punch wheel and its rotating mechanism, in combination with the locking levers l, l , and with a cushioning spring A , the latter interposed between the driving mechanism and the punch wheel, substantially as and for the purpose set forth. 6th. The device A constructed as and for the purpose set forth. 7th. The combination with the rotating mechanism and in combination with said punch wheel and rotating mechanism, substantially as specified. 7th. In combination with each other and with the mechanism for rotating a carrier containing a set of punches, a continuously operating friction clutch, and a positive clutch e, e_1 , which is disengaged while a punch is being impressed, substantially as and for the purpose