

**No. 19,004. Nut Lock.** (*Arrête-Ecrou.*)

Willis L. Moore, Rochester, Minn., U.S., 1st April, 1884; 5 years.

**Claim.**—1st. A nutlock consisting of a rigid non-elastic locking plate, provided with slot jaws and shoulder at one end, the jaws being adapted to pass beneath the nut and on the respective sides of the nut-carrying bolt, and the shoulder being adapted to bear against and engage the nut, and the other extremity being adapted to bear against and hold in position, a second nut at a distance from the first nut, whereby both of said nuts are locked; said locking plate being capable of being removed and reapplied either in the same place or elsewhere, without change or injury to its form or structure, substantially as and for the purpose set forth. 2nd. The non-elastic locking plate A having slot B, jaws C, shoulder D and end E, in combination with the nuts F and G and their bolts, the fish-plate H and the rail I with its lever flange K, the jaws C being adapted to pass beneath the nut F and on its respective sides of the bolt, which carries nut F, and the shoulder D being adapted to bear against, and engage the nut F, and the end E being adapted to partially pass by and being supported in position by the flange K, to bear against and hold in position the nut G, all substantially as and for the purpose specified.

**No. 19,005. Heating, Tempering and Annealing Furnace, &c.** (*Fourneau, &c., pour Chauffer, Tremper et Recuire.*)

Aaron J. Nellis, Pittsburg, Penn., U.S., 1st April, 1884; 5 years.

**Claim.**—1st. In a heating furnace, the combination, with a single heating chamber, of a group or series of small fire-chambers arranged directly beneath the heating chamber, and connected therewith on one side and at different points along its length by flues, said heating chamber being provided with a series of flues leading from the opposite side thereof, whereby the products of combustion from the different fires cross the heating chamber transversely at different points along the lengths thereof, substantially as and for the purposes specified. 2nd. In a heating, tempering, and annealing furnace, the combination of a series of fire-chambers E, B, B, B, provided with flues b, b, with two overhead heating chambers C, C, and a superimposed annealing chamber D, encompassed by the flues d, d, substantially as and for the purposes specified.

**No. 19,006 Temporary Binder.**(*Reliure Temporaire.*)

James S. Shannon, Chicago, Ill., U.S., 1st April, 1884; 5 years.

**Claim.**—1st. The paper file described, consisting essentially of a receptacle composed of the folding-lids A and back B, and a paper-holding device attached within said receptacle and constructed to allow the papers to be removably secured thereto, substantially as described. 2nd. In combination with the receptacle comprising a back B and lids A flexibly joined, as shown, a binder detachably secured to the receptacle in the interior thereof, substantially as and for the purpose set forth. 3rd. In combination with a binder having projecting edges c, c, and with the back B of the receptacle A B, of plates Bi secured to the back B and arranged to admit the edges c, c of the binder beneath the edges of said plates Bi, substantially as and for the purpose set forth. 4th. The paper file described, consisting essentially of a receptacle composed of the folding-lids A and back B, a paper-holding device within said receptacle and an outer case E, substantially as and for the purpose set forth. 5th. The paper file described, consisting of a receptacle composed of the flexibly joined parts A, A, B, a receptacle E flexibly joined at its angles e, e, and provided with a folding part or parts adapted to close one end thereof, and securing the binder in the latter receptacle, the whole being constructed for transportation in "knockdown" form and adapted to be conveniently set up for use, substantially as described. 6th. In a binder of the character described, the tubes Di joined with the hinge-wire D by being embraced within the tubes of the latter, substantially as and for the purpose set forth.

**No. 19,007. Apparatus for Purifying Air in Houses, &c.** (*Appareil pour Purifier l'Air dans les Maisons, &c.*)

Louis B. Rodrigue and Enoch Loranger, Ste. Anne-de-la Pêrade, Que., 1st April, 1884; 5 years.

**Reclames.**—10. Les appareils destinés à purifier l'air dans les maisons ou édifices, quelconques étel que décrits. 20. La feuille de toile en forme de cône tronqué, en combinaison avec les portes ou trous aspirateurs de quelque forme qu'ils soient, tel que décrits et pour les fins indiquées.

**No. 19,008. Car-Coupling.** (*Accouplage de Wagons.*)

Joseph Letourneau, St. Pierre, Que., 1st April, 1884; 5 years.

**Reclames.** 10. L'agrafe B avec son point d'appui C, tel que décrit et pour les fins mentionnées. 20. La chaise D, munie de ses rainures L, permettant le fonctionnement de la coulisse E, le tout tel que décrit et pour les fins mentionnées. 30. La traverse mobile J et les leviers latéraux K, tels que décrits et pour les fins mentionnées, le tout tel que ci dessus décrit et figure aux dessins ci-annexés et pour les fins indiquées.

**No. 19,009. Steam Fire Engine.**(*Pompe à Incendie à la Vapeur*)

William H. Havens, Paterson, N.J., U.S., 2nd April, 1884; 5 years.

**Claim.**—The combination, with a locomotive boiler, its tender and tank, of a jet-pump siphon or water elevator located within said tank in the rear portion thereof, and provided with suitable steam connections and hose within easy reach of the train-hands from the platform of the tender, whereby the water in the tank may be forcibly discharged and utilized to extinguish fires on the train, or in close proximity thereto, substantially as set forth.

**No. 19,010. Thrashing Machine.**(*Machine à Battre.*)

George W. Morris, Brantford, Ont., 2nd April, 1884; 5 years.

**Claim.**—1st. In a thrashing-machine provided with an ordinary drum cylinder, having grooved steel beaters of the usual description, the combination of a concave formed of bars C, with a grate D inserted between each pair of bars, substantially as and for the purpose specified. 2nd. In the concave of a thrashing-machine, the bars C, having tennon ends to fit into the sockets a, made in the curved end castings B, and bolt-holes b, at equal distances apart in the centre of the bar C, in combination with a grate D, inserted between each pair of bars C, and having bolt-holes corresponding with those through the bars C, substantially as and for the purpose specified. 3rd. In a thrashing-machine, an open-bottom straw-shaker F, supported at an angle extending upwardly from the cylinder to a point above the tail-rake by the slanting spring hangers H, in combination with driving mechanism arranged to impart a longitudinal reciprocating motion to the shakers, substantially as and for the purpose specified. 4th. In a thrashing-machine, an open-bottom straw-shaker F, having a longitudinally reciprocating motion, in combination with an inclined bridge f, formed across the upper surface of the shaker F, substantially as and for the purpose specified. 5th. In a thrashing-machine, a jog-tray or grain carrier E, having a close bottom formed as described, and deriving a longitudinally reciprocating motion, as specified, in combination with perforations made through the bottom of the carrier E, immediately over the dressing-shoe K, substantially as and for the purpose specified. 6th. In a thrashing-machine provided with a vibrating grain-carrier and a vibrating shaker, a series of spring hangers H, the bottom end of each being connected to a spool h, having a hole through it to permit the passage of the pivot pin used in connecting the hanger to the shaker or carrier, in combination with the brackets g, fixed to the frame of the machine and arranged to adjustably hold the spring hangers, substantially as and for the purpose specified. 7th. In a thrashing-machine, a straw-shaker F, located above the grain-carrier E, both being supported from the frame of the machine by the spring hangers H, in combination with the double crank-shaft I, connected by the rods J to the carrier E, and shaker F, in order that the revolving of the crank-shaft shall impart a longitudinal reciprocating motion to the said shaker and carrier, the cranks being set so that the shaker and carrier shall travel in opposite directions to each other. 8th. In a thrashing-machine provided with a dressing-shoe K, at one end, and a combined smutter and fanning-mill at the other end, an elevator L arranged to convey the grain from the dressing-shoe K to the chamber N, in combination with the worm-conveyor O, arranged to carry the grain through the chamber N to the smutter, substantially as and for the purpose specified. 9th. In a thrashing-machine, in which the grain is conveyed from the dressing-shoe K to the chamber N, by the elevator L, a revolving worm conveyor O, in combination with the slide T, substantially as and for the purpose specified. 10th. In a thrashing machine, a chamber N, provided with a worm conveyor O, in combination with the smutter barrel P, having a roughened interior surface and revolving beaters Q within it, substantially as and for the purpose specified. 11th. In a thrashing-machine, a smutter barrel P, provided with revolving toothed beaters Q, the teeth in the said beaters being set spirally, so as to convey the grain from the mouth of the conveyor to the port where it is discharged from the smutter to the finishing sieve B, in combination with the fan S, arranged to send a blast through the grain, as it falls from the smutter-barrel P to the finishing sieve P.

**No. 19,011. Machine for Making Cigarettes.**(*Machine à Cigarettes.*)

James Burns, Brooklyn, Alexander Buckman, Schodack Depot, Frank P. Harder, James R. Downer, Castleton, Abram L. Schermhorn and John S. Baker, Stuyvesant, N.Y., U.S., 2nd April, 1884; 5 years.

**Claim.**—1st. In a cigarette machine, the combination of a reciprocating bed-die D and sliding plate d having a longitudinal groove d<sup>2</sup> whose transverse form consists of a segment of more than a semi-circle, as herein set forth, and a reciprocating upper die E having in its lower end a longitudinal concave groove e that will combine with the groove d<sup>2</sup> to form a complete circle, as herein described, with the means, substantially as specified, for reciprocating the said dies D and E toward and from each other, as and for the purpose herein set forth. 2nd. In a cigarette machine, the combination, with a vertically reciprocating bed-die D having a vertical sliding plate d which forms part of said die, the die and plate having a longitudinal groove d<sup>2</sup> consisting of more than a semi-circle, as herein described, the cams D<sup>1</sup> and D<sup>2</sup> and springs d<sup>3</sup> for actuating said bed-die, of the folders P and mechanism, substantially as described, whereby the said folders are caused to turn over in consecutive order, first the pasted edge and then the unpasted edge of the wrapper, whereby the adhesion of the wrapper around the molded form of tobacco is effected, substantially as herein specified. 3rd. In a cigarette machine, the combination with a reciprocating bed-die D provided with a reciprocating sliding plate d and a tobacco feeding mechanism, substantially as described, for feeding the tobacco into the machine, of a vertically reciprocating upper die E arranged in relation to said bed-die and having on its lower end a cutting edge, as herein set forth, the cross-bar F and mechanism, substantially as described, for reciprocating the dies D and E, in the manner and for the purpose herein specified. 4th. In a cigarette machine, the combination, with the box F and bed-die D, the latter containing a sliding plate d, the said die and plate having a longitudinal groove d<sup>2</sup> formed therein, as herein described, and the said die being provided with a strip d<sup>3</sup> of yielding material for clamping one edge of a wrapper between said box and die, as herein set forth, and mechanism, substantially as described, for feeding the tobacco into the machine, of the upper die E having a reciprocating movement and adapted to sever a charge of tobacco from the incoming supply and to force the said charge and its enclosing wrapper into the groove d<sup>2</sup> of the bed-die D and sliding plate d, as herein specified. 5th. In a cigarette machine, a reciprocating bed-die adapted to retain a molded charge of tobacco and its enclosing wrapper folders for turning over and causing the edges of