

No. 25,157. Machine for Cutting, Bundling and Binding Fire Wood. (*Machine à Couper et Empaqueter les Bois de Chauffage.*)

Frank Kingston, St. Johns, Eng., 18th October, 1886; 5 years.

Claim.—In a machine for cutting, bundling and binding fire wood, in combination with the knife *k*, the lever *k* gripping cheeks *k1* and presser *k2*, and the compound slide *S* and *U* with its knife blades and slopes, arranged and operating substantially as herein described,

No. 25,158. Catamenial Sack.

(*Sac Cataménial.*)

Jaines W. Hughes, New York, N. Y., U. S., 18th October, 1886; 5 years.

Claim.—1st. The herein described catamenial sack, consisting of a bandage made of delicately-textured fabric, and formed in part as a pouch or receptacle filled with soft absorbent material, said bandage being adapted for a single use, substantially as described, 2nd. A catamenial sack, consisting of a delicately textured bandage, having a pouch filled with absorbent material, which is medicated with a solution of boracic acid and oleum gaultheriae, substantially as described. 3rd. An antiseptic solution for medicating catamenial bandages, consisting of boracic acid and oleum gaultheriae, as set forth. 4th. The herein described catamenial sack, consisting of a bandage formed of soft delicately textured material, and having a pouch filled with a cushioning absorbent, in combination with suitable devices for attaching the bandage to the person of the wearer, substantially as described.

No. 25,159. Paddle for Paddle Vessels.

(*Aube de Vaisseau à Aube.*)

Daniel McDermid, Darlington, Eng., 18th October, 1886; 5 years.

Claim.—1st. The combination of a large driving drum *a*, with a smaller loose drum *d*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the drums *a* and *d* and the endless band or chain *b*, of the pivoted paddles *c*, substantially as and for the purpose hereinbefore set forth.

No. 25,160. Apparatus for Perspective Drawing. (*Appareil pour Dessiner en Perspective.*)

Robert E. Creasey, Jersey, N. J., U. S., 18th October, 1886; 5 years.

Claim.—1st. The combination of drum *a* and spindle *c*, with the string *g*, rod *f* and slide *m*, substantially as specified. 2nd. The combination of drum *a*, with spindle *c*, ratchet-wheel *d*, pawl *e*, hand-wheel *e* and string *g*, and with the rod *f* and slide *m*, substantially as specified. 3rd. The combination of drum *a*, with spindle *c*, ratchet-wheel *d*, pawl *e*, hand-wheel *e*, string *g*, button *i*, cap *j* having socket *k*, and with the rod *f* and slide *m*, substantially as specified.

No. 25,161. Nail Machine. (*Machine à Clou.*)

Franklin A. Gleason, Brooklyn, N. Y., U. S., 18th October, 1886; 5 years.

Claim.—1st. In a nail machine, the combination of the shaft *A*, with the clutch *C* and loose pinion *d*, the clutch *C* being constructed of the rings *a* and *b*, spring *f*, pivoted pawl *h* and supporting projection *m*, and the pinion *d* having tooth *l*, substantially as described. 2nd. The clutch *C* composed of the rings *a*, *b*, spring *f* and pivoted pawl *h*, and which has the tongue *c* on the ring *b*, in combination with the collar *e* having recess to receive said tongue, substantially as described. 3rd. The combination of the eccentric *k*, with the rod *15*, box *17* having internal shoulders, rod *16* having collars *19*, spring *18* and elbow *12*, substantially as and for the purposes herein shown and described. 4th. The combination of the vibrator *B*, with the lever *X* pivoted thereto, said lever having arm *b2* and tooth *c2*, and with the lever *T* having forked piece *d2*, nipper slide *11* having cam *g2*, nipper jaw *h* having pin *j2* and lever *z*, substantially as and for the purpose herein shown and described. 5th. The combination of the pivoted heading lever *F*, with mechanism, substantially as described, for swinging it on its pivot, said lever having ribs *r*, and with the socket *E*, header *D*, and frame *M* having perforated guide-portion *t*, substantially as and for the purpose herein shown and described. 6th. The combination of the driving shaft *G*, cutter lever *I* and rotary pivot *J* having projection *s*, with the double hook *L*, header lever *F*, socket *E*, header *D* and perforated frame portion *t*, substantially as herein shown and described. 7th. The combination of the pivot *J* and its cam *s* having ball socket, with the double hook *L* having ball projection *u*, and with the heading lever *F*, substantially as herein shown and described.

No. 25,162. Reed Organ. (*Orgue.*)

James R. Hamilton, Worcester, Mass., U. S., 18th October, 1886; 5 years.

Claim.—The combination of a range of reed chambers, open at their front ends, and there provided with a closing valve or cover, as described, with a series of channels leading from such reed chambers to several ranges of holes, formed in a board over such channels, and varying in size or diameter, substantially as and for the purpose as specified.

No. 25,163. Reed Organ. (*Orgue.*)

James B. Hamilton Worcester, Mass., U. S., 18th October, 1886; 5 years.

Claim.—1st. The combination, with the series of reeds and their induction and education passages and the valve or valves thereof, of the closure board provided with an orifice extending through it over the upper end of each of such education passages, and of the series of

mouths arranged upon such closure-board, and having education openings in their bottoms, all being substantially as described. 2nd. The combination of the air drum or tune augments, substantially as described, arranged below the valves, with the series of reeds and their induction and education passages, and the valve or valves thereof, and with the closure board and the series of mouths arranged on such board and with it provided with openings, as specified. 3rd. The combination, with the closure board and the series of mouths applied to the reeds and their induction and education passages, as described, of means of pressing such mouths upon the said board, such means as specified, consisting of the friction rollers, the guide rails and the pressure bars and their screws and springs, all arranged and applied essentially as set forth. 4th. The combination, with the closure-board applied to the reed passages block, of the series of rails or ribs extending upward from and arranged upon such board, essentially as described. 5th. The combination of the series of reeds and their induction and education passages, the valve or valves thereof, and the closure board having in it an orifice over each of the said education passages, with the series of mouths, each arranged directly over one of such orifices, and of the perforated slide to operate with such orifices, as set forth.

No. 25,164. Force Pump. (*Pompe Foulante.*)

Alexander Doyle, St. Thomas, Ont., 18th October, 1886; 5 years.

Claim.—1st. The combination of the piston *P*, without a valve, with the piston *p* having a valve attached to the same piston rod and being operated by the same motor, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the piston *P* without a valve, and the piston *p* having a valve fixed to the same piston rod, and the discharge pipe *c* in the position shown and described, substantially as and for the purpose hereinbefore set forth.

No. 25,165. Bustle. (*Tournure.*)

Frank C. Randall, Joliet, Ill., U. S., 18th October, 1886; 5 years.

Claim.—In the bustle shown and described, the tapo *R*, in combination with the coil spring *S* and the pocketed fabric *D*, substantially as and for the purposes set forth.

No. 25,166. Car Spring. (*Ressort de Char.*)

Richard Vose, New York, N. Y., U. S., 18th October, 1886; 5 years.

Claim.—1st. A spiral spring formed of a bar of uniform thickness throughout, but whose width from end to end varies, the width being greatest at the centre on one side from a straight line drawn through said bar, the opposite side being perfectly straight wound on its edge on the mandrel to shape said spiral, substantially as described and for the purpose specified. 2nd. A spiral spring formed of a bar of uniform thickness throughout, whose width varies from end to end, the width being greatest at the centre on one side, the opposite side being a straight line, said bar being wound on a double mandrel, as shown in Fig. 5, substantially as described and for the purpose specified.

No. 25,167. Machine for Making Bale Ties.

(*Machine pour Faire les Cercles d'Entallage.*)

David I. Eckerson and Abram Diefendorf, Worcester, N. Y., U. S., 21st October, 1886; 5 years.

Claim.—1st. In a machine for making wire bale ties, the combination of a wire straightening and stretching mechanism and a cutting-off device, of the mechanism for automatically forming loops on each end of the wire, as set forth. 2nd. In a machine for making bale ties, the combination, with a bed and suitable journal supports mounted thereon, of a driving shaft, and carrying wheels or disks rotating with said shaft, but having a longitudinal movement thereon, and mechanism connected with the aforesaid parts for looping and twisting the wires, as stated. 3rd. In a bale tie machine, the two movable bed plates supporting the carrying wheels, loops forming and twisting mechanism, in combination with the non-rotating cam and gear plates attached to said wheels and supported by said bed plates, and an adjusting screw for moving the same, in the manner and for the purpose set forth. 4th. In a wire bale tie machine, the rotating disks or carrying wheels, provided with diametrically sliding clamps and carrying spindles, provided at their outer ends with a loop forming hook, in combination with a shaft revolving in suitable bearings, and carrying a forming pin at one end, and the non-rotating cam and gear plates provided with suitable teeth and projections to give the desired movement to the several parts, as set forth. 5th. The combination of the bed plate, the rotating disks or carrying wheels, and the central supporting band or bands secured to said bed plate to prevent the sagging of the wires between the wheels, as set forth. 6th. The combination, with the bed plate *A* and supporting bands *G1*, of the curved extensions *G11* attached to or integral with said bands, and forming a receptacle for the finished bale ties, as specified. 7th. In a bale tie machine, a carrying wheel, provided with a clamp formed of two parts *11* and *12* elastically connected, in combination with the cam plate *F* and springs *c2* arranged to operate said clamp as the wheel rotates, for the purpose specified. 8th. In a bale tie machine, the carrying wheel provided with bracket *I* and loop forming spindle and hook, in combination with pinion *f1*, sector lever *K* and adjustable stop *K11*, arranged and operating to form the loops in the ends of the wire, as set forth. 9th. The combination, in a bale tie machine, of the loop forming hook, the pinion *f1*, and spindle *J*, sector lever *K* and spring *A*, said spring acting to return the parts to their normal position after displacement by the stop *K1*, as specified. 10th. In a bale tie machine, the combination of loop forming hook *J1*, provided with notch *f2* with the curved guide *g*, and recess *g1* arranged to catch and carry the wire around a forming pin, as set forth. 11th. In a bale tie machine, the combination of the rotating loop forming hook with the shaft *11*, its pinion, the triangular guide block gear plate and connected toothed segment, arranged as set forth to form and twist the loop. 12th. In a bale tie machine, the shaft *11* having one end thrown out of the axial line, in combination with the removable loop-forming pin, as set forth. 13th. In a