

and operated substantially as described. 3rd. In a nailing machine of the class described, the combination of the lever or support *p*, having the cutter *c*, means substantially as described, for reciprocating said lever and cutter, and the fixed cutters *s* and *t*, all arranged and operated substantially as described. 4th. The combination, of a vertically reciprocating slide, a spring feed dog or lever *k*, pivoted thereto, and the head *B* having the adjustable projection mounted thereon, substantially as described, whereby the length of the feed movement is regulated, as set forth. 5th. The carrier *c*, having the spring plate *g*, whereby the nails are kept in a vertical position while being moved forward to the driver, as set forth. 6th. The combination of the carrier *c*, the spring *u* adapted to hold the nail, and the fixed projection *u* adapted to displace the spring and release the nail, as set forth. 7th. The reciprocating slide *A*, having the spring feed dog, combined with the adjustable projection and means, substantially as described, for adjusting said projection. 8th. In a sole-nailing machine having a work supporting horn, the combination, with said horn and its supporting operating and adjusting devices, substantially as described, of the reciprocating slide *A*, having the spring feed dog, the movable projection *m*, and intermediate means, substantially as described, whereby the projection *m* is adjusted simultaneously with the horn, as set forth. 9th. The combination, with the reciprocating slide having the spring feed dog, of the adjustable projection *m*, the lever *m'*, rod *L*, having the stops or collars *L* *u*, and spring *M*, adjustable rod *I*, having bracket *K*, the treadle *H*, the spring-supported horn connected to said treadle, as set forth.

No. 17,849. Cord Binder for Harvester.

(*Lieuse à corde pour moissonneuse.*)

A. Harris, Son & Co., (assignee of John Harris and Joseph Lucas,) Brantford, Ont., 10th October, 1883; 5 years.

Claim.—1st. In a self-binding harvester, the hinging of the frame carrying the binding mechanism to the harvester so that the binding table and attachments with the entire knotting mechanism may be folded up to reduce the width of the machine. 2nd. In a self-binding harvester in which the binding mechanism is attached to a frame having a forward and backward movement on the harvester to which it is hinged, the combination of an independent table fixed to the harvester and extending from the conveying apron to the binding table. 3rd. In a self-binding harvester in which the binding table is hinged to the harvester below an independent table leading from it to the conveying-apron, one or more bolts arranged to hold down the independent table, in combination with springs as specified so as to permit a slight upward movement of the independent table during the folding of the binding table. 4th. In a self-binding harvester, in which the frame carrying the binding mechanism is hinged to the harvester, and the portion of the packer-shaft deriving its motion from the harvester is carried thereon, a socket formed in the hub of the packer-crank to receive the end of the packer-shaft, in combination with a spring attached to the shaft and arranged to engage with the packer-crank, substantially as and for the purpose specified. 5th. In a self-binding harvester in which the frame carrying the binding mechanism is hinged to the harvester, the combination of an arm pivoted on the bottom of the frame and arranged to support the frame when folded up. 6th. In a self-binding harvester, in which the binding mechanism is attached to a frame hinged to the harvester so that the binding-table and mechanism may be folded up to reduce the width of the machine, the combination of a cranked lever arranged to impart a longitudinal movement to the said frame, substantially as and for the purposes specified. 7th. In combination with the binding attachment of a harvester, one or more fingers attached rigidly to the knot-shaft for the purpose of retaining loose grain while the sheaf is being formed.

No. 17,850. Machine for Making Barrels.

(*Machine à faire les tonneaux.*)

James Massie, Toronto, Ont., 10th October, 1883; 5 years.

Claim.—1st. In a machine for making barrels, in which the staves are fed in so as to arrange themselves around the periphery of a revolving former, two ring-shaped frames, situated one at each end of the machine at such a point that they will form a retaining ring at and for the ends of each stave fed into the revolving former, for the purpose of holding the staves together till the barrel has been trussed, substantially as and for the purpose specified. 2nd. In a machine for making barrels, in which the staves forming the barrel are held by rings supported by a shaft and constituting an inside former for the barrel, the combination of ring-shaped frames, one at each end of the barrel former, and each frame being divided into two parts so that the diameter of the ring-shaped frames may be increased or decreased as required. 3rd. In a machine for making barrels, the ring-shaped frame *C* divided into two parts and situated at one end of the barrel former, in combination with a correspondingly divided ring-shaped frame situated at the opposite end of the former, the corresponding half of each frame being connected together by a cross bar so that two corresponding halves of each frame shall move simultaneously when operated by the spindle which has cut upon it a right and left hand screw passing through correspondingly threaded nuts attached to the cross bars, substantially as and for the purpose specified. 4th. In a barrel-making machine, in which the staves to form the barrel are fed in between a revolving former and stationary ring-shaped frames, the combination of a table attached to the frame of the machine in such a position that the staves arranged upon it can readily be fed into the machine. 5th. In a barrel-making machine in which the staves are fed in between a revolving former and stationary ring-shaped frames, a table upon which the staves are arranged by the operator, in combination with cross-cut saws and crozing and chamfering knives operated to finish the ends of the staves before they are fed into the former. 6th. In a barrel-making machine in which the staves are arranged on a table by the operator, the combination of feeding mechanism arranged to feed the staves around the revolving former, substantially as and for the purpose specified. 7th. In a barrel-making machine in which the staves are fed around a revolving former and held in position by stationary ring-shaped frames at either end, the combination of a revolving planer knife carried on a swinging frame and having the spindles parallel with the axis of the barrel-

former, the said knives being arranged to plane off the exterior surface of the staves when arranged around the revolving former, substantially as and for the purpose specified. 8th. In a machine for making barrels, a cylindrical former composed of rings made in segments, each segment connected to a sleeve fitted on to a central shaft or spindle in such a manner that the longitudinal movement of the sleeves shall cause the collapse of the former made by the rings, as specified. 9th. In a machine for making barrels, a cylindrical former composed of rings, in combination with enlarging pieces arranged to fit on to the rings for the purpose of enlarging the diameter of the former, substantially as and for the purpose specified. 10th. In a machine for making barrels in which the staves are arranged between a revolving frame and stationary ring-shaped frames, pressure bars suitably carried on the frame of the machine near the former, in combination with lever or screw mechanism arranged to operate the pressure bars in such a manner, as to cause them to truss the barrel, as specified.

No. 17,851. Tricycle. (*Tricycle.*)

J. G. Bailey, Patterson, and R. Thorne, Toronto, Ont., 10th October, 1883; 5 years.

Claim.—1st. In a tricycle, the rider's seat carried on a jointed frame connected at one end to the crank axle and at the other to the front frame of the machine, in combination with a frame correspondingly jointed and connected, but arranged to carry the stirrups upon which the feet of the rider rest, substantially as and for the purpose specified. 2nd. The combination with the seat *K*, of the jointed frame *J*, one end of which is hinged to the front frame *C* and the other end to the crank on the driving axle *G*, substantially as and for the purpose specified. 3rd. The combination, with the stirrups *N*, of the jointed frame *M*, one end of which is hinged to the front frame *C* and the other end to the crank on the driving axle *G*, substantially as and for the purpose specified. 4th. In a tricycle, in which the front frame *C* is connected to the driving axle *G* by the rods *F* journaled on the axle *G* and braced as described, the combination of a jointed frame connected at one end to the front frame, and at the other to the crank on the driving axle, substantially as and for the purpose specified.

No. 17,852. Combined Plug and Strainer for Sinks. (*Couloir et tampon combinés des évier.*)

J. Iredale, Toronto, Ont., 10th October, 1883; 5 years.

Claim.—1st. A drain pipe *B* provided with a hollow plug *C*, in combination with a strainer *E*, substantially as and for the purpose specified. 2nd. A drain pipe *B* provided with a hollow plug *C*, having a strainer *E* attached to and suspended above it, in combination with an auxiliary plug *F* made to fit the aperture in the plug *C*, substantially as and for the purpose specified. 3rd. A drain pipe *B* provided with a hollow plug *C*, having a strainer *E* attached to and suspended above it, in combination with the auxiliary plug *F* made to fit the aperture in the plug *C* and provided with a hinged spindle *a*, substantially as and for the purpose specified.

No. 17,853. Filling Cans. (*Bidons de transvasement.*)

Milton H. Garland, Boston, Mass., U. S., 10th October, 1883; 5 years.

Claim.—1st. In a filling can, a flexible air-conducting tube *E*, provided with a mouth-piece and a valve or stop-cock, in combination with a discharge pipe *J*, and a conducting or filling tube *G*, substantially as described. 2nd. In a can for filling lamps and for other purposes, a flexible and detachable air-pipe *E*, having a mouth-piece for the induction of air, substantially as described and shown, and a stop-cock for regulating the current of air and for opening or closing said pipe, in combination with the pipe *d*, and a discharge pipe. 3rd. In a filling can provided with a storage compartment below the upper part of its body, the discharge pipe *J*, the nipple *m*, with a longitudinal opening through its centre, a filling tube *G*, provided at one end with a sleeve or elbow to fit the said nipple *m*, and at the other end with a conical discharge-nozzle *a*, in combination with a flexible detachable air-conducting pipe having a stop-cock and a mouth-piece through which air is blown from the lungs of the operator, substantially as described.

No. 17,854. Tanning Apparatus.

(*Appareil de tannage.*)

John L. Braun, Stirling, Ont., 10th October, 1883; 5 years.

Claim.—1st. In a leather tanning apparatus, the above described drum consisting mainly of the heads *C* *C*, band *E*, trunnions *a* *a*, pulley *c*, slits *d* *d*, formed in the band door *e*, with the locking bar *f*, and the catch pins *g* *g*, substantially as described. 2nd. The combination of the described drum, consisting mainly of the drum heads *C* *C*, and band *D*, with the tan vat *A*, having the bearings *b* *b*, substantially as described and for the purpose set forth.

No. 17,855. Horse Shoe. (*Far à cheval.*)

Henry Dunning, Wellington, Ont., 10th October, 1883; 5 years.

Claim.—As an improved article of manufacture, a horse shoe, composed of the foot portion *A*, having the rear half rounded, and an overlying steel spring *D*, of uniform thickness throughout welded to the front of the shoe, said spring corresponding to the shape of the foot portion *A*, and having a portion cut away to expose the crease in the foot portion, whereby the nails can be driven, as set forth.

No. 17,856. Machine for Sprinkling Paris Green Liquid. (*Machine de distribution du vert de Paris liquide.*)

Norman L. Kinney, Barford, Que., 10th October, 1883; 5 years.

Claim.—The box *A*, with springs *B* *B*, and the valves at the bottom, also the connecting rods *C* *C*, with the lever *D*, and the cross-bar *E*, and the guide lever *F*, with the hose and faucets *L* *L*, all in combination, as and for the purposes described.