

Claim.—1st. The vulcanization of a cable composed of telegraphic, telephonic or electric wires embedded in India-rubber or gutta-percha, or other vulcanizable gum, which surrounds and separates the several wires by means of a mould, shaped to receive each cable and hold it in a straight position, while the India-rubber etc., is being vulcanized. 2nd. The vulcanization of cables for telegraphic, telephonic or electric wires in moulds adapted to receive them and confine them in a straight position while being so vulcanized, the projection of such moulds at and from each end of the vulcanizing oven or chamber.

No. 16,281. Shingle Machine. (*Machine à bar-deau.*)

John Goldie and Daniel Cameron, Galt, Ont., 13th February, 1883; (Extension of patent No. 2115.)

No. 16,282. Railway Track Cleaner. (*Chasse-pierre de chemin de fer.*)

James H. Miller, Fredericton, N. B., 14th February, 1883; (Extension of patent No. 2391.)

No. 16,283. Improvements on Shingle Machines. (*Perfectionnements aux machines à bar-deau.*)

William Wyley, Alma Mills, Foxmead P.O., Ont., 14th February, 1883; for 5 years.

Claim.—1st. The combination of friction wheels 7 and 8 driving a movable shaft 9, carrying a spool 10, winding a strap 11 attached to bolt carriage 12, lever 23, rock shaft 18, rod 19, an inclined block 20 for effecting engagement and disengagement of the friction wheels, the counterbalance weight 15 to effect a return motion of the bolt carriage 12, and sliding bar 25 operated in one direction by said carriage and reversely by spring bar 24 and strap 26, whereby the reciprocation of the shingle bolt to the saw is effected automatically. 2nd. The combination of the movable shaft 9 carrying a friction wheel 8, and spool 10 having strap 11 attached to the bolt carriage journal bearing 22 movably attached to frame 1, inclined block 20, rod 19 and rock shaft 18 provided with lever 23, operating to advance the carriage to the saw. 3rd. The spring bar 24, strap 26 and sliding bar 25 having projections 28 and 30 to operate lever 23 for effecting disengagement of the friction wheels 8 and 7, in combination with a reciprocating bolt carriage 12, receded from the saw by a counterbalance weight 15. 4th. The combination of the bolt carriage 12 having bracket 16 pintled thereto, rock shaft 18 provided with lever 23, rod 19, operating block 20, and shaft 9 carrying friction wheel 8 engaging and disengaging with friction pulley 7 and spool 10, winding strap 11 attached to the carriage, whereby the carriage, when receded, causes the friction wheels to engage and advance the shingle-bolt to the saw. 5th. The combination of movable shaft 9, carrying friction wheel 8 and spool 10, bolt carriage 12 attached to said spool by strap 11 winding thereon and provided with weight 15, slide 25 alternately reciprocated by carriage 12 and spring bar 24, and the rock shaft 18 provided with lever 23, rod 19 and block 20, whereby the carriage is automatically advanced and receded.

No. 16,284. Improvements in Clock Calendars. (*Perfectionnements aux horloges-calendriers.*)

Josiah K. Seem, Macomb, Ill., U. S., 14th February 1883; for 5 years.

Claim.—1st. The arrangement and combination of the unit wheel P having weight *i*, decimal wheel *a*, wheel *e* having long teeth *r*, disk *s*, and wheel *i*. 2nd. The arrangement and combination of the frame *e*, pawl *f* having pin *b*, arm *r*, shaft *D*, weighted lever *Q*. 3rd. The disk C having three pins *f*, studs *e* *1* *2*, and corresponding notches in its circumferences, in combination with the wheel *e*, disk S and decimal wheel *a*. 4th. The combination and arrangement of the frame *e* having incline plane *a* and pin *o*, pin *b* on pawl *f*, wheel *i*, disk C having three projecting pins *f*, stud *e* *1* *2*, and corresponding notches in its circumference, wheel *k*, index wheel *m* having leap year wheel *n*, pawl *d* and three cog-wheels *x*. 5th. The combination and arrangement of the lever *q* having weight *v* and projecting tooth on its inner end wheel *m*, lock spring *u*, day wheel B, shaft *D*, arm *r* and pawl *f* having pin *b* operating jointly together.

No. 16,285. Improvements on Pipe or Hose Couplings. (*Perfectionnements aux joints des tuyaux ou des boyaux.*)

William F. Cassidy and Enos R. Williams, Cape May, N. J. U.S., 14th February 1883; for 5 years.

Claim.—1st. The combination, with hinged clamps, each having an opening *c*, of the two collars A A, each having a stud B which is formed with an incline *a* and notch *b*. 2nd. A hinged clamp constructed with an opening *c* and provided with side pieces *d*, whereby it is enabled to enclose the sides as well as the top of the coupling, in combination with a collar having a stud over which said clamp catches. 3rd. The two collars A A, each having a stud B, in combination with hinged clamps *c* having openings *c* and horns *e*. 4th. The two collars A A, each having a stud B provided with an incline *a*, in combination with hinged clamps *c*, which are shaped so as to enclose nearly the entire circumference of said collars, the clamps being provided with openings *c* and horns *e*.

No. 16,286. Improvements in the Bolsters of Bob-Sleighs. (*Perfectionnements aux sellettes des traîneaux accouplés.*)

Michael H. Ash, Sebringville, Ont., 14th February, 1883; for 5 years.

Claim.—1st. The combination of the king bolt D and the rear bolster E with the reach K. 2nd. The combination of the rear bolster E and the bolster bearings F F.

No. 16,287. Improvements on Dumping Waggon. (*Perfectionnements aux wagons à bascule.*)

Duncan Kennedy, (Assignee of Kenneth Kennedy,) Kenyon, Ont., 14th February, 1883; (Extension of Patent No. 12,691.)

No. 16,288. Improvements on Dumping Waggon. (*Perfectionnements aux wagons à bascule.*)

Duncan Kennedy, (Assignee of Kenneth Kennedy,) Kenyon, Ont., 14th February, 1883; (Extension of Patent No. 12,691.)

No. 16,289. Improvement on Sleighs. (*Perfectionnement aux traîneaux.*)

Abel A. Crosby, (Assignee of Sebastian Gilzinger,) Rondout, N. Y., U.S., 14th February, 1883; (Extension of Patent No. 8423.)

No. 16,290. Improvements on Sleighs. (*Perfectionnements aux traîneaux.*)

Abel A. Crosby, (Assignee of Sebastian Gilzinger,) Rondout, N. Y., U.S., 14th February, 1883; (Extension of Patent No. 8423.)

No. 16,291. Improvements in Wheel Ploughs. (*Perfectionnements aux char-rues à avant-train.*)

Frederick S. Davenport, Jerseyville, Ill., U.S., 15th February, 1883; for 5 years.

Claim.—1st. The combination, with an axle and wheels loosely mounted thereon, of levers secured rigidly to said axle and supporting at their rear ends an oscillating table upon which the plough beam rests and secured at their forward ends to the seat-arch a tongue arranged on one side of said arch and a brace arranged at the opposite side of the arch, a foot rest secured upon said tongue and brace, and an anti-friction roller mounted in bearings on the under side of the foot-rest. 2nd. The combination, with the axle A wheels B, levers C, arm N, table D and beam E, of the arch F, seat Q, tongue G, lever L, catch *g*, rack N^o and link O. 3rd. The combination, with the axle A, wheels B, levers C, arm N, table D and beam E, of the arch F, seat Q, tongue G, lever L, foot-rest I and roller J. 4th. The combination, with the side plates R¹¹ R¹², or an equivalent bifurcation in the front end of the beam R, of a clip S adapted to move in a vertical plane upon a horizontal axis S¹ and provided with lugs T¹ T², adapted to butt against the lower front edges of the side plates R¹¹ R¹², and thus prevent the clip S¹ falling below the point of horizontality, yet allowing it to play freely upward, so as to coincide with the line of draft.

No. 16,292. Improvements in Machines for Cutting Printers' Rules. (*Perfectionnements aux machines à couper les filets d'imprimerie.*)

Robert S. Robson, Cambridgeport, Mass., U. S., 15th February, 1883; for 5 years.

Claim.—1st. In combination with the frame or standard A and the rule rest *f* thereof, and with the cutting knife C having mechanism for elevating it, the said knife as explained and depressing relatively to said rest, the adjustable bed E pivoted to the said standard or frame A and provided with the movable clamp bar K and its screws, and with means of supporting such bed in a horizontal position, as well as in any inclined position within the range of its movements. 2nd. The combination of the index pointer projecting from the standard, with the divided limb of the adjustable bed and with such standard and bed provided with cutting and damping devices. 3rd. The combination of the pivoted arm L and its gauge rod M, with the adjustable bed E, the frame or standard A and its rule rest *f*, and with the cutting knife C provided with means of operating it.

No. 16,293. Improvements in the Manufacture of Silicious Copper and Silicious Bronze. (*Perfectionnements dans la fabrication du cuivre et du bronze siliceux.*)

Lazare Weiller, Angoulême, France, 15th February, 1883; for 5 years.

Claim.—1st. The process described of producing silicious copper and silicious bronze, by introducing into melted copper or bronze a mixture such as specified, and containing substances which, by their reactions in the midst of the molten mass itself, will furnish the silicium and sodium necessary for the formation of the said silicious compounds. 2nd. The manufacture of silicious copper and silicious bronze by the employment of the materials named and in the manner described.

No. 16,294. Improvements on Cooking Ranges. (*Perfectionnements aux landiers de cuisine.*)

Peter Brake, Toronto, Ont., 15th February, 1882; for 5 years.

Claim.—1st. A cooking range or stove constructed or provided with a water tank in the rear end of the same, the inlet damper F with end pieces *f* *1* and the outlet damper I. 2nd. In combination with the dampers F and I, a tank seat constructed with a return flue H and opening *h*, the flue and opening *h* being made to suit the various forms of water tank which may be used in connection therewith.