No. 12,546. Improvements in Platform Scales. (*Perfectionnements aux balances-plateformes.*)

William E. Tate, Parrsboro, N.S., 26th March, 1881; for 5 years.

Claim.—1st. The combination of lever A and levers B B B B 2nd. The sling bar I with socket plates H H, with socket J and combined pivot K, and socket N.

No. 12,547. Improvements on Saws. (*Perfectionnements aux scies.*)

Amos A. Burr and Joseph H. Powers, Rockdale, N. Y., U. S., 26th March, 1881; for 5 years.

Claim.—The combination, with the pairs of cutting teeth B B having chisel points and forwardly inclined lower edges, of a tooth guard C made blunt or mounted at the point, reaching only to the plane to which the cutting teeth extend into the wood, and arranged between each pair of cutting teeth.

No. 12,548. Improvements on Corsets. (*Perfectionnements aux corsets*).

Isaac Newman, New Haven, Ct., (Assignee of Abraham L. Zorkowski, New York), U.S., 26th March, 1881; for 5 years.

Claim.—1st. A corset provided at its sides with vertical cords extending from top to bottom, and transverse cords crossing said vertical cords at right angles or nearly so. 2nd. A corset provided at its sides with vertical groups of cords with intervening spaces extending from top to bottom and separated groups of cords crossing the said vertical groups at right angles, or nearly so, the respective vertical and horizontal groups of cords being stitched to separate bands or strips of cloth, and the outer strips being stitched to the under strips, and both stitched to or joined with the front and back sections of the corset. 3rd. A corset provided with groups of cords extending in vertical and horizontal directions, and crossing each other at the sides of the corset, the said groups, one or both sets, being stitched to bands or strips of cloth somewhat separated, and the said bands stitched to the corset.

No. 12,549. Rivet Setting Machine. (*Machine à poser les rivets.*)

Mellen Bray, Newton, Mass., U.S., 26 March, 1881; (Extension of patent No. 5,922.)

No, 12,550. Drilling Machine for Tubular Rivets. (*Machine à forer pour les rivets en tube*)

Mellen Bray, Newton, Mass, U.S., 26th March, 1881; (Extension of patent No. 5,923)

No. 12,551. Improvements on Harvester Rakes. (*Perfectionnements aux râteaux des moissonneuses.*)

David Maxwell, Paris, Ont., 26th March 1881; (Extension of patent No. 7,509.)

No. 12,552. Improvements on Harvester Rakes. (*Perfectionnements aux râteaux des moissonneuses.*)

David Maxwell, Paris, Ont., 28th March, 1881; (Extension of patent No. 7,509.)

No. 12,553. Furnace for Heating Wheel Tires. (*Four à chauffer les bandages des roues.*)

Louis Bredannaz, Montreal Que., 28th March, 1881; for 5 years.

Résumé.—L'emploie d'un four circulaire et plat comme combinaison nouvelle pour chauffer les bandages de roues sans les déformer, et dont A est la grille circulaire, B la muraille extérieure garnie d'une enveloppe en tôle ou non, avec ouverture H du garde-cendres, et siège circulaire E. C la muraille intérieure, D le chapeau a couvercle postiche C et à poignée G.

No. 12,554. Improvements on Car-Coupling. (*Perfectionnements aux accouplages des chars.*)

David Murray, Jarvis, Ont., 28th March, 1881; for 5 years.

Claim.—An automatic locking device or keeper D, to prevent clevis B from uncoupling, and operated by the motion of the cars. 2nd. The combination of the automatic keeper D, clevis B, drawhead hooked plate C, the same being automatically coupled and locked by contact of cars.

No. 12,555. Water Heater for Steam Boilers. (*Chauffeur d'eau pour les chaudières à vapeur.*)

Robert McMaugh, St. Catharines, Ont., 28th March, 1881; for 5 years.

Claim.—A water heater and sediment collector composed of a water tight casing A, having a perforated plate D situated below the point at which the cold water is admitted, in combination with an exhaust pipe B leading from the engine to the inside of the casing where it discharges the exhaust steam against the bottom side of the perforated plate, thereby imparting heat to the cold water percolating therethrough, an auxiliary exhaust pipe C extending within the casing, to a point below the mouth of the main exhaust pipe B, carrying off the steam not condensed by the water.

No. 12,556. Improvements on Force Pumps. (*Perfectionnements aux pompes foulantes.*)

William W. Mallory, Holland Patent, N. Y., U. S., 28th March 1881; for 5 years.

Claim.—The cylinder A having a ball valve B C at its lower end, the piston and piston rod E F, the inclined discharge pipe H, connected at its lower end with the lower part of the cylinder A and having a ball valve I J, at its lower end, the curved nozzle M and the elbow pipe N having a tapering overflow pipe O attached to its outer end. 2nd. The combination, with the upper end of the cylinder A and the piston rod F, of the elbow pipe N and the inwardly inclined tapering pipe O, to serve as a guide to the piston rod, a handle to the pump, and to guide the overflow back to the reservoir.

No. 12,557. Improvements on Elevating Apparatus. (*Perfectionnements aux monte-charges*)

George W. Wood, (Assignee of Charles H. Smith,) Faribault, Min., U.S., 28th March, 1881; for 5 years.

Claim.—The combination, in apparatus for raising coal, of a bucket frame with a cylinder which admits of being revolved on a supporting structure, and to which said bucket frame is pivoted, so that the said cylinder may receive the contents of the buckets. 2nd. The combination of the bucket frame and its endless chain of buckets, with the cylinder or receiver B_2 and the cylinder B_1 with its adjustable spout, the said cylinders admitting of being turned independently of each other and of the structure which supports them. 3rd. The combination of the vertically adjustable sliding frame B, the cylinder B_1 admitting of being turned on the said frame and provided with a spout, the cylinder or receiver B_2 admitting of being turned on the said cylinder B_1, and the bucket frame with its endless chain of buckets. 4th. The combination of a main frame A, a frame B arranged to slide vertically therein, the cylinders B_1 B_2, the shaft H carried by the upper cylinder, the central vertical shaft F and gearing whereby motion may be imparted from the said shaft F to the seaft H. 5th. The combination of the cylinder B_2, the opening in the side of the same and wings *t t* projecting from the edges of the said opening, with the chain barrel shaft having its bearing in the side wings. 6th. The combination of the cylinder B_1, its outlet, and the inclined plate K, permanently fixed in the cylinder in respect to the outlet, with the spout F having a funnel-shaped end riveted to the cylinder at the outlet. 7th. The combination of the cylinder B_2, the flanged cylinder B_1 and the plates K, secured to the said cylinder B_2 and carrying roller J adapted to the flange of the lower cylinder. 8th. The combination of the bucket frame L, the endless chain J, the buckets M and the aprons Z.

No. 12,558. Railway Track Lifter. (*Appareil à relever les voies de fer.*)

Donald B. McDonald, Aylmer, Que., 29th March, 1881; (Extension of patent No. 5,889.)

No. 12,559. Improvements on Harvesters. (*Perfectionnements aux moissonneuses.*)

George Pye, Ottawa, Ont., 30th March 1881; for 5 years.

Claim.—The combination of the drag bar O, spring down holding arm x, end wheel T, axial coupling pin or bolt S hinged to the shoe R, tilting lever Z_1, and lever V fulcrumed to the platform C and connecting with the cutter bar V_2 by chain W, whereby the cutter bar can be tilted endwise or rocked without raising the drag bar, which has an independent motion to allow the cutting apparatus to conform to the sinuosity of the ground. 2nd. In combination with the wheel E having peripherally graduated concave cams, the rocker arm having prolongation I_1 adjustably connecting with lever M, whereby the stroke of the knife bar V_3 can be regulated. 3rd. The combination of the coupling bolt P, push bar O and elbow lever N, with the platform C, whereby the drag bar and lever have an independent motion at a right angle to one another. 4th. The spring arm X, attached to the drag bar O, in combination with the platform C. 5th. The cam shaft J, provided with cross head K to rock the shaft by the foot of the driver. 6th. The combination of the drag bar O, wheel T and shoe R, connected by rocking arm or bolt S_1. 7th. The knife bar V_3 operating on top of the cutter bar V_2 whereby the knife sections will lay flat on the guard plates R_2 secured to the cutter bar V_2. 8th. In the ball joint, consisting of the head 1, ball 2, nut 3 and jam nut 4.

No. 12,560. Improvements on Reaping Machines. (*Perfectionnements aux moissonneuses.*)

David Maxwell, Paris, Ont., 30th March, 1881; (Extension of patent No. 6,772.)

No. 12,561. Improvements in Reaping Machines. (*Perfectionnements aux moissonneuses.*)

David Maxwell, Paris, Ont., 31st March, 1881; (Extension of patent No. 6,772.)

No. 12,562. Load Lifters. (*Monte-charge*)

William Sargent, Holland, Ont., 31st March 1881; for 5 years.

Claim.—The combination of the spring board *e*, and support of spring board *h h* which holds bull wheels *a a*.

No. 12,563 Improvements on Stave Knives. (*Perfectionnements aux couteaux à douves.*)

Robert Craig, Blythe, Ont., 31st March, 1881; for 5 years.

Claim.—A stave knife having equalizers or cutters *d d f f* inserted in the stave knife or fastened thereto with set screws or bolts, or made solid with the knife at any desired distance apart, at right angles with the convex side of knife, at any desired level with the convex side of knife.

No. 12,564. Sliding Door. (*Porte en coulisse.*)

George R. Kidder Arnads, Mich., U. S., 31st March, 1881; Re-issue of patent No. 8,990.

Claim.—1st. In a sliding door or gate, the combination of the hangers B B with the door or gate A pulleys C C and elevated track or platform *a*. 2nd. The door or gate *a*, platform *a*, hangers B B pulleys C C and bent or angular bar D, provided with a frictional roller *d*, in combination as set forth. 3rd. A door or gate hanger composed of a bracket adapted to be secured to the