

Vol. VIII.—No. 4.

APRIL, 1880.

Price in Canada \$2.00 per An. United States - \$2.80

### CONTENTS.

INVENTIONS PATENTED	47
INDEX OF INVENTIONS. INDEX OF PATENTEES ILLUSTRATIONS	LIV LV 57

### INVENTIONS PATENTED.

No. 10.964. Carburetter and Gas Burner Combined. (Carburateur et bec à gaz combinés.)

James Livesey, London, Joshua Kidd and James Kidd, Wandsworth, Eng., 26th February, 1880; for 5 years.

Claim.—1st. The means of applying a removable carburetting apparatus in the place of an ordinary burner; 2nd. The employment of a carburetting tube of comparatively small area in connection with a large reservoir of carburetting material; 3rd. Carburetting by heated gas; 4th. Heating the carburetting vessel, and the pipes conveying the enriched gas, by steam admitted to a casing surrounding them; 5th. Regulating the heat applied for carburation, by means of apparatus such as shown; 6th. Regulating the heat applied for carburation by means of a gas valve governed by expansion of metals or liquids caused by the heat of the carburetting material.

#### No. 10.965. Combined Galvanic Battery and Medicated Pad. (Batterie galvanique et plastron médical combinés.)

Henry E. Hunter, Hinsdale, N. H., U. S., 28th February, 1880; for 5 years.

Claim.-1st. The ring zinc plate A, felt plate B and copper plate C, the Claim.—1st. The ring zinc plate A, falt plate B and copper plate C, the latter being smaller than the cavity of plate A, in combination with the absorbent layer D and felt plate E; 2nd. The combination, with the two batteries and pads A B C D E, of a spiral conduction wire I, whereby the carrent of electricity is made to pass through the two batteries and pads and the parient's body, in the same circuit; 3rd. The combination, with the two batteries and pads A B C D E and the spiral conduction wire I, of the strips of Webbing K whereby the latteries and pads and the spiral conduction of webbing K, whereby the batteries and pads and the spiral conduction wire I are connected with, and secured to the patient's body.

### No. 10,966. Machine for Shaping and Fitting Carriage Springs. (Machine à former ét ajuster les ressorts des voitures. j

Charles F. Shoemaker, Cleveland, Ohio, U. S., 28th February, 1880; for 5

Claim. -lst. In combination with the rollers G', a roller carrier consisting of the cheeks A: B: secured to a rock shaft having its axial bearings, in sliding boxes R fitted in curvilineal openings in the frame A, for obtaining the said carrier a rooking and curvilineal opinings in the frame A, for obtaining to the said carrier a rooking and curvilineal action, and pitmen and cranks U of for importing a reciprocating movement to said carrier; 2nd. In combination with the rollers Gr. a roller carrier consisting of the cheeks Ar Br. arranged upon a rock shaft in such manner that such oliceks have a parallel facial relation to each other, and radial slides 1 2 3 4 and their respective adjustic models. anged upon a fock shaft in summander. Let a some outcomes have a parametrical relation to each other, and radial slides 1 2 3 4 and their respective adjusting screws a: 3rd. In combination with the slides 1 2 3 4, the cheeks Ar Br., the stems Dr., springs Fr. and rollers Gr.; 4th. The adjustable bending arms Jr. arranged in relation to the roller carrier in two parts, in combination therewith and with the carriage B; 5th. In combination with the former I and rollers Gr., the cheeks Ar Br. provided with set screws wr. for adjusting said cheeks upon the rock shaft S; 6th. The combination of the carriage B carrying the adjustable former I, guard flogers N and shaft M, knee joints link G and lever, or other suitable mechanism, for imparting carriage B provided with a former supported at the middle by an adjustable standard, and the ends thereof attached to adjusting screws for regulating the curvature of the plates or leaves co-operating to that end with auxiliary standards and the plates or leaves co-operating to that end with auxiliary standards are ranged between the central standards and said adjusting screws; 8th. In combination with the carriage B and adjustable former secured thereto, the movable flagers or guards and shaft M; 9th. A roller carrier consisting of the cheeks A: B: mounted upon a reciprocating shaft having its bearings in cheeks A: B: mounted upon a reciprocating shaft having its bearings in

sliding boxes R, and having a vibratory movement on said shaft synchronous with the reciprocating movement; 10th. The adjustable bending arms Just arranged in relation to the roller carrier and co-operating therewith, in combination with the carriage B; lith. In combination with the former clips K and adjusting screws L pivoted thereto, adjusting standards Jcc.

## No. 10,967. Improvements on Car-Couplings.

(Perfectionnements aux attelages des chars.)

Nile F Wynkoop, Chemung, N. Y., U. S., 28th February, 1830; for 5 years.

Claim.—1st. A draw head having a block sliding against a spring in an opening nearly coinciding in width and depth with the width and thickness of the link, and with a flaring funnel-like mouth, all the sides of which meet those of said opening at the rear of the centre of the pin; 2nd. The combina-tion, with the draw heal link pivoted at one side, of the head lever I pivoted to the link, and adjustable hook bolt i carried by the lever and adapted to a staple n at the end of the pin.

## No. 10,968. Improvements on Bark Reducing Machines. (Perfectionnements aux machines à broyer l'écorce.)

William Shaw, Kingman, Me., U. S., 28th February, 1880; for 5 years.

Claim.—1st. The combination of the cutting cylinder b, inclined chute c and feed roll f; 2nd. The combination of the cutting cylinder b, inclined chute c, whereby the bark is presented to the cutters at an angle, and feed country, whereaver the bark is presented to the determination of the bottom of said feed roll being supported on hinged arms gg and resting on the bottom of said inclined chute; 3rd. The cutting knives j radially adjustable in the cutting cylinder; 4th. The combination of bars k k secured together and having a groove at l, with aseries of knives j grooved at m and secured in position, in said bars, by a spline n; 5th. The knife holding bar k passing through slots m in the cutting cylinder heads and into adjustable segmentages. through roots in the cutting cylinder nears and the artistator, segmental plates p secured thereto; 6th. The segmental plates p carrying the knife holding bars K and adjustable toward the circumference of the cutting cylinder; 7th. The strips or slots s passing through the slots  $n_i$  in the cylinder heads and supporting the knives j; 8th. The series of bars t arranged concentrically with the cutting cylinder.

# No. 10,969. Process and Apparatus for Purifying Bark Extracts. (Procede et appareil pour purifier les extraits d'écorce.)

Earnshaw Bradley, Three Rivers, Que., 28th February, 1880; for 5 years.

Earnshaw Bradley, Three Rivers, Que., 28th February, 1880; for 5 years. Claim.—1st. The process of purifying extract of bark by precipitation, by condensing the leached extract to about the density specified by evaporation, and while hot rapidly cooling the same, then flowing the cooled condense extract into a series of tubs or tanks overtlowing into one another, wherein the matter, set free by the action of cooling, is precipitated; 2nd. An apparatus for purifying partially concentrated back extract, comprising an evaporator or heater, a cooler and a series of tubs or tanks arranged to overflow into one another and into a receiver; 3rd. A cooler consisting of concentric cylinders A B and centre agitating shaft C having stirrers b, whereby water, in flowing between the cylinders, cools the extract while passing through the inner cylinder, which is kept in agitation by the revolving shaft.

## No. 10,970. Improvements in Ploughs. (Per-

fectionnements dans les charrues.)

Robert W. Phillips and Andrew Tolton, Guelph, Ont., 28th February, 1880; for 5 years.

Claim.—1st. A vertically adjustable drag beam pivoted, at an intermediate point between its end, to the head or other fixed point on the plough, and adjustably secured, at its rear end, to the frame of plough in such manner that the front end of the beam may be raised or lowered to, and secured at any desired elevation; 2nd. A vertically and horizontally adjustable drag beam pivoted, at an intermediate point between its ends, to the head or other fixed portion of the plough, and adjustably secured, at its rear end, to the frame of the plough in such manner that the front end of the beam can be raised or lowered to any desired elevation, be moved horizontally ascenced at any desired point of adjustment; 3rd. The combination, with the drag beam of a plough pivoted to the head or other fixed portion of the plough, to allow of the vertical movement of its front end, of the jointer D; 4th. The combination, with the vertically and horizontally adjustable drag beam of a plough, of the jointer D; 5th. The combination, with the drag and adjustably secured, at its rear end, to the frame of plough in such man-