

and ends overlap each other, and that they can be readily disconnected for the purpose of lengthening and shortening the conveyor. 2nd. The combination of an endless conveyor provided with a series of pans hinged by rods and link-eyes and revolving spiders, the conveyor being driven by the arms of the spiders engaging with the link-eyes. 3rd. The combination, in an endless conveyor provided with a series of hinged pans and driven by revolving spindles, of a series of wheels attached to rods beneath the pans and an adjustable lower track. 4th. An upper track provided with angle-iron, as guides for the wheels of an endless conveyor. 5th. An endless conveyor constructed and arranged to be shortened or lengthened at pleasure, in combination with a suitable supporting frame constructed and arranged to be adjusted so as to conform to the varying length of the conveyor. 6th. The combination of an endless conveyor constructed to be lengthened or shortened at pleasure, and an endless elevator, the conveyor being located to deliver material to, or remove it from, the elevator. 6th. The combination of an endless elevator and an endless conveyor, each provided with a separate series of buckets or pans, the construction and arrangement being such that the conveyor is driven by power taken from a spider shaft, or equivalent revolving device of the elevator, and transmitted to the conveyor. 8th. In combination with a boat or barge, and suspended from a frame permanently secured thereto, an endless elevator and endless conveyor, each provided with a separate series of hinged buckets or pans, the conveyor being driven by power transmitted to it from the elevator. 9th. A vertically-adjustable endless elevator mounted upon a turn-table, in combination with an endless conveyor. 10th. A laterally-adjustable endless elevator provided with wheels upon its foot. 11th. In combination with an endless elevator and endless conveyor, a chute having its receiving end located below the top of the elevator and its delivering end over the receiving end of the conveyor, so that the contents of the inverted buckets of the elevator are received upon and transferred by the chute to the pans of the conveyor. 12th. In combination with an endless elevator and endless conveyor, an adjustable chute *S* connected with the delivery end of the conveyor and suspended from the frame of the barge or boat. 13th. In an endless conveyor, in combination with scales for weighing located at the delivery end of the conveyor. 14th. The combination of a shoveller and endless conveyor to deliver the material to a main elevator, and a main elevator laterally adjustable in the direction of the shoveller. 15th. The combination of the shoveller, an endless conveyor located between the shoveller and main elevator, a main elevator and a conveyor to remove the material from the main elevator. 16th. The combination of the receiver *J* with an endless conveyor and the foot of an endless elevator. 17th. In combination with a wheeled platform, a vertically adjustable elevator and a vertically adjustable conveyor, each provided with an endless series of buckets or pans, and so arranged that the conveyor is driven by power transmitted from the elevator. 18th. The combination of the sword plates *15* with the conveyor frame for adjusting the chute *15*. 19th. A chute *16* provided with a hinged door *18* for varying the delivery length of the chute. 20th. The combination of main and cross conveyors, each provided with a separate series of hinged pans, the arrangement and connection being such that the cross-conveyors are driven by power transmitted from the main conveyor. 21st. The combination of the wheels *30 29 27* and *28*.

No. 16,426. Process for the Improvement of Tobacco. (*Procédé de traitement du tabac.*)

Friedrich C. Glaser, (assignee of Osear Liebrich and Hugo Michaelis.) Berlin, Prussia, 1st March, 1883; for 15 years.

Claim.—1st. The process for the improvement of tobacco by the addition thereto of an extract which is obtained from tobacco by means of volatile substances, solvents of fat, resin and wax and which, for the separation and elimination of the substances containing wax and fat, is heated with alkaline re-acting fluids. 2nd. Obtaining a determined quantity of the nicotine contents in that tobacco improved by such process by previous treatment of the extract with acidified water in order to withdraw the nicotine, or by an addition of that nicotine extracted from the acidified water.

No. 16,427. Improvements on Coal and Ore Chutes. (*Perfectionnements aux augets à charbon et minéral.*)

George H. White, Escanaba, Mich., U. S., 1st March, 1883; for 5 years.

Claim.—1st. The combination, in a coal chute, of a spout *a* and angle plates *d* with the bin *e*, posts *f* and plates *h*. 2nd. The spout *a* having the sides *J* arranged between plates *d* and plate *h* and pivoted to them. 3rd. The combination of the angle plates *d* with the posts *f*, spout *a* and door *j*; hinged to the plates *d* at *k*; 4th. The combination, with the bin *e* provided with the apron *m* fitted in the bottom of its discharge-opening, of the spout *a* hinged to said bin and adapted to swing under the apron, substantially as and for the purpose specified.

No. 16,428. Improvement on Saw Stretchers. (*Perfectionnements aux machines à dresser les scies.*)

Theodore S. Wilkin, East Saginaw, Mich., 1st March, 1883; for 10 years.

Claim.—1st. In a machine for stretching saws, the rolls *c* et operated to press upon a saw when passed between them for the purpose of elongating the part rolled. 2nd. The rolls *c* et journaled in a frame provided with mechanism for operating and applying pressure to the rolls.

No. 16,429. Apparatus for use with Gas Burners, Gas Cooking Ovens and the like. (*Appareils pour servir aux foyers, cuisinières à gaz et autres objets.*)

The Honorable John W. Plunkett, London, Eng., 1st March, 1883; for 5 years.

Claim.—1st. The employment, with gas burners, gas ovens or stoves and the like, of a bar or rod, or piece of metal, or its equivalent (as hereafter stated) which is subjected to the head of the flame and by expanding supports a weighted handle, lever or rod, so as to retain the gas tap open when the flame is burning, but which rod, or equivalent, contracts and alters its position so as to release the said weighted handle, lever or rod which will then automatically close the tap or valve, and cause the supply of gas to be cut off when the flame is extinguished. 2nd. The arrangement and combination of parts constituting the improved appliances for gas burners described and illustrated in Figure 1 of the drawings. 3rd. The combination, with appliances applied to gas burners for acting as claimed by the preceding claiming clauses, of a lever *m* or its equivalent operating substantially as described with reference to Figure 2 of the drawings. 4th. The arrangement and combination of parts constituting the improved appliances for gas ovens or stoves, described and illustrated in Figures 3 and 4 of the drawings.

No. 16,430. Improvements in the Manufacture of Salts Ammonia. (*Perfectionnements dans la fabrication des sels ammoniacs.*)

Thomas Macfarlane, Montreal, Que., 1st March, 1883; for 15 years.

Claim.—1st. The process of manufacturing ammoniacal salts or sulphate of ammonia from gas liquor, by using sulphurous acid. 2nd. The process of converting the sulphuretted hydrogen contained in gas liquors into hypo-sulphurous acid or other non-volatile products by the use of sulphurous acid, and thus preventing nuisance while ammoniacal salts are being manufactured.

No. 16,431. Improvements on Electric Telegraphs. (*Perfectionnements aux télégraphes électriques.*)

John Muirhead, Jr., Westminster, Eng., 1st March, 1883; (Extension of Patent No. 8769.)

No. 16,432. Improvements on Electric Telegraphs. (*Perfectionnements aux télégraphes électriques.*)

John Muirhead, Jr., Westminster, and Herbert A. Taylor, London, Eng., 1st March, 1883; (Extension of Patent No. 8822.)

No. 16,433. Improvements in Ice Scrapers. (*Perfectionnements aux brise-glaces.*)

Telephore F. Goulette, Montreal, Que., 1st March, 1883; (Extension of Patent No. 8539.)

No. 16,434. Improvements on Car Brakes. (*Perfectionnements aux freins des chars.*)

The Congdon Car Brake Shoe Company, Chicago, (assignee of George M. Sargout, Evanston,) Ill., U.S., 2nd March, 1883; for 5 years.

Claim.—1st. In a car brake shoe, *e* combination, with the cast-iron body *A*, of the embedded pieces *B* of a different metal, such as wrought iron, steel or malleable cast iron. 2nd. The manufacture of car brake shoes, comprising a cast iron body with transverse pieces *B* of a different metal such as wrought iron, steel or malleable cast iron embedded in its face; the method of holding the said pieces *B* in proper position in the mold when the molten iron is run in, which consists in inserting staying pins or nails in the sand at the sides of the pieces *B*. 3rd. The combination, with the body *A* of cast iron and pieces *B* of a different metal such as wrought iron, steel or malleable cast iron embedded in the face of the shoe, of the strengthening flange *r* upon the outer rear edge of the body.

No. 16,435. Improvement in the Manufacture of Paper Pulp and Leather Board from Bark and Other Wood Fibre. (*Perfectionnement dans la fabrication de la pâte à papier et du carton-cuir avec de l'écorce et autre fibre de bois.*)

The Canada Pulp Company, Montreal, Que., (assignee of Stephen M. Allen, Duxbury, Mass., U.S.), 2nd March, 1883; for 5 years.

Claim.—1st. The method of making pulp from bark, by separating the rough from the fibrous portion, tearing the latter into shreds by a picker, soaking and beating. 2nd. The method of making bark pulp by removing the bark in sheets, separating the rough bark from the fibrous portions by planing and then tearing the fibrous portions into shreds in a picker, soaking them, and beating them into pulp. 3rd. The method of preparing bark pulp or making paper, paper board and like articles, by mixing the bark pulp with or without pulp from solid wood or other material while hot, with asphalt sizing or other sizing. 4th. Paper pulp, paper, paper or leather board or other manufacture of paper containing bark pulp alone, or with other fibre sized with asphalt sizing. 5th. The combination, in paper pulp, paper, paper or leather board and the like, of bark pulp and solid wood pulp. 6th. A paper or leather board of bark pulp and solid wood or other pulp, sized and colored with asphalt sizing or other sizing, and coloring materials,

No. 16,436. Improvements in Apparatus for Reducing Wood and Other Material to Pulp for Paper. (*Perfectionnements aux appareils à réduire le bois et autres matières en pâte à papier.*)

The Canada Pulp Company, Montreal, Que., (assignee of Stephen M. Allen, Duxbury, Mass., U.S.), 2nd March, 1883; for 5 years.