



Vol. XII.—No. 2.

FEBRUARY, 1884.

Price in Canada \$2.00 per An.
United States - \$2.50

CONTENTS.

INVENTIONS PATENTED..... 37
 ILLUSTRATIONS..... 67
 INDEX OF INVENTIONS..... I
 INDEX OF PATENTEES..... II

INVENTIONS PATENTED.

NOTE—Patents are granted for 15 years. The term of years for which the fees have been paid, is given after the date of the patent.

No. 18,377. Centrifugal Separator.
(Separateur Centrifuge.)
 Winslow P. Northway and Joseph L. Willford, Minneapolis, Minn., U.S., 3rd January, 1884; 5 years.

Claim.—1st. In a centrifugal separator, the combination of a revolving bolting reel, longitudinal ribs on the interior surface of the reel having bevelled rear surfaces, a series of beaters revolving inside said reel, and means for rotating the reel and beaters at different speeds. 2nd. In a centrifugal separator, a horizontal revolving reel covered with bolting cloth and provided with ribs having bevelled rear surfaces, in combination with a series of heaters arranged horizontally in a circle within said reel and connected to a central shaft, adapted to be revolved in the same direction and at a greater speed than said reel, and a series of angular flights *h*, substantially as described. 3rd. In a centrifugal separator, a horizontal revolving reel covered with bolting cloth and provided with ribs having bevelled rear surfaces, and with angular flights *h* attached to said bevelled surfaces, in combination with a series of beaters arranged horizontally in a circle within said reel, and connected to a central shaft and adapted to be revolved in the same direction, and at a greater speed than said reel, substantially as and for the purpose set forth. 4th. In a centrifugal separator, the combination of the beaters, the bolting reel, the end ring *H*² and the end plate *P*, covering the entire end of the bolting reel between the beater shaft and the end ring *H*² and provided with radial discharge slots *i*, *1*, and hoods *12*, *13*, covering the several slots on all sides except at their rear edges, substantially as and for the purpose set forth. 5th. The combination of a revolving bolting cloth-covered reel provided with ribs having bevelled rear surfaces, angular flights *h* attached to said bevelled surfaces, a series of circularly arranged revolving beaters within said reel means for feeding material to said reel and one or more angular revolving wings *N*², *N*³, substantially as set forth. 6th. The combination of a reel covered with bolting cloth and mounted upon sleeves *F*¹, *F*², sprocket ringed beaters *E*, connected to a central revolving shaft *C* within said reel, screw conveyor *H* attached to said shaft, outside of said *e*₃ attached to its shaft, and chains *e*₂, *e*₅, adapted to connect said sprocket wheels and pinions, whereby the parts operate substantially as and for the purpose specified. 7th. A stationary ring *L* having a groove *d*₁, with a flexible packing secured thereon, in combination with a revolving bolting cloth-covered reel, substantially as described. 8th. The combination of a stationary ring *L* having a groove *d*₁, a flexible packing strip secured in said groove, and a bolting cloth covered reel having ring *H*¹ provided with bevelled inner surface adapted to revolve in contact with said packing, substantially as set forth. 9th. The combination of the reel ribs *K*, *K*, sheet metal strips attached thereto, and flights *h*, *h* formed from said strips, substantially in the manner hereinbefore specified. 10th. The combination of the journal sleeves *F*¹, *F*², reel mounted thereon, circularly arranged ribs *K*, *K* on the reel, and metallic hoops *R* imbedded in the revolving bolting reel, as described. 11th. The combination, with a revolving bolting reel, a series of beaters revolving inside of said reel, a feed hopper *M*¹, feed reel *M*² and screw feeder *M*³, substantially as and for the purpose set forth.

No. 18,378. Hame Fastener. (*Attache-attelles.*)

David G. Miller, Frankfort, Mich., William W. Sly, Cleveland, Ohio, and Christian C. Miller, Frankfort, Mich., U.S., 3rd January, 1884; 5 years.

Claim.—1st. In a hame-fastener, the combination, with the hinged shank *B*, of the lever *E* pivoted to the case, at the point on the lever *E* stated and described, and provided with the end-bearing, all substantially as shown and described. 2nd. The catch *C*, in combination with the hinged shank *B*, the locking device *D*, the lever *E* pivoted as shown, and case *A*, all substantially as described and for the purposes specified.

No. 18,379. Leather Splitting Machine.
(Machine à fendre les cuirs.)

Eustace Cummings, Woburn, Mass., U.S., 3rd January, 1884; 5 years.

Claim.—1st. In a leather splitting machine, in combination with the feed and gauge rolls *b*₁, *b*₂ and belt knife *A*, the positively operated revolving drawing rolls *C*, *C*₁ all substantially as and for the purposes described. 2nd. In a leather splitting machine, in combination with feed rolls *b*₁, *b*₂ and belt-knife *A*, the drawing rolls *C*, *C*₁ revolved at a greater speed than the feed rolls, whereby the material split is kept taut during the splitting operation, all substantially as and for the purposes described. 3rd. The combination, in a leather splitting machine, of the feed rolls *b*₁, *b*₂, the belt-knife *A*, and the drawing rolls *C*, *C*₁ located in relation to the splitting knife as described, all substantially as and for the purpose set forth. 4th. The combination, in a leather splitting machine, of the feed rolls *b*₁, *b*₂, the belt-knife *A* and the drawing rolls *C*, *C*₁, one of which is adapted to be moved vertically in relation to the other roll, substantially as and for the purpose described. 5th. The combination, in a leather splitting machine, of the feed rolls *b*₁, *b*₂, the belt-knife *A*, the drawing rolls *C*, *C*₁ and connecting mechanism, whereby the rolls are brought together, all substantially as and for the purposes described. 6th. In a leather splitting machine, in combination with suitable feeding and gaging devices, and a revolving belt-knife *A*, of the drawing roll or rolls *C*, *C*₁ located in relation to the belt-knife, as set forth, all substantially as and for the purposes described. 7th. In a leather splitting machine, in combination with suitable feeding and gaging devices and a revolving belt-knife *A*, the drawing rolls *C*, *C*₁ located in relation to the belt-knife as set forth, one of which roll is automatically moved from the other and that is adapted to be brought in contact therewith by a foot-treadle, all substantially as and for the purposes described. 8th. The combination, in a leather splitting machine, with suitable feeding and gaging devices and a revolving belt-knife *A*, of the drawing roll *C* having a rubber, felt or other suitable equivalent working surface, and a smooth surface, of drawing roll *C*₁, arranged over the same and adapted to be revolved therewith, the said rolls being located in relation to the revolving belt-knife as set forth, all substantially as and for the purposes described.

No. 18,380. Waterproof Paint.
(Peinture hydrofuge.)

Albert Sorg and Franklin D. Phillips, Ann Arbor, Mich., U.S., 3rd January, 1884; 15 years.

Claim.—A compound made of the herein specified ingredients, viz: coal-tar, sulphur, hematite, litharge, alum, salt and asphaltum, substantially in the proportions and for the purposes specified.

No. 18,381. Process for Extracting the Oxides of Cobalt and Manganese from their Ores. (*Procédé pour extraire de leurs minerais les Oxydes de Cobalt et de Manganèse.*)

Henri Herrenschmidt and Marmaduke Constable, Sydney, N.S.W., 3rd January, 1884; 5 years.

Claim.—The use of sulphate of iron, or any substance or compound, which will form sulphate of iron, for the purpose of extracting the oxides of cobalt and manganese from their ores, in the manner substantially as herein described and explained.