

provided with a perpendicular rack-bar, the combination, with a suitable platform, of a sliding draw-bar E provided with the spring c, of the connecting rods f and spring pawls F, the construction being such that said draw-bar will drop in relation to the cross-bar of the platform when the rope breaks and the pulleys be engaged in said rack-bar, substantially as described. 13th. In an elevator, the combination with two platforms, of a continuous hoisting cable and a winding drum having a spirally grooved surface, said cable being adapted to travel on said drum from end to end, one branch thereof passed to the right to one platform and the other branch passed to the left to the other platform, substantially as and for the purpose set forth.

No. 17,561. Journal Box and Bearing.

(*Boite de tourillon et coussinet.*)

Robert W. Traylor, Richmond, Va., U. S., 1st September, 1883; 5 years.

Claim.—1st. The method described of making journal boxes or bearings which consists in moulding, casting or pressing a composition of powdered mica or mica scales and a suitable cement into the proper form and then baking or drying the same, substantially as described. 2nd. A journal box or bearing composed of a composition of mica and a suitable cement, substantially as described. 3rd. A journal box or bearing composed of a composition of mica, starch or flour and a suitable cement, substantially as described. 4th. A moulded cast, or pressed journal box or bearing composed of mica and a suitable cement, substantially as described. 5th. A moulded cast, or pressed journal box or bearing composed of mica, starch or flour and a suitable cement, substantially as described. 6th. A journal bearing consisting of a composition of mica and suitable cement moulded or cast upon or around a metallic supporting frame, substantially as described.

No. 17,562. Snow Plough. (*Charrue à neige.*)

Lewis Larchar, Marble Rock, Iowa, U. S., 1st September, 1883; 5 years.

Claim.—1st. The combination, in a snow-plough, of the scrapers A, top wings C and top Chutes E, substantially as specified. 2nd. The combination, in a snow-plough, of the scrapers A, the top wings C, the side wings D and the chutes E, substantially as and for the purpose set forth. 3rd. The combination, in a snow-plough, of the scrapers A, top chutes E and rear wings F, substantially as described. 4th. The combination, in a snow-plough, of the front scrapers A, top wings C, top chutes E and rear wings F, substantially as described. 5th. The combination, in a snow-plough, of the front scrapers A, top wings C, side wings D, top chutes E and rear wings F, substantially as described. 6th. In a snow-plough, the combination of the guards I, the bottom J, the opening H¹ and the rear wings F extending to point G under the bottom whereby a draft through the openings H¹ is produced, substantially as shown and described. 7th. The combination of rear wings F, vertical wall H and top chutes E, in a snow-plough, substantially as specified. 8th. The combination of vertical wall H with top chutes E, the former being located at the rear end of said top chutes, substantially as described.

No. 17,563. Dust Collector. (*Recueille poussière.*)

Noah W. Holt, Buffalo, N. Y., U. S., 1st September, 1883; 5 years.

Claim.—1st. In a dust-collector, the combination of the following elements, namely: an enclosing casing, a rotating filtering reel arranged therein to move around a horizontal axis and a stationary cut-off arranged within the reel and supported independently of the reel upon a stationary support, substantially as set forth. 2nd. In a dust-collector, the combination of the following elements, namely: an enclosing casing, a filtering reel having a zigzag surface enclosed within the casing and a cut-off arranged within the reel and below the centre of the reel, a suction fan and air trunk connecting the fan with openings in the reel heads, substantially as set forth. 3rd. In a dust-collector, the combination with the following elements namely: an enclosing casing, a filtering reel mechanism acting upon the reel heads within the casing to rotate the reel, a cut-off for isolating portions of the filtering surfaces alternately and a jarring mechanism for dislodging the dust from the isolated portions of the filtering reel, substantially as set forth. 4th. In a dust-collector, the combination of the following elements namely: an enclosing casing, a rotating filtering reel having zigzag surfaces, mechanism acting upon the reel heads within the casing to rotate the reel, a cut-off arranged inside of said reel for isolating portions of the filtering surfaces alternately and a jarring mechanism for removing the dust from the isolated portion of the filtering reel, substantially as set forth. 5th. In a dust-collector, the combination of the following elements namely: an enclosing casing, a rotating reel inside of the casing, the tubular bearings for the ends of the reel whereby it may be mounted without a through central shaft and a cut-off inside and supported independently of the reel, substantially as set forth. 6th. In a dust-collector, the combination of the following elements namely: an enclosed casing, a rotating filtering reel in said casing, hollow trunnions for mounting said reel communicating with the interior of the reel and a suction fan adapted to draw air from the casing into the interior of the reel through the filtering material and out of said reel, substantially as set forth. 7th. In a dust collector, the combination of an enclosing casing, a zigzag shaftless rotating reel, a fan moving air into the reel through the cloth and outward axially, a fixed cut-off placed on the inside of the reel so as to intercept the inflow of air through a part of the zigzag sections and a trough placed under the isolated sections to receive the dust dislodged from such sections, substantially as set forth.

No. 17,564. Roofing Felt. (*Feutre à toiture.*)

Welcome White, Everett, Mass., U. S., 1st September, 1883; 5 years.

Claim.—1st. A roofing felt composed of a sheet of soft porous paper saturated and coated upon one side with a composition of asbestos, soapstone, and coal-tar, substantially as described. 2nd. A roofing felt composed of a sheet of soft porous paper saturated and coated upon one side with a composition of asbestos, soapstone, and coal-tar

applied while hot and compacted and bevelled by pressure, substantially as described. 3rd. A roofing felt made by saturating a sheet of a soft porous paper and covering it upon one side with a composition of asbestos, soapstone and coal-tar applied while hot, covering said composition with a coating of powdered asbestos and soapstone thoroughly mixed and in a dry state and then subjecting the whole to the action of pressure rolls, substantially as and for the purposes described.

No. 17,565. Roofing Composition.

(*Composition pour toiture.*)

Welcome White, Everett, Mass., U. S., 1st September, 1883; 5 years.

Claim.—A roofing cement or composition composed of asbestos, soapstone and coal-tar or other liquid bituminous substance united in about the proportions set forth and described, for the purposes specified.

No. 17,566. Fire Place. (*Foyer.*)

Henry Rembert, Willis, Texas, U. S., 1st September, 1883; 5 years.

Claim.—1st. In a fire place, the sheet-metal plate A bent to form sides B and provided with lugs l, in combination with the plate D bent to form the sides E and again to form the flanges b whereby the plates are connected together to enclose an air space between them in connection with the hearth C and the top-plate F, substantially as and for the purpose set forth. 2nd. A fire place formed of sheet-metal, consisting of the hearth C having perforations i, the plate G having L-shaped flanges f for connecting it to the hearth, the perforated top-plate F bent downward at its front edge to form flange d, the plate A bent to form sides B and having lugs l and the plate D bent to form sides E and flanges b, said plates being connected together and to the hearth, substantially as and for the purpose specified.

No. 17,567. Compound Railroad Rail.

(*Lisse composée pour chemin de fer.*)

George H. Everson, Scottsdale, Pa., U. S., 1st September, 1883; 5 years.

Claim.—1st. A T-head for compound rails having broad or rounded grooves or recesses in the under surface of the head at each side of the central stem for receiving the blunt upper or bearing head of the side or web pieces of the rail, substantially as and for the purpose described. 2nd. The combination, of the blunt headed side or web pieces with a T-head having rounded or shallow seats, recesses or grooves in the under surface of the head at each side of the central stem for receiving the said heads, substantially as and for the purposes described. 3rd. In a compound railroad rail, the combination of a head piece having a stem and grooves on the under surface of the head at each side of the stem with angle-pieces or webs having obtuse heads which enter the grooves or recesses in the under surface of the head and shallow grooves along the line of the bolt-holes, substantially as and for the purpose specified. 4th. In a compound railroad rail, the head a having the recesses or grooves f f upon its under surface and the stem b, wedge-shaped at its extremity and grooved along the line of bolt-holes in combination with the angle-pieces having the obtuse heads which enter the recesses f f of head a and having shallow grooves j j along the line of bolt-holes, substantially as and for the purpose specified.

No. 17,568. Process and Apparatus for Evaporating Liquids from any Organic or Inorganic Matter.

(*Procédé et appareil à évaporer les liquides de matières organiques ou inorganiques.*)

William F. Browne, New York, N. Y., U. S., 1st September, 1883; 5 years.

Claim.—1st. An evaporating-pan constructed with a double convoluted spiral channel. 2nd. An evaporating-pan constructed with convoluted spiral channel cast in one piece. 3rd. A double spiro-convoluted evaporating-pan having double spiral convolutions, one of which is for the circulation of the substance to be evaporated and recovered while the other convoluted channel forms a passage or conduit for the circulation of a heated substance therein. 4th. A spiro-convoluted vacuum-pan having external and internal spiral channels and a bottom fitted to the bottom of the external spiral channel thereby forming a closed channel through which heating substances circulate. 5th. The combination of a spiro-convoluted evaporating-pan with a steam-generator attached to the bottom thereof arranged over a furnace which supplies the heat for evaporating the substance which circulates through the spiro-channel or channels. 6th. In an evaporating apparatus, the combination of the heating devices consisting of conduits or coils through which the liquid to be evaporated is forced, a closed evaporating chamber connected directly to the lower ends of the coils and to the steam-dome above and a closed chamber below said evaporating chamber provided with a steam coil for desiccating the matter to be recovered. 7th. In an evaporating apparatus, the combination of the heating device consisting of conduits through which the liquids to be evaporated are forced, a separator connected thereto into which the heated liquid is discharged and two or more alternating evaporating-pans connected directly by pipes having controlling-valves to the separator whereby either pan can be used for evaporating while the other is being emptied and cleansed. 8th. The combination, of a heating device consisting of conduits through which liquids to be evaporated are forced and a separator into which the heated liquids are discharged and the volatile parts eliminated therefrom, with an open evaporating chamber provided with heating adjuncts into which the residual matter in the separator is discharged and wherein the matter to be recovered becomes desiccated. 9th. The process of heating and evaporating liquids which consists in forcing the liquids through an internal heated conduit and thus highly heating the same, then discharging it into a separator and then conducting the resulting steam through the external conduit. 10th. In an apparatus for evaporating liquids, a heating device consisting of a conduit or series of conduits, one or