

set forth. 7th. In an adjustable reclining chair, and in combination with the main frame thereof, a seat supported at one end upon a link and hinged at the rear end to the back, and a bracket or hanger attached to the back and pivoted to the main frame in advance of the point of attachment to the seat, substantially as described. 8th. In an adjustable reclining chair, and in combination with the movable seat thereof, the movable foot-rest sliding within the seat, substantially as described. 9th. In combination with the main frame, the bifurcated brackets or hangers *b*, attached to the back and provided with extensions *b*<sub>3</sub>, the seat provided with straps *c*, the pivots *d*, and the links *e* supporting the forward end of the seat, substantially as described. 10th. In a chair, and in combination with the main frame thereof, the folding arms or rests, substantially as described. 11th. In an adjustable reclining chair, and in combination with the main frame and the movable seat and back thereof, the extensible or folding arms, substantially as described. 12th. In a chair, and in combination with the main frame thereof, an arm or rest, constructed in two parts, hinged together at their forward ends and provided with interlocking bearings beneath the hinge, substantially as described.

### No. 21,448. Middlings Purifier.

(Epurateur des Gruaux.)

The Case Manufacturing Company, (Assignee of John M. Case, Columbus, Ohio, U.S., 16th April, 1885; 5 years.

*Claim.*—1st. In a middlings-purifier, the combination, with the bolt constructed of bolting-cloth, of a reciprocating frame placed below said bolt, and provided with tightly-stretched wires or cords vibrating in contact with the under side of the cloth, as explained. 2nd. In a middlings-purifier, the bolt and a reciprocating frame placed below it, and having wires or cords tightly stretched thereon, in combination with a fan for producing a current of air past said cords whereby they are vibrated, as explained. 3rd. In a middlings-purifier, the bolt and a reciprocating frame having tightly-stretched wires or cords placed beneath said bolt, in combination with a fan placed above the bolt for producing a current of air upward past said cords and through said bolt, as and for the purpose set forth. 4th. In a middlings-purifier, the combination, with a reciprocating-frame having bolting-cloth stretched thereon, of a reciprocating frame having wires or cords tightly stretched thereon, said frames being so arranged that the wires of the latter shall traverse and communicate their tremulous action to the under side of the cloth of the former, as and for the purpose set forth. 5th. The combination of two or more riddles mounted in the same frame, a belt or strap connected to one end of each riddle, an eccentric for operating said strap, and a walking beam connected at its respective ends to the riddles, for the purpose set forth. 6th. The combination of the single eccentric-shaft 5, the central strap or yoke 3, the belts 2, the anti-friction bearings 2a, the riddles 1 and the walking-beam 6. 7th. In a middlings-purifier, the combination of a riddle, a cleaning device consisting of tightly stretched wires or cords arranged in proximity to the under side thereof, and a fan for vibrating said cords, as explained. 8th. In a middlings-purifier, the combination, with the vibrating riddle, of a feeding device carried thereby, consisting of a hopper-spout having deflectors therein, branch spouts for conducting the material therefrom, and a box into which said material empties, as explained. 9th. In a middlings-purifier, the combination, with a reciprocating riddle, of a feed box carried thereby, and extending completely across the same, whereby an equal and uniform quantity of material is fed to said riddle from side to side, as explained. 10th. The combination, with the feed-hopper 24 and delivery-spouts 25 branching therefrom, of the adjustable deflectors 26 located in said hopper, as and for the purposes set forth. 11th. The combination, with the riddles, the straps 2 connecting them, and means for imparting a reciprocating motion to said straps, of the walking beam 6 connected to said riddles at its respective ends and having an adjustable fulcrum, as and for the purpose set forth. 12th. The combination, with the cleaning frames 19, 19, and walking beam 17 connected thereto at its respective ends, of the crank-shaft 13, driving-shaft 5, and gearing mechanism, substantially as and for the purpose set forth. 13th. In a middlings-purifier, the combination, with a riddle, of a reciprocating frame placed below it and provided with tightly stretched wires or cords, vibrating in contact with the under side thereof, as and for the purpose set forth.

### No. 21,449. Wood-Sawing Machine.

(Scierie à Bois)

Deunbord Beaudry, Montreal, Que., 16th April, 1885; 5 years.

*Claim.*—1st. In a wood-sawing machine, the lever *G* fulcrumed in the frame *A*, and the pitman *h* connecting the saw with the crank *H*, which is operated by the driving mechanism, substantially as and for the purpose set forth. 2nd. In a wood-sawing machine, the combination of the side block *F*, sliding in a dove-tailed recess in the girt *B*, with the back piece *b*, and the lever *c* provided with the pivot *d*, and tightening screw *e*, substantially as shown and described.

### No. 21,450. Suspenders. (Bretelles.)

John Byrne and Augustus F. LeMesurier, Montreal, Que., 18th April, 1885; 5 years.

*Claim.*—1st. The combination, with the separate ends of the shoulder straps of suspenders, of links connected to same, and pivoted at opposite points to a plate, and a link connected to the joined end of auxiliary or back straps, and pivoted to the centre of such plate, substantially as herein set forth. 2nd. As a means of connecting the main of shoulder straps with the back or auxiliary straps of a pair of suspenders, a plate to which links attached to such straps are pivoted all as herein set forth.

### No. 21,451. Boots and Shoes. (Chaussures.)

William H. Wetmore, Raleigh, and Malbourn A. Angier, Durham, N.C., U.S., 18th April, 1885; 5 years.

*Claim.*—The improved boot or shoe described, the same having the

upper united around the front to the side or edge of the inner sole, by stitches passing through the upper, and diagonally through the inner sole from the side or edge to the bottom, and to the outer sole by stitches passing through the upper in close proximity to, and parallel with, those of the first set, and through the outer sole, and having the said upper turned in at the shank between the outer and inner soles, and there fastened by cable screws, or equivalent fastening device, the margin of the upper around the front of the boot or shoe being turned outward below the upright portion, which is fastened to the edge or side of the inner sole, substantially as set forth.

### No. 21,452. Swinging Churn Motor.

(Moteur de Baratte Oscillante.)

Arthur Kew and Abram Lockman, Brantford, Ont., 18th April, 1885; 5 years.

*Claim.*—1st. In a swinging churn motor, the combination of platform *B*, with radial bars *C*, *D*, substantially as and for the purposes hereinbefore set forth. 2nd. In a swinging churn motor the combination of toothed segment *E*, pinion *F*, crank shaft *G*, with cross-head *I*, and connecting rod *L*, and strap and screw *O*, substantially as and for the purposes hereinbefore set forth.

### No. 21,453. Photographic Paper and Sensitive Paper therefor. (Papier Photographique et Papier Sensibilisé pour cet objet.)

E. and H. T. Anthony & Co., (Assignees of Thomas C. Roche,) New York, N.Y., U.S., 18th April, 1885; 5 years.

*Claim.*—1st. As a new and useful or improved article of manufacture, a photographic printing paper made with a toothed facing of gelatine and bromide of silver, as herein set forth. 2nd. The within described compound for facing photographic paper, consisting of a gelatine and bromide of silver, and a suitable toothed substance, such as the sulphate of baryta, prepared in the manner and proportions substantially as described. 3rd. The combination, with a photographic emulsion of gelatine and bromide of silver, of a toothed substance, such as the sulphate of baryta, substantially as herein described.

### No. 21,454. Metallic Shingle.

(Bardeau Métallique.)

George Patten, New York, N.Y., U.S., 20th April, 1885; 5 years.

*Claim.*—1st. The construction of a metallic roofing plate, with an oppositely inclined double corrugation on one side, and a similarly inclined corrugation and flange on the other side, with valleys between them, substantially as set forth, for forming the lateral joints between adjacent plates. 2nd. The hood *R* in combination with the securer *B*, substantially as described, whereby the upper tier of plates is firmly attached to the *b* beneath and the joint valleys closed. 3rd. In a metallic roofing plates, breaking joints in adjacent tiers, securing the plates of the upper tier upon those of the lower tier, by securers fastened within the lower joints, so that said attachment will be covered by the upper plate when in position. 4th. The combination of the hood *R*, or its equivalent, and the securer *B*, with the pendant triangular flanges *m* for forming the transverse joint, substantially as described. 5th. The combination of the two sets of triangular flanges, with the plate surfaces, united substantially as and for the purposes set forth.

### No. 21,455. Dust Arrester. (Arrête-Poussière.)

Oswald Kutsche, Grand Rapids, Mich., U.S., 20th April, 1885; 5 years.

*Claim.*—In a dust-arrester screens *A*, attached independently to the frames *B*, *C*, *D*, *E*, which frames are arranged in series, and connected together, substantially as shown, in combination with the inlet chambers *I*, provided with closed top *F*, and the outlet chambers *G*, having closed bottoms *B*, as herein set forth.

### No. 21,456. Wire Netting for Fencing, etc.

(Clôture, etc. en Treillis de Fil de Fer.)

Arthur G. Hulbert, St. Louis, Mo., U.S., 20th April, 1885; 5 years.

*Claim.*—1st. A wire netting formed from continuous wires connected to the nearest wire on each side alternately by right and left twists, to form elongated hexagonal meshes, as set forth. 2nd. A wire netting, formed from continuous lines connected to the adjacent wire upon each side alternately by right and left twists, to form hexagonal meshes and selvage wires, as set forth. 3rd. The combination of body-wires *C* connected by right and left twists *c*<sub>3</sub> *c*<sub>4</sub>, and vertical wire *D* passing through eyes *c*<sub>3</sub> in the twist. 4th. The combination, in wire netting, of body-wires *C*, connected by right and left twists with eyes *c*<sub>3</sub> therein, and longitudinal wires or strips passing through said eyes or twists. 5th. The combination of the body-wires *C*, connected by right and left twists, forming eyes *c*<sub>3</sub>, and the vertical and longitudinal wires or strips passing through the eyes, as set forth.

### No. 21,457. Stamp Extractor. (Arrache-Souche.)

Alexander Logan, North Sydney, N.S., 20th April, 1885; 5 years.

*Claim.*—1st. In a stamp-extracting machine, the frame *A*, having the forward leg *b* hinged to it, so as to fold under it, as shown and for the purpose herein stated. 2nd. In a stamp-extracting machine, the frame *A*, having the arms *C* hinged thereto, and the chain *e* connecting the outer ends of said arms, substantially as and for the purpose set forth. 3rd. In a stamp-extracting machine, the combination of the frame *A*, with the leg *b*, and the arms *C* hinged thereto, and the binding chain *e* connecting said arms, substantially as herein shown and described.