

herein set forth. 4th. The base, having the arched cover, with the rear side closed, in combination with the inclined foot rest, and centrally the lamp with the hinged wings, or guards, between the lamp and the foot rest, substantially as herein set forth. 5th. The combination of a suitable base A, and arched cover C, having the rear side closed, the inclined foot rests B, and the hinged upright wings or guards on each side of the lamp, substantially as herein set forth. 6th. The combination of the base A, having the oil reservoir beneath, and the arched cover above, with the ventilating tube N, extending upward from said reservoir, the lamp, the inclined foot bases B, and the hinged guards or wings, the whole arranged as and for the purpose substantially as herein set forth and described.

**No. 21,490. Hydraulic Apparatus for Removing Sand Bars, etc.** (*Appareil Hydraulique pour enlever les Bancs de Sable, etc.*)

Roy Stone, New York, N. Y., U. S., 22nd April, 1885; 5 years.

*Claim.*—1st. The combination, with the vessel or float, and an inclined connection or drag, of a curved water pipe at the lower end terminating in the jet tube *d*, having an upward inclination and acting to project the solid materials into the current in the river, substantially as set forth. 2nd. In a hydraulic excavating apparatus, the pipe B, the jet tubes *d*, having an upward inclination, and a jet tube *i* between the tubes *d*, substantially as set forth. 3rd. The combination, in a hydraulic plough, of a pipe through which water is forced, jet nozzles for the issuing water at upward and downward inclinations, to loosen and raise the solid material into the current, and a web *e* at the front of the water pipe, to cause the plough to rise and pass over any obstruction that is not removed by the water, substantially as set forth. 4th. In a hydraulic excavating apparatus, the pipe B, web *e*, jet tubes *d*, branch pipe *l* and connections to the scow and to the water pumps, substantially as set forth.

**No. 21,491. Bend of Carding Engine.** (*Coude de Machine à Carder.*)

George Ashworth and Eliza Ashworth, Manchester, Eng., 22nd April, 1885; 5 years.

*Claim.*—1st. In a carding engine, the combination, with the cylinder shaft and carding flats, of curved rails having their peripheries concentric with the said cylinder shaft, and adapted to support the ends of the said carding flats which travel thereon, substantially as and for the purpose specified. 2nd. In a carding engine, the combination, with the frame and shaft carrying the carding cylinder, of the curved rails adapted to carry the carding flats on their periphery, and screws for effecting the perfect concentricity of the said cylinder and rails, substantially as specified. 3rd. In a carding engine, the combination, with the main cylinder and carding flats, of the curved rails *a*, having one or more bands or ribbons detachably secured to their peripheries, substantially as and for the purpose set forth.

**No. 21,492. Art of Making Embroidery by Machinery.** (*Art de faire la Broderie à la Mécanique.*)

Daniel Guggenheim, New York, N. Y., U. S., 22nd April, 1885; 5 years.

*Claim.*—1st. An improvement in the art of embroidering muslin, whereby a continuous strip can be produced, substantially as specified. 2nd. As a new article of manufacture, a web or package of embroidery, consisting of one continuous length.

**No. 21,493. Machine for Lasting Boots and Shoes.** (*Machine pour enformer les Chaussures.*)

Gilbert Hawkes, Lynn, Mass., U. S., 22nd April, 1885; 5 years.

*Claim.*—1st. The combination, with the two screw-rod 70, which raise and lower the pinchers carrying frame 79 (and the box 78), of a single wheel 75 and suitable intermediate gearing 74, 72, whereby the two rods may be made to turn uniformly, and so give uniform motion to the pinchers-carrying frame, substantially as set forth. 2nd. The combination of the screw-rod 70, the gears 72 and 74, and the wheel 75, with the cross-frame or yoke 73 for supporting the upper ends of the rods, substantially as and for the purposes described. 3rd. The combination, with the screw-rod 76, of the wheel 75, provided with a centrally perforated shaft, to admit the passage of the screw-rod 76 through it, substantially as described. 4th. The adjustable pincher-rod 84, herein described, consisting of two portions provided with end abutments, enclosing a coiled spring, whereby the motion of either portion of the rod along the other portion tends to compress the coiled spring, substantially as described. 5th. The inner pincher-rod 84, herein described, provided with means, substantially as set forth, for varying its length, and also with adjustable devices of the character herein described. 6th. The pinchers-opening device, herein described, consisting of a helical spring 94, compressed by the operation of the devices which close the pinchers, and provided with suitable means substantially as set forth, whereby it may be released to reverse the pinchers-closing mechanism, and thereby open the pinchers, all substantially as herein described and shown. 7th. The combination, with a griper attachment, of a radial supporting arm attached at one end to the griper, and slotted to engage with a suitable standard, around which as a centre the gripping mechanism may be swung to or from its place of working, all substantially as set forth. 8th. The herein described gripping attachment for lasting machines, provided with an extensible jointed support, by means of which it may be thrown backward and upward, or forward and downward, to bring it to or away from its place of working. 9th. A gripping mechanism, provided with a vertically slotted supporting attachment 62, of the character described; so as to permit the vertical uplifting of the gripping device, as and for the purposes set forth. 10th. The combination, substantially as herein set forth, with the gripping attachment, provided with

the flexible support, of a suitable suspending device 64, for holding the gripping attachment up and away from the lasted shoe when desired. 11th. The combination, with a removable gripping attachment, of centering arms or projections 65, and suitable sockets 65, to engage with said arms, and thus adjusting the gripping attachment in place, substantially as shown. 12th. The cam-faced carriage, herein described, having a suitable rack-formed extension 8, whereby upward and downward motion may be imparted to the carriage, all substantially as herein set forth. 13th. In a lasting machine, the herein described means of operating the lasting and cementing devices, consisting of an eccentric working within an interiorly slotted U-shaped pivoted arm, provided with teeth adapted to engage with and raise or lower a rack, all substantially as herein described and for the purposes set forth. 14th. The combination, with the shaft carrying a suitable driving pulley 1 and of the gears 3 and 4, shaft 5, eccentric 6, pivoted radial vibrating slotted arm 7 and rack 8, carrying a suitable cam-faced carriage. 15th. The combination, with a shaft 21, having a suitable driving pulley 20, of the gears 22 and 23, shaft 24, eccentrics 25, radial slotted vibrating arms 26, the gears 28 and 29, and the racks 30 attached to and carrying a beam 82a adapted to receive and raise or lower a cement fusing tool. 16th. The means of obtaining the compound motion of the heel or toe-slides, herein described, consisting essentially of an advancing support 32 carrying the said slides forward, and a second or subsiding support 32a having a motion past the first support, the heel and toe slides being carried by one support, and being geared to the other, whereby the differential motion of the two supports rotates the advancing slides. 17th. The combination of the slotted well-frame 33, right and left screw-rod 40, and double wedge blocks 41, 42, carrying the heel and toe supports, all substantially as herein set forth and for the purposes described. 18th. In a lasting machine, the combination, with the levers 18, 18a, for moving the heel, toe and side slides, of the double adjustable bearings 31 connected with said slides, whereby is insured the accurate bearing of the head of the lever with the slides during their various adjustments for various sizes of lasts, all substantially as herein set forth. 19th. In a lasting machine, the combination, with the levers which operate the heel, toe and side slides, of the retracting mechanism, herein described, consisting of the gear wheels 13, supported by standards 14, driven by the racks 12 on the carriage 8 and operating the cams 15 which engage with pin 16 on the lower ends of said levers, to throw the said lower ends inward, as described. 20th. In a lasting machine, the yielding upper leather guide, herein described, consisting of the concave lip 50, with its adjustable rods 50a and interposed springs 50b, substantially as and for the purpose hereinbefore set forth. 21st. The combination, with the adjustable upper leather guide, herein described, of the lever 53 and rod 52, whereby the upper leather guide is retracted at the close of the inward motion of the lasting slides, for the purpose and in the manner herein set forth. 22nd. The combination, with the outer jaw 82, of the pinchers, of a gripping device for lasting machines, of the rigid rod 83 attached to the outside of the flexible or jointed rod 84 attached to the inside of said jaw, substantially as herein set forth.

**No. 21,494. Folding Dress Pillow.** (*Oreiller Pliant.*)

Herman S. Sternberger, Piqua, Ohio, U. S., 22nd April, 1885; 5 years.

*Claim.*—1st. In a folding pillow, a series of radiating hinged ribs, two of them brought close together and so disposed as to swing around and thus fold up the device, substantially as herein set forth. 2nd. In a folding pillow, the cylindrical piece having centrally at the ends circular openings, and outwardly near the periphery a series of openings to receive therein the hooks, substantially as herein set forth. 3rd. In a folding pillow, a series of semi-elliptical ribs, with the ends bent inwardly and resting within the openings in the head of the cylinder piece, with the cylindrical piece, substantially as herein set forth. 4th. In a folding pillow, an axial piece having a series of ribs radiating therefrom, one of them fixed rigidly to the said axial piece while the others are so disposed as to swing around and fold up laterally, substantially as herein set forth. 5th. In a folding pillow, a covering having each of the upper and lower parts formed of a single piece provided with a tuck from one corner diagonally to the center and centrally to the opposite corner, cut so as to furnish edges whereby the edges of the facings may be stitched, substantially as herein set forth. 6th. The combination on the axial piece with a series of ribs one of them secured rigidly thereto the other, so disposed as to swing around laterally against the stationary rib, substantially as herein set forth. 7th. The combination, in a folding pillow, of the cylindrical piece having openings in the ends, the semi-elliptical ribs hinged thereto two of them disposed nearly parallel and forming a pair, the others radiating at right angles with each other and a catch to secure the ribs in position when opened with the covering, substantially as herein set forth. 8th. The combination of a series of hinged ribs, with the covering, having each of the upper and lower parts constructed of a single piece, provided with a tuck from one corner diagonally to the center, and centrally to the opposite corner, cut so as to furnish edges, whereby the edges of the facings may be stitched, substantially as herein set forth. 9th. The combination of the axial piece, having thereon at the ends a single stationary rib, and a series of hinged radiating ribs and the covering having each of its upper and lower parts formed with a diagonal tuck and openings, so as to readily attach the facings thereto, substantially as and for the purpose herein set forth.

**No. 21,495. Shaft Packing for Car Axles.** (*Boîte à Graisse pour Essieux de Chars.*)

William H. Wright, Tarrytown, N. Y., U. S., 22nd April, 1885; 5 years.

*Claim.*—1st. A compressible impervious packing *n*, such as felt or other similar material, applied, attached or affixed to the face of a supporting-metallic plate A, and articulating sliding clip B provided with vertical guides or ways, such packing presenting a continuous impermeable surface, in contact with the inner wall K of a packer-chamber, and around a car-axle shaft in such chamber, by means of such supporting-plate and clip tension-spring E and pressure-spring,