No. 17,279. Automatic Window Screen.

(*Ecran automate de fenêtre.*)

John M. Bryant, (Assignee of Richard J. Barrett,) Whitby, Ind.,U.S., 13th July, 1883; 15 years.

Claim—1st. The roller *a* having notch *n* in one end, in combination with bracket *i* having slotted socket *m*, shafts *h* and springs *b*, substantially as described. 2nd. The combination of the screen *e* attached to the lower sash *f*, the roller *a* having notch *n* in one end, the brackets *i* having slotted socket *m*, shafts *h* and springs *b*, substantially as described.

No. 17,280. Improvement in Sad Iron Holders. (*Perfectionnements des poignées de fers à repasser.*)

John O'Neil, Boston, Mass., U.S., 16th July, 1883; 5 years.

Claim.—1st. The improved sad iron holder herein described, the same consisting of the pad or body C, shield E and wire D, the shield being joined to the pad by the wire, and the wire provided with the loops K, for attaching the holder to the handle, substantially as set forth.. 2nd. The pad C provided with the narrow extension I, in combination with the wire D and shield E, substantially as and for the purpose specified. 3rd. A shield for protecting the hand from the heat of the iron, said shield being hinged to the pad or body of the holder by means of a wire, which also forms the loops for attaching the holder to the iron, substantially as set forth. 4th. The wire D provided with the loops K, the loops andbody of the wire being integral or composed of one piece, substantia lly as set forth.

No. 17,281. Improvement in Fire-Escapes.

(*Perfectionnements des sauveteurs d'incendie.*)

John T. Hodson, Cambridge, Mass., U.S., 16th July, 1883; 5 years.

Claim—1st. The improved fire-escape described, the same consisting of the plates A connected by the rods B C D and provided with the brackets D1, the sack S provided with the chains R, the cylinder E provided with the shaft G, spring H, pulleys J and cords *x*, the lever K provided with the chains Q M and pull L, the lever N provided with the shoe P, and the bracket arms T provided with the jaws *g h*, hole *p*, spike *r*, teeth *l*, pawl *t* and pin *v*, constructed, combined and arranged to operate substantially as set forth. 2nd. A sack or carriage attached to a frame work and adapted to hold one or more persons, a cylinder mounted in the frame work and adapted to revolve therein, a brake for regulating the revolutions of the cylinder and a cord or cords passing around the cylinder for suspending the frame work and sack from a building, substantially as shown and described. 3rd. The bracket-arm T provided with the jaws *g h*, and means for holding the jaws in contact with the frame work of the window, substantially as specified. 4th. The cylinder E in combination with the sack S, cords *x*, and means for regulating the revolutions of the cylinder, substantially as set forth. 5th. A brake consisting of the levers N K, chain M, pad P and pull L, combined and arranged to operate with the cylinder E, substantially as described. 6th. The chain Q for locking the pad P against the cylinder E, substantially as set forth. 7th. The projection O provided with the hole *p*, in combination with the arm T and spike *r*, substantialiy as shown and described. 8th. The spring H in combination with the shaft G, cylinder E and cords *x* adapted to retard the fall of the sack or carripge as it descends from the building, and to elevate the sack or carriage by winding up the cords when the carriage is relieved of its load and released, substantially as described.

No. 17,282. Improvements in Small Boats.

(*Perfectionnements aux canots.*)

James Dean, Detroit, Mich., U.S., 16th July, 1883; 5 years.

Claim.—1st. The sheathing-planks having portions of their adjacent edges crushed in longitudinally, adapted to be secured together, as shown, the crushed portion swelling where exposed to the action of water beyond the uncrushed surface forming a stop-water at each joint, as specified. 2nd. The sheathing-planks C having portions of their edges crushed in, as shown at *d2*, combined with each other and with a boat-skeleton, and adapted to serve as and for the purposes set forth. 3rd. A boat having its sides sheathed with narrow planks said planks being all of the same pattern each straight upon one edge and curved upon the other edge, substantially as described. 4th. A boat having its sides sheathed with narrow planks, said planks being all of the same pattern, each straight upon one edge and curved upon the other edge, said plnks bent edgewise into contact and in this position secur- ed to the frame of the boat, substantially as described.

No. 17,283. Hydrocarbon Vapour Generator and Dianton Hydrocarbon Burner for Furnaces. (*Générateur à gaz d'hydrocarbures et foyer à hydroca bures de Dianton pour les fourneaux.*)

Israel R. Blumenberg, Washington, D.C., and Henry W. Whiting, Philadelphia, Pa., U.S., 16th July, 1883; 5 years.

Claim.—1st. The method of moistening and thus preserving the crown sheets of the boilers and other metal parts exposed to hydrocarbon flame, by throwing a jet of steam thereon, through a pipe or conduit connected with a steam-boiler, and secured in and passing longitudinally through and out beyo·d the burner-tip of a hydrocarbon vapour generator and burner, substantially as shown and described. 2nd. The method of throwing a continuous flood of fresh steam upon metal portions of boilers, furnaces, &c., exposed to hydrocarbon flame by conducting it through, and in advance of the flame, in ejecting it thereon from a steam conduit or pipe longitudinally adjusted and by the ends secured in a conical cylindrical hydrocarbon vapour generator and burner having a small neck and terminating in a hemispherical head, by which means the parts exposed to the flame are kept moist in a perspiration and are thus preserved from destruction by burning, substantially as shown and described. 3rd. In a device for generating and burning hydrocarbon vapour, the method of simultaneously introducing steam and oil into one common conical cylindrical chamber having a small neck terminating in a hemispherical head and surmounted by a numerously perforated vapour burner, and converting the two into a highly combustible hydrocarbon vapour, by thoroughly mingling and bringing them in contact with a metal pipe longitudinally adjusted therein, and heated by a continuous current of steam passing therethrough, substantially as shown and described. 4th. A conic cylindrical hydrocarbon vapour generator having a small neck and provided with hemispherical or saucer shaped removable head surmounted with a broad circular burner-tip provided with numerous perforations for the passage of vapour directed to one common centre beyond, with a view to concentrating the flame at one point, in combination with a steam conduit and heating tube secured in the ends and adjusted longitudinally through the vapour generating chamber and arranged to pass beyond the burner-tip for throwing a flood of steam into the parts of metal, &c., exposed to the flame, substantially as shown and described. 5th. A conical cylindrical hydrocarbon vapour generator and burner for furnaces and other mechanical purposes, having a small neck and provided with a removable hemispherical or saucer shaped head, in combination with a broad circular burner-tip having numerous perforations for the passage of the vapour directed to a common centre beyond for concentrating the flame, a steam conduit and heating pipe secured in the ends and extending longitudinally through the vapour generating chamber and the burner tip, and passing beyond for throwing a flood of steam into the metal exposed to the hydrocarbon flame, also with the perforated circular base-disk, substantially as shown and described. 6th. In combination, broad burner-tip *h* with perforations tending to a common centre steam duct and heating pipe *a*, hemispherical top *g*, conical cylinder *e*, base *c*, steam induction pipe *b*, oil induction pipe *d* and steam pipe *a* in hydrocarbon burners, substantially as shown and described. 7th. In hydrocarbon vapour generators and burners, the combination of the conically shaped chamber *e*, the broad burner-tip *h* having numerous vapour exit perforations *i* tending to a common centre, the steam conduit and heating pipe *a* secured in the ends of the burner, passing longitudinally therethrough and extending beyond the burner-tip and induction steam and oil pipes, substantially as shown and described. 8th. In hydrocarbon vapour generator and burner, the combination of conically shaped cylinder *e*1 chamber *e*, induction pipes *b* and *d*, steam heating pipe and conduit *a* and burner tip *h* having perforations *i*, constructed and arranged substantially as shown and described. 9th. In hydrocarbon burners, the combination of steam and oil induction pipes *d* and *b*, steam heating pipe *a* and steam supply pipe *a*1, chamber *e*, cylinder *e*1 having a small neck *e*, hemispherical burner top *g*, broad burner *h* and projecting end of steam pipe *a*, substantially as shown and described. 10th. In a device for generating and burning hydrocarbons as well as protecting boilers, furnaces, &c., against destruction by fire, in combination steam induction pipe *b* having a stop-cock or valve *f*1, oil induction pipe *d* having stop-cock or valve *f*2, steam supply pipe *a*1 having valve *f*, base of burner *c* having small steam and oil perforations *b*1 and *d*1, conically shaped cylinder *e*1, chamber *e*, steam conduit *a*, hemispherical burner top *g* and perforated burner tip *h*, constructed and arranged substantially as shown and described.

No. 17,284. Knife for Peeling Potatoes.

(*Couteau pour peler les patates.*)

William Addison, Hamilton, Ont., 16th July, 1883; 5 years.

Claim.—A knife to be used with either the right or left hand, having two blades D and E uniting in a shank C, said blades being curvilinear-shaped alike right and left as shewn, the peeling edges F F coming nearly together at an angle with a parallel space between, as described, also the cutting edges H H and the points I, all combined and operating substantially as set forth.

No. 17,285. Improvements in Car Brakes.

(*Perfectionnements aux freins des chars.*)

Simon P. Weller, Silvanus Wanee and George R. Roesch, Denver Col., U.S., 16th July, 1883; 5 years.

Claim.—1st. The rod A, equalizer A1, rod F, lever B, in combination with the rods B1, and H, the whole being constructed and operated in the manner and for the purposes set forth. 2nd. The rod A, equalizer A1 and F, lever B, rods B1 and H, in combination, the cylinder T, levers S K and rod R, substantially as described and for the purposes set forth.

No. 17,286. Machine for Washing Textile Fabrics. (*Machine à laver les tissus.*)

Richard Troy and Albert A Fisher, Oshawa, Ont., 16th July, 1883; 5 years.

Claim.—1st. The vibrating grooved board B. 2nd. The endless chain of wood rails E. 3rd. The combination of the tub A with the vibrating grooved board B, and the endless chain of wood rails E with the soap-holders I and the rollers F and G.

No. 17,287. Automatic Metallic Packing for Piston Rods, &c. (*Garniture métallique automatique pour les tiges de piston, etc.*)

Samuel M. Weale, Boston, and Tilden G. Abbott, Watertown, (Assignees of Henry P. Weale, Boston,) Mass., U.S., 16th July, 1883; 5 years.

Claim.—The combination, in a stuffing-box, of the internally tapered shell, the series of tapered packing rings and the rings F G at the ends of said series of packing rings, these rings F and G having annular flanges F1 G1 and the ring G, an annular groove to receive a rubber gasket, all substantially as and for the purposes set forth.