

equivalent, upon the opposite faces, and with the blanks *h*, *K*, *K*, the whole arranged to operate in the manner specified, 2nd. In combination with the hook *C*, and wedge *D*, the retracting spring *E*, engaging with the shoulder *m*, of the hook shank as described.

No. 3047. PROSPER HUERNE, San Francisco, Cal. U. S., 20th January, 1874, for 5 years: "Improvements on a water filter." (Perfectionnements à un filtre à eau.)

Claim.—1st. The reversible hollow globe or oblong shell *A* with its tubes *V*, *e*, *m*, in combination with the corresponding filtering stone *G*, having the hole or passage *B*, and short pipes or tubes *b*, *n*, 2nd. The hollow globe or shell *A* with its filtering stone *G* in combination with the pipes *A*, *b*, and tank *J*, said pipes being connected by the pipe *c* with its cock *c*, by which the operation of the filter can be reversed for cleaning the filter with filtered water; 3rd. A reversible globe or ovoid filter provided with a corresponding interior filtering stone, said globe or ovoid being reversible for the purpose of cleaning the stone.

No. 3048. GEORGE BRUCE, Aurora, Ont., 20th January, 1874, for 5 years: "Improvements in the construction of buildings." (Perfectionnements dans la construction des édifices.)

Claim.—Covering the metal fronts and walls, and the supports of walls, roofs and floors *U*, of a building or structure with a stratum of a non-conducting substance *c*, and encasing the same with a light covering of iron *A*, or other suitable material arranged as described.

No. 3049. JAMES J. HOWELL, Brantford, Ont., 21st January, 1874, for 5 years: "Improvements on outside shutter hinges." (Perfectionnements aux pentures de contrevents.)

Claim.—The addition of the stop *C* to the portion of the hinge *A*, which is screwed into the window frame, said stop preventing the shutter from being lifted out of gear or taken off by the wind or otherwise.

No. 3050. N. CLEMENT dit LARIVIERE, Montréal, Que., 21st January, 1874, for 5 years: "Improvements on wagon door iron work." (Perfectionnements aux ferrures de portes des wagons.)

Résumé.—La combinaison de la roue à coulisse *B*, avec le coulisseau *c*; 2o. La combinaison de la roue conductrice *D*, avec la liasse bisautée *E*; 3o. La combinaison des roues à coulisse *B*, et conductrice *D*, avec le coulisseau *c*, et la liasse *E*, pour fermer et pendre les portes de chars.

No. 3051. EBENEZER A. GOODES, Philadelphia, Penn., U. S., 21st January, 1874, for 5 years: "Improvements on sewing machines." (Perfectionnements aux machines à coudre.)

Claim.—1st. Needle bar rotating by means of the cam-cylinder *G*, and engaging-pin *J*; 2nd. The mechanism for causing the reverse rotation of the needle-bar, consisting of the sliding sleeve *K*, in combination with the cam-cylinder *G*, and pin *J*; 3rd. The swivel-collar *L*, and set-screw as described, in combination with the removable pin *J*, and cam cylinder *G*, for controlling the needle-bar as to rotation; 4th. The take-up mechanism consisting of the arms *M*, *N*, constructed as described, in combination with the pin *J*, of the needle-arm; 5th. The mechanism as described for automatically controlling the feed movement for forming ornamental stitches; 6th. The slide *o* cam *n*, and oscillating guide *X*, in combination with the feed-bar; 7th. The adjustable toothed-shell *P*, in combination with the feed-bar and operating with intermediate mechanism for imparting variable motion to the feed bar; 8th. The shell *P*, having differential teeth *R*; 9th. The lever *Z*, in combination with the slide *W*, cam *U*, guide *X*, and the feed-bar operating for controlling the feed movement by hand; 10th. The lever *V*, in combination with the slide *W*, guide *X*, and laterally yielding feed-bar, as described for adjusting said slide to vary the extent of lateral inclination imparted through the guide *X*, to the feed-bar.

No. 3052. LEVI S. JOHNSON & MARVIN G. JOHNSON, Cortland, N. Y., U. S., 21st January 1874, for 5 years: "Preparation of beef for table use." (Préparation du bœuf pour la table.)

Claim.—A beef compound prepared by cutting raw lean beef very fine and mixing it with salt, saltpetre, and sugar, and packing, and drying, and smoking the compound in bags as set forth.

No. 3053. EVERETT P. RICHARDSON, Lawrence, Mass. U. S., 21st January 1874, for 5 years: "Improvements on machines for sewing hose."

(Perfectionnements aux machines à coudre les tuyaux élastiques.)

The invention relates particularly to the manufacture of hydraulic hose from woven material.

Claim.—1st. In combination with the stitch-forming mechanism, the horizontal work supporting and whorl-containing arm *a*, fastened to the slide *f*; 2nd. In combination with the arm *a*, and its whorl, the slide bar *p*, reciprocated to actuate the whorl by means of the rocker shaft *h*, and its arms *a*, *c*, and the link *d*, lever *e*, and cam *f*; 3rd. The guide plate *h*, formed as shown and pivoted at *g*; 4th. In combination with the arm *a*, guide *h*, and the stitch-forming mechanism, the feed-wheels *q*, *z*, arranged and operated as described; 5th. The vertically adjustable frame *o*, for supporting the feed wheel shafts, and permitting adjustment of the feed wheels with reference to the work support; 6th. The arrangement of the cams *t*, *s*, *w*, and the crank pin *p*, upon the same shaft *c*; 7th. The arrangement of the fulcrums of the levers *u*, *v*, *z*, upon the same shaft *s*, as described.

No. 3054. H. M. BAKER, W. F. STONE & J. H. VERMILYA, Washington, U. S., 23rd January, 1874, for 10 years: "Improvements on Sewing Machines." (Perfectionnements aux machines à coudre.)

Claim.—1st. The combination in a sewing machine of a bent driving shaft or its equivalent, and a vibrating arm attached thereto as a means of operating the shuttle carrier; 2nd. The combination of the cam upon the driving shaft and the levers *I* and *J*, constructed and operating conjointly as described, as a means of operating the feed of a sewing machine; 3rd. The adjustable fulcrum *L* and its equivalent, by means of which the length and the rise of the feed can be regulated simultaneously; 4th. In combination with a straight driving shaft in a sewing machine, an angularly-bored cylindrical sleeve or its equivalent; 5th. The combination of the needle bar, a slotted cam attached thereto, and a cam guide, the whole being arranged as described, so that the needle bar may be operated near to that side of the needle head which is next to the operator; 6th. The combination of the needle bar and the driving shaft of a sewing machine by means of a cam formed and arranged as described so that the power of the driving shaft will be thrown, directly upon the needle bar at the time when the needle is entering the goods.

No. 3055. JOHN PRATT & ADOLPHE ROY, (Assignees of J. Goullioud, Montreal, Que., 23rd January, 1874, for 5 years: "Improvements on Machines for Weaving Corsets, Gaiters, etc." (Perfectionnements aux machines à tisser les corsets, guêtres, etc.)

Résumé.—1o. La combinaison du fer oscillant *X*, avec un support *X*, et le levier *Z*; 2o. La combinaison du grand levier *Y* oscillant sur l'arbre *K*; 3o. La combinaison du cliquet *D* avec son ressort *D*, et la came *K*, tel que décrit.

No. 3056. HENRY MARTIN, Chicopee, and M. H. KING, Springfield, Mass., U. S., 23rd January, 1874, for 5 years: "Brick Machine." (Machine à brique.)

Claim.—The combination with lever *E*, having the sliding centre *T*, the friction wheel *B*, having cord and weight *C*, *W*, hub and cord *d*, *m*, operated by the lever *D*, with friction band *A*, the parts being arranged and constructed in the manner described.

No. 3057. E. N. RANDALL & G. E. BRALEY, West Troy, Vt., U. S., 23rd January, 1874, for 5 years: "Milk Vat." (Boîte à lait.)

Claim.—In combination with the rectangular milk vat *A*, and chamber *H*, the ducts *I*, arranged longitudinally at the outer edges of the said chamber, and having perforations *C*, to cause the current of hot and cold water, air or steam, to pass transversely under the milk vat, uniformly for heating or cooling the milk as set forth.

No. 3058. T. G. MESSENGER, Loughborough, Eng., 3rd February, 1874, for 5 years: "Improvement on the Coupling of Pipes and in the Fittings therefor." (Perfectionnement dans l'assemblage des tuyaux et aux matériaux pour cette fin.)

Claim.—1st. The combination with the socket *A* of the recesses *a*, and *a*, in conjunction with the spigot *B*, ring *C*, collar *D*, bolts *E*, and nuts *F*, as described and illustrated by fig. 1; 2nd. The double socket *A*, double collars *D*, and double rings *C*, bolts *E*, and nuts *F*, in combination with the spigots *B*, as described and illustrated by fig. 3; 3rd. The combination with the spigot *B*, of the tab *H*, and fillet *I*, in conjunction with the socket *A*, collar *D*, ring *C*, bolts *E*, and nuts *F*, as described and illustrated by figs. 4 and 5; 4th. The combination with the spigots *B*, *B*, of the loose socket *A*, collar *D*, and plain metal ring *K*, in conjunction with two elastic rings *C*, *C*, as described and illustrated by fig. 6; 5th. The combination with a series of pipes of the lugs *G*, cast on the out-