No. 3989. ELISHA E. EVERITT, Philadelphia, Pa., and WILLIAM S. HAYWOOD, Rochester, N. Y., U. S., 28th October, 1874, for 5 years: "Improvements on bedsteads." (Perfectionnements aux couchettes.)

Claim —1st. The novel construction of the head board A, posts A, A, base board B, brackets *b, b*, side rails C, C, hinges c^1 c^1 bottom-board D, catches *d, d*, hooks, d^1 d^1, foot board E, post brackets E^1, hook *e*, end rails F, F^1, spring G, and crib rail H, all working together as described. 2nd. In combination with the side rails of a folding bed, open hinges c^1, c^1.

No. 3990. JARED MUNSON, Collingwood, Ont., 28th October, 1874, (Extension of Patent No. 113) for 5 years: "A Beehive." (Une ruche.)

Claim.—The perforated side partitions F, end casings D, and buttons G, to allow the hive to be divided for the reception of the side boxes H, in the guides K, in the notched piece J, for retaining the frames E, in the glass side pannels I, and in the stand B, whose top is adjustable to the bottom of the hive by the moveable piece M, and clamps N, or having drawers O, as shown in fig. 1.

No. 3991. JAMES CALL, and JOHN J. ROBINSON, Richmond, Me., U. S., 29th October, 1874, for 5 years: "Centre-Board for Vessels." (Quille mobile de vaisseaux.)

Claim —The combination of the keel A, with a T shaped centre-board, 2nd The T shaped centre board C, having the oblique curved slots H, in combination with the guide pins K, pivoted arms D, D, and operating rod G, as specified.

No. 3992. WILLIAM TUCKER, Fiskedale, Mass., U. S., 29th October, 1874, for 5 years: "Saw Gummer." (Affuteur de Scie.)

Claim.—1st. A cutting disc or washer C, of tempered steel for application to the face of a punch to form its cutting edges, as described: 2nd. The cutting disc or washer, C, in combination with a punch P, the same being interposed between the face of the punch and the plate to form the cutting edges of the former, and to provide for renewing the same after each cut in the manner set forth; 3rd. The combination of a cylindrical punch P, a cutting disc or washer C, of slightly greater diameter, applied loosely to the lower end of the punch so as to be discharged with the clip, and a die D, having an orifice, *d*, through which the washer and punch are discharged with the clip, 4th. The combination of a punch P, having an axial projection, *p*, on its face, and an annular cutting disc or washer C, supported concentrically by said projection to form the cutting edges of the punch as described.

No. 3993. WILLIAM TUCKER, Fiskedale, Mass., U. S., 26th October, 1874, for 5 years: "Apparatus for dropping the Cuts of Augers." (Appareil à forger les hélices des tarrières.)

Claim.—1st. The dies F, F^1, G, constructed and operating as described, for forming the heads of augers and auger-bits having side-cuts, by dropping the same end wise: 2nd. The improved upper die G, for attachment to the hammer or drop, said die being constructed with the spiral inclines *x*, notches *r*, and central depression *u*, and provided with the ring H, having cylindrical interior, to form the outer surfaces of the side cuts and spurs, and to strengthen the die and to constitute a bruise as described: 3rd. The bifurcated hand lever J, and links K, K, in combination with the pivots *s, r, q*, and adjustable stops *o*, for opening and closing the dies, and for supporting them when closed; 4th. The adjusting nuts *p*, applied to the links K, in combination with the hand-lever J, die holders E, E^1, and dies F, F^1, for taking up lash, in the manner set forth; 5th, The combination of the base A, the diagonal stock B, having the recess C, the ways D, D, on the horizontal top of the stock, and the fixed and movable die supports E, E^1, their appurtenances as described.

No. 3994. GEORGE F. GODLEY, Philadelphia, Pa., U .S., 29th October, 1874, for 5 years: "Improvement in Spiral Springs. (Perfectionnement des ressorts spiraux.)

Claim.—1st. A metal car spring having flat surfaces *a, b*, and a web or webs *c*, having a lesser thickness beyond such surfaces as described; 2nd. A spiral metal car spring formed of a bar having a part of itself thinner in cross section than the rest, and then coiled with such thin part in the interior or exterior of the coil; 3rd. A spiral spring made of a bar of metal rolled into any of the irregular shapes or form described.

No. 3995. LEONARD CROFOOT, Pavilion, N. Y., U. S., 29th October, 1874, for 5 years: "Bag-Holder." (Porte-sac.)

Claim.—1st. The combination with the spout B and frame A, the open notches *m, m*, the frame and the pivots *r, r*, and stops S, S, of the spout; 2nd. The frame consisting of the two standards C, C, with open notches *m, m*, the platforms E, and G, and the feet D with truck wheels *a, a*, combined and arranged to operate in the manner specified.

No. 3996. LEWIS S. CHICHESTER, New-York, U.S., 29th October, 1874, for 15 years: "Hulling, Cooking and preparing Cereals." (Art d'égrener, cuire et préparer les céréales.)

Claim— 1st. The method of preparing cereals for use by the action of heat and moisture upon the meal or crushed grain and then drying previous to packing; 2nd. The revolving bitters *a, a*, and grating *g*, in combination with the adjustable deflectors K, and trunk K; 3rd. The apparatus for cooking crushed or ground cereals consisting of the perforated cylinder revolving within a heated chamber and the steam supply pipe; 4th. The cereals prepared by moisture and heat and then dried as set forth.

No. 3997. GEORGE J. WARDWELL, Rutland, Vt., U. S., 29th October, 1874, for 5 years: "Reciprocating Cross-Head Engine." (Machine à galets mobiles.)

Claim.—1st. The longitudinally reciprocating and circularly vibrating piston proper of a steam engine, constructed with two reverse working steam ports on one side, and with two reverse exhaust ports on the other side as described; 2nd. The combination of a steam engine cylinder having receiving and exhaust ports about midway of its length, and a longitudinally reciprocating and circularly vibrating piston constructed with two reverse working ports in one of its sides, and with two reverse exhaust ports in the other side, as described; 3rd. The coupling between the pitman and the longitudinally reciprocating and circularly vibrating piston having reverse operating exhaust ports for turning the piston in its cylinder as described: 4th. The receiving steam ports formed in a longitudinally reciprocating and circularly vibrating piston partly enclosed along their length, in combination with the exhaust ports open along their whole length, whereby the working of the steam on the expansion, when the receiving passage is closed, is effected while the piston is balanced as described.

No. 3998. AMOS WILKER, Augusta, Me., U. S., 29th October, 1874, for 5 years: "Oil-Cloth." (Toile cirée.)

Claim.—1st. An oil cloth having an exposed ornamental brush coat forming a large portion of the design of the finished article: 2nd. An oil cloth having the brush-coat broken, clouded or marked by lines and printed with designs in various colours, leaving a portion of the brush-coat exposed as set forth,

No. 3999. NATHAN STEPHENS, Brooklyn, N. Y., U. S., 29th October, 1874, for 5 years: "Cement Lined Pipe." (Tuyau doublé en ciment.)

Claim.—1st. The lined tube having a coating of water proof material, covered with a lining of cement as specified.

No. 4000. MICHAEL S. SCHARIO, Sunderland, Ont., 29th October, 1874, for 5 years: "Spring Bed Bottom." (Fond de lit à ressorts.)

Claim.—1st. The inverted tapering springs B attached to the cross bar A, in combination with the slats C, arranged and operating as described: 2nd. The tenon end *b*, of the springs B, in combination with the hole C bored in the slats C, arranged as described: 3rd. The method of weaving the webbing to the slats; the said method consisting in passing the webbing over the slats C, attached to springs, and under the alternate unattached slats C^1, arranged as described; 4th. The webbing D, with slats C, and C^1, attached, in combination with the bars E, attached to the cross rails A, arranged and operating as described.

No. 4001. ISAIE FRECHETTE, and LOUIS COTÉ, St. Hyacinthe, Que., 29th October, 1874, for 5 years: "Boot and Shoe Crimping Machine." (Machine à faire les cambrures des chaussures.)

Reclâme —1o. Le couteau *f* montant et descendant au moyen d'un excentrique ou d'un mouvement analogue dans le but de produire l'effet décrit, construit et fonctionnant comme il est dit dans la spécification: 2o. Le couteau *f* montant et descendant, combiné avec les rouleaux c^2 et b^2, construit et fonctionnant à peu près comme il est dit dans la spécification; 3o. Le couteau *f* montant et descendant combiné avec les rouleaux c^2, et b^2, ou leurs équivalents, et la trappe de départ H, fonctionnant de concert avec les autres parties de la machine dans le but et de la manière indiqués. 4o. Le regulateur à bascule G, combiné avec le couteau *f*, dans le but d'ajuster sa position par rapport aux rouleaux c^2 et b^2, construit et fonctionnant tel que décrit et pour les fins indiquées.

Claim.—1st. The knife *f*, by means of an eccentric or analogous movement, is made to rise or fall producing the effect described, constructed and operating as stated; 2nd. The knife *f* rising and falling in combination with the wheels c^2 and b^2 constructed and operating approximately as stated: 3rd. The knife *f* rising and falling in combination with the wheels c^2 and b^2, or their equivalents and the flap door H working in concert with the other parts of the machine for the purpose and in the manner described, 4th. The swivel regulator G combined with the knife *f* for the purpose of adjusting its position in relation to the wheels c^2 b^2 constructed and operating in the manner and for the purposes described.