

No. 15,714. Improvements on Tongue Supports for Waggon. (*Perfectionnements aux appuis des limons de voitures.*)

Martin Conrad, Chicago, Ill., U.S., 2nd November, 1882; for 15 years.

Claim.—1st. In a waggon tongue support for holding the tongue in a horizontal working position consisting of two general parts connected, one with the tongue and one with the sand-board or adjacent part of the front gear, said parts of the supports being adapted to be engaged and disengaged with each other automatically by raising and lowering the tongue. 2nd. In combination with the automatically engaging and disengaging parts of the support, a spring connected with one of said parts, whereby the tongue is yieldingly upheld. 3rd. In a tongue support of the general description shown, the stationary member provided with a notch and trip block and secured to the tongue, in combination with a spring link attached to the sand-board or adjacent part. 4th. In combination with a stationary notched plate G secured to the tongue, the link F pivotally secured to the sand-board or adjacent part and consisting of two parallel tubes *f*, twin springs E within said tubes, and the bent link-rod *f*. 5th. In a tongue support the two tubes *f* for housing the springs, said tubes being separated by a space *a* and joined by a neck at *b*, in combination with the bolt F threaded through the neck and pivoted to the sand-board or adjacent part. 6th. The combination with a link pivoted to the sand-board or adjacent part, of a plate G adapted to engage the link and provided with arms G' fitted to connect with the queen-bolt. 7th. In combination with the tongue, the member G provided with apertured arms G' and clip seat G₂, the queen-bolt E and the clip H. 8th. In the automatic tongue support, the combination, with the link and with the part G having a notch *g* to receive the link, of the trip-block having a notch in its upper end for carrying the link over the notch.

No. 15,715. Improvements in Umbrellas. (*Perfectionnements aux parapluies.*)

Joseph Feldman, London, Eng., 2nd November, 1882; for 5 years.

Claim.—1st. In an umbrella stick formed in two parts abutting and connected together by a screw pin, the two parts of the stick where they abut together being reduced in diameter so as to form a groove or countersink, for the reception of a top notch of small dimensions. 2nd. An umbrella stick formed in two parts, the groove or countersink for receiving the top notch formed by the two reduced parts of the stick. 3rd. The combination, with an umbrella stick formed in two parts, of a top notch of small dimensions contained within a groove or countersink, formed by reducing the ends of the two parts of the stick. 4th. An umbrella stick constructed and tapered or reduced in size for a certain distance below the top notch. 5th. An umbrella having a stick constructed as described.

No. 15,716. Improvements on Strap Couplings. (*Perfectionnements aux joints des courroies.*)

Alpheus Van Luyen, Yarker, Ont., 2nd November, 1882; (Extension of Patent No. 13,789.)

No. 15,717. Improvements on Vehicle Dash-Boards. (*Perfectionnements aux garde-crotte.*)

The Guelph Carriage Goods Company, (Assignee of John B. Armstrong,) Guelph, Ont., 2nd November, 1882; (Re-issue of Patent No. 5301.)

Claim.—1st. As an improved dash-board moulding, a metal tube, having a longitudinal opening or slot made in it from end to end, the said opening or slot being of a width corresponding with the thickness of the dash-board leather, in order that the edges shall grasp the said leather, when the tube is slipped over it endwise. 2nd. A metal tube having a longitudinal slot or opening made in it from end to end, in combination with a dash-board, having a projection formed on either side of its top, to constitute a retaining edge for the tube. 3rd. A metal tube having a longitudinal slot or opening made in it to grasp the leather of the dash-board, over which it has been slipped endwise, in combination with metal screws inserted into the dash-board, at either end of the tube, for the purpose of retaining it in position and forming a finish.

No. 15,718. Improvements on Folding Seats. (*Perfectionnements aux sièges pliants.*)

John L. Kapple, Cleveland, Ohio, U. S., 2nd November, 1882; (Extension of Patent No. 8058.)

No. 15,719. Improvements on Dredging Machines. (*Perfectionnements aux machines à draguer.*)

William Morrison, Toronto, Ont., 2nd November, 1882; for 5 years.

Claim.—1st. A chamber designed to be imbedded in the material to be excavated and having a pipe or tube extending upwardly into a large pipe having its lower end similarly imbedded and its upper end reaching into the top surface of the water, in combination with a pipe leading into the same chamber for the purpose of conveying therein compressed air, steam, or any rapidly moving fluid, which, in escaping up through the small pipe, will create a vacuum in the large pipe causing the material surrounding the bottom end of the pipe to flow through it, which material has been previously loosened by a small jet of fluid escaping from the chamber. 2nd. A large pipe, the bottom end of which is placed in proximity to the material to be excavated, in combination with a small pipe extending upwardly into the large pipe and having an inverted cone-shaped nozzle fixed to its end, so as to act as a deflector on the fluid forced rapidly through the small pipe and direct the said fluid against the interior surface of the large pipe, thereby forming a cone-shaped column of rapidly moving fluid, which

will effectually create the desired flow of material through the large pipe. 3rd. A large pipe having a bell mouthed end placed in proximity to the material to be excavated, in combination with a small pipe placed within the large pipe, so as to direct through the said pipe rapidly moving fluid forced from the small pipe. 4th. A circular chamber B connected to the chamber C by the tubes D, the said chamber C having a small orifice or orifices made in its bottom or sides, and a pipe E extending from it up into the pipe A, in combination with a pipe F leading into the chamber B, for conveying therein any rapidly moving fluid.

No. 15,720. Improvements on Spring Bed Bottoms. (*Perfectionnements aux sommiers élastiques.*)

Theodore Burdick, Grand Haven, Mich., U. S., 3rd November, 1882; for 5 years.

Claim.—The combination, in woven wire spring bed bottoms, of two fabrics of woven wire *a a* attached to grooved end rails D D supported by longitudinal slots C C, with two or more sets of spiral springs B B, one or more sets of the springs B B being placed upon the upper side of the longitudinal slats C C upon cleats E running across the bed and extending to and supporting the upper fabric A, and one or more sets of the springs B B being placed upon the lower side of the longitudinal slats C C in like manner and extending to, and supporting the lower fabric A, as represented by A A B B C C D D E.

No. 15,721. Improvements on Cypher Codes and Apparatus Therefor. (*Perfectionnements aux codes à signaux et aux appareils pour cet objet.*)

Robert T. Oney, Huntington, W. V., U. S., 3rd December, 1882; for 5 years.

Claim.—1st. The combination of the rotary head having intelligible characters on it, the enclosing shell thereof having an opening through it, slides which are vertically movable and arranged opposite said opening and cylinders which have characters on them, which are movable about the said vertical axis. 2nd. The combination of a rotary cylinder, an enclosing shell thereof provided with angular opening vertical slides, which are exposed through said opening, and characters on said cylinders, which are exposed to view through the opening made through said cylinder. 3rd. The means of operating a cypher code by the combination of different characters, which are arranged on movable slides, and cylinders adjustable at right angles to each other, whereby any secret key can be arranged at will. 4th. The combination of the internally screw-grooved rings or cylinders, the intermediate rings or cylinders, the core of shaft E, the shell B₆, the slides which are moved by said screw-grooved rings, the angular plates which are rigid with said slides, the head or cap on the core of shaft E, and the shell surrounding said head. 5th. The combination of the rods A₁ or the equivalent thereof, the head B₇, the shell B₅, the ring B₈, the intermediate rotary internally screw-threaded rings and the adjustable slides actuated by turning said head, the characters on the said slide and head being exposed to view. 6th. As a new and improved article of manufacture, the combination of a column of rotary rings or hollow cylinders independently adjustable and vertically movable slides, which are adjustable by means of the cap, and which are exposed to view through the shell or part surrounding the latter.

No. 15,722. Improvements on Radiating Flues. (*Perfectionnements aux tuyaux rayonnants des cheminées.*)

Frederic B. Nichols and Cathcart Thompson, Halifax, N. S., 3rd November, 1882; (Extension of Patent No. 15,522.)

No. 15,723. Improvements on Radiating Flues. (*Perfectionnements aux tuyaux rayonnants des cheminées.*)

Frederic B. Nichols and Cathcart Thomson, Halifax, N. S., 4th November 1882; (Extension of Patent No. 15,522.)

No. 15,724. Improvements on Wrenches. (*Perfectionnements aux clés à écrous.*)

George W. Haight and Daniel H. Bailey, (Assignees of William J. Owen,) Nashville, Tenn., U. S., 4th November, 1882; for 5 years.

Claim.—1st. The combination, in a ratchet wrench, of the wrench-bar, the face plate jaws K K', the D, pawls G G' and spring H with the lock bolt M. 2nd. In a ratchet wrench, a pair or jaws K K' constructed in two parts. 3rd. The combination, with the wrench-bar, the ratchet and the jaws K K', of the right and left threaded adjusting screw. 4th. The combination, with the wrench stock, the jaws K K' and the ratchet wheel, of the budge piece D'. 5th. The combination of the wrench bar A having annular head A₁ and shoulder A₂, face plate B having annular head B₁, slotted ratchet wheel D having standards O O', pivoted double jaw F K F' K', screw E having milled heads L L₁, pivoted pawls G G', connected by the spring H and having notches *g g*, and turn-bolt M.

No. 15,725. Improvements on Machinery for Manufacturing Spring Horse Shoes. (*Perfectionnements aux machines pour faire les fers à cheval élastiques.*)

Frederick A. Roe, New York, U. S., 4th November, 1882; for 5 years.

Claim.—1st. The dies B B' having their surfaces curved and grooved and provided with the recess *a*, for forming the calk of the shoe. 2nd. The die D carrying the plunger *d* and provided with blades *d*¹, in combination with the die D' provided with the recessed block *d*₂, the recesses *e*₁, the guide pins E and the groove *e*₂. 3rd. The stationary die F recessed to receive the shoe blank, in combination with the ver-