

No. 1885. HENRY VAN HOEVENBERGH, Brooklyn, N. Y., U. S., 13th December, 1872, for 5 years: "Printing Telegraph." (Télégraphe imprimant.)

Claim.—1st. An armature wheel revolved by electro-magnets and arrested by either of the electro-magnets when its circuit is not broken, in combination with a type wheel and printing mechanism; 2nd. An electro-motor composed of two electro-magnets, in separate circuits, in combination with a printing-magnet, the helices of which are in the same circuits as the motor-magnets; 3rd. The printing-lever and impression pad, in combination with a holding paw or drawing the paper over the pad by the movement of the printing-lever; 4th. The union mechanism, first operated by the joint action of the two electro-magnets that revolve the type-wheel, and held in operation by either of the magnets as alternately energized; 5th. An electro-magnet with the two helices or coils in separate electric circuits, which circuits are separately employed for different operations but jointly to operate the said electro-magnet.

No. 1886. JAMES ANDERSON, Quebec., 13th December, 1872, for 5 years: "Formation of Spans of Bridges." (Construction des empanns des ponts.)

Claim.—The employment of iron or metallic straps A, B, to support the bottom chords of spans of bridges with prisms J, K, blocks or shoes C, D, saddle pieces F, G, in combination with the straps, to unite the said straps with any kind of spans now in common use

No. 1887. GEORGE J. IVES, Rome, N. Y., U. S., 13th December, 1872, for 5 years: "Combined Horse Hay-rake and Tedder." (Un râtelier à cheval enveloppant le foin.)

Improvement in the arrangement of the crank shaft and tripping mechanism whereby the rake is raised and lowered in combination with a hay tedder attachment having journalled shaft.

Claim.—The foot-lever S, rock-shaft Q, levers R, crank-shaft I, connecting-rod G, notched disks U, pins M, slotted bearings O, springs P, pinions K, gear-wheels L, and wheels B; The combination of the tedder X¹, d, tedder-frame Z¹, connecting-bars S¹, S², and the driving gears with the truck, and the driving-shaft I, thereof. The combination with the hay rake truck of the attaching devices for the tedder, consisting of the slotted bearing-boxes T¹, for the shaft U¹, and the crank-arm P¹, wrists Q¹, and binding-nuts R¹. The combination of runners Y¹, with the tedder supporting frame and arms pivoted to the truck in advance of the tedder. A truck with devices adapted for the connection of a hay-rake, also devices adapted for the attachment of a hay tedder, and also driving-gear adapted for the operation of both, and a hay-rake and a hay-tedder arranged and adapted to be attached to the said truck and operated by the driving gear thereof. The combination of the catch C, with the foot lever S¹, rock-shaft Q, levers R, and the driving-shaft I.

No. 1888. SAMUEL H. HAYCOCK, Ottawa, Ont., 13th December, 1872, for 5 years: "Projectile for Rifled Gun and Ordnance." (Projectile de canon rayé et d'artillerie.)

Claim.—1st. A parabolical front ended elongated projectile formed with a rear cylindrical portion G, sufficient in length to carry the projectile steady through the bore of rifled guns and ordnance, the equilibrium or centre of gravity of said projectile being at or near the forward part of such portion G; 2nd. Providing the rear end of such projectile with a close fitting plug formed of the conical rear projecting portion B, central frustum portion c, and inner cylindrical end D; 3rd. The cylindrical bore formed in the body A, of the projectile and in combination with the cylindrical portion D, of the plug forming a space or chamber E.

No. 1889. GEORGE B. BOOMER, Syracuse, N. Y., U. S., 13th December, 1872, for 5 years: "Combined Lever and Screw Press." (Presse à levier et à vis corbinée.)

Combination of a platten or follower having rigid standards with a double screw shaft so arranged as to keep the co-operative parts of the press true, and to avoid all lateral thrust or strain.

Claim.—The combination of the follower F, braces G, and sliding standard E, sustained in and against the press-frame with the system of toggle-levers, double screw-shaft L, brace and ratchet-wheel P, operating-lever R, and dog Q, constructed, arranged and operating together as described.

No. 1890. GEORGE J. EASON, Des Moines, Iowa, U. S., 13th December, 1872, for 5 years:

"Watch-case Spring attachment." (Ajustage de ressort de boîtier de montre.)

Claim.—The improved spring a, and a¹, with the notches cut therein in combination with the sliding or adjustable fasteners C, C, (made in any of the forms illustrated by figures 2, 3, 4, and 5.).

No. 1891. CYRUS W. SALADEE, St. Catharines, Ont., 13th December, 1872, for 5 years: "Compound Torsional Springs for Vehicles." (Combinaison de ressort de voiture à torsion.)

Claim.—1st. A torsional spring composed of a single flat plate of steel A; 2nd. A torsional spring composed of two or more plates of steel A, the same being united and working together in unison each with the other; 3rd. A torsional spring composed of two or more square or round rods of steel A, the same being united and working together in unison each with the other; 4th. In combination with torsional springs, the pinions B, B, and racks E, E.

No. 1892. WILLIAM RAPSON, Woodstock, Ont., 13th December, 1872, for 5 years: "Machine for Cutting and Trimming Rivets and Bolts." (Machine à couper et finir les boulons et rivets.)

Claim.—1st. The construction of the cutting blades or shears B, E and D, F, and the mode of connecting them together by means of the cross or connecting straps V and S, and the pivots P and R; 2nd. The device for operating the cutting blades and increasing the power applied which consists of the two levers A, B, C, D, connected by the cross straps and pivots G, H, as shown, and pivoted to the said cutting blades at B and D; 3rd. The manner of causing the levers A, B, C, D, to move simultaneously by means of the segments X and K, attached one to each lever and engaging with each other by means of cogs or teeth as shown.

No. 1893. EDWARD P. MORONG, Boston, Mass., U. S., 13th December, 1872, for 15 years: "Method of Laying Wood Pavements." (Méthode de poser les pavages en bois.)

Claim.—The method of puddling the foundation bed of wood pavements and of giving to the latter a firm bearing, consisting in applying water to said foundation after the blocks have been laid in position and the channels partly filled with pebbles or gravel, and afterwards ramming said filling and blocks.

No. 1894. HENRY CHISHOLM, Cleveland, Ohio, U. S., 13th December, 1872, for 5 years: "Rolls for utilising Worn and Crop Ends and other parts of Railway T Rails." (Rouleaux pour utiliser les bouts de rails en T écrasés ou relevés.)

Claim.—1st. The rolls A, B, provided with the series or system of grooves of the form or construction described and shown and arranged in relation to each other; 2nd. The rolls A, B, having the series of irregular shaped and graduated grooves of the form or construction shown at a, c, d, 3rd. The described process of utilizing worn-out rails and the tag-ends thereof by rolling them out longitudinally on the flat side, and also on the edge by means of rolls, the head, neck, and foot thereof all being worked out at the same time, but independently of each other, in such way that the different members of the rail do not lap or fold into or upon each other during the process of being reduced into a bar or rod.

No. 1895. GEORGE JONES, Montreal, Que., 13th December, 1872, for 5 years: "A Car-Coupling." (Un attache-char.)

Relates to the means employed for operating the draw pins of the coupling from the side or top of the car.

Claim.—The combination and arrangement of the lever E, arm G, and rod K, when applied to a car for operating the draw-bolt C.

No. 1896. JACOB A. SHERMAN, New York, U. S., 13th December, 1872, for 5 years: "Hernial Trusses." (Bandages Herniaires.)

Claim.—1st. The bar a, made with the lever end f, adapted to be bent to the shape of the body, in combination with the pad b, and strap g or g¹; 2nd. The spring k, and its case extending as straps, and connected at q, in combination with the strap q¹, applied near