sieu F à la base du traineau *n n b n n*, ou leurs équivalents, ou le rouleau T ou ses équivalents. La jauge V ou ses equivaieuts. La combinaison de la jauge V avec le rouleau T, ou de leurs equivalents. La combinaison de la jauge V, avec la partie O et le rouleau T ou leurs équivalents.

No. 14,893. Improvements on Thrashing Machines. (*Perfectionnements aux machines à battre.*)

John A. Beam, Baden, Ont., 3rd June, 1882; for 5 years.

Claim.—1st. The straw carrier, grain tables, skeleton rake and distributor constructed, connected and disposed as described, in combination with the framing cylinder fan, shoe and other parts of an ordinary thrasher. 2nd. The combination, with the frame work of the machine, of the straw-carrier consisting of a channel C, perforated boards B having ridges on the top and bottom, and the end boards B^1 having a ridge below, all having a slight movement, the serrated and spiked rakes fitting between the boards and having a quick movement, and the crank shafts supporting and actuating the same. 3rd. The combination, with the straw-carrier, of the stationary grain tables G G^1 and the skeleton rake R^2 sweeping the said tables. 4th. The distributor having tables partly perforated and partly blank, and the perforations being of different sizes, with a plain return table between them and receiving a vibratory movement, in combination with the framing grain tables and shoe.

No. 14,894. Improvements in Nut Locks.

(*Perfectionnement des arrête-écrous.*)

Samuel Gissinger, Pittsburg, Penn., U.S., 3rd June, 1882; for 5 years.

Claim.—The locking plate F, having spring G and hinged on the rod or pintle *e* in combination with the fish-bar B, bolt or bolts C and nut or nuts D.

No. 14,895. Improvements in Posts for Wire Fences. (*Perfectionnements aux pieux des clôtures en fil métallique.*)

Hubert R. Ives, Montreal, Que., 3rd June, 1882; for 5 years.

Claim.—The combination of the fence post A provided with sharp point A^1 and curved slots *a a*, for the wires, with the anchor plate B having points *b b* cast thereon.

No. 14,896. Improvements on Vehicle Springs. (*Perfectionnements aux ressorts des voitures.*)

Nils Nilson, Maple Plain, Minn., U. S., 3rd June, 1882; for 5 years.

Claim.—1st. The compound vehicle spring composed of the curved leaf spring D D^1 and coiled spring E, in combination with the spring bearings C and bar B provided with the washer *c*, bushing d^1 and tubular elastic packing *f*. 2nd. A spring for vehicles, consisting of a curved leaf and a coiled spring firmly connected one with the other, and a supporting bar extending through the centre of the coiled spring. 3rd. A compound spring consisting of a leaf D, and a coil E firmly united one to the other.

No. 14,897. Improvements in Anti-Slipping Materials. (*Perfectionnements aux matériaux anti-glissants.*)

Charles A. Maxfield, New York, U.S., and Allan Ritchie, Montreal, Que., 3rd June, 1882; for 5 years.

Claim.—1st. As a new and improved article of manufacture, an anti-slipping material composed of a plain flexible backing and a compound grain emery, or other infrangible substance. and plastic material wearing surface. 2nd. As an improvement on the manufacture of anti-slipping materials, firs , covering the former or mould with a composition composed of grain emery, or other infrangible substance, and india rubber adapted to be vulcanized. and then laying over the same a layer of india rubber without any infrangible substance, and vulcanizing the whole together.

No. 14,898. Improvements on Vehicle Springs. (*Perfectionnements aux ressorts des voitures.*)

Jeremiah H. Moran, London, Ont., 3rd June, 1882; for 5 years.

Claim.—The horizontal vehicle springs B C placed on edge at right angles to the reach A and attached thereto and in combination therewith, the side springs E F on which the body of the vehicle is supported.

No. 14,899. Improvements on an Apparatus for Collecting Waste Fumes from Smelting, &c. (*Perfectionnement d'un appareil à recueillir les fumées perdues provenant de la fusion, &c.*)

George T. Lewis, Philadelphia, Penn., U. S., 3rd June, 1882; for 5 years.

Claim.—The combination of a smelting or roasting furnace producing waste fumes, with a series of cooling pipes, and a catching apparatus with calico, flannel or other textile fabric, as strainer.

No. 14,900. Improvements on Wind Wheels.

(*Perfectionnements aux moulins à vent.*)

Benson J. Palmer, New Durham, Ont., 3rd June, 1882; for 5 years.

Claim.—1st. The combination of a wind wheel having vertical pivoted sails movably arranged to close, to form a drum, and an exterior fixed case having vertical wind boards tangentially arranged to direct the wind against the sails. 2nd. The wind wheel having sails constructed with an outward and inner wind catch on the opposite longitudinal edges of each sail, whereby the wind in passing through the wheel exerts pressure on its entrance and exit. 3rd. The combination, with the movable sails of a wind wheel, of rods 14, central wheel 15, arm 16, crank levers 17, rods 18 and a governor sliding on shaft 1, rods 21, swinging levers 22, cross heads 23, rods 24 and springs 25 for automatic action, to regulate the pressure of the wind by opening and closing the sails.

No. 14,901. Improvements on the Process and Apparatus for Rendering and Bleaching Animal Fats. (*Perfectionnements au procédé pour extraire et blanchir le gras animal,*)

Garret Cosine, New York, N. Y., U. S., 3rd June, 1882; for 5 years.

Claim.—1st. The process of rendering animal fats, by causing the previously comminuted particles thereof to pass through a heated atmosphere, the rendering being effected by the contact of the atmosphere acting upon the same in a finely-divided state. 2nd. The process of rendering animal fats by causing the previouly comminuted particles thereof to descend into a chamber or vessel containing a heated atmosphere to fall through one or more woven or perforated diaphragms therein, and the melted fat to immediately flew therefrom. 3rd. The process of rendering and bleaching animal fats, by causing the previously comminuted particles thereof to fall into a vessel or chamber, in a separated state, through a heated and continually renewed atmosphere therein, and the melted fat to immediately flow therefrom and into a bleaching agitator. 4th. An apparatus for rendering animal fats in a finely divided and separated state, by simple contact with a heated atmosphere therein, consisting essentially of a vessel B, surrounded by a jacketed space for applying heat thereto, with one or more inlets for the fats at the top, one or more outlets for the melted fat near the bottom, and air inlets and outlets for renewing the heated atmosphere therein respectively at the bottom and top. 5th. An apparatus for rendering animal fats in a finely divided state, by simple contact with a heated atmosphere therein, two outlets *v w* for the fat, and inlets for the air, arranged one above the other.

No. 14,902. Improvements on Information Tablets. (*Perfectionnements aux tableaux d'annonce.*)

Edward S. Boynton, Bridgeport, Ct., U.S., 3rd June, 1882; for 15 years.

Claim.—1st. In an information tablet, the combination of a number of signs, and a key for automatically displaying a determinate selection thereof. 2nd. The combination of a number of signs, a time indicator, and a key or keys for automatically displaying a determinate selection of signs and setting the hands of the time indicator. 3rd. The combination of the signs and a removable jacquard key for automatically displaying a determinate selection thereof. 4th. The combination of the signs, the sign tumblers and a removable jacquard key. 5th. The combination of the dial and hour and minute hands, the spring actuated rack-bars and pinions, the locking cylinders, the time tumblers, and a removable jacquard key. 6th The combination of the signs, the sign tumbler, the removable jacquard key and the movable key holder. 7th. The combination of the dial and hour and minute hands, the spring actuated rack-bars and pinions, the locking cylinder, the time tumblers, a removable jacquard key and the movable key holder. 8th. The combination of the spring actuated rack-bars and pinions, and the bellows or governors for covering the resilient action of the springs. 9th. An imperforated jacquard key blank (from which jacquard keys for operating information tablets of above description may be prepared by perforating the blank at determinate points) consisting of a strip of cardboard, or other stiff material, provided with marks of a definite number and arrangement, each such mark being designated by a word or letter or numeral (one or more of each) corresponding to the information that may be displayed on the particular tablet for which the blank is designed.

No. 14,903. Improvements in Feather Renovating Apparatus. (*Perfectionnements aux appareils à rafraîchir la plume.*)

Martin Rose, Indianopolis, Ind., U.S., 3rd June, 1882; for 5 years.

Claim.—1st. The box A provided with pipes E, to steam and stir the feathers, in combination with the fan M, connecting air-trunks or tubes P N and screen R. 2nd. The box A provided with pipe E, to steam the feathers, and screen R, in combination with the fan M, connecting air tubes P N and screen T. 3rd. The combination of box A with pipe E to steam the feathers, fan M, tubes P and N, plates S and screen R. 4th. The combination of box A, provided on the bottom with the chamber D, for steam, with rotating beaters F and pipe E to steam the feathers.

No. 14,904. Improvements on Harvesting Machines. (*Perfectionnements aux moissonneuses.*)

Christopher W. Levalley, St. Paul, Min., U. S., 3rd June, 1882; for 5 years.

Claim.—1st. The combination, with the grain wheel and the slotted plate F, of the pinion E^2, socketed plate *e e e e* provided with sleeve *e3*, the pawl F^1 provided with lug *f* and the shaft or stud axle E^1. 2nd. In a harvester, the combination, with the main axle and the main frame, of the cogged yokes, bevel gears, bevel pinion and counter shaft. 3rd. The combination, with the main axle, the bevel gear and pinion and the counter shaft, of the swinging keeper. 4th. The combination, with the main frame and the main axle, of cogged yokes, a gear on the main axle, a counter shaft arranged at right