

33 and friction-spring 35, as and for the purpose set forth. 17th. The combination, with the driving-shaft C, chain H and sprocket-wheels D, L, of the feed-shaft J having feed-wheel N, and the feed-box L provided with inclined opening K, bracket 62 and adjustable funnel 64, as set forth. 18th. The seed box K having opening K, and feed-box L provided with diagonal outlet K, in combination with the shaft J, feed-wheel N and regulating cylinder O, as and for the purpose set forth. 19th. The shaft J having adjustable feed-wheel N provided with inclined flutes 62, in combination with the shaft P, arms O and cylinder O and the regulating lever R and gage-plate R, as and for the purpose set forth. 20th. In a grain-drill, the feed-box L having bracket 62 provided with studs 66 and slots 63, in combination with the funnel I having ears 67, slots 70 and holes 69, as and for the purpose set forth. 21st. In a grain-drill, the seed-box K having cover 71 and plates 72, provided with arms 73 and crank 74, as and for the purpose set forth.

### No. 19,733. Spring Hinge. (*Penture à Ressort.*)

George M. Lane, Asbury Park, N.J., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The combination of the lower knuckle, the knuckle C provided with slots C<sub>1</sub>, the knuckle A<sub>1</sub> arranged between said knuckles, and the spring-cap arranged in knuckle A<sub>1</sub> and interposed between the spring and the knuckle C and provided with sliding surfaces adapted to enter the slots C<sub>1</sub> when the spring is at rest, whereby the longitudinal expansion of the spring is utilized at such times to hold the door against the force of the wind, substantially as set forth. 2nd. In a spring hinge, the combination of the knuckle D having slots D<sub>1</sub>, the spring I arranged in said knuckle, the plate G placed on said spring and provided with pawls A, the ratchet-ring having a suitable cross-bar or transverse projections and the hinge-spring and bifurcated pintle, all arranged and operating substantially as set forth. 3rd. In a spring-hinge, the combination, with the knuckle A<sub>1</sub> having slots a<sub>1</sub>, a<sub>2</sub>, of the spring cap J having sliding surfaces K<sub>1</sub> and slot K<sub>2</sub> and the hinge-spring and pintle, substantially as and for the purposes specified. 4th. The combination of the knuckle D provided with slots D<sub>1</sub> having lateral wings D<sub>2</sub>, the pawl-spring, the pawl plate provided with pawls having lateral extensions H<sub>1</sub> and the ratchet-ring pintle and hinge-spring, substantially as and for the purposes specified.

### No. 19,734. Lubricator. (*Graisneur.*)

Samuel Reid, Chicago, Ill., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. A sight-feed, the glass of which contains an excess of air under pressure, substantially as described. 2nd. A sight-feed lubricator containing an excess of air under pressure, in combination with devices, substantially as described, for supplying air to and compressing the same in the sight-feed, substantially as described. 3rd. The combination, with a lubricator, of a sight-feed tube arranged at a point between the air reservoir and oil-passage to a steam-pipe, said feed containing air under pressure, substantially as described. 4th. In a lubricator, the combination with a sight-feed and the outlet oil-passage to the steam-pipe, of an intermediate oil-passage adapted to contain an opposing column of oil for preventing the steam from entering the sight-feed, substantially as described. 5th. The combination, with a sight-feed and with the direct outlet of the oil to the steam pipe, of a horizontal passage B and a vertical passage I connecting said outlet and sight-feed, substantially as described. 6th. A combined valve and nozzle, the nozzle of which is provided with perforations intersecting and extending at a right angle to each other, substantially as described. 7th. In a lubricator, the combination with the oil-reservoir, the passage B, the plug K and its bushing, of the combined and removable valve and nozzle and sight-feed, substantially as described. 8th. The combination with the sight-feed with the projecting oil-nozzle, of an air supply tube extending up into the sight-feed and above the opening of the nozzle, substantially as described. 9th. In lubricators, the herein-described method of feeding oil, which consists in passing oil through a glass tube filled with an excess of air under pressure. 10th. In a lubricator, a means for determining the amount or quantity of oil or other liquid being injected or fed, consisting of a sight-feed arranged in a supply-pipe and a valve for limiting or regulating the passage of the liquid there-through, substantially as described.

### No. 19,735. Road Grading and Ditching Machine. (*Machine à Nivelier et Fossoyer les Chemins.*)

John W. Otterman, (Co-Inventor with Christian A. R. L. Ver Gonius), Gatesburg, Ill., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. In combination with the wheeled frame, plow, carrier belt L and lateral frame I carrying the dirt-belt, the shaft M having universal joints m<sub>1</sub>, m<sub>2</sub> and geared with the wheel C and said carriers as herein specified. 2nd. In combination with the wheeled frame plow and dirt-carrying belts, the lever E journalled on the axle and connected with the forward end of the plow-beam by a link f, substantially as and for the purpose specified. 3rd. The combination of the wheeled frame axle, plough-beam, the lever E and its segmental rack-bar, and the pendant f<sub>1</sub> adapted to slide laterally on the axle and to be held by the cam lever f<sub>1</sub>, substantially as and for the purpose specified. 4th. In combination with the wheeled frame and plow-beam, the pendant f<sub>1</sub> adjustable laterally at its upper end on the axle, and at its lower end in the slotted brace f<sub>1</sub>, substantially as and for the purpose specified. 5th. In combination with the wheeled frame plow and dirt-carrying belts and frame I, the wheel having its rearwardly projecting bent lever hinged to the rear end of the plow-beam adapted to operate, substantially as and for the purpose specified. 6th. In combination with the plow, the adjustable rod R and adjustable castor-wheel Q, the lateral belt carrying frame I hinged to the plow-beam to permit swinging the outer end of said frame I laterally and vertically, substantially as and for the purpose specified. 7th. In combination with the plow, the laterally extending frame I hinged at one side to the plow-beam by a universal joint and at its other side by a slotted connection which permits swinging said frame I laterally, substantially as and for the purpose specified. 8th. The combination of the

wheeled frame, the plow-beam hinged thereto, the lateral belt carrying frame I having a pulley upon its lower shaft, the carrier-belt N<sub>1</sub> having geared shaft N<sub>1</sub>, and a shaft M having gear wheel N which meshes with gear wheel N<sub>1</sub>, and a pulley connected with the pulley on the shaft of frame I by a band, substantially as described.

### No. 19,736. Harvester Rake.

(*Râteau de Moissonneur.*)

Christopher Lidren and Relief Jackson, Lafayette, Ind., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. In combination with a horizontally vibrating rake-arm having vertically-vibrating rake-teeth, the grain platforms A, A<sub>2</sub> arranged in different horizontal planes, all adapted to operate, substantially in the manner and for the purpose described. 2nd. The combination, with the oscillating bar C<sub>4</sub>, of the slide bar to which the rake-teeth are pivoted guided in its longitudinal movements upon the oscillating bar, the slide bar C<sub>3</sub> to which the rake teeth are also pivoted and the bell crank lever and connecting rod, for operating the slide-bars, and oscillating the bar by which they are supported, all adapted to operate, substantially as described. 3rd. The combination, with the two slide-bars to which the rake-teeth are pivoted, of the slotted bar C<sub>4</sub> having an oscillating and a longitudinal movement, and the curved guide-bar which is embraced by two rollers carried by the oscillatory bar, whereby the longitudinal movements of the bar are effected, and the rake is carried forward in a straight path over the platform, substantially as described. 4th. The combination with the two slide-bars to which the rake-teeth are pivoted, and means, substantially as described, for operating the same, of the pivoted dogs e<sub>7</sub>, the lug b<sub>5</sub> on one of the slide-bars, and the projection a on the remaining slide-bar, said lug and projection during the operation respectively coming in contact with a pivoted dog, substantially as described, and for the purpose specified. 5th. The combination with the pivoted rake for carrying off the bound gavel of the slide to which the rake is pivoted carrying a pivoted two-armed dog, and the stops located so that as the rake is moved forward one of said stops will actuate the dog and allow the rake to drop, and when the rake is carried back the remaining stop will actuate said dog, so as to raise and hold up the rake, substantially as described.

### No. 19,737. Cultivator. (*Cultivateur.*)

John G. Trump, Richville, Mich., U.S., 4th July, 1884; 5 years.

*Claim.*—The lever D, in combination with bars I and a rod i, drag-bars F, standards G, braces H and teeth, substantially as and for the purpose herein described.

### No. 19,738. Machine for Soldering Cans.

(*Machine à Souder les Boîtes Métalliques.*)

George A. Marsh, Brunswick, Me., U.S., 4th July, 1884; 10 years.

*Claim.*—1st. In a device for soldering cans, a soldering tool having a horizontal circular ledge upon which the can may be revolved, a rim surrounding the ledge by which the solder is applied to the can and apertures for the admission of the method solder, in combination with a solder receptacle surrounding the tool. 2nd. In a device for soldering cans, the combination of the receptacle a, with recess m and the tool consisting of the ledge d, rim c and apertures e, substantially as described. 3rd. In a device for soldering cans, the combination of the ledge d, rim c, slots e and cup n, substantially as described. 4th. In a device for soldering cans, the combination of the tool having the ledge d and rim c, and cup n, with the passage f, substantially as described. 5th. The combination of the receptacle a having the recess m, the tool fixed within the receptacle and the plunger h, substantially as described. 6th. The combination of the receptacle and tool, as described, with the bar i, piece h and spring o, substantially as described.

### No. 19,739. Handle for Cross-Cut Saws.

(*Fût de Scie de Travers.*)

Andrew Uren, Seattle, W. T., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The combination, with the saw blade G, of the flat bar A having a socket B, and a U-shaped bracket D provided with a handle E, and a vertical post a abutting against the end of the saw blade, and having lugs F straddling the end of the blade, and upright handle C slotted at its lower end to receive the upper edge of the saw blade, substantially as shown and described. 2nd. The combination, with the saw blade G and flat bar A having an aperture L, socket B and bracket D provided with a handle E and lugs F, of the slotted rod H, nut K and upright handle C slotted at its lower end, substantially as shown and described. 3rd. In a saw handle, the combination, with the bar A adapted to be held on the saw, and of a cushion or buffer M on the inner end of the handle, substantially as herein shown and described.

### No. 19,740. Fountain Pen. (*Plume-Fontaine.*)

James P. Hoyt, Newton, Ct., U.S., 4th July, 1884; 5 years.

*Claim.*—1st. The hollow casing A having the upper end tightly closed, and the lower end nearly closed to form a holding seat for a separate pen, as C, with a point A<sub>1</sub> properly formed to constitute a writing point integral with the body of the case A, whereby the said casing may be used as a pen or as a holder for a separate pen or both, simultaneously, as herein specified. 2nd. The casing A adapted to perform the double functions of a pen-holder and ink-reservoir, in combination with a suitable writing point at the lower end, with an elastic bulb M at the upper end and with a separate pen, as C, all arranged for joint operation, as herein specified. 3rd. The inner case or feeder B having the split b, in combination with the outer casing A having a tightly closed upper end arranged for joint operation, as herein specified. 4th. The inner case or feeder B having a point B<sub>1</sub> and a projection B<sub>2</sub>, the outer case A having a point A<sub>1</sub> and means for tightly closing the upper end, combined and arranged for joint