

No. 16,332. Improvements on Heating Stoves. (*Perfectionnements aux poêles de chauffage.*)

Edward Stewart, Fort Madison, Iowa, U.S., 19th February, 1883; (extension of patent No. 8428.)

No. 16,333. Compound to be used as Paint or Varnish. (*Composition pour servir de peinture ou de vernis.*)

Anthony W. Burke, Stayner, Ont., 20th February, 1883; for 5 years.

Claim.—A liquid compound composed of glue, sulphate of zinc, soluble glass, camphor, oil and lime water, and coloured with logwood extract.

No. 16,334. Improvements on Combined Seed Drill and Broadcast Sowers. (*Perfectionnements aux semoirs en ligne et à la volée combinés.*)

Walter Coulthard and John Larsen, Oshawa, Ont., 20th February, 1883; for 15 years.

Claim.—1st. In a combined seed drill and broadcast scatterer, a lifting roller provided with a bracket at either end having a pivot pin cast on each, in combination with a gab formed on the front of each hopper end to receive the pivot pins. 2nd. In a combined seed drill and broadcast scatterer having a lifting roller pivoted in gabs formed in the front of each hopper end, hand lever fixed to one end of the roller, in combination with notches formed on the back of the hopper end. 3rd. The combination, in a sowing machine, of a rectangular metal frame supported by wheels revolving on an axle rigidly secured to both sides of the said frame, for the purpose of bracing said frame to prevent it twisting. 4th. A sowing machine having a rectangular metal frame, the brackets H having flanges or lips formed on them for the purpose of grasping the top and bottom edges of the frame, and a journal for supporting the main axle of the machine, in combination with the pinching screws I, screwed into the journals for the purpose of grasping the axle and forming a rigid connection between it and the frame. 5th. A scattering tube hopper made in two parts, having the inner edges of each part longitudinally rounded to enable the diameter of the hopper's bottom to be contracted so as to permit the lugs or pins, which are cast on the outside of each part, to pass from the mouth of the tubes to the holes in the tubes made to receive them. 6th. A scattering tube hopper made in two parts, the lower half of an axle bearing, formed on the front of the hopper, in combination with a cap pivoted within the hopper and forming the upper half of the bearing, a single bolt being provided for connecting the cap to the lower half of the bearing. 7th. A scattering tube hopper provided with an axle bearing arranged to so fit the axle supporting it, that the friction necessary to hold the scatterer in position for work will permit it to give, should the scatterer come in contact with an obstruction. 8th. A broadcast scattering board held in brackets bolted to the frame of the machine, in combination with a board carrying the grain conductors and hinged to the scattering board, so that the grain conductors may be readily adjusted for the purpose of directing the grain, either into the drills or broadcast scattering tube. 9th. A bracket arranged to be bolted to the frame of the machine and having a groove to hold the end of the scattering board rigidly in position, and an arm to support the end of the grain conductor's board when set to direct the grain into the drill tube. 10th. A distributing wheel, a revolving ring R contained within the casing Q and having lugs n cast on it, in combination with a loose back S fitting within the ring R and having wings p cast on it to fit into the lugs n. 11th. In a distributing wheel provided with a revolving wheel R and loose back S, the combination of a sleeve T fitted into the distributor and having a cut-off wing r and stop t cast on it. 12th. In a distributing wheel, a sleeve T fitted on a rod U, in combination with a recess g made in the face of the loose back S. 13th. In a sowing machine in which all the distributors are connected by a rod for regulating the discharge of grain, a rack V attached to the said rod, in combination with a lever X pivoted in the bracket W. 14th. In a sowing machine in which the discharge of grain from all the distributors is regulated simultaneously by the rod U, operated by a lever X, the combination of an index plate marked to indicate the size of the discharge and notched to receive a lip formed on the lever X. 15th. A spring hoe, a dog Z pivoted between the drag bars Z1 and provided with hooked lugs z to receive the end of the braces Z2, in combination with a spring Z3, the hooked end of which fits over the dog Z. 16th. A spring hoe in which the braces are bolted, a casting pivoted to the drag bars, a hole having a gab to fit over the pivot bolt of the casting.

No. 16,335. Improvement on Seed Planting Machines. (*Perfectionnement des semoirs en ligne.*)

Charles E. Patric, Rochester, N. Y., U. S., 20th February, 1883; for 5 years.

Claim.—1st. In a seeding machine, a driving shaft, a feed shaft parallel to, but independent of said driving shaft, and a series of four feed wheels mounted on said shaft, combined with a train of connecting gearing, one member of said train being a wheel, the pitch line of engagement whereof may be varied, as to diameter, at will, whereby the speed transmitted is correspondingly varied. 2nd. A driving shaft, a feed shaft independent of, but parallel thereto, and a series of four feed wheels mounted on said feed shaft, combined with a train of connecting mechanism, one member whereof is disk wheel m, provided with concentric rows of mitre teeth of equal pitch, and another member whereof is a pinion J adjustable to mesh with either row of teeth on said disk-wheel. 3rd. A driving shaft, a feed shaft independent of, but parallel thereto, and a series of four feed wheels mounted on said feed shaft, combined with a train of connecting mechanism, one member whereof is a disk wheel m, provided with concentric rows of mitre teeth of equal pitch, and another member whereof is a pinion J adjustable to mesh with either row of teeth on said disk wheel, and means whereby said pinion may be moved at

will and retained in adjustment. 4th. A driving shaft, a feed shaft and a series of feed wheels mounted thereon, combined with a train of connecting mechanism, one member whereof is a disk wheel m provided with concentric rows of teeth of equal pitch, and another member whereof is a pinion J adjustable to mesh with either row of teeth on said disk wheel and the rack P, segment Q and indicator T. 5th. A driving shaft, a feed shaft, and a series of feed wheels mounted thereon, combined with a train of connecting mechanism, one member whereof is a disk wheel m provided with concentric rows of teeth of equal pitch, and another member whereof is a pinion J adjustable to mesh with either rows of teeth on said disk wheels, and a rack P with skin teeth, the segment Q on shaft R, oblique to the axis of motion of said rack, and the indicator T. 6th. The wheel C provided with the ratchet hub t, and the sliding ratchet clutch H provided with holes r and their enclosed springs i, combined with the hub t rigidly secured to the shaft and provided with flange l. 7th. The wheel C provided with the ratchet hub t, and the sliding ratchet clutch H provided with the cells r, and their enclosed springs combined with the hub t rigidly secured to the shaft G, and provided with flange l. 8th. The pinion J, adjustable along its axis of revolution, combined with the disk m provided with concentric rows of gear teeth of equal pitch, whereby said pinion mesh, and traction spring n behind said disk, whereby it may yield and spring back when said pinion passes from one of said rows of teeth to another. 9th. The disk m mounted upon the shaft G, combined with the hollow hub O fixed upon said shaft, the enclosed spline and feather, whereby said disk is compelled to turn with said shaft, and the enclosed spring n whereby said disk may be permitted to move lengthwise of said shaft. 11th. A disk m provided with concentric rows of cog teeth of equal pitch, combined with a pinion J adjustable along its axis of rotation, so as to be capable of meshing with either one of said rows of gear teeth, and an elastic member whereby said disk and pinion may be permitted to recede and approach each other, when passing from one concentric series to another.

No. 16,336. Improvements on Turn-Tables. (*Perfectionnements aux plates-formes tournantes.*)

Clements A. Greenleaf, Knoxville, Tenn., U.S., 20th February, 1883; for 5 years.

Claim.—1st. The combination of a turn-table, provided with mechanism for enabling it to rotate in a central pedestal and provided with brace 20 having groove P1 and rollers R, and said pedestal provided with surface J. 2nd. The combination of a turn-table provided with mechanism for enabling it to rotate on a central pedestal, and provided with brace 20 having groove P1, and rollers R and locking devices, and devices for supporting the turn-table while the load is passing off or on. 3rd. The combination of a turn-table diagonally non-deflectable, provided with box H and plate M and ring t, rollers t, pedestal J and ring S and rollers R. 4th. The combination of a turn-table diagonally non-deflectable, and box H and plate M and ring t, rollers t, pedestal J and ring S and rollers R, and devices for locking the turn-table and for supporting the turn-table, while the load is passing on or off the turn-table. 5th. The device for supporting the turn-table while the load is passing on or off the latter, and consisting of the oscillating arms T provided with projections U, mechanism for advancing and retracting said arms, and a pit provided with recesses V1. 6th. The device for supporting the ends of the turn-table, consisting of the oscillating arms T provided with projections U pivoted at T1 to the trusses B, eccentric yokes 21, eccentrics 3, shaft 4 and levers 7. 7th. The device for locking the turn-table, consisting of the oscillating arms T and locking studs 10. 8th. In combination, the oscillating arms having projections U and locking studs 10, mechanism for advancing and retracting said arms, and the pit provided with recesses V1. 9th. In combination, the oscillating arms pivoted at T1 to the turn-table, and having projections U and locking studs 10, and the eccentric yoke 21, eccentrics 3, shaft 4 and levers 7. 10th. In combination, a turn-table turning on a central pedestal brace 20, anti-friction rollers R and locking device, consisting of the oscillating arms having projections U and mechanism for advancing and retracting the said arms. 11th. In combination, a turn-table turning on a central pedestal brace 20, anti-friction rollers R and device for supporting the ends of the turn-table when locked, and consisting of the oscillating arms having projections U, and mechanism for advancing and retracting said arms. 12th. In combination, a turn-table turning on a central pedestal brace 20, anti-friction rollers R, oscillating arms T provided with projections U, locking studs 10, and mechanism for advancing and retracting said arms.

No. 16,337. Improvements on Harvesters. (*Perfectionnements aux moissonneuses.*)

Frank Bramer and George G. Crowley, Little Falls, N. Y., U. S. 20th February, 1883; for 10 years.

Claim.—1st. The combination of the main frame, the finger beam, the adjusting rod with which the finger beam is connected at its heel, the main frame lug in which the lower end of the adjusting rod is supported, and the main frame lug provided with the slot through which the adjusting rod passes. 2nd. The combination of the finger beam, the lugs at the heel thereof, the adjusting rod passing through the upper one of said lugs and threaded to match a screw formed in the lower lug through which it also passes, the main frame lug in which the adjusting rod is supported beneath the threaded lug of the finger beam, the main frame lug through which the adjusting rod passes above the upper lug of the finger beam, the pulleys of the inner and outer ends of the finger beam, the vertically adjustable grain wheel, the downwardly projecting arm of the grain wheel, and the flexible connection between said arm and the sleeve J, and the combination of the sleeve J, the lever segment gear and detent rod thereof, and the adjusting rod on which the finger beam, the adjusting rod with which the finger beam is connected at its heel, the main frame lug in which the lower end of the adjusting rod is supported, the main frame lug provided with an elongated slot through which the adjusting rod passes, the sleeve turning on the adjusting rod, the toothed arc secured to the sleeve, the rack with which said arc engages, the lever and its detent devices. 5th. The combination of the main frame, the