with mechanism for producing simultaneous vertical adjustment at all the bearings of said sprocket wheels, substantially as described. 5th. The combination, with two parallel revolving sprocket chains, of yokes supported upon said sprocket chains, so that one end of each yoke is capable of vertical adjustment, and freely revoluble concave disks or ploughshares mounted in said yokes, substantially as described. 6th. The combination, with two parallel revolving sprocket chains, of yokes supported upon said sprocket chains, so that one end of each yoke is capable of vertical adjustment, and freely revoluble concave disks or ploughshares mounted in said yokes, together with spring which normally tend to force the ends of said yokes downward into the furrow, substantially as described. 7th. The combination, with a steam plough frame, of two sets or gangs, of freely revoluble disks or ploughshares mounted on sprocket chains, which sprocket chains move in lines inclined at equal angles to the line of motion of the plough frame and upon opposite sides of said line, together with traction wheels upon which said frame is mounted, a motor on said frame, a train of gearing which communicates motion to said traction wheels from the motor to said sprocket chains, substantially as described. 8th. The combination, with a steam plough frame, of sprocket chains running on sprocket wheels mounted in said frame, yokes supported between a set of parallel sprocket chains, and freely revoluble disks mounted in said yokes, together with mechanism for producing simultaneous vertical adjustment of all the bearings of said sprocket wheels, a motor which drives the said sprocket chains, and gearing by which power may be transmitted from the motor to the before mentioned adjusting mechanism, substantially as described. 9th. The combination, with a steam plough frame, of two sets or gangs of freely revoluble disks or ploughshares, which are mounted upon sprocket chains, which sprocket chains move in lines inclined at equal angles to the line of motion of the plough frame and upon opposite sides of said line, together with a mower knife mounted on the forward portion of the frame, and operated in conjunction with the gangs of ploughshares, substantially as described. 10th. The combination, with a steam plough frame, of two sets or gangs of freely revoluble disks or ploughshares which are mounted upon sprocket chains, which sprocket chains move in lines inclined at equal angles to the line of motion of the plough frame and upon opposite sides of said line, together with the cultivator attached to the rear of the plough frame and operated in conjunction therewith, substantially as described. 11th. The combination, with a steam plough frame, mounted on wheels, of two sets or gangs of ploughshares, which are mounted upon continuous sprocket chains, the sprocket wheels over which said chains run being mounted rigidly in the frame at such points that the lines of travel of the chains are inclined to the line of travel of the plough at equal acute angles, a prime mover mounted on the plough frame, and gearing which transmits motion to the driving wheels of the sprocket chains and to the driving wheels of the plough frame, together with a mower knife mounted on the forward portion of the frame, connecting apparatus extending from the driving shaft to said mower knife, and the cultivator attached to the rear of the plough frame, substantially as described.

No. 34,248. Pulverizing Mill.

(Moulin à broyer.)

James K. Griffin, Brooklyn, N.Y., U.S., 5th May, 1890; 5 years.

Claim.—1st. In a pulverizing mill, the combination, with an annular die of a radially movable roll-shaft and roll, and mechanism for positively revolving the same upon their own axis and for gyrating them around the central axis of the mill, substantially as described. 2nd. In a pulverizing mill, the combination, with a pan or pulverizing chamber, and an annular die arranged above the bottom thereof, of a suspended radially-movable roll shaft and roll, which are also arranged above the bottom of said pan or chamber, and mechanism for positively revolving said shaft and roll upon their own axis, and for gyrating them around the central axis of the mill, substantially as described. 3rd. In a pulverizing mill, the combination, with the pan or chamber and the annular die or ring of the radially movable shaft, having a fixed roll at its lower end rotating against the inner surface of said die, mechanism for positively revolving said shaft and roll upon their own axis, and a universal joint for permitting of their gyration, and connecting them to said revolving mechanism, substantially as described. 4th. In a pulverizing mill, the combination, with the pan or chamber, and the annular die or ring, of the radially-movable shaft, having a fixed roll at its lower end rotating against the inner surface of said die, and mechanism for positively revolving and gyrating said shaft and roll upon their own axis and around the central axis of the mill, said mechanism consisting of the drive shaft, the pulley and the universal joint, substantially as described. 5th. In a pulverizing mill, the combination, with a pan or chamber provided with an annular die, and a revoluble top or cover, of a radially-movable roll shaft passing through said cover, and having a roll at its lower end, and mechanism for positively revolving said shaft and roll upon their own axis, and for gyrating them around the central axis of the mill and revolving said top or cover, substantially as described. 6th. In a pulverizing mill, the combination, with the plan or chamber I, provided with the annular die 8, and the revoluble top or cover 12, formed with the radial slot 12^1, and provided with the plate 22, having anti-friction lined flanges 21, of the radially-movable shaft passing through the slot in said cover, and provided with the sleeve 19, and the roll 17, and mechanism for positively revolving said shaft and roll upon their own axis, and for gyrating them around the central axis of the mill, and revolving said top or cover, substantially as described. 7th. In a pulverizing mill, the combination, with a pan or chamber provided with an annular die, and a revoluble top or cover having a feed spout, of a stationary receiving hopper communicating with said feed spout, a radially-movable roll shaft passing through said cover, and having a roll at its lower end, and mechanism for positively revolving said shaft and roll upon their own axis and for gyrating them around the central axis of the mill, and revolving said top or cover, substantially as described. 8th. In a pulverizing mill, the combination, with a pan or pulverizing chamber, and an annular die arranged above the bottom thereof, of a suspended radially-movable roll shaft, a roll secured to the lower end thereof and provided with stirrers on its lower end, which are also arranged above the bottom of said pan or chamber, and mechanism for positively revolving said shaft and roll upon their own axis, and for gyrating them around the central axis of the mill, substantially as described. 9th. In a pulverizing mill, the combination, with the pan or pulverizing chamber I, formed with the opening 8^1, provided with the annular die 8, the screens 5, and the screen frame 3, of the suspended radially-movable roll shaft 18, the roll 17 secured to the lower end thereof, and provided with the stirrers 17^1, and mechanism for positively revolving said shaft or roll upon their own axis, and for gyrating them around the central axis of the mill, substantially as described. 10th. In a pulverizing mill, the combination, with the pan or pulverizing chamber I, formed with the opening 8^1, and provided with the annular die 8, the screens 5 and the screen frame 3 formed with the trough 4 and spout 6, of the suspended radially-movable roll shaft 18, the roll 17 secured to the lower end thereof, and provided with stirrers 17^1, and mechanism for positively revolving said shaft and roll upon their own axis, and for gyrating them around the central axis of the mill, said mechanism consisting of the drive shaft 24, the pulley 25 and the universal joint 23, substantially as described.

No. 34,249. Apparatus for the Manufacture of Wire, Rods, Hoop Iron and Steel, etc. *(Appareil de fabrication du fil de fer, des barres, du feuillard de fer et d'acier, etc.)*

Henry Roberts, Pittsburg, Penn., U.S., 5th May, 1890; 5 years.

Claim.—1st. In an apparatus for heating wire, etc., the combination, with a heating chamber, of a coil spool arranged therein and adapted to receive one or more wraps or turns of the wire to be heated, mechanism for rotating said spool, whereby the wire is continuously drawn in and delivered from the heating chamber by the rotation of the coil spool, and rolls or reels for discharging and receiving the wire, substantially as and for the purposes described. 2nd. In an apparatus for heating wire, etc., the combination, with a heating chamber, of a power driven horizontally journalled tapering coil spool arranged therein, and adapted to gradually and progressively receive and discharge one or more wraps or turns of the wire to be heated, and rolls or reels for discharging and receiving the wire, substantially as and for the purposes described. 3rd. In an apparatus for heating wire, etc., the combination, with a heating chamber of a coil spool arranged therein, and adapted to receive a series of coils or turns of the wire, etc., to be heated, said coil spool being composed of separate independently rotary annular sections, substantially as and for the purposes described. 4th. In an apparatus for heating wire, etc., the combination, with a heating chamber, of a coil spool arranged therein and adapted to receive a series of coils or turns of the wire., etc.,to be heated, said coil spool being composed of a separate independently rotary annular tapering sections, substantially as and for the purposes described. 5th. In an apparatus for heating wire, etc., the combination, with a heating chamber, of a power driven hollow coil spool arranged therein, and adapted to receive a series of coils or turns of the wire,etc.,to be heated, said spool being mounted upon a hollow shaft or shafts connected with a water supply, substantially as and for the purposes described. 6th. An apparatus for heating wire, etc., which consists in a heating chamber, and a power driven rotative spool arranged therein, having devices (such as a notch on the spool) for detachably securing the end of a wire thereto, whereby the wire on being wrapped on the spool and drawn through the heating chamber may be subjected to heat to a length of time depending on the number of its convolutions around the spool, substantially as and for the purposes described.

No. 34,250. Railway Car.

(Char de chemin de fer.)

Charles A. Davis, Washington, D.C., U.S., 5th May, 1890; 5 years.

Claim.—1st. In a car, a partition consisting of a rear section I extending from the rear wall of the stall space partially across said space, and adapted to fold against said rear wall, and an independently continuous section K above and in line with said rear section, as shown and described. 2nd. In a car, the combination of a partition I, and a laterally yielding support for the end of said partition, whereby it is adapted to yield laterally. 3rd. In a car, a partition consisting of a hinged rear section I extending partially across the stall space, and an upper section K extending entirely across said space, the two sections being connected with connecting devices, substantially as described and shown. 4th. In combination, with hinged partition section I and partition board or section K, a pin *d* extending from one into a socket *e* in the other, for the purpose set forth. 5th. In a car, the combination of a rear partition section I, a partition board or section K, a fixed support B and posts or supports C, arranged as shown and described. 6th. In a car, the combination of a vertical rod B at one side, and posts or supports C at the opposite side of the space to be partitioned, a rear partition section I hinged to said rod and a partition board or section K, provided at one end with an eye L to encircle the rod, substantially as and for the purposes set forth. 7th. In a car, the combination of a vertical rod B at one side of the space to be partitioned, posts or supports C at the opposite side thereof, and a partition board K, provided at one end with a swivel eye L encircling the rod, as set forth. 8th. In combination with rods B and posts C, C, partition board K, provided with a swivel eye to encircle the rod, and a hanger or support N, substantially as and for the purpose set forth. 9th. In a car, the combination of a partition I, an upright or support B, a guide or guides G and springs H, as described and for the purpose set forth. 10th. In a car, the combination of vertical rod B, posts C, C, partition section I and partition board K having an eye or loop L encircling the rod and extending between posts C, C, as set forth. 11th. In combination, with a vertical rod B, a guide P, and slotted support G, provided with springs H, substantially as shown and described. 12th. In a