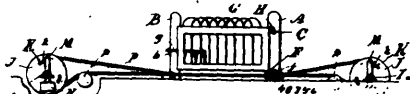


away end of the said siding rail, substantially as and for the purposes described. 2nd. The combination with one of the main rails of a pivoted wing rail having its free end reduced and adapted to swing over the main rail when set for the siding, the end of said wing rail being curved outwards as at  $d^1$ , of a plurality of blocks supporting said wing rail at an incline relative to said main rail, a siding rail also set at an incline and connected to the pivoted end of said wing rail, means for swinging said wing rail, about its pivot, and an inclined siding rail cut away at an angle and adapted to bear against the face of said wing rail when the switch is set for the siding, substantially as and for the purposes described. 3rd. In an apparatus of the character described, the combination with one of the main line rails and the blocks E and E' of a pivoted frog rail adapted to swing partly over said main line rail, and provided with a straight edge sloping outwards as at  $d^1$ , curved outwards as at  $d^2$ , and provided with flat lugs  $d^3$  and  $d^4$  adapted to rest on said blocks and give an enlarged supporting surface, a siding rail cut away at an angle and projecting above the level of said main line rail, and adapted to bear against said sloping edge  $d^1$  of the frog rail, and a chair plate C approximately triangular in form having the projection  $c^1$  fitting snugly against the web of the main line rail, with a groove  $c^2$  dovetailed at  $c^1$  adapted to receive the flange of the cut away siding rail, a vertical face  $c^3$  adapted to support the cut away side of the siding rail, and a flange  $c^4$  with bolt holes  $c^5$  therein for securing said chair plate to the cross ties, substantially as and for the purposes described.

#### No. 44,356. Gate Opening and Closing Device.

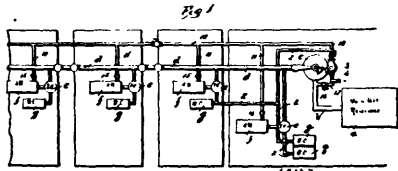
(Appareil pour ouvrir et fermer les barrières.)



Edward David Mayo, Three Rivers, assignee of Joseph Alexis Robillard, St. Andrew East, both of Quebec, Canada, 7th March, 1886; 6 years.

**Claim.**—1st. In a gate opening and closing device consisting of a fixed upper hinge, a pulley journalled on a vertical pin secured in a bracket secured to a gate post, the said pin being vertically under the upper hinge, the lower hinge pin of the gate resting in a socket formed in the said pulley, and means for partially rotating the said pulley, whereby the latch end of the gate is raised and the gate caused to lean over in the direction in which it is desired it should move, substantially as set forth. 2nd. In a gate opening and closing device, the combination with a pulley E, journalled on a pin which is vertically under the upper hinge, a socket being formed in the upper surface of the said pulley to receive and support the lower end of a gate, the said socket being some distance from the centre of the said pulley, of the pulleys J, journalled on either side of the said pulley E, an endless cable connecting the three pulleys, and means by which the pulleys J, may be operated by vehicles passing near them, substantially as set forth. 3rd. In a gate opening and closing device, the combination with the pulley J, the adjustable pins K, of the cranked shaft I, on which the said pulley is loosely journalled, a finger L, adapted to engage one of the pins K, when the shaft is turned, a weighted arm N, and cranked portion M, substantially as set forth.

#### No. 48,347. Car Brake. (Frein de chars.)



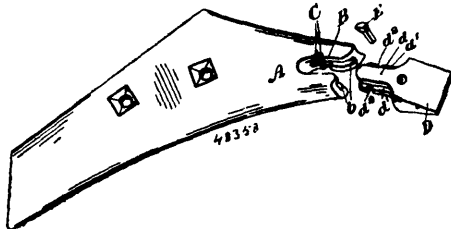
Hubert S. Herrington and William S. Head, Jr., both of Latrobe, assignees of Samuel Leek French, Ligonier, Pennsylvania, U.S.A., 7th March, 1886; 6 years.

**Claim.**—1st. An air brake system having an air brake discharge from the brake cylinders to the engine and tender, independent of the triple valves, and extending to the engineer's cab, and provided with a controlling valve. 2nd. An air brake system having a direct release or discharge from one or more brake cylinders, controlled by the valve in the engineer's cab. 3rd. An air brake system having direct discharge connections from one or more of the brake cylinders independent of the ordinary system, a separate valve controlling the same, arranged adjacent to the engineer's valve, and connected with and operated by the same to open said connections, to discharge the air from said cylinder or cylinders, when the engineer's valve is thrown to release position. 4th. An

air brake system having the direct connections from one or more of the brake cylinders provided with a discharge to the outer air, a brake controlling valve in said connections adjacent to the engineer's valve connected and arranged to be operated by the same, substantially as described. 5th. An air brake system having the discharge connections from the brake cylinders of the tender and engine, a controlling valve for said connections secured to the engineer's valve and having its stem connected with and operated by the engineer's valve, and a cut-off in said connection between said controlling valve and the cylinders. 6th. An air brake system having direct connection from the main air reservoir to the auxiliary reservoir independent of the triple valves, and the valve in said connections, as and for the purpose herein set forth. 7th. An air brake system comprising the main air reservoir, the engineer's valve, the train pipe, the triple valves, the auxiliary reservoirs, the brake cylinders, an auxiliary train pipe directly connected with the auxiliary reservoirs and with the main air reservoir, and provided with the separate controlling valve connected with and operated by the engineer's valve and arranged so that when the engineer's valve is thrown to stop, air is supplied to the auxiliaries through said auxiliary pipes. 8th. An air brake system having connections from one or more of the brake cylinders to the outer air, a connection from the main air reservoir to the auxiliary reservoir, a single plug valve controlling said two connections with and operated by the engineer's valve and constructed so that when the engineer's valve is thrown to release, the direct connection to the auxiliary reservoir will be cut-off, and the direct discharge from the brake cylinders will be opened, and when the engineer's valve is thrown to stop, the discharge from the brake cylinders will be closed and direct communication opened from the main air reservoir to the auxiliary reservoirs. 9th. An air brake system having an auxiliary train pipe arranged to directly place the main air reservoir in communication with the auxiliary reservoir, and check valves to prevent outflow from the auxiliaries through said auxiliary train pipe.

#### No. 44,354. Nose for Gang Ploughshare.

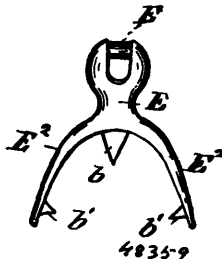
(Bout de lame pour charrues à plusieurs socs.)



The Cockshutt Plough Company, assignee of Andrew McSherry, both of Brantford, Ontario, Canada, 7th March, 1886; 6 years.

**Claim.**—1st. In a gang plough, the combination with the ploughshare having the front recess provided with side grooves, as specified, of a nose having a rearwardly extending projection, with tongues provided at its side and means for securing the projection of the nose from longitudinal movement within the recess, as and for the purpose specified. 2nd. In a gang plough, the combination with the ploughshare having the front recess provided with side grooves, and notches in the sides of one groove as specified, of a nose provided with a rearwardly extending projection, tongues in the sides of the projection and notches in said tongues, and a key designed to extend through the notches in the sides of the groove, and a notch in one of the tongues, as and for the purpose specified.

#### No. 44,353. Wop. (Torcheon.)



Harriet A. Hart, assignee of Charles W. Hart, both of Troy, New York, U.S.A., 7th March, 1886; 6 years.

**Claim.**—1st. In a wop, the combination with the handle, the