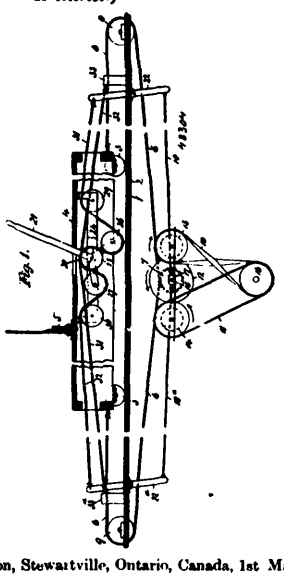
and an air inlet opening in the bottom of the case adjacent to each opening in said end-section and provided with a deflector leading to a leg, substantially as described. 3rd. In a heater, the combination of an inclosing case having its sides closed and provided with an air-chamber in its base having a perforated bottom and a kindling-pan on its upper side, a mixing-chamber supported in the upper portion of the case, and having an outlet for the products of combustion, and one or more openings in its base each provided with a hollow depending leg, a fuel supply pipe, forming a generator, extending lengthwise through the case, and having its end-section extended lengthwise along the kindling-pan underneath the mixing chamber, an opening in said end-section at each of said legs, and an opening in the top of said air-chamber adjacent to each opening in said end-section, substantially as described. 4th. In a heater, the combination with an inclosing case of a mixing-chamber C, supported in the upper portion thereof, and having one or more inlet-openings, and a damper-top C^1, affording an outlet *a*, along its edge-portion and provided with one or more valve-covered openings, and a fuel-supply pipe, forming a generator, extending in the case underneath the mixing-chamber and having an outlet-opening at each inlet-opening to said chamber, substantially as described. 5th. In a heater, the combination with an inclosing case of a mixing chamber having an outlet for the products of combustion in its top and sides, and one or more openings in its base each provided with a hollow depending leg, a fuel-supply pipe extending through the case along opposite sides of the mixing-chamber, and having its end-section extended lengthwise underneath said chamber, a pipe E, extending through the mixing-chamber along opposite sides thereof and provided with openings *v*, an opening in said end-section at each of said legs, and an air-inlet opening in the bottom of the case adjacent to each opening in said end-section and provided with a deflector leading to a leg, substantially as described. 6th. A heater comprising, in combination, a case A having closed sides, one of which is provided with a valve-controlled opening, an air-chamber in the base of the case having a screen-covered bottom and carrying a kindling-pan on its upper side, a mixing-chamber C supported in the upper part of the case and having a damper-top C^1, affording outlet-openings *s* along its sides, longitudinal side-openings a^1, and hollow legs *c* opening into its base, a fuel-pipe D, extending through the case along opposite sides of the mixing-chamber, and having its end-section D^1, extended along the kindling-pan underneath the mixing-chamber and provided with openings *l* coincident with said legs, deflectors h^1, extending from openings *h*, in the air-chamber toward said legs, and a pipe E, extending in the mixing-chamber along opposite sides thereof and provided with openings *v*, the whole being constructed and arranged to operate, substantially as described.

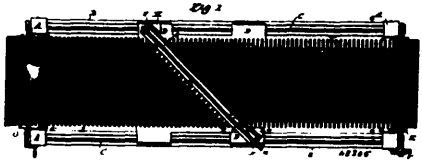
No. 48,304. Device for operating Saw Mill Carriages. (*Appareil pour actionner les charriots de scieries.*)



John Hamilton, Stewartville, Ontario, Canada, 1st March, 1895; 6 years.

Claim.—1st. The combination, with a saw-mill carriage and accessory means for driving the same, of a hand lever fulcrumed to said carriage, said lever having two sets of sheaves and two cables passing in reverse order between said sheaves, said cables secured at the ends to fixtures and to tilting levers operating said accessory means, whereby the hand lever when inclined effects a pull on one cable, and when inclined in the opposite direction effects a pull on the other cable, to reciprocate the carriage when desired by a person riding thereon, as set forth. 2nd. A device for reciprocating or gigging saw-mill log carriages by accessory means, said device comprising a hand lever fulcrumed to the carriage and having two sets of sheaves journalled thereto, and two cables, one cable passing between one set of sheaves and the other cable passing in reverse order between the other set of sheaves, and over sheaves attached to the carriage, one end of said cables attached to a fixture and the other end to a lever, whereby a portion of each cable forms a loop which is elongated by a sheave when the hand lever is inclined to effect a pull on either cable, as set forth. 3rd. The combination, with a saw-mill log carriage and accessory means for gigging the same, of a hand lever fulcrumed to said carriage, said lever having two sets of sheaves and two cables, one cable passing between one set of sheaves and the other cable passing between the other set of sheaves in reverse order, whereby each cable forms a loop divergently, one loop being elongated when the hand lever is inclined in one direction, and the other loop elongated when the lever is inclined in the opposite direction to effect a pull on the cables, respectively, and to cease when said lever is vertical, for the operation of the carriage by accessory means such as a friction gear, steam feed, &c., as described and set forth.

No. 48,305. Machine for Inserting Threads into Woven Fabrics. (*Machine pour insérer le fil dans les tissus.*)



Edmund Morris, Michigan City, Indiana, U.S.A 1st March, 1895; 6 years.

Claim.—1st. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable thread-carriers on opposite sides of the fabric, which act upon an additional thread to interweave it with the threads of the cloth. 2nd. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable thread-carriers on opposite sides of the fabric, which act upon an additional thread to interweave it with the threads of the fabric, and guides interposed between the movable carriers to co-operate with them in directing the movement of the additional thread. 3rd. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of movable carriers arranged in pairs on opposite sides of the fabric, and which act on an additional thread to interweave it with the cloth. 4th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of rotating carriers on opposite sides of the fabric, which act on an additional thread to interweave it with the cloth. 5th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of rollers arranged cross-wise of the fabric and on opposite sides thereof, to guide a thread in a sinuous course to interweave it through the meshes of the cloth. 6th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carrying bars arranged cross-wise of the fabric, and on opposite sides thereof, and rollers carried thereby for interweaving a thread with the fabric. 7th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carriers on opposite sides of the fabric, each consisting of a pair of bars both carrying rollers, and means for separating the roller-carrying bars of each pair. 8th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of roller-carrying bars arranged cross-wise of the fabric and on opposite sides thereof, rollers carried thereby, gearing for driving the rollers, and guides interposed between the rollers. 9th. The combination, substantially as hereinbefore set forth, of the roller-carriers on opposite sides of the fabric, each consisting of a pair of bars, a shaft extending from one end of the bars to the other, a plate connected with and moved by the shaft, and having an inclined slot connected with a pin on one of the bars on the upper set, a plate pivoted to one bar of the lower set, and connected by a pin and slot with the adjacent bar of the same set, and connections between the two plates, for the purpose specified. 10th. The combination, substantially as hereinbefore set forth, with means for supporting a woven fabric, of a series of pairs of rollers arranged cross-wise of the fabric, and on opposite sides thereof to guide a thread in a sinuous course to interweave it through the meshes of the cloth, some of said rollers having annular grooves, as described, for the purposes specified.