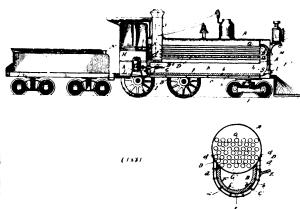
actuating the tacking-device to drive fasteners, means for moving the tacking-device with the sheet and cleat while the fasteners are the tacking-device with the sheet and cleat while the fasteners are being driven, fastener supplying mechanism for the tacking-device operated by raid movement of the tacking-device, and skipper mechanism operating, relative to the feed-mechanism, to withhold movement of the tacking-device at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purpose set forth. Sth. In a machine for forming box-blanks, by fastening sheets and stongthening strips to reinforcing cleate the comening sheets and stengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, whereby it moves in the backward direction at approximately the speed of the blank in the operation of the tacking-devices and machine the direction at the state of the blank in the operation of the tacking-devices and machine the direction at the state of the blank in the operation of the tacking-devices and machine the blank in the operation of the tacking-devices and machine the blank in the operation of the tacking-devices and machine the blank in the operation of the tacking-devices and machine the blank in the operation of the tacking-devices and machine the operation of the tacking-devices are deviced by the speed of the blank in the operation of the tacking-devices are deviced by the speed of the blank in the operation of the tacking-devices are deviced by the speed of the blank in the operation of the tacking-devices are deviced by the speed of the blank in the operation of the tacking-devices are deviced by the speed of the blank in the operation of the tacking devices are deviced by the speed of the blank in the operation of the tacking devices are deviced by the speed of the blank in the operation of the tacking devices are deviced by the speed of the blank in the operation of the tacking devices are deviced by the speed of the blank in the operation of the tacking devices are deviced by the speed of the speed approximately the speed of the blank in the operation of the tacking-devices, and means for feeding strengthening strips with the blank-material across the tacking-devices, substantially as and for the purpose set forth. 9th. In a machine for forming box-blanks, by fastening sheets and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, whereby it moves in the backward direction at approximately the speed of the blank in the operation of the tacking-devices, means for feeding strengthening strips with the blank-material across the tacking-devices, and fastener supplying mechanism for the tacking-devices operated by said movement of the tacking devices, substantially as and for the purpose set forth. 10th. In a machine for forming box-blanks, by fastening sheets and strengthening strips to reinforcing cleats, the combination of guides to a machine for forming pox-manks, by fastering sheets and strengthening strips to reinforcing cleats, the combination of guides for the cleats, feed-mechanism for advancing the cleats longitudinally in their guides and with a sheet through the machine, a movable support, tacking-devices upon the support, means for moving the support back and forth adjacent to the path of the blanks, wherehe it may be adjacent to the path of the support. whereby it moves in backward direction at approximately the speed of the blank in the operation of the tacking devices, means for feeding strengthening strips with the blank-material across the tackingdevices, and skipper mechanism operating, relative to the feed mechanism, to withold movement of the tacking-devices at stated intervals, whereby no fasteners will be driven thereby, substantially as and for the purpose set forth. 11th. In a machine for forming box-blanks, the combination with the feed-mechanism for the blank-DOX-DIARKS, the combination with the reed-mechanism for the blank-material, of a pivotally mounted support, fastener driving tacking-devices on the support adjacent to the path of the blank-material, and means for moving the support on its pivot in the backward direction at approximately the speed of travel of the blank-material while fasteners are being driven, substantially as and for the purpose set forth. 12th. In a machine for forming box-blanks, the combination with the drive-shaft, of feed-belts for engaging and moving the tion with the drive-shaft, of feed-belts for engaging and moving the blank-material through the machine geared to the drive-shaft, preotank-material through the machine geared to the drive-shaft, pre-liminary feed operating mechanism comprising gear mechanism which may be thrown at will into operative engagement with the feed-belts to advance the blank-material into the machine, and ad-justable preliminary feed disengaging mechanism actuated by the advance of the feed-belts to a predeternined position in the machine, substantially as and for the purpose set forth. 13th. In a machine for forming box-blanks, the combination with the drive-shaft and feed for the blank-material, of a movable support adjacent to the path of the blank-material actuated from the drive-shaft to move path of the blank-material actuated from the drive-shaft to move back and forth and in its movement in the backward direction to travel at approximately the speed of the blank-material, a cross-head on the support geared to the said drive-shaft, and a fastener driving tacking device on the support connected to the said cross-head, substantially as and for the purpose set forth. 14th. In a machine for forming box-blanks, the combination with the drive-shaft, of feedforming box-blanks, the combination with the drive-shart, of feet-chains for the blank-material, feed-chain driving shafts geared to the said drive-shaft, a support adjacent to the path of the blank-material geared to one of the belt driving shafts to be oscillated there-by, clutch mechanism between the said support and feed-belt drivingshaft, whereby movement of the support may be started and stopped, a fastener driving tacking device on the support actuated from the drive-shaft to drive fasteners into the blank-material in the movement of the support in the backward direction, and skipper mechanism operating, relative to the feed-belts to produce engagement of said clutch at predetermined intervals, substantially as and for the purpose set forth.

No. 61,881. Locomotive. (Locomotive.)

William Melvin Russell and Thomas Asencio, both of New York City, New York, U.S.A., 1st December, 1898; 6 years. (Filed 2nd November, 1898.)

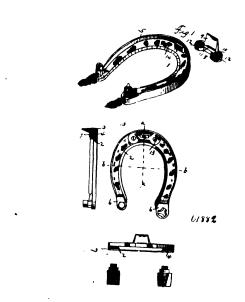
Claim.—1st. A locomotive having a cab and a boiler, a combustion chamber having two walls provided with a space between them forming a water-jacket, said space or jacket having communication with the interior of the boiler, a pulverizer and blower in said cab, and a nozzle opening into said combustion chamber and in communication with said pulverizer and blower, substantially as described. 2nd. A locomotive having a cab and a boiler, a combustion chamber having two walls provided with a space between them forming a water-jacket, said walls being connected with the boiler, -1st. A locomotive having a cab and a boiler, a combus-

said boiler having one or more openings leading to the space or jacket between said walls, a pulverizer and blower located in said



cab, and a nozzle connected with the pulverizer and blower, said nozzle being located in the front wall of the combustion chamber, substantially as described.

No. 61,882. Horse Shoe. (Fer à cheval.)



John Kass and Peter Sibenaler, both of Menominee, Michigan, U.S.A., 1st December, 1898; 6 years. (Filed 24th October, 1898.)

Claim.—1st. The herein described horse shoe, consisting of the body, annular rims formed integrally with said body and located upon the inner and outer edge of the upper surface thereof, said body being further provided with an integrally-formed downwardly-extending outer rim, a retaining-post for the toe-calk, threaded apertures upon either side of said post, a toe-calk consisting of a point and base plate, the latter having a mortise to receive said post, retaining screws passing through said base-plate and into the threaded apertures, and calk seats formed integrally with the ends of the shoe designed to receive the threaded shanks of the heel-calks, substantially as described and for the purpose set forth. 2nd. In a horse shoe, the combination with the body having an integral outer rim, and an integral retaining-post, of a toe-calk having a recess on its outer side to receive the outer rim of the shoe, and further provided with an aperture in the inner part of the base-plate to receive said post, substantially as set forth.

No. 61,883. Skirt Protector. (Protecteur de jupes.)

The Hensel Colladay Co., assignee of John Baptiste Poyet, both of Philadelphia, Pennsylvania, U.S.A., 1st December, 1898; 6 years. (Filed 31st October, 1898.)

Claim.—1st. A skirt protector consisting of one or more heads and a brush, connected therewith and curved in the direction of the length thereof. 2nd. A skirt protector consisting of two heads of different fabric-compactness or density and a brush integrally connected, curving the protector in the longitudinal direction thereof, 3rd. A skirt protector consisting of separated heads and a brush