independently of each other, and two wefts for each row of tufts, one of said two wefts for each row of tufts passing through the row and forming a holding weft, and the other lying against the row of tufts upon said holding weft and forming a binding weft, substantially as described.

No. 48,310. Moquette Loom. (*Métier moquette.*)

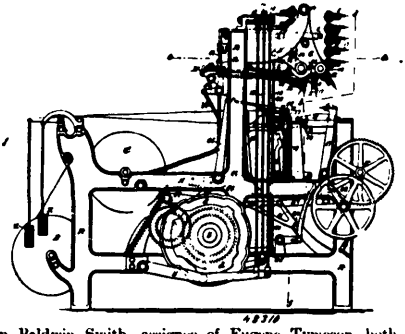

Fig 1

Warren Baldwin Smith, assignee of Eugene Tyrreson, both of Yonkers, New York, U.S.A., 1st March, 1895; 6 years.

Claim.—1st. The combination, with the warp heddles and means for inserting the tufts, of a weft carrier, and means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, substantially as described. 2nd. The combination, with dividing warp and binding warp heddles, and means for actuating said heddles to open the warp in the manner described, of means for inserting the tufts, a weft carrier, and means for actuating the weft carrier to insert a tuft holding and a tuft binding shot of filling to each row of tufts, substantially as described. 3rd. The combination, with a tuft spool carrier, carrier support, and means for transferring the spools for the insertion of the tufts, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for varying the relative positions of the spool carrier support and transferring means for the return of the spool by the said transferring means, substantially as described. 4th. The combination, with the tuft spool carrier, carrier support, and means for transferring the spools, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for moving the spool carrier support for the return of the spool by the transferring means, substantially as described. 5th. The combination, with the tuft spool carrier, carrier support and means for transferring the spools, of means for advancing the carrier and spools therein while a spool is out of the carrier, and means for moving the spool carrier support for the return of the spool by the transferring means and returning the support to normal position, while the transferring means are in position to take a spool, substantially as described. 6th. The combination, with the tuft spools, carrier chains and transferring arms, of a movable support for the end of the carrier chains next the transferring arms, means for advancing the carrier chains and spools therein while a spool is out of the carrier, and means for reciprocating the chain support for the return of the spool by the transferring arms, substantially as described. 7th. The combination, with the warp heddles, weft carrier, tuft spool carrier, carrier support, and means for transferring the spools for the insertion of the tufts, of means for advancing the carrier and spools therein while a spool is out of the carrier and for varying the relative positions of the spool carrier support and transferring means for the return of the spool by said transferring means and means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, substantially as described. 8th. The combination, with dividing warp and binding warp heddles and means for actuating said heddles to open the warp in the manner described, of a tuft spool carrier, and carrier support and means for transferring the spools for the insertion of the tufts, means for advancing the carrier and spools therein, while a spool is out of the carrier and for varying the relative positions of the spool carrier support and transferring means for the return of the spool by the said transferring means, a weft carrier, and means for actuating the weft carrier, to insert a tuft holding and a binding shot of filling to each row of tufts, substantially as described. 9th. The combination with dividing warp and binding warp heddles and means for actuating said heddles to open the warp in the manner described, of a tuft spool carrier and means for transferring the spools for the insertion of the tufts, means for advancing the carrier and spools therein, while a spool is out of the carrier, and for reciprocating the carrier for the return of the spool by the transferring means, a weft carrier and means for actuating the weft carrier, to insert a holding and binding shot of filling to each row of tufts, substantially as described. 10th. The combination with the warp heddles, weft carrier, spool carrier chains and spool transferring arms, of means for actuating said heddles and weft carrier to insert two shots of filling to each row of tufts, a movable support for the end of the carrier chains next the transferring arms, means for advancing the chains and spools therein while a spool is out of the chains, and means for reciprocating the chain support for the return of the spool by the transferring arms, substantially as described. 11th. The combination with a spool carrier, transferring arms and grips carried thereby, of a member carried by the transferring arms for holding the spool in position to be seized by the grips, and co-acting with the grips in releasing the spool from and returning it to the carrier, substantially as described. 12th. The combination with a spool carrier, transferring arms and grips carried thereby, said arms having a movement toward and from each other in seizing and releasing the spool, of a member carried by the transferring arms but stationary relatively thereto during the gripping and releasing movement and actuated by said movement of the arms to hold the spool in position to be seized by the grips, and to co-act with the grips in releasing the spool from and returning it to the carrier, substantially as described. 13th. The combination with a spool carrier, carrier support, transfering arms and grips carried thereby, of means for shifting the spool carrier support for the return of the spool, and returning said support to normal position for the transfer of the next spool, and a member holding the spool in position during the return of the carrier and co-acting with the grips in releasing the spool from and returning it to the carrier, substantially as described. 14th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, and swinging chain support G, substantially as described. 15th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, two set of wheels 18 by which the lower end of the chains is carried, and swinging chain support G, in which said wheels are mounted, substantially as described. 16th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for advancing the chains while a spool is out, swinging chain support G, and a stop holding the chain against movement during the swinging of the support and released for the advance of the chains, substantially as described. 17th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, cams 5 for raising and lowering the springs by the movement of the transferring arms, means for advancing the chains while a spool is out, and swinging chain support G, substantially as described. 18th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, carrying grips by which the spool carriages are released from the chains, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, and cams 5 for raising and lowering the springs by the movement of the transferring arms, substantially as described. 19th. The combination with spool carriages I, and carrier chains J, of the transferring arms K, means for rocking the spool carriages for the insertion of the tufts, springs 40 carried by the transferring arms, but stationary relatively thereto during the spool gripping and releasing movements, and cams 5 for raising and lowering the springs by the movement of the transferring arms, substantially as described. 20th. The combination with spool carriages I, having catch springs 3 and arms 4, and carrier chains J, of the transferring arms K, having grips by which the springs are released and provided with arms between which the carriage is held and moving toward and from each other for gripping and releasing the spools, and springs 40 carried by the arms in their transferring movement and having cams 5 engaged by the arms on their movement from each other whereby the springs are raised against the spool carriages, substantially as described.

No. 48,311. Injector. (*Injecteur.*)

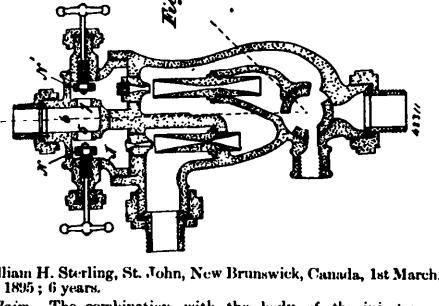

Fig 2.

William H. Sterling, St. John, New Brunswick, Canada, 1st March, 1895; 6 years.

Claim.—The combination with the body of the injector as described, of a top J, screwing thereon to make a tight joint, and