(No Model.)

W. B. QUIMBY.

MACHINE FOR TRIMMING CARRIAGE TOPS.

No. 458,252. Patented Aug. 25, 1891.

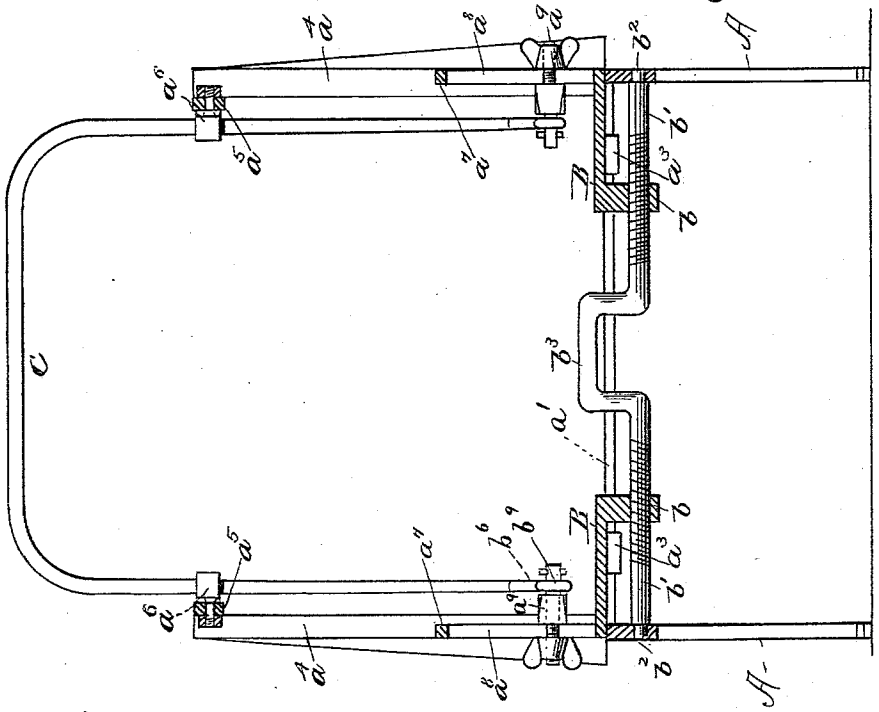


Fig. 2.

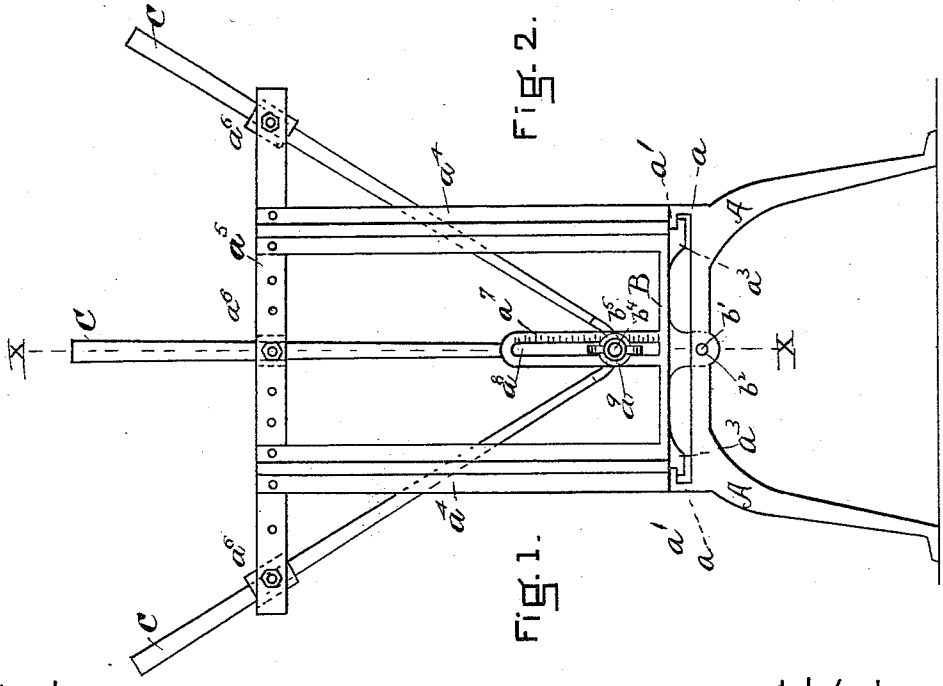


Fig. 1.

WITNESSES

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WILMOT B. QUIMBY, OF AMESBURY, MASSACHUSETTS.

MACHINE FOR TRIMMING CARRIAGE-TOPS.

SPECIFICATION forming part of Letters Patent No. 458,252, dated August 25, 1891.

Application filed July 31, 1889. Serial No. 319,306. (No model.)

To all whom it may concern:

Be it known that I, WILMOT B. QUIMBY, a resident of Amesbury, in the county of Essex and State of Massachusetts, have invented a new and useful Machine for Trimming Carriage-Tops, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to produce a combined series of devices the use of which will enable a workman to frame and finish the folding tops required for carriages separate from the bodies thereof, thus creating a new and distinct branch in the manufacture of said carriages, inasmuch as that the top can be made in advance of the bodies, if so required. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation showing the general construction of the machine and manner of securing the frame-bows in position; and Fig. 2, a vertical section on line x x, Fig. 1, showing in detail the different parts of the machine.

Similar letters refer to similar parts throughout the several views.

The construction is as follows: A A, Fig. 1, represents the end frame of the machine, which is rectangular in form and made of metal in any desired proportion. Its side rails a project above the level of the end frame A A, and terminate in an inwardly-projecting right-angular rib, forming a lip a', over which is passed the clutches a^3 of the sliding carriages B, of which there are two, one on each end of the frame A A, so fitted that they can be made to slide back or forth on the top surface of the side rails a when so desired, and are provided at the extreme outer edges of each with two arms a^4, which reach upward at right angles with their under surfaces, and to the extreme upper ends of which are secured a parallel cross-bar a^5, in which are drilled at the required distances holes for the reception of the sockets a^6, which are so constructed that they will grip firmly the carriage-top bows C. At the center between the arms a^4 and in line therewith is a flat upright bar a^7, in which is a central longitudinal slot a^8, provided with a straight-surface scale denoting inches and parts thereof, said slot a^8 being made in such proportion that a clamping-block a^9 can be passed up or down therein, and at the extreme inner edge of each carriage B, at the longitudinal center on the bottom surface and projecting downward therefrom, is a flange b, which is drilled out and threaded internally for the reception of the shaft b' b', which is pivoted in the ends of the frame of the machine, as shown at b^2, and is furnished at one end with a right and at the other end with a left hand screw-thread, and bent in the form of a crank at its center. (Shown at b^3, Fig. 2.)

In practice the ends of the shaft b' b' are threaded through the flanges b b and placed in the pivot-bearings b^2 b^2, Fig. 2, of the frame A A, when, by revolving the crank b^3 backward or forward, the carriages B are simultaneously sent out or brought in by the action of the reversed threads of the shaft-screws.

To operate the device, the workman first ascertains the diameter of the circle of which the folding top forms an arc, and by the aid of the scale on the surface of the upright bar a^7 adjusts and by the action of a thumb-nut secures the clamping-bolt a^9 at the center of said circle. Its inner end is then passed through and secured in the hole b^4 of the socket-joint b, which pivots together the lower ends of the carriage-top bows C. Their upper ends are then placed in the proper position, where they are held by the action of the sockets a^6 in such a manner that the workman can secure the covering intended therefor, and finish the top in readiness to be placed in position on the vehicle when so required. If in either event the frame-bows C are warped in or out side of the proper proportion, the defect is remedied by bringing in or sending out the carriages B after the bows C have been secured thereto; or if it is necessary to make the tops wider or narrower than the said bows were originally intended for the results can be accomplished by the same means; and I wish it to be understood that I do not bind myself to the exact mechanism herein described, as I know by experiment there are other mechanical means of attaining similar results, as the carriages B may be contrived in such a manner as to be impelled by gearing or belt; but I prefer the present construction as being the best, the principles

involved in this device being the simultaneous motion of the carriages B and of adjusting and securing the frame-bows C in the manner and for the purposes hereinbefore explained.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent is—

1. A machine for making and trimming the folding tops for buggies, which consists of the frame A, having a projecting rib a' and shaft-bearings b^2, the twin carriages B, having the clutches a^3, which bear against the under surfaces of the ribs a', and connected by the screw-shaft b', and provided with central upright bars a^7, and having side arms a^4, to which are secured the cross-bars a^5, provided with the sockets a^6, the central upright bars a^7, having longitudinal slots a^8 for the reception of clamping bolts a^9 and furnished with surface scales of inches and fractional parts thereof, and the clamping-bolts a^9, all the parts being constructed and arranged in such a manner as will enable the workman to set, adjust, and hold in the desired position while separate from the body thereof the frame-bows C of the folding top of a buggy preparatory to and during the process of placing and securing the covering thereon and of finishing said top in readiness to be placed on the vehicle, substantially as described and set forth.

2. In a machine for trimming folding tops for buggies, the combination of the twin carriages B, carrying fixed upwardly-extending arms a^4, having devices for holding the carriage-top bows and moved simultaneously to or from each other in the same longitudinal and horizontal plane, and the central longitudinal screw-shaft b', operating in the same plane with the twin carriages B, whereby said carriages are connected and moved, substantially as described, for the purposes set forth.

3. In a machine for making and trimming folding tops for buggies, the twin carriages B, having a transversely parallel and horizontal motion, whereby the bows C of the frame are made wider or narrower in equal proportion as may be required to suit the different widths of the seats, and central upright bars a^7, having longitudinal slots therein for the reception of clamping-bolts a^9 and furnished with surface scales of inches and parts thereof, whereby the bows C are centrally and perpendicularly adjusted to suit the various depths of the sides and backs thereof, in combination with the arms a^4, perforated cross-bars a^5, sockets a^6, clutches a^3, screw-shaft b', angular rib a' on the side rail a of the frame A, and the frame A, constructed and arranged in the manner substantially as described, for the purposes set forth.

4. In a machine for making and trimming the folding tops of buggies, the perforated cross-bars a^5 and sockets a^6, whereby the bows C are held in any desired angle vertically, in combination with and secured to the arms a^4 of the twin carriages B, having the clutches a^3 and connected by the crank-shaft b', the screw-shaft b', clutches a^3, and angular rib a' on the side rail a of the frame A, constructed and arranged substantially as described, for the purposes set forth.

5. In a machine for making and trimming the folding tops for buggies, in combination, the frame A, having the angular side rib a' and end bearings b^2 for the crank-shaft b', the screw-shaft b', bearings b^2, clutches a^3, bearing on the under surfaces of the ribs a' and secured to the bottom surfaces of the twin carriages B, the twin carriages B, connected by the screw-shaft b' and sliding on the upper surface of the side rails a of the frame A and having the upright arms a^4, and central upright bars a^7, having the longitudinal slots a^8 for the reception of the clamping-bolts a^9 and furnished with scales of inches and fractional parts thereof, the central upright bars a^7, slots a^8, and clamping-bolts a^9, upright arms a^4, having secured thereto the cross-bars a^5, provided with the sockets a^6, the cross-bar a^5, and sockets a^6, constructed and arranged substantially as described, for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 2d day of July, A. D. 1889.

WILMOT B. QUIMBY.

Witnesses:
FRED A. BROWN,
WILLIAM DUCHEMIN.