

(No Model.)

T. MACGLASHAN.
SUPPORT FOR BUGGY TOPS.

No. 521,415.

Patented June 12, 1894.

Fig. I.

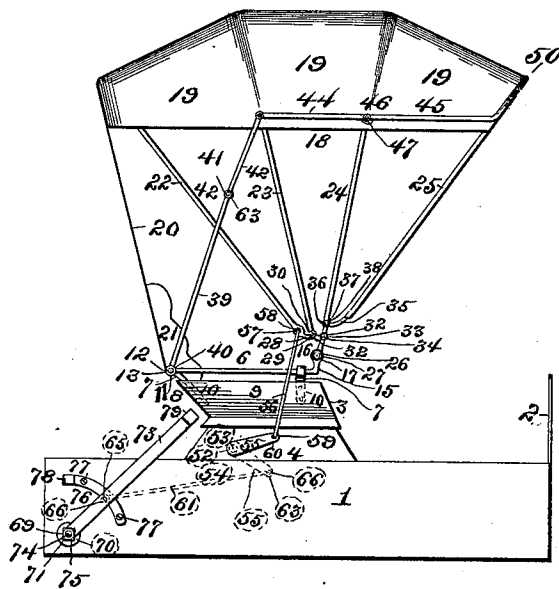


Fig. II.

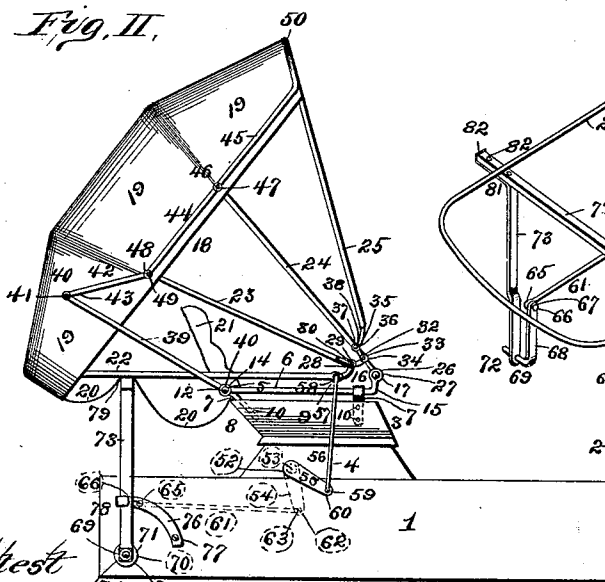
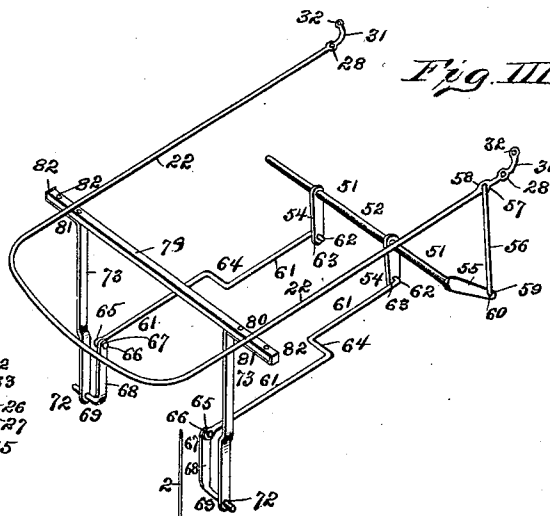


Fig. III.



Attest
Benj. A. Knight.

Inventor:
Thomas Mac Glashan
By *Knight Bros.* Attys.

UNITED STATES PATENT OFFICE.

THOMAS MACGLASHAN, OF SALEM, MISSOURI.

SUPPORT FOR BUGGY-TOPS.

SPECIFICATION forming part of Letters Patent No. 521,415, dated June 12, 1894.

Application filed November 18, 1893. Serial No. 491,369. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MACGLASHAN, of Salem, in the county of Dent and State of Missouri, have invented a certain new and useful Improvement in Automatic Lock-Supporting Buggy-Tops, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in supports for buggy tops and it consists in an automatic pivot center bearing buggy-top carrier and support, that respectively in both its elevated and in its lowered positions, exercises a center bearing retention lock to said position, with an automatically self-adjusting positive support for the top when thrown back that prevents all adverse leverage strain of either the top or of the seat that carries said top, and the invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a side elevation of the buggy body and top, and shows said top elevated past the center bearing of its automatically operated carrier and support, and thus balance locked in its elevated position, with the top supporting frame thrown forward in its inoperative position. Fig. II is a side elevation, showing the buggy top lowered and its rear bow resting on the then automatically elevated supporting frame; and Fig. III is a perspective view of the supporting frame, the automatic means by which said frame is respectively elevated and lowered, and shows the rear bow resting on said supporting frame.

Referring to the drawings:—1 represents the body of the buggy, 2 its dash, 3 its seat, and 4 the elevating bracket-straps that support said seat.

5 represents the surmounting back rail and 6 the elbow rails that are secured in their slightly elevated positions by the eyelet brackets 7 to the back 8 and ends 9 of said seat, by means of the rivets or bolts 10. The said elbow rails have swell ends 11 at their rear ends in the eyelets 12 within which the screw tips 13 of said back rail pass and are seated, and are there held by the small key nuts 14. The said elbow rails have elevated bow ends 15 in front in the swell terminals 16 of which are the eyelets 17.

18 represents the multiple bow frame, on which is mounted the hood 19, and from which hood hangs the pendent back curtain 20, and 21 is the back cushion to the seat.

22 represents the rear bow of the said multiple bow frame, which constitutes the layer bow, (as will be hereinafter set forth,) when the hood is thrown back on its support, (hereinafter described.)

23 is the second bow, 24 the third, which is the main carrier bow, and 25 is the fourth or front bow. The said bow 24, the second from the front, is the main junction holder bow that pivotally carries the hood frame by means of its swell feet 26, the eyelets 27 in which, are placed in corresponding position with the eyelets 17 in the swell ends 16, of the elevated bow terminals 15 of the elbow rails 6, on each side of the buggy seat.

28 represents eyelet swells near the junction ends of the rear bow 22. The eyelet swell-heads 29 of the junction ends of the second bow 23 are pivotally united to said eyelet swells 28, by the small screw nut bolts 30.

31 are curved necks at the junction ends of said rear bow 22, which terminate in eyelet swells 32 that are in juxtaposition with the eyelet swells 33 on the main carrier bow 24, where said parts are pivotally connected by the screw nut bolts 34.

35 represents the junction curve necks of the front bow 25, the eyelet swells 36 on the ends of which are in juxtaposition with the eyelet swells 37 on the main carrier bow 24 where they are pivotally connected by the screw nut bolt 38.

39 represents the lower sections of the folding brace arms, the eyelet swells 40 at the lower ends of which are pivotally seated on and near the ends of the back rail 5, that connects with the elbow rails 6 of the seat. Joint elbow eyelet swells 41, on said lower sections 39, and on the upper sections 42 of said brace arms, are joint connected by the pivot screw nut bolts or rivets 43.

44 represents the rear, and 45 the forward sections of the upper folding rod arms of the collapsing hood 19, which sections are pivotally connected together at their swell eyelet elbow joints 46 by the pivot screw nut bolts or rivets 47, and are alike connected to the upper brace arms 42 by the swell elbow eye-

let joints 48 by the screw nut bolts or rivets 49, and said forward arms 45 are connected together by the surmounting hood-bow 50. The bows of said hood frame may be made to collapse together, when thrown back, or they may, when required, be held or retained in an uncollapsed condition, as shown in Fig. II, as the joints are sufficiently stiff to retain said position when so required; but in either case the said frame, with the hood it carries, elevates and lowers on the pivot swell lugs, or feet 26 of the main carrier bow 24.

I now come to the description of some of the most important elements of my invention, that provide an automatic lock support, and brace hold of the buggy top, and which is preferably throughout most of its course a duplex system, the automatically driven parts on one side being duplicated on the other, from the drive crank shaft to the supporting rest.

51 represents compound lever rocker-arms that are constituted of the turn-shaft 52, that passes through the journal hole 53 in one side of the buggy body or seat bracket, and nearly across from side to side of its interior, and rigidly mounted on and secured to which turn-shaft are the two pendent crank levers 54, 54, on each side within said buggy body, and outside said body the operative crank lever 55 is integrally mounted on said shaft at about a right angle thereto, and said crank is operatively connected to the lower bow 22 of the hood 19, by the link rod 56, the upper hook 57 of which is seated and works in the eyelet swell 58 in said bow, and its lower hook 59 is seated and works in the link hole 60, in the swing end of said operative crank lever 55.

61, 61, are duplicate, operative link rods, the forward hooks 62, 62, of which engage in the link holes 63, 63, in the pendent crank levers 54, 54, within the buggy body. 64, 64 are right angle turns in said link rods 61, that accommodate them to non-interference with the seat pedestals. The eyelet swell rear ends 65, 65, of said link rods are secured by the screw nut bolts or rivets 66, 66, to the perforate ends 67, 67, of the crank levers 68, 68, the angle feet 69, 69, of which cranks pass through their respective perforate seats 70, 70, in the sides of the buggy body 1, through the anti-friction washers 71, 71, and through the perforate feet 72, 72, of the duplicate pedestals 73, 73, outside the buggy body, to which feet their screw tips 74, 74, are rigidly secured by the screw nuts 75, 75.

76, 76, represent arc plates that are secured by screw bolts 77, 77, to the outside of the sides of the buggy body, and which plates constitute anti-friction guide tracks to said pedestals, and by means of their terminal hooks 78, 78, firmly hold said pedestals in their vertical operative positions.

79 represents a cushion bar that is bedded and secured by bolts 80 in the angle bracket tops 81, 81, of said pedestals 73, 73, within their end angle flanges 82, 82.

Now it will be seen that when the buggy hood is elevated, as shown in Fig. I, by means of the above described automatically operated crank link rod connection from the pedestal cushion bar frame, to said hood, said frame is tilted forward and the pedestals and cushion bar, become a counterbalance that locks the hood in its elevated position. Again when the hood is thrown back as shown in Fig. II, the said combination counter-balance and supporter frame, as above described automatically elevates the duplicate pedestals 73, 73, and their surmounting cushion bar 79, and the top which has then become its own counterbalance lock; rests securely and without any adverse strain on said cushion bar 79, which has just in the time of need been automatically elevated into its supporting position. It will thus be seen that the said balance lock on the one hand is effected by the automatic forward projection of the supporter frame, and the support frame of the hood on the other hand is by the reverse action, automatically elevated into position to hold said hood, both from adverse strain as it is thrown back, as also from the adverse concussion strain incident to the travel of the buggy, especially over rough roads. Thus when the top is elevated, it is automatically locked to its elevation and when lowered it is both automatically supported and locked in said position.

I have shown and described, and so prefer, a large portion of the automatically crank operative means for adjusting the combination buggy top lock balance, and support, within the buggy bed, but I do not so confine myself, for it is evident that said parts could be located as shown in my caveat, preparatory to this application, outside said buggy bed, without any departure from the essential features of this invention.

I may also make slight changes and transposition of elements in the construction without any essential departure from the essential elements of the device as follows:

Instead of having the pedestals 73 on the outside of the buggy bed, they can be put on the inside of said bed, and the crank lever 68 with its angle feet 69, can be dispensed with, and the operative eyelet swells 65 of the link rods 61 can be made to connect direct with the pedestals 73, when said pedestals are on the inside of the buggy bed. This in some cases may be the best construction of said operative elements, as it is less complicated, and it is all hid from view by being placed on the inside, but on the other hand, said modification is not always practicable, as in some cases the boot of the buggy interferes with having the pedestals 73 on the inside. But I desire to reserve the right and privilege of so making and constructing my invention, when it may be so preferred.

I claim as my invention—

1. In an automatic support for buggy tops, the combination of the collapsing top 19, and

the automatically elevated pedestals 73 and supporting balance bar 79; substantially as shown and described.

2. In an automatic support for buggy tops, the combination of the buggy body 1, the hood 19, the system of pivoted, self-adjusting rocker arms, pedestals and combined supporting bar and balance lock; substantially as shown and described.

3. In an automatic support for buggy tops, the combination of the collapsing top, the compound lever crank rocker arms 51, the link rod 56, the pedestals 73, and the supporting and balance bar 79, with the connecting drive and draw rods 61, and crank levers 68; substantially as shown and described.

4. In an automatic support for buggy tops, the combination of the collapsing top, with its bows, the link rod 56, the compound lever rocker arms 51 having the shaft 52, and the crank levers 54, 54 and 55, the operative link

rods 61, the crank levers 68, having the angle feet 69, the pedestals 73 and the bar 79; substantially as shown and described.

5. In an automatic support for buggy tops, the combination of the buggy top, the bow frame, the top cover or hood 19, the pivotal connection of said bow frame to said body, the pivotal operative link rod 56, the pivotally attached compound lever rocker arms, the link rods 61, the crank levers 68, having the angle feet 69, the pedestals 73, the combined supporting bar and balance lock 79, the folding brace arms 39 and 42, the rear and forward sections 44 and 45 of the upper folding arms, with the surmounting hood bow 50, and the anti-friction arc plates 76, with their holder hooks 78; substantially as described.

THOMAS MACGLASHAN.

In presence of—

E. B. SMITH,

A. J. ARTHUR.