

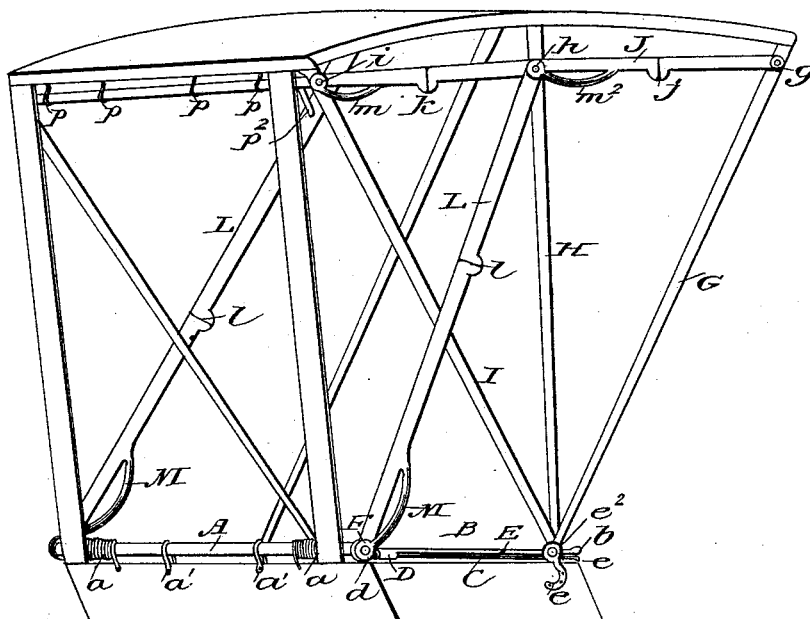
(No Model.)

J. T. BIBB.  
BUGGY TOP.

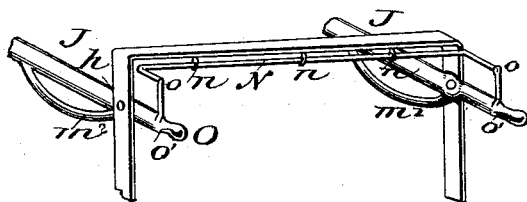
No. 489,451.

Patented Jan. 10, 1893.

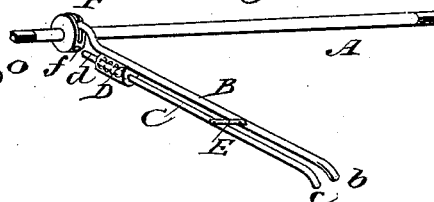
*Fig.1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOHN T. BIBB, OF TACOMA, WASHINGTON.

## BUGGY-TOP.

SPECIFICATION forming part of Letters Patent No. 489,451, dated January 10, 1893.

Application filed April 18, 1892. Serial No. 429,696. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. BIBB, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Buggy-Tops, of which the following is a specification, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to improvements in buggy tops.

The objects of my improvements, are, first:—To provide an automatic appliance for dropping buggy tops without having to break separately, and by hand, the joints of the braces that hold the top up. Second:—To provide an automatic appliance for breaking simultaneously the joints of the braces that hold the top spread. Third:—To provide an automatic appliance for closing the joints of any or all of the braces if from any cause they become loose or fail to close when the top is raised. Fourth:—To provide an appliance for breaking the shock and relieving the strain on the buggy bows when the top falls back. Fifth:—To provide an appliance for locking the braces that hold the top up. I attain these objects by the mechanism illustrated in the accompanying drawings which form part of this specification, and in which

Figure 1. is a view of a buggy top showing the back and right side of same, with my improvements partially shown. Fig. 2 is a buggy bow with my device for automatically breaking or shutting the joints of the side braces that hold the top spread. Fig. 3. is a rod and lever combined for automatically dropping the top.

Similar letters of reference indicate similar parts of the respective drawings.

Referring to Fig. 1. A, is a small iron rod, or shaft, fastened by straps  $a'$ ,  $a'$ ,  $-a'$  to back of buggy seat, passing from side to side of same. The ends of rod A, are square tenons. L—L are the two side braces that hold the top up and  $l-l$  are their joints. The eyelets in either end of L—L are round, so as to turn freely on the ends of rod A, and the nubs  $h-h$ , Fig. 2. M—M are curved braces with square holes in one end to fit on the square ends of rod A, while the other ends are welded, or se-

curely fastened to braces L—L at point of meeting.  $a-a$  are coil springs fastened to rod A, at the center of the wire of which they are made and wound in the same direction around rod A, having their ends fastened to the back of the buggy seat.

B, (see also Fig. 3,) is a lever, that works inside the bows and curtains, having a round eyelet in the end to fit on rod A, so as to revolve freely, and is composed of the parts C—D—E—F and  $b-c-d-f$ . C, is a small rod running directly under B, connected with it by the pivoted bar E, then passes into tube D, where it connects with bolt  $d$ , which fits into socket  $f$ , in the face of F, (see Fig. 3.) which is a collar securely fastened to rod A, so as not to revolve on rod A. This collar, F, is slotted half way around on its face. The eyeleted end of lever B, is slipped into the slot in F, and together they are put on rod A, and the collar securely fastened to A, while B, revolves freely and when rod A turns backward, B, remains in its normal position by the operator's side, as shown in Fig. 1, the slot in F allowing rod A and itself to turn, leaving B free.  $b$  and  $c$  are the handles of B and C. Inside of the tube D is a spring that keeps bolt  $d$  away from the face of collar F. Bolt  $d$  is connected with rod C inside of tube D.  $e$  is a curved iron by which the top is fastened to the seat. On the inner side of  $e$  at  $e^2$  is a catch to hold lever B down when it is pushed under it. G H and I are the buggy bows. J and K are the side braces that hold the top spread and have round holes in the ends that allow them to revolve freely on the nubs  $g h$  and  $i$ ;  $j$  and  $k$  are the joints of these braces. The outer ends of nubs  $g h$  and  $i$  where the ends of braces J K and L fit on are round, to allow them to revolve, while the extreme ends of  $h$  and  $i$  that curved braces  $m$  and  $m^2$  fit on are square, and  $m$  and  $m^2$  are fastened to braces J K as shown for M M. Nubs  $h, h$ , (see also Fig. 2) pass through bow H, and have the inner end square. The parts of all these nubs where they pass through the bows are round and revolve in the bow. Although I have not shown the opposite side of the buggy top, it will be understood that it is exactly similar to the side shown, and the opposite counterparts work with and like the parts shown. P, is an iron rod, or shaft, pass-

ing from side to side of the top, both ends passing through bow I, forming the nubs  $i-i$ .  $p^2$  is a handle to turn rod P, with.  $p, p, p, p$ , are straps that fasten rod P to bow I.

- 5 Referring to Fig. 2 we have the middle bow H, immediately under which is fastened, by straps  $n, n, n$ , the cranked rod N, the cranks extending to  $o-o$  at which point they are pivoted to the connecting bars  $o' o'$ , which, in turn, are pivoted to O, O. O, O, are handles on the inside of H, having square holes in the ends to fit the square ends of nubs  $h, h$ . J, J, and  $m$  and  $m^2$  are braces before described.

- 15 Referring to Fig. 3, we have lever B and rod A combined, the mechanism of which is already made plain.

- Operation. The operator can, while either in the buggy, or beside it, control every motion of the top, from one position. If in the buggy and he desires to lower the top, he takes hold of handle  $b$ , on lever B, (Fig. 1,) lifts up gently and B coming in contact with the solid part of collar F, turns the rod A backward and braces M, M, responding to the motion of A break the joints of braces L, L, and the top falls back, lever B taking its normal position. If, while in the buggy it is desired to break the joints of braces J, J, and fold the front part of the top, the operator takes hold of either of the handles O, O, (Fig. 2,) pulls down, whereupon rod N turns and  $m m^2$  responding to its motion, break the joints of braces J, J, (Fig. 2,) and the bows are drawn together, leaving the handles O, O, parallel with and against bow H, out of the way. Reverse this action and the joints will be forced closed, and the top spread. When on the ground, the operator can drop the top by taking hold of either of the braces L, L, and pushing back on it, when, through the action of rod A and braces M, M, the opposite joint is broken simultaneously and the top falls. So also for the action on braces J, K, and their opposite counterparts. Break one joint and the other breaks at the same time, as the rods N and P must take every motion of the braces J and K and their opposite duplicates. It will readily be seen that when any one of the rods A, N, or P, turns, take A for illustration, the force necessary to break the joints  $l-l$  of L, L, is applied through braces M, M, at a point about midway between the lower ends of L, L, and their middle joints, lessening the power necessary to accomplish this end, and also strengthening the entire mechanism.

- I am aware that all the curved braces herein described might be done away with and the same action obtained through other arrangements; for instance, fitting braces J, K, and their opposite duplicates and L, L, onto the ends of the different rods, as the curved braces are fitted, and I, therefore, reserve the right to use them if preferred. If when the top is raised the joints of braces L, L, do not close, as sometimes happens, or if from jarring they open, the operator can close them by grasp-

ing both handles  $b c$  of lever B, and drawing them together which through the action of E on rod C forces the bolt  $d$ , into socket  $f$ , then by bearing down rod A is turned forward and the joints closed. In this position the lever B can be placed under the catch  $e^2$  and the joints  $l-l$ , of braces L, L, are locked. The springs  $a, a$ , are so adjusted as to be drawn comparatively tight by the turning of rod A, just as the top strikes A, in falling back, thereby relieving the shock and strain the bows usually receive when the top falls.

Rod N, Fig. 2, is made with the cranks to allow it to be placed immediately under bow H, out of the way of occupants of the buggy, while rod P, Fig. 1, being on the rear bow does not interfere and is consequently dropped down on bow I, on a level with the eyelets of this bow, which removes the necessity of the cranks. Although I prefer this arrangement of these rods, obviously other arrangements of them might be adopted which would operate successfully, and I, therefore, reserve the right to use them, if preferred.

I do not limit myself to the exact construction of devices herein described, as they may be variously modified in a mechanical sense without departing from the spirit of my invention.

From the foregoing it will be seen that my invention is strictly automatical, as claimed. Thus, by lifting on lever B, or pushing on either of the braces L, L, the top instantly drops back and the springs  $a, a$ , relieve the shock. By bearing down on  $p^2$  or O, O, or by pushing up on braces J, K, or their counterparts, the top is folded, enabling the occupants to get in or out of the buggy without hinderance, and by these easy and instant manipulations of the top, accidents can be averted, as the occupants can drop the top and get out of the buggy if necessary. It is also evident that my device is simple and inexpensive, and susceptible of being put on any buggy top without interfering with any of its parts.

Having described my invention, what I claim and desire to secure by Letters Patent of the United States, is

1. In a device for operating buggy tops, the combination with the rotating rod A supported in suitable bearings, of the jointed braces L L loosely connected at their lower ends to the rod A and at their upper ends to the buggy bows, a collar F secured on the rod A and having a slot in its periphery, braces M M connected at their upper ends to the braces L L and at their lower ends to the rod A to be moved therewith, and the lever B having an eyelet at one end which passes through the slot in the collar F and fits loosely on the rod A, substantially as and for the purpose specified.

2. In a device for operating buggy tops, the combination with the rotating rod A and the jointed braces L L connected to the buggy bows and the rods A to be operated by the

latter, of the collar F secured on the rod A  
and having a slot and also a socket *f* in its  
periphery, the lever B having an eyelet on  
one end which passes through the slot in the  
5 collar and fits over the rod A, the rod C  
pivotally connected to the lever B by the bar  
E to engage the socket *f* when the lever B and  
rod C are pressed together and a locking de-

vice *e*<sup>2</sup> to engage the lever B, substantially as  
and for the purpose specified. 10

In testimony whereof I hereunto set my sig-  
nature in the presence of two witnesses.

JOHN T. BIBB.

Witnesses:

H. T. SABIN,  
M. A. DAILEY.