T. A. BRETHOUWER.

ATTACHMENT FOR BUGGY TOPS.

APPLICATION FILED AUG. 25, 1908.

930,641. **Patented Aug. 10, 1909.**

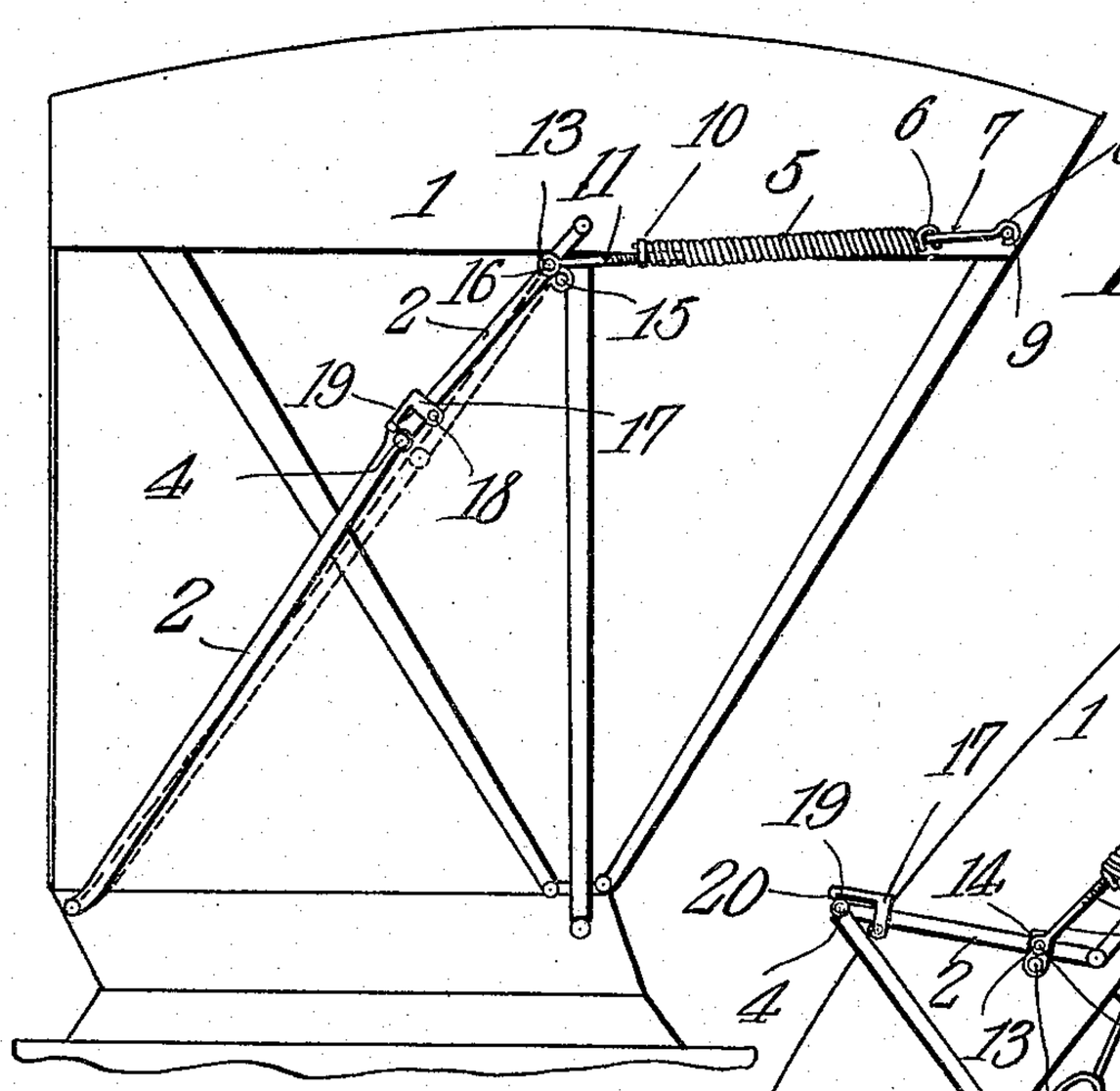

Fig. 1.

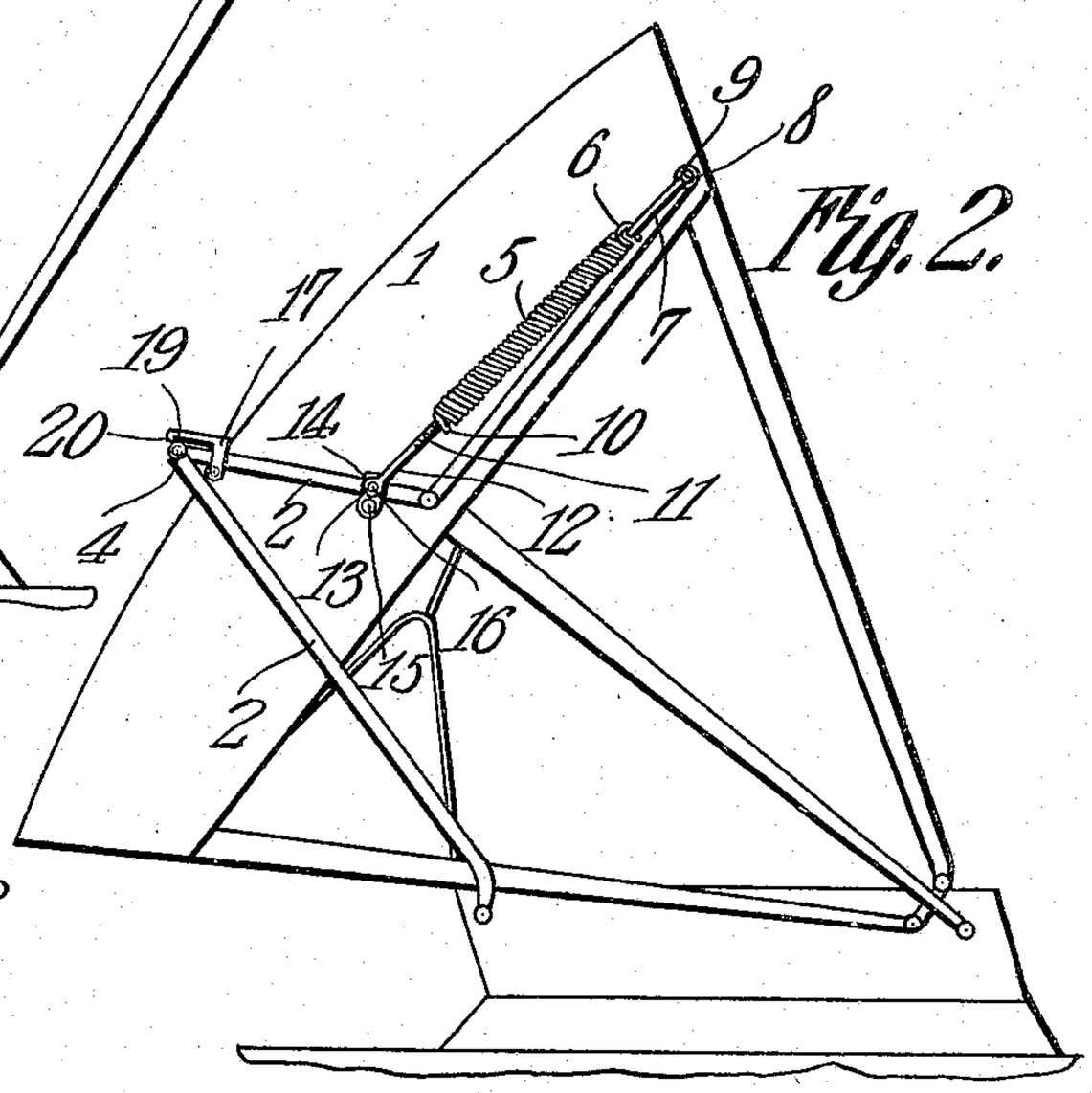

Fig. 2.

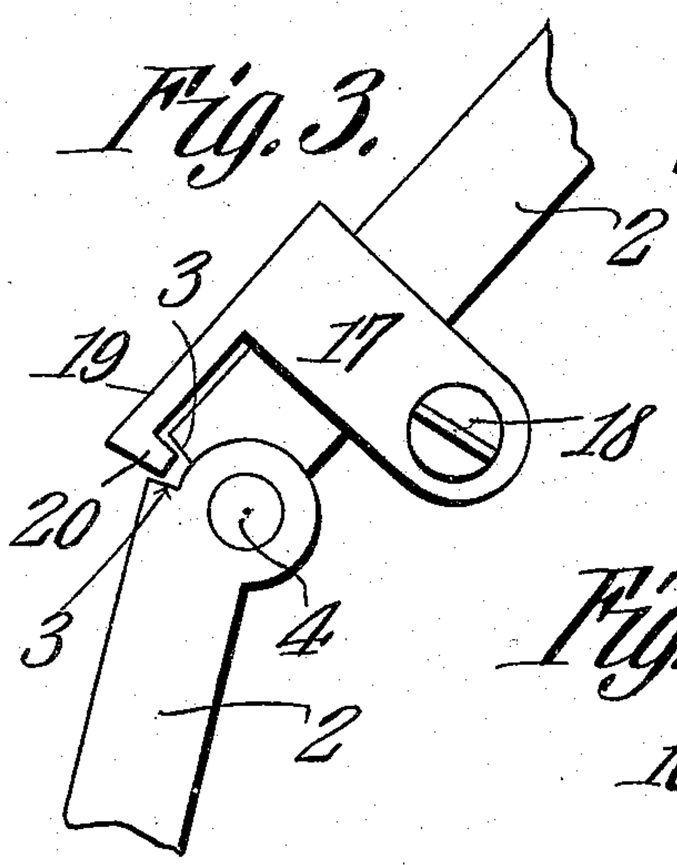

Fig. 3.

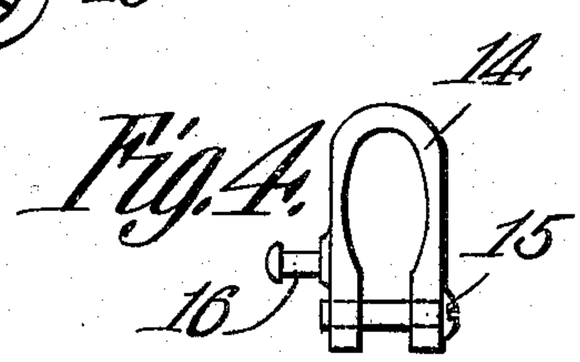

Fig. 4.

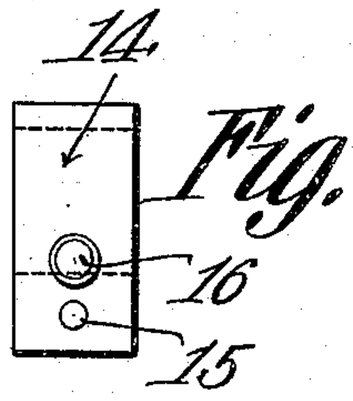

Fig. 5.

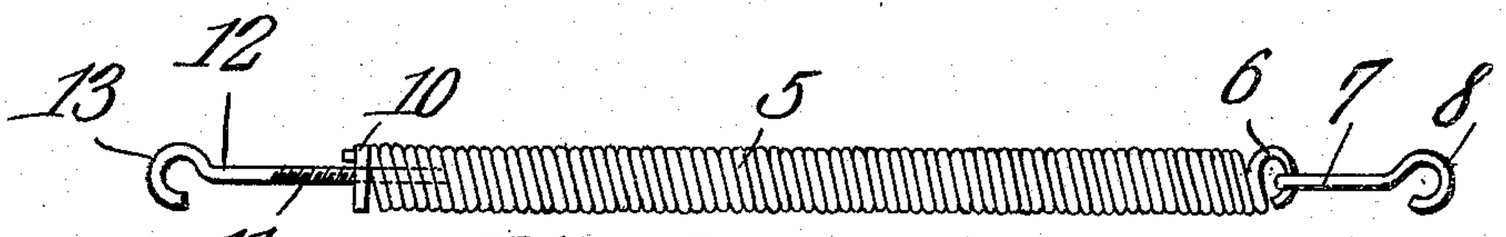

Fig. 6.

Witnesses

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ATTACHMENT FOR BUGGY-TOPS.

No. 930,641. Specification of Letters Patent. Patented Aug. 10, 1909.

Application filed August 25, 1908. Serial No. 450,201.

To all whom it may concern:

Be it known that I, TONE A. BRETHOUWER, a citizen of the United States, residing at Prairie View, in the county of Phillips and State of Kansas, have invented a new and useful Attachment for Buggy-Tops, of which the following is a specification.

This invention has reference to improvements in attachments for buggy tops and its object is to provide a means attachable to an ordinary buggy top for facilitating the raising and lowering of the same.

When the side curtains of a buggy top are in place it is extremely difficult to let the buggy top down without getting out of the buggy and this difficulty often leads to serious and even fatal results in the case of a runaway.

With the present device the occupant of a buggy may raise or lower the top with the greatest facility and if necessary with the use of but one hand. Furthermore, the device prevents rebounding of the buggy top when down as often occurs when the buggy is being driven over rough roads and such rebounding soon racks a buggy top out of shape. Again buggy tops after having been used for a while become more or less loose and the side props do not properly hold the top solid and then the buggy top will sway to and fro especially on rough roads and this not only soon racks the top out of shape but it also is the cause of considerable noise. By the present invention these various objectionable features are entirely obviated and this is accomplished without in any manner changing or modifying the ordinary buggy top, the present invention being attachable or detachable at will, and without requiring any change whatsoever in the buggy top irons.

The invention comprises essentially a spring, which if desired may be so constructed as to be elongated or shortened as may be necessary, and there is also provided a clip adapted to be attached to the side prop.

The invention likewise comprises a dog member adapted to coact with the hinge or knuckle joint of the side prop to prevent the two members of the side prop from being brought into line one with the other. By means of the dog the side prop is always in condition to be flexed, when the top is up by simply pushing the top rearwardly while the spring is so arranged as to maintain the top either in the up position or the down position, the spring being always under such a degree of tension as to hold the top firmly in either position.

The invention will be best understood from a consideration of the following detail description taken in connection with the accompanying drawings forming a part of this specification in which drawings,

Figure 1 is a side view of a buggy top in the up position showing the attachment applied. Fig. 2 is a similar view of a buggy top in the lowered position. Fig. 3 is a detail view illustrating the action of the dog applied to the knuckle or hinge joint of the side bar or prop. Figs. 4 and 5 are views of the clip to be applied to the hinged side bar for the attachment of one end of the spring thereto. Fig. 6 is a view of the spring detached from the buggy top.

Referring to the drawings there is shown an ordinary buggy top 1 which may be taken as illustrative of any type of buggy top in which the buggy top is held in the up or raised position by means of a hinged side bar 2, the latter locking when the two members of the side bar are brought into line one with the other. There are of course two side bars one on each side of the buggy top and each bar is formed of two members hinged together with coacting shoulders on the meeting ends of the two members as indicated at 3 while the hinge is shown at 4, the said hinge and shoulders being best seen in Fig. 3.

There is provided a helical spring 5 which may be of the extension type, that is the spring is put under stress when extended. As shown in Fig. 6 one end of the spring is provided with an eye 6 to which is pivoted a link 7 terminating in a hook 8 which latter is adapted to be applied to a button 9 at the upper front end of the buggy top, such button being usually present in ordinary types of buggy tops. The other end of the spring may be likewise formed but it is preferable to provide the said end of the spring with a nut 10 into which may be screwed the threaded end 11 of a rod 12 terminating in a hook 13 thus permitting the effective length of the spring to be adjusted to adapt it to different sizes of buggy tops. The spring however may be used without this adjustable feature if so desired.

There is provided a U-shaped clip 14 having the free end of its legs connected by a screw 15 in such manner that the screw may be removed and the clip be sprung over one

member of the hinged side bar 2 near the upper hinged end thereof and afterward the clip may be securely clamped in place by the reinsertion and screwing up of the screw 15. On one side of the clip 14 there is formed a projecting headed pin 16 adapted to receive the hooked end 13 of the spring 5.

There are of course provided two clips 14 one for each side bar 2 and these clips are secured to the side bars near their upper hinged ends. The springs are then applied to the buttons 9 and pins 16 and the springs are of such length that when so applied the said springs are under considerable tension.

When the buggy top is up the springs 5 on each side thereof tend to draw the hinged side bar or prop 2 toward the straight or locked position and the spring is strong enough to resist any tendency of the top to collapse or move toward the lowered position under the shocks and jars incident to the traveling of the buggy on rough roads.

When the buggy top is moved toward the lowered position the hinge 4 is flexed and the upper member 2 of the corresponding side prop moves about its upper pivoted end. This causes a stretching of the spring until the spring is carried past the dead center and then the retraction of the spring will tend to aid in further flexing the side prop as the buggy top is moved toward the lowered position. When the said lowered position is reached the side prop is then under the action of the corresponding spring which action tends at all times to maintain the buggy top in the lowered position, and since this tendency is constantly exerted, the rebounding of the buggy top under the shocks and jars incident to the traveling of the buggy over rough roads is resisted by the spring most effectively.

In order that the buggy top may be readily lowered by simple grasping the forward side bars of the said top the side props are always maintained in a slightly flexed position when the buggy top is raised and are not permitted to move to the locked position, for otherwise the buggy top could not be lowered without first flexing the said side props by moving them away from their alined position.

To maintain each stay or side prop 2 in a slightly flexed position even when the buggy top is fully raised there is provided a clip 17 shaped similar to the clip 14 and provided with a screw 18 for clamping it to one member of the stay or side prop 2. The clip 17 is provided with a projecting tongue 19 ending in a tooth 20 adapted when the clip 17 is properly adjusted upon a corresponding one of the members of the side prop to enter between the shoulders 3 so as to be engaged by the latter when the side prop is moved to the alined position and operate as a dog or stop for said side prop so as to prevent it from coming into full alinement and thereby be maintained in a slightly flexed position when the top is raised. The tendency of the spring 5 is to pull the members of the side props into full alinement but this is prevented by the stop or dog 20 so that the side props are always in position to yield to a force tending to lower the buggy top provided that force be sufficient to overcome the resistance of the springs 5.

The shocks and jars to which the buggy may be subjected in traveling over rough roads is insufficient to cause any appreciable yielding of the springs 5 but the occupant of the buggy may by grasping the front bars of the sides of the frame of the buggy top easily apply force enough to extend the springs and so move the buggy top toward the lowered position. As soon as this movement has progressed a short distance the flexure of the side props is sufficient to carry the clip 14 beyond the dead center of the upper pivot of the side prop and then the springs will act to automatically lower the buggy top to its lowermost position.

If the buggy top be in the down position and it is desirable to raise the same to the up position then the occupant of the buggy has but to grasp the side irons and pull the top upward in the usual manner, but as soon as the springs have passed the dead center of the upper pivot of the side props then the springs will automatically act to complete the raising of the top and will hold the top in the raised position without the necessity of the said top being locked in the raised position as is necessary in ordinary buggy tops without the attachment forming the subject matter of the present invention.

The tension of the spring 5 may be varied by adjusting the clip 14 to different distances from the pivot point of the upper section of the side prop, or the tension of the spring may be varied by screwing the rod 12 to a greater or less extent into the nut 10, or both of these methods may be employed for adjusting the tension of the spring.

It will be seen that whether the side curtains of the buggy top be up or not, this in no wise interferes with the raising and lowering of the buggy top as desired since it is not necessary to reach the side props, more especially when it is desired to lower the buggy top. Nor is it necessary to get out of the buggy in order to lower the buggy top when the side curtains are in place.

What is claimed is:—

1. In a buggy top, the combination with a spring, means for attaching the same at one end to a rigid portion of the buggy top, means for attaching the other end of said spring to the hinged side prop of the buggy top at one side of its connection with said buggy top, and means for preventing locking alinement of the said props.

2. In a buggy top, the combination with a

hinged locking side prop, of elastic means connected to the hinged side prop and yieldingly maintaining the buggy top at either extreme of its movement, and means for preventing the movement of the prop members into locking alinement.

3. An attachment for buggy tops comprising a spring, means for attaching the same at one end to a rigid portion of the buggy top, means for attaching the other end of the spring to the hinged side prop of the buggy top at one side of its pivot connection to said buggy top, and a dog or stop adapted to be interposed between the ends of the hinged members of the side props for preventing locking alinement thereof.

4. An attachment for buggy tops comprising a spring, a clip for securing said spring to the side prop of the buggy top and a dog or stop adapted to be interposed between the meeting ends of the hinged portion of the side props.

5. An attachment for buggy tops comprising a spring, a clip adapted to be secured to the side prop of a buggy top and provided with a pin for the reception of one end of the spring, and a clip also adapted to be attached to the side prop of the buggy top and provided with a tooth or stop adapted to enter between the meeting edges or shoulders of the hinge of the side prop.

6. An attachment for buggy tops provided with hinged, locking side props, comprising elastic means for moving the side props toward the alined or locking position, and means interposable between the meeting ends of the hinge of the side props for preventing alinement of said side props.

7. An attachment for buggy tops provided with hinged locking side props, comprising elastic means for yieldingly maintaining the buggy top at either extreme of its movement, and a stop or dog attachable to the hinged locking side props adjacent to the hinge with the dog entering between the meeting ends of the hinged portion of said side props to prevent locking alinement thereof.

8. An attachment for buggy tops provided with hinged locking side props, comprising a spring having securing means at each end and adjustable as to the distance between said securing means, a clip adapted to clamp upon a side prop, and provided with a projecting pin to receive one end of the spring and another clip also adapted to clamp upon the side prop and provided with a projecting tooth or stop adapted to enter between the meeting ends of the members of the side props at the hinge.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

TONE A. BRETHOUWER.

Witnesses:

J. S. GARBERSON,

FRANK C. DENMAN.