No. 672,023. Patented Apr. 16, 1901.

G. G. TIERNEY.

VEHICLE TOP ATTACHMENT.

(Application filed Mar. 5, 1901.)

(No Model.)

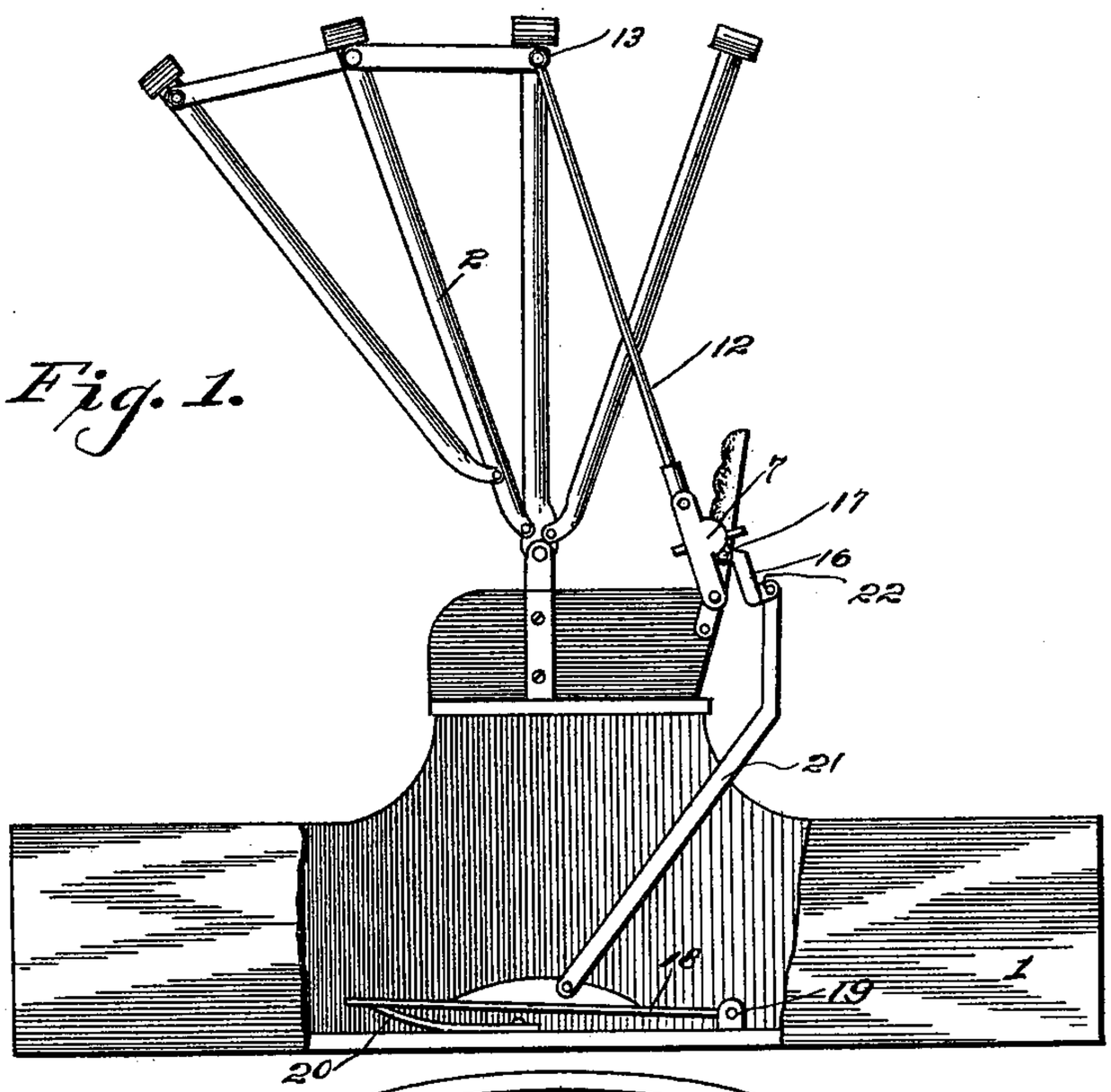


Fig. 1.

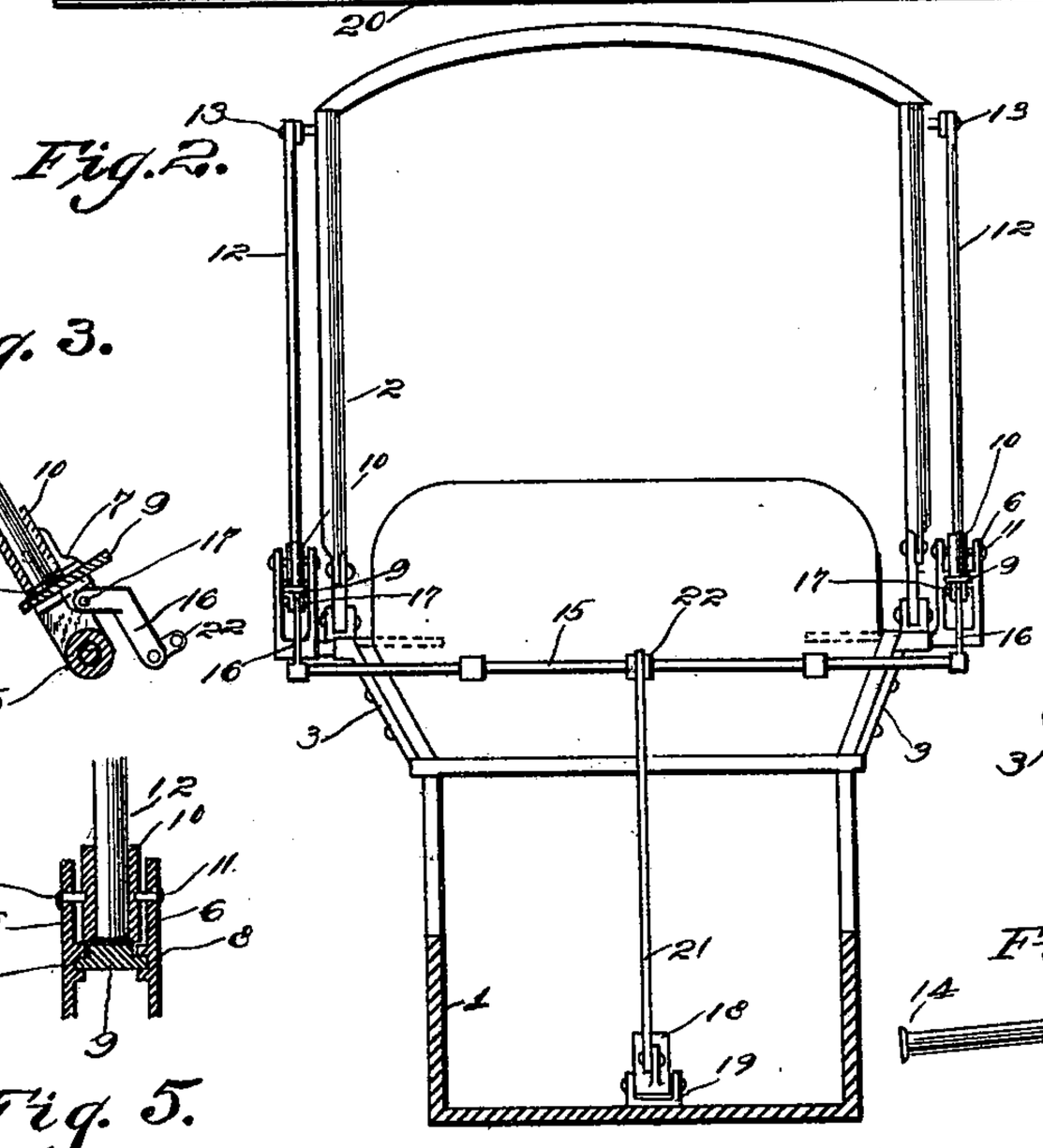


Fig. 2.

Fig. 3.

Fig. 5.

Fig. 4.

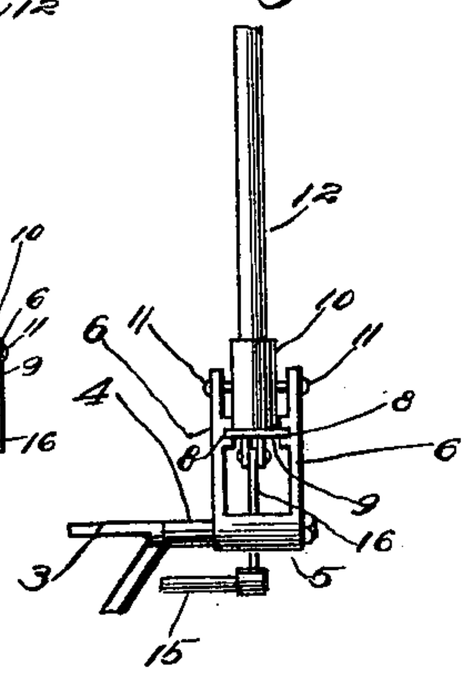
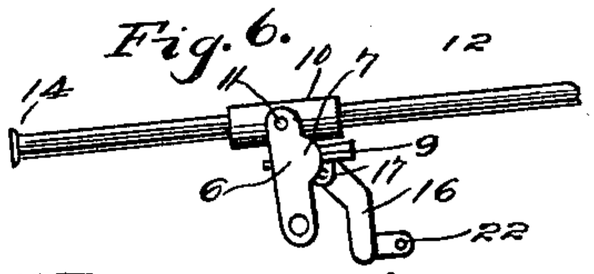


Fig. 6.



Witnesses

Fred. C. Maynard.

Hez. Shepard.

Inventor

G. G. Tierney.

By C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE G. TIERNEY, OF NEW HAMPTON, IOWA, ASSIGNOR OF ONE-HALF TO BARNEY C. TIERNEY, OF SAME PLACE.

VEHICLE-TOP ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 672,023, dated April 16, 1901.

Application filed March 5, 1901. Serial No. 49,872. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. TIERNEY, a citizen of the United States, residing at New Hampton, in the county of Chickasaw and State of Iowa, have invented a new and useful Vehicle-Top Attachment, of which the following is a specification.

This invention relates to foldable vehicle-tops, and has for one object to provide improved means for supporting the top in its normal or set-up position and arranged for convenient manipulation to fold the top whenever desired. It is furthermore designed to provide the supporting means in the nature of an attachment, so that it may be conveniently attached to any ordinary buggy or other vehicle top without altering the said top or the body of the vehicle.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of a foldable top and a vehicle-body having the present invention applied thereto, a portion of the side of the vehicle being broken away to show the means whereby the device is manipulated to lock and unlock the foldable top. Fig. 2 is a rear elevation thereof. Fig. 3 is an enlarged detail sectional view taken through the interlocking connection between the attachment and the vehicle-top. Fig. 4 is an enlarged detail front elevation thereof. Fig. 5 is a detail transverse sectional view taken through the locking-wedge. Fig. 6 is a detail side elevation showing the device in the folded position of the top.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

In order that the invention may be fully understood, I have illustrated in the drawings the body of a buggy 1, having an ordinary foldable top 2, which is hingedly connected to the forward portions of the opposite ends of the seat in any common or ordinary manner.

It will be understood that duplicate devices are provided at opposite sides of the vehicle for supporting the respective sides of the top, both devices being operated from a single rock-shaft mounted upon the back of the buggy-seat, and therefore a description of one of the devices is deemed sufficient.

In carrying out the present invention there is provided an attaching-bracket 3, which is secured to the back portion of one end of the vehicle-seat and having an outwardly-directed projection or arm 4, which is of polygonal shape. Upon the outer end of the arm there is provided a bracket comprising a sleeve 5, having a polygonal interior to fit the arm, the latter being reduced to form an intermediate shoulder, against which the inner end of the sleeve bears, there being a nut or other suitable fastening device applied to the outer end of the arm to prevent displacement of the sleeve. From the opposite ends of the sleeve rise the side pieces 6, which are parallel and incline forwardly, the intermediate portions thereof being laterally enlarged or provided with corresponding rearwardly-directed ears or wings 7. In the inner faces of these side pieces and extending transversely across the wings are the corresponding grooves 8, which are designed for the slidable reception of the wedge 9, which moves inwardly and outwardly through the corresponding rear ends of the grooves. Located above the grooves and between the side pieces is an open-ended socket or sleeve 10, which is pivoted midway of its ends upon the side pieces by means of the pivot-pins or journals 11, so as to swing in a vertical plane across the top of the wedge.

Between the bracket and the foldable top there extends a connecting-rod 12, which has its upper end pivotally connected to that top bow which is hinged upon the seat, as indicated at 13, the adjacent pivotal connection between the top of the bow and the adjacent link between the bows also serving for the connection between the connecting-rod and the top. The lower end of the rod is mounted to slide longitudinally through the socket

and is provided with a terminal head 14 for engagement with the lower end of the socket, thereby to limit the upward movement of the rod and prevent the top from being swung too far forward.

Normally the wedge 9 lies across and in engagement with the lower headed end of the connecting-rod or top-prop 12, which takes the place of the usual jointed prop, and thus the prop, is locked and the top is held in its normal set-up or raised position. To unlock the prop it is merely necessary to withdraw the wedge from beneath the lower end of the prop when the top may be folded backwardly in the ordinary manner, the prop-rod sliding downwardly through the socket and the latter turning rearwardly as the top is folded in the same direction until it assumes the position shown in Fig. 6 of the drawings.

For convenience in manipulating the locking-wedge a transverse rock shaft or rod 15 is mounted upon the outer side of the back of the seat, with its respective ends projected at the opposite sides of the seat, so as to lie in rear of the respective brackets at the opposite sides of the foldable top. A suitable crank-arm 16 is fixedly carried by each end of the rock-shaft and is pivotally connected to the under side of the adjacent wedge or locking-slide, as indicated at 17, so that by rocking the shaft the wedges may be simultaneously slid inwardly and outwardly across the lower ends of the respective top-props for the purpose of locking and unlocking the same.

In order that the rock-shaft may be conveniently rocked, there is provided a foot-lever 18, which is located within the body of the vehicle and beneath the seat thereof, the rear end of the lever being fulcrumed upon a suitable bearing-bracket 19, secured to the bottom of the vehicle and in rear of the seat, the forward end of the lever being projected slightly in front of the seat, so as to be in convenient reach of the foot of the driver or person occupying the seat. A suitable spring 20 is interposed between the under side of the lever and the bottom of the vehicle to normally and yieldingly elevate the front free end of the lever, and a connecting rod or link 21 has its lower end pivotally connected to an intermediate portion of the lever, from which it rises and is pivotally connected to a lateral projection or crank-arm 22, carried by the middle portion of the rock-shaft. By this arrangement the spring normally holds the wedges at their forward limits through the several intermediate connections, and said wedges may be conveniently withdrawn from their locked engagement with the props by pressing downwardly upon the free end of the lever, thereby rocking the rock-shaft rearwardly and pulling the wedges outwardly from the props through the connections afforded by the respective terminal crank-arms 16.

From the foregoing description it is apparent that the present device may be applied to any ordinary buggy-top without altering or changing the same or the body of the buggy beyond substituting the present props for the usual jointed props. Moreover, the top is securely held in its upright position and is effectually prevented from being collapsed by the jolting of the buggy. As will be understood by reference to Fig. 6 of the drawings, the lower end of the prop will strike against the forward end of the adjacent locking-wedge when the top is being raised, thereby automatically forcing the wedge rearwardly to permit of the prop rising through the socket into its normal position, whereby it is not necessary to press downwardly upon the foot-lever when it desired to raise the top.

Wht is claimed is—

1. A foldable vehicle-top attachment, comprising a bracket for connection with a vehicle-body, a vertically-swinging open-ended socket pivotally mounted upon the bracket, a top-prop received slidably through the socket, a locking device mounted upon the bracket and slidable across the lower open end of the socket, and means for moving the locking device in opposite directions.

2. A foldable vehicle-top attachment, comprising a bracket for connection with a vehicle-body, and having opposite side pieces, which are provided in their inner faces with corresponding transverse grooves, an open-ended socket pivoted intermediate of its ends between the side pieces and above the grooves, a top-prop slidably received through the socket, a locking device slidably mounted in the corresponding grooves and arranged for engagement with the lower end of the prop in its extended position, and means for moving the locking device in opposite directions.

3. In a device of the character described, the combination of a bracket, a vertically-swinging open-ended socket mounted thereon, a locking-slide carried by the bracket and moving across the lower end of the socket, a top-prop slidably received through the socket, a rock-shaft, having a crank-arm pivotally connected to the locking device, and a spring-actuated lever operatively connected to the rock-shaft.

4. The combination with a vehicle-body, a seat thereon, and a foldable top, of brackets provided at opposite ends of the seat, and having outwardly-directed projections, a bracket supported upon each projection, and comprising opposite upstanding side pieces provided in their inner faces with corresponding grooves, an open-ended socket pivoted intermediate of its ends between the upper ends of the side pieces and above the grooves, a top-prop having its upper end pivotally connected to the adjacent side of the top and also slidably received through the socket, the lower end of the prop being provided with an enlarged head, a wedge-shaped slide mount-

ed in the grooves and normally in engagement with the outer end of the head, a rock-shaft mounted across the back of the seat, and provided with terminal crank-arms pivotally connected to the respective slides, a foot-lever having one end fulcrumed upon the bottom of the vehicle-body, a spring to normally yieldably elevate the free end of the lever, an intermediate crank-arm carried by the rock-shaft, and a connection between the lever and the intermediate crank-arm.

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

GEORGE G. TIERNEY.

Witnesses:
M. F. CONDON,
B. C. TIERNEY.