

No. 703,278.

G. W. KERNODLE.  
VEHICLE TOP.

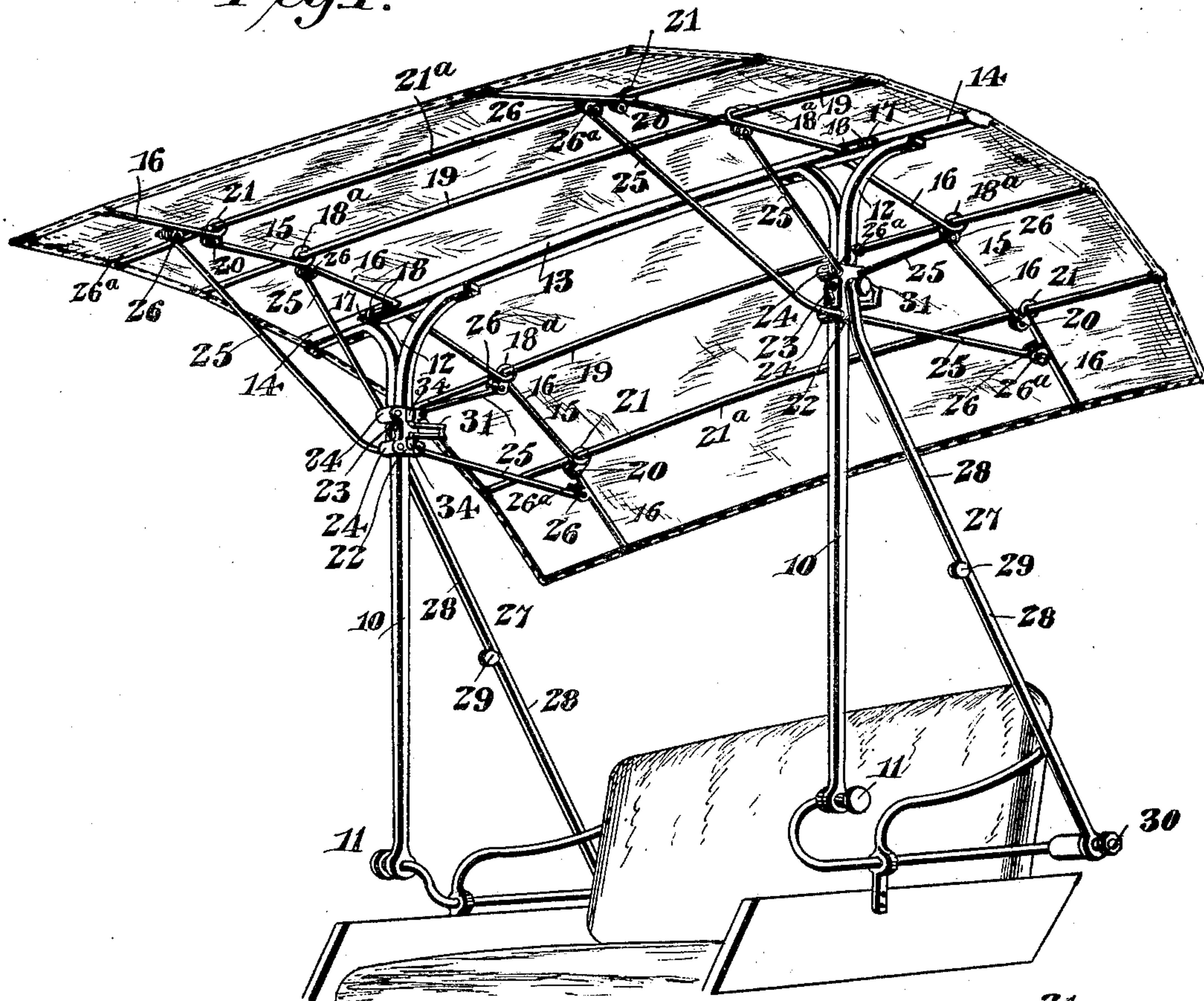
Patented June 24, 1902.

(Application filed Nov. 20, 1901.)

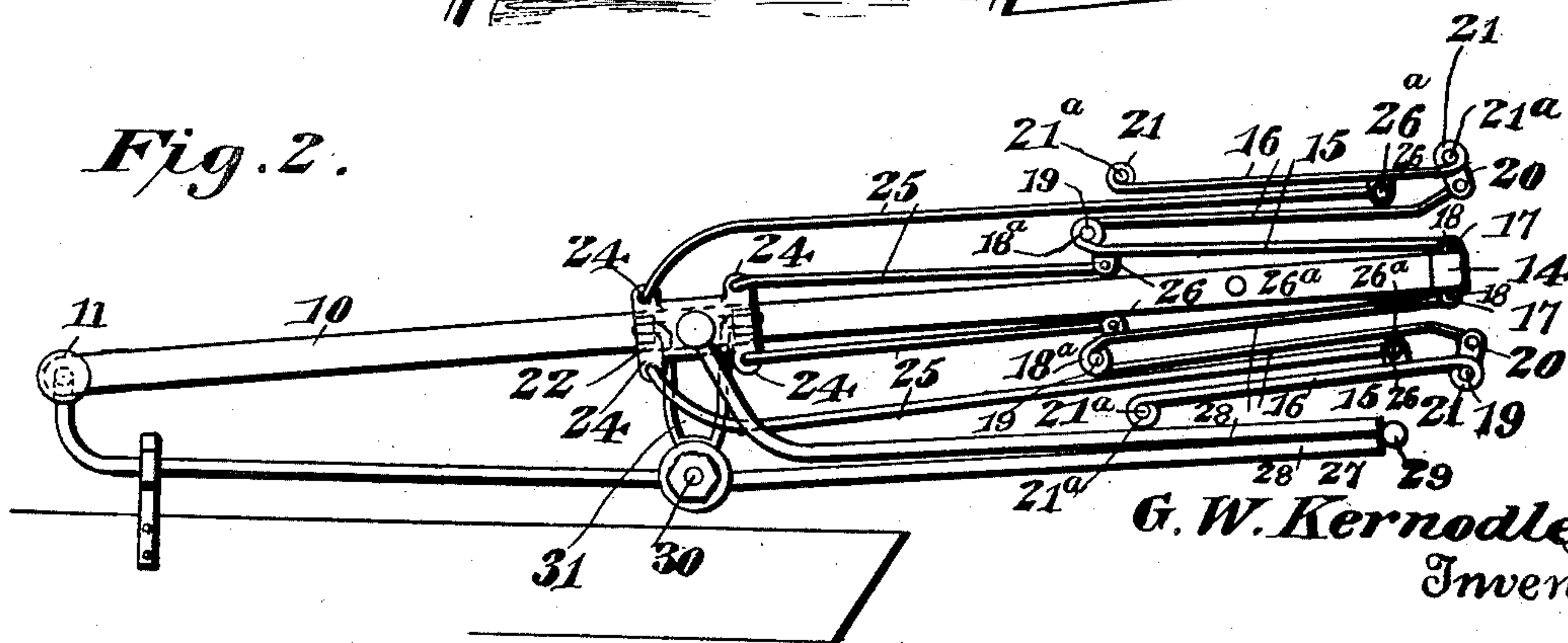
(No Model.)

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*Fig. 1.*



*Fig. 2.*



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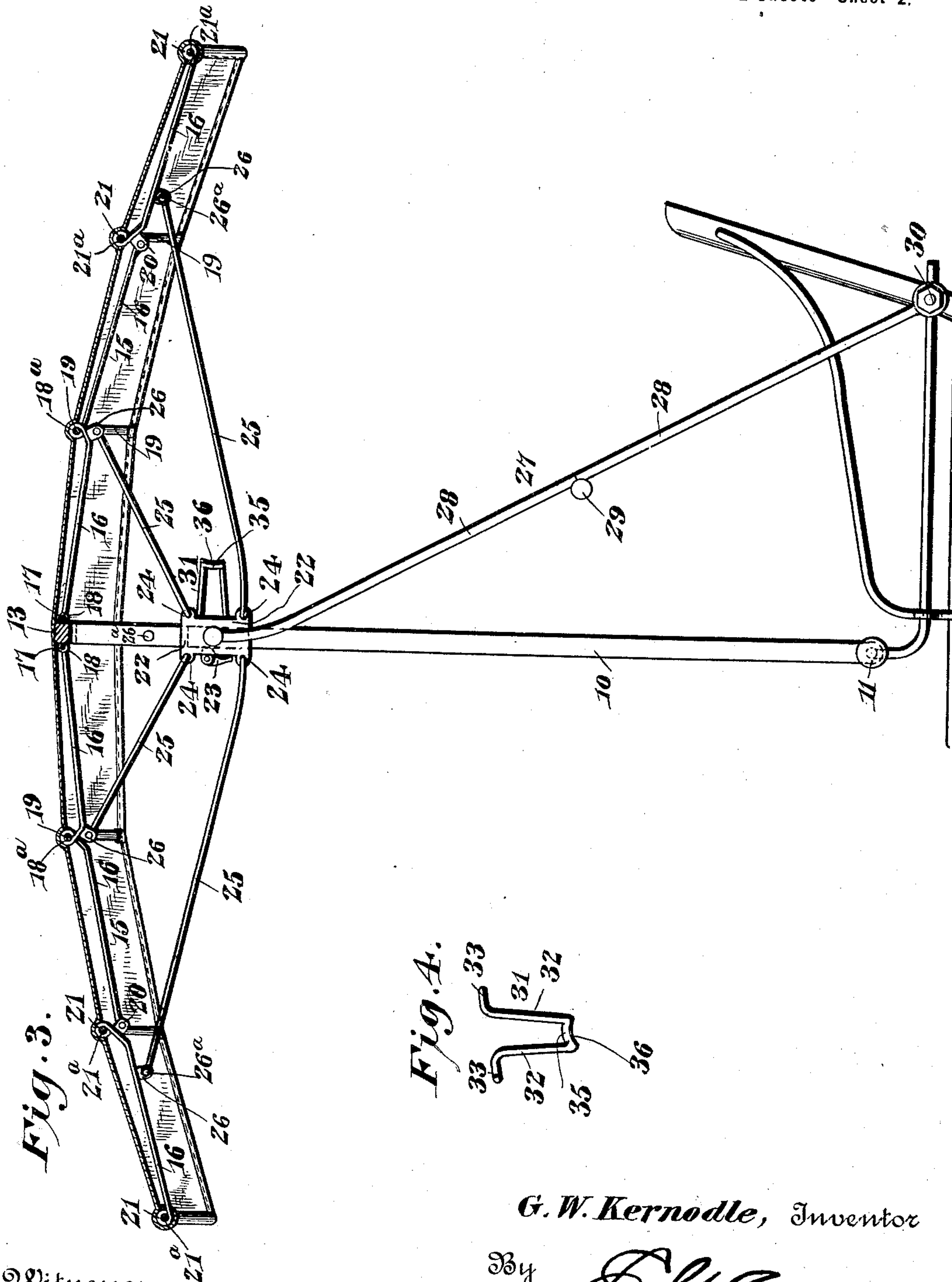
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# UNITED STATES PATENT OFFICE.

GEORGE W. KERNODLE, OF ELON COLLEGE, NORTH CAROLINA.

## VEHICLE-TOP.

SPECIFICATION forming part of Letters Patent No. 703,278, dated June 24, 1902.

Application filed November 20, 1901. Serial No. 83,045. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. KERNODLE, a citizen of the United States, residing at Elon College, in the county of Alamance and State of North Carolina, have invented a new and useful Vehicle-Top, of which the following is a specification.

The present invention relates to tops for vehicles; and the particular object thereof is to provide a simple and light construction especially applicable for summer use.

One of the features of the invention resides in a construction whereby the cover is extended beyond the standards and over the outer side edges of the seat, so that the occupants are more completely shielded from the sun and rain without the necessity of side curtains or downwardly-extending tops, and freer circulation of air is thus permitted between the seat and the top.

A further feature relates to a novel construction of supporting-frame for the top, whereby said top may be folded compactly when not in use and occupy but little space, at the same time being very light in weight, and therefore readily operated and applied to or detached from a vehicle.

In the accompanying drawings there is illustrated the preferred embodiment of the present invention, and this embodiment is fully described in the following specification. It is to be understood, however, that the invention is open to such changes and modifications as may fall within the scope of the claims hereto appended.

In the drawings, Figure 1 is a perspective view of the improved vehicle-top applied to a carriage and shown in operative position. Fig. 2 is a side elevation of the same when folded. Fig. 3 is a vertical sectional view through the top when in raised position. Fig. 4 is a detail perspective view of a supporting-bracket which may be employed in connection with the top.

Throughout the several figures of the drawings similar reference-numerals refer to similar parts.

The support for the top is shown in the form of a bow and comprises spaced standards 10, pivoted at their lower ends to the usual projections 11 at the sides of the vehicle-seat, said standards having their upper

ends forked to constitute braces 12. It will be noted by reference to Fig. 1 that the braces or arms of the forks are located in the same plane and extend in opposite directions transversely of the top. Connecting the upper ends of the standards and secured to the braces 12 is a cross-bar 13, said cross-bar having its ends 14 extended beyond the outer faces of the standards and being preferably curved. Ribs (designated as a whole by the reference-numeral 15) are pivoted to the opposite sides of the cross-bar 14, directly above the standards, these ribs comprising a plurality of pivotally-connected arms 16, each rib being shown as composed of three arms. The inner arm of each rib is pivotally connected to the cross-bar by having an offset pintle 17, that passes through eyes 18, secured to said standards. The opposite end of said inner arm is bent to form an eye 18<sup>a</sup>, through which is passed a transversely-disposed stretcher device in the form of a rod 19, that has the same curvature as the cross-bar 14 and is of the same length. The intermediate arm is pivoted at its inner end to the cross-bar 13, and its outer end is pivotally connected to a lug 20 on the inner end of the outer arm, said outer arm having its terminals bent to form eyes 21, through which are passed other transverse stretcher-rods 21<sup>a</sup>, constructed similar to the first-mentioned rod that passes through the eye of the inner arm.

Slidably mounted on each standard is a runner 22, having a central opening through which the standard passes and being, furthermore, provided on one side with a pivoted locking-cam 23, which passes through an opening and is arranged to be brought into engagement with the standard. The runner is furthermore provided on its opposite side faces with ears 24, in which are pivoted links 25, said links being of different lengths and having pivotal connections at their outer ends with ears 26 on the under sides of the ribs, said ears being preferably located on the inner and outer arms. The pivot connections at this point are prolonged to form buttons or hooks 26<sup>a</sup>, and a similar fastener is placed upon the standard, thus forming means for securing storm-curtains in place. A brace 27 is also pivoted to the runner and comprises the usual sections 28, connected by a break-



joint 29, the lower section being secured at its lower end to the usual projection 30, made for that purpose on a vehicle-body.

The cover for the top may be of any desired material, but must necessarily be flexible, so that it will readily fold without breaking when the top is lowered. It completely covers the ribs and cross-rods of the top frame and is secured thereto in any suitable manner.

Under certain conditions—as, for instance, when the rear wheels of the vehicle are rather high—there is employed a supporting-bracket 31, consisting of a wire or rod bent to constitute two arms 32, having offset terminals 33, that detachably engage in sockets 34, located upon the runner, as is clearly shown in Fig. 1. The connecting portion 35 of the rod between the two arms is bent to form a concave seat 36, in which the projection 30 engages when the top is lowered, as is shown in Fig. 2.

The manner of operating the device will be perfectly apparent. It may be applied to any of the well-known forms of vehicles by removing the usual top and securing the standards and braces in place thereon, as indicated in the drawings. Assuming the top in raised position, as shown in Fig. 1, to lower the same it is only necessary to break the joints of the braces and disengage the locking-cam from the standards, whereupon said top may be folded to the position shown in Fig. 2.

It will be seen that because of the different lengths of the links and their relative connections with the arms of the ribs the movement of said arms will be similar to the action of toggle-levers, and said arms will thus be folded compactly together, as shown in Fig. 2. In case the rear wheels of the vehicle are rather high and the top when folded would ordinarily be low enough to interfere with the same the supporting bracket is provided, which will support the top a sufficient distance above said wheels so that there will not be any such undesirable interference. Under ordinary circumstances, however, this bracket will be unnecessary and can be readily removed. To raise the top, it is only necessary to raise the bow and force the braces back to their operative position, whereupon the top will be extended to its operative position. By this construction it will be seen that a simple canopy or top is provided, which is curved in both directions to shed the rain and can be readily folded when not in use. It is very light in construction and can be readily applied to or detached from any of the well-known makes of vehicles. A very important feature also resides in the construction whereby the cover is extended well beyond the side edges of the seat, so that the occupants of the vehicle are more completely sheltered from the elements than in that class of covers employing bows the standards of which are located at the outer edges of the same. This feature may be employed in connection with tops of various kinds and is not to be limited to the folding top, as shown.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a vehicle-top, the combination with suitable supporting means, of longitudinally-disposed ribs secured to the supporting means, stretcher devices extending transversely across the ribs and having their ends projecting beyond the same, and a cover supported by the stretcher devices and ribs.

2. In a vehicle-top, a bow comprising spaced standards and a cross-bar connecting the upper ends of the standards and projecting beyond the outer faces of the same, spaced ribs supported upon the bow, cross-rods connecting the ribs, said rods having their ends projecting beyond the ribs, and a cover supported by the cross-bar and the ribs.

3. In a folding top for vehicles, the combination with a supporting-standard, of a rib pivoted to the standard and comprising a plurality of pivotally-connected arms, a runner slidably mounted on the standard, and links pivotally connected to the runner and to certain of the arms of the rib.

4. In a folding top for vehicles, the combination with a supporting-standard, of a rib pivoted to the standard and comprising a plurality of pivotally-connected arms, a runner slidably mounted on the standard, and links pivotally connected to the runner and to certain of the arms of the rib, said links being of different lengths, whereby when the runner is moved downwardly the arms of the rib will be folded together.

5. In a folding top for vehicles, the combination with a pivoted supporting-standard, of a rib pivoted to the standard and comprising a plurality of pivotally-connected arms, a runner slidably mounted on the standard, links pivotally connected to the runner and to certain of the arms of the rib, said links being of different lengths, a brace having a pivotal connection with the runner, and a lock connected to the runner and detachably engaging the standard to hold said runner against movement thereon.

6. In a vehicle-top, the combination with a standard, of a runner slidably mounted on the standard, a rib pivoted to the standard and comprising a plurality of pivotally-connected arms, transversely-disposed rods secured to the arms contiguous to their pivot-points, and a cover supported by said ribs.

7. In a vehicle-top, the combination with a bow having a pair of spaced standards, of ribs pivoted to opposite sides of the bow and



contiguous to the upper ends of the standards, said ribs each comprising a plurality of pivotally-connected arms, runners slidably mounted on the standards, links pivotally  
5 connected to the runners and to certain of the arms of the ribs, cross-rods connecting the arms of the correspondingly-disposed ribs, and a cover supported by said ribs and rods.

8. In a vehicle-top, the combination with a  
10 bow comprising a pair of spaced standards and a cross-bar secured to the upper ends of the standards and projecting beyond the outer faces thereof, of ribs pivoted to the opposite sides of the bow contiguous to the up-  
15 per ends of the standards, said ribs each com-

prising a plurality of pivotally-connected arms, runners slidably mounted on the standards, links pivotally connected to the runners and to certain arms of the ribs, cross-rods connecting the correspondingly-disposed ribs  
20 and projecting beyond the outer faces of the same, and a cover supported upon said ribs and rods.

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

GEORGE W. KERNODLE.

Witnesses:

JAS. N. WILLIAMSON, Jr.,  
M. E. MOTSINGER.