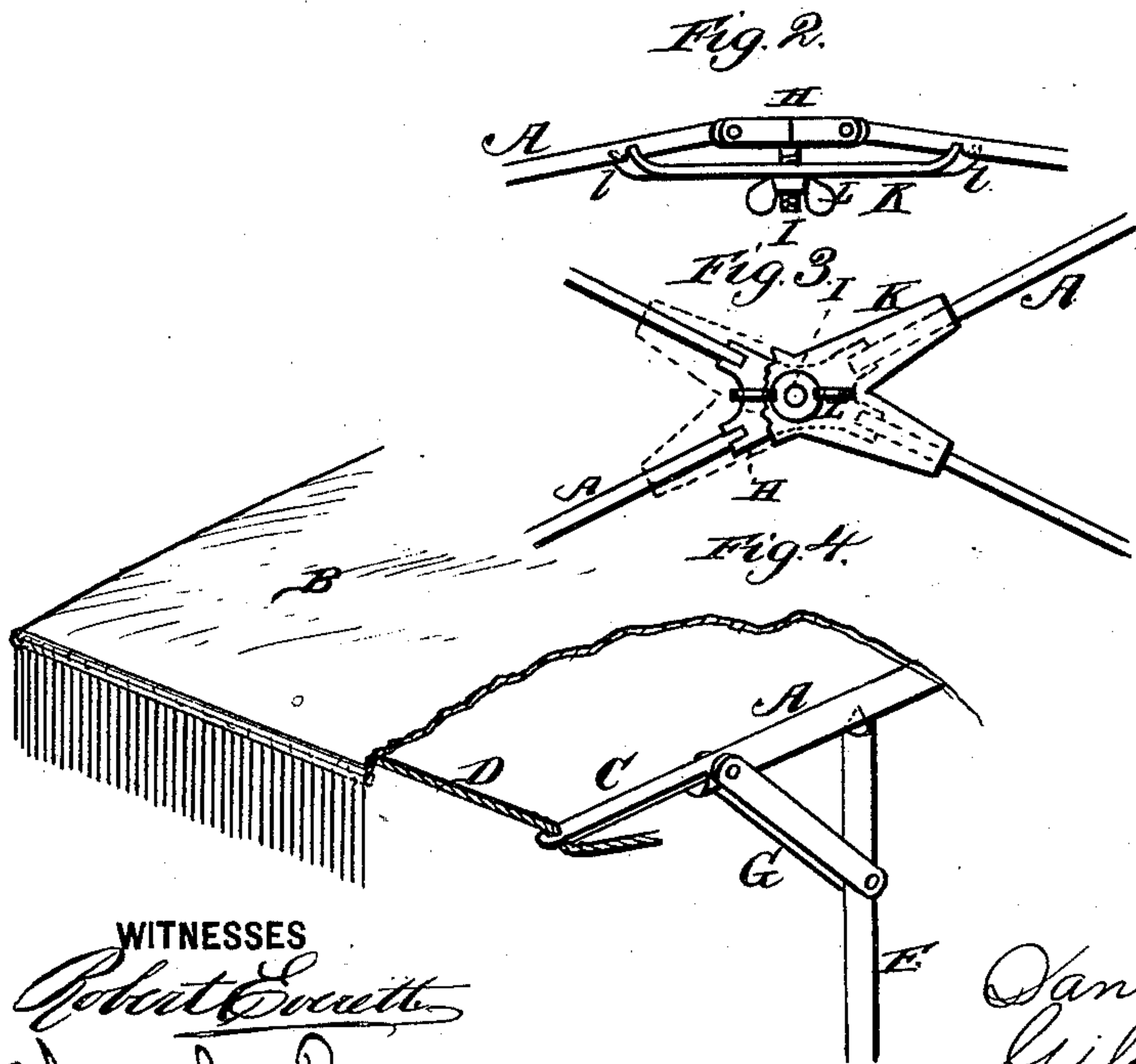
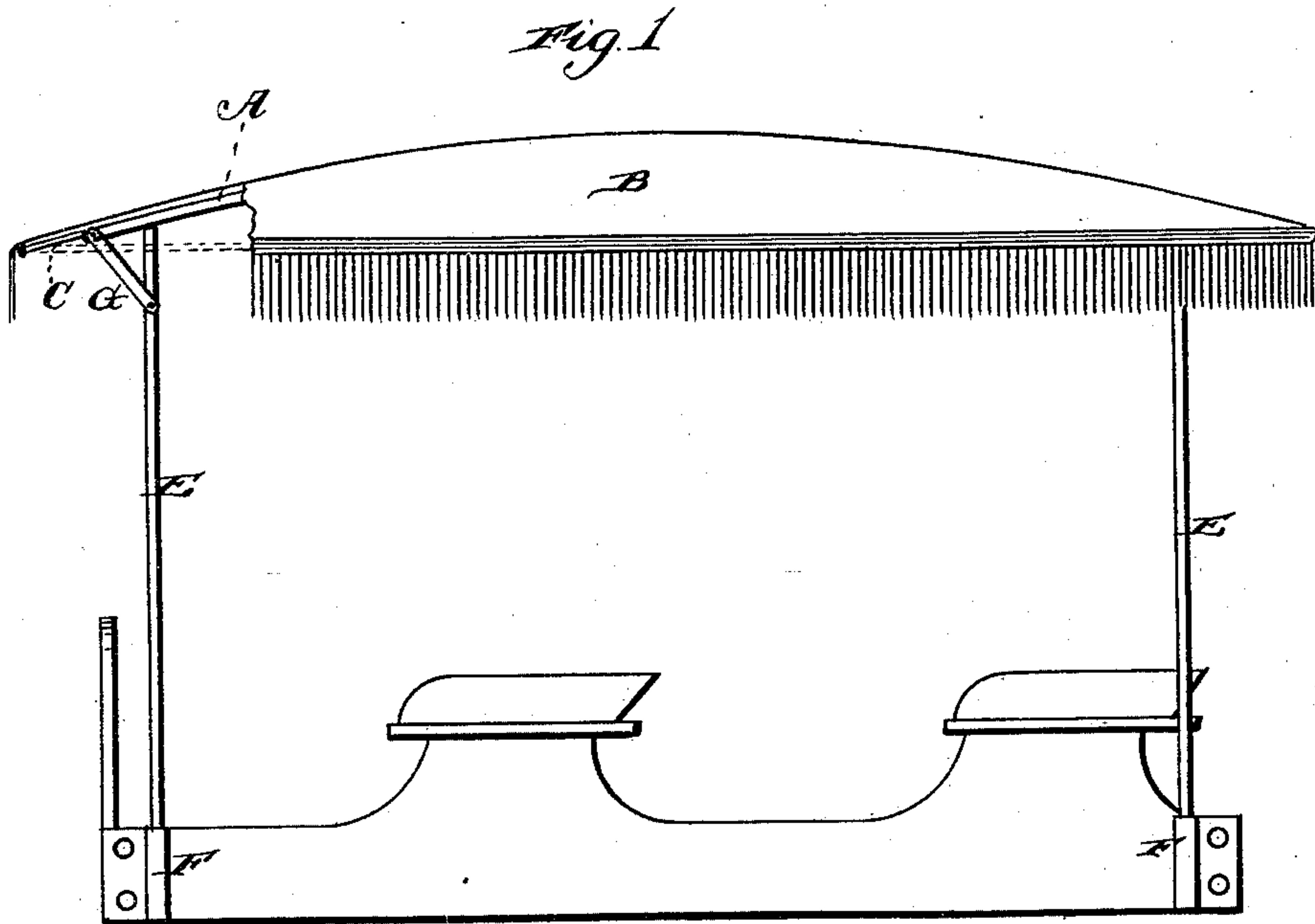


D. G. BEERS.
Carriage-Top.

No. 222,650.

Patented Dec. 16, 1879.



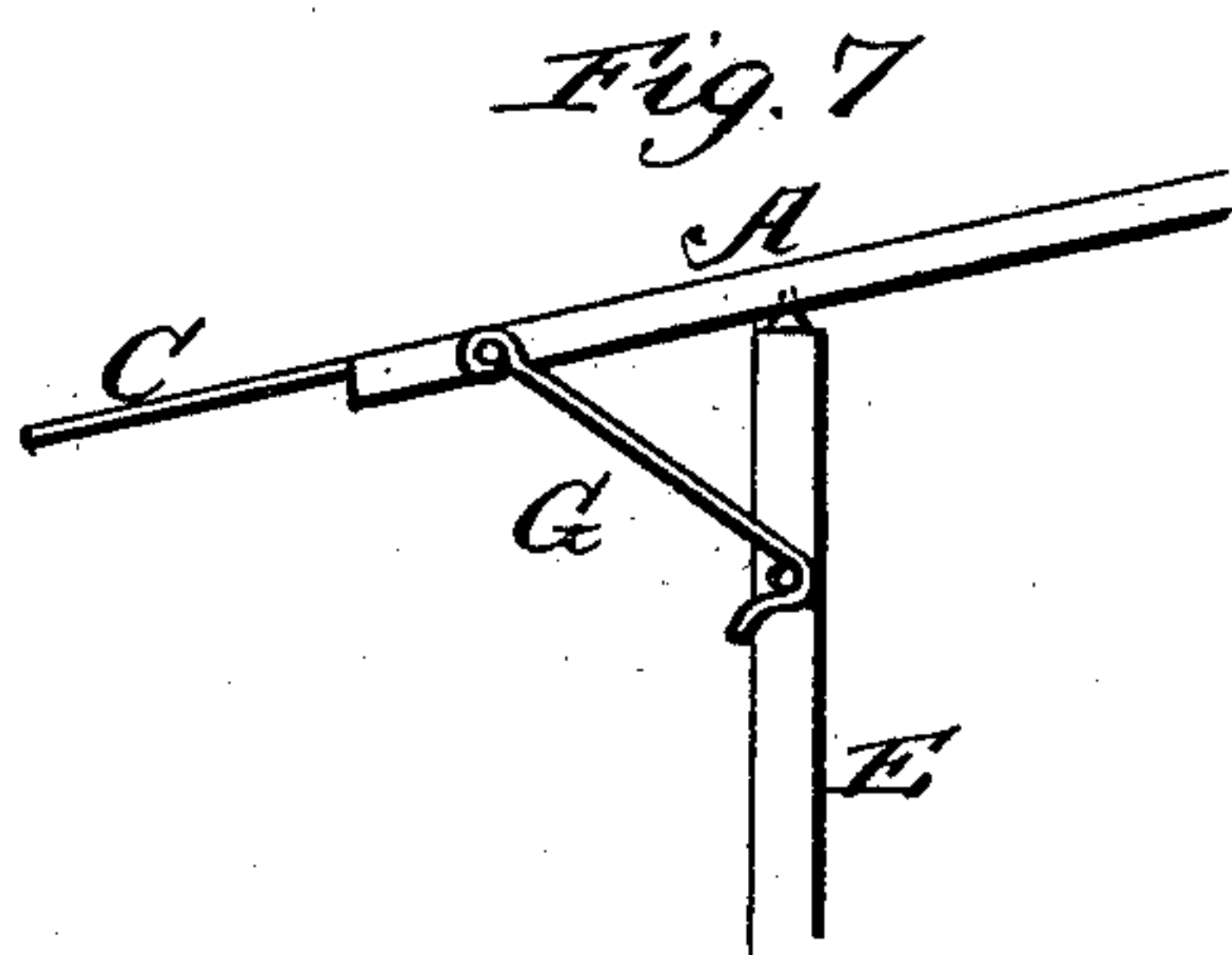
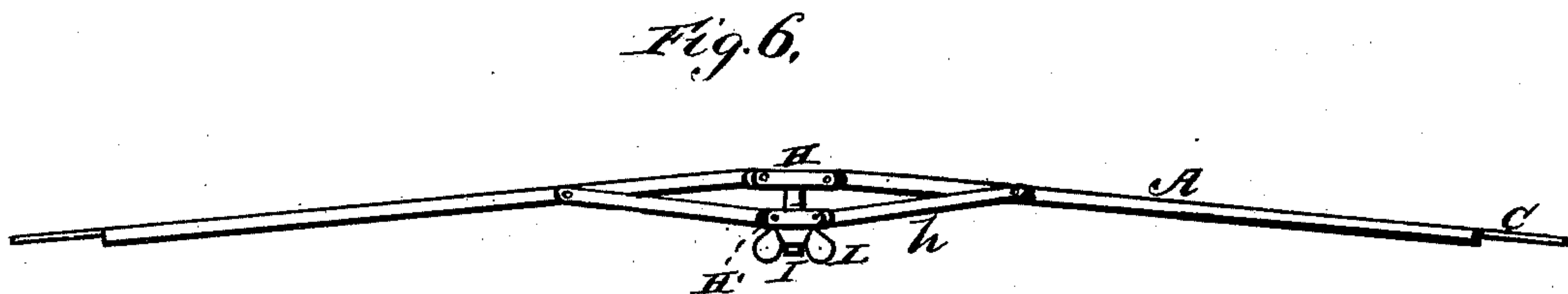
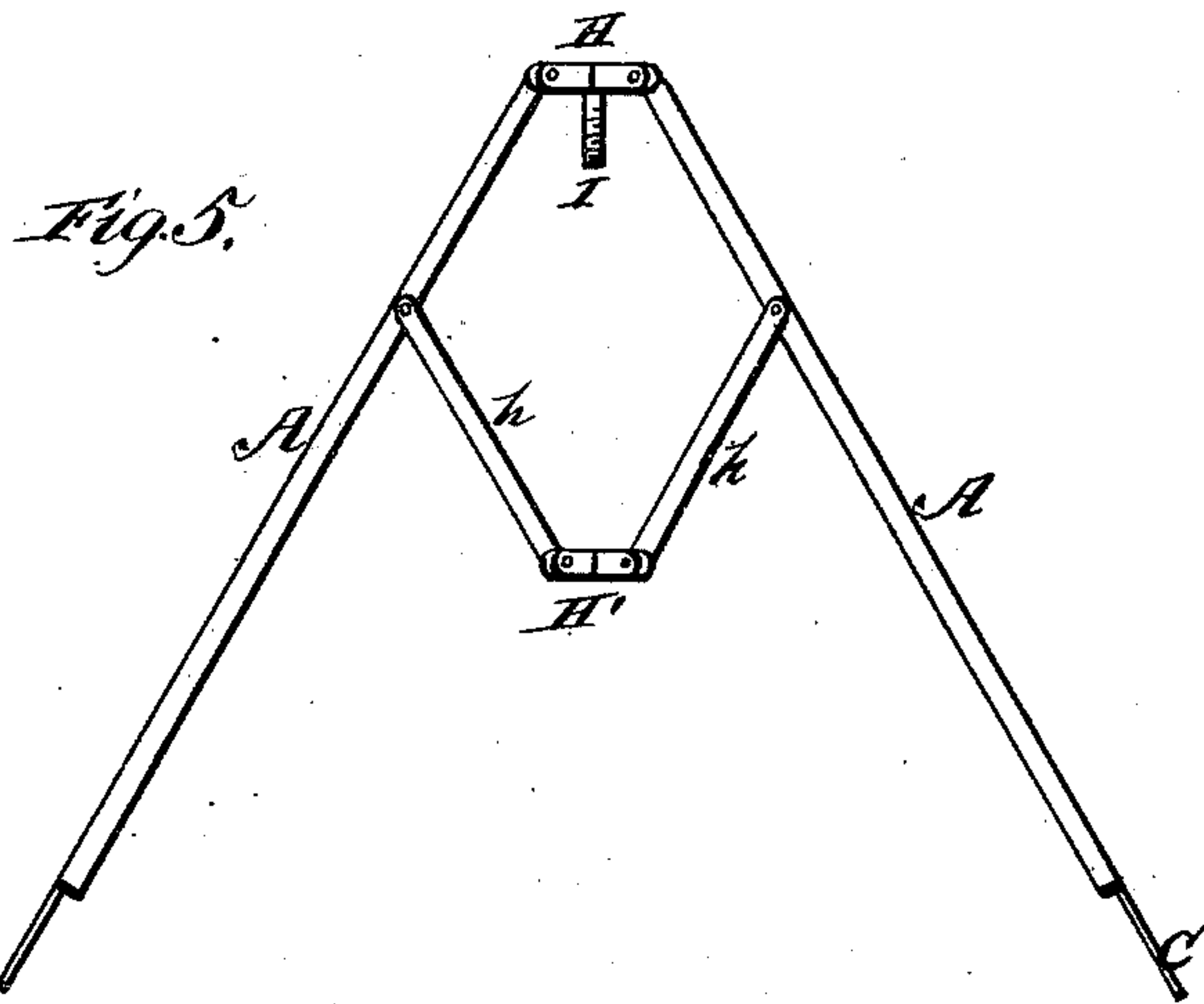
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UNITED STATES PATENT OFFICE.

DANIEL G. BEERS, OF NEWTOWN, CONNECTICUT.

IMPROVEMENT IN CARRIAGE-TOPS.

Specification forming part of Letters Patent No. **222,650**, dated December 16, 1879; application filed October 18, 1879.

To all whom it may concern:

Be it known that I, DANIEL G. BEERS, of Newtown, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Detachable Folding Canopy-Tops; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of my detachable folding canopy-top. Fig. 2 is a detail view of the same, showing the bracing-plate in side elevation. Fig. 3 is a detail plan view. Fig. 4 is a side elevation, partly broken away to show my improvements; and Figs. 5, 6, and 7 are views of modifications hereinafter described.

My invention has relation to canopy-tops for wagons and carriages; and it consists in the improvements in the construction of the same, hereinafter fully set forth, and particularly pointed out in the claims.

In the drawings, A refers to the diverging ribs or bars, which are hinged at a common center. D designates a wire or cord drawn tightly around the frame, which is formed by the ribs or bars A, and fastened securely at the outer end of each rib, thus holding the ribs in position; and when this wire or cord is tightened sufficiently it will give the center of the top a raised or turtle-back appearance.

As herein shown, the ribs may have spring-extensions C, and the wire or cord be attached to the outer ends of said spring-extensions. The object of these springs is to yield to the contractions of the cord or covering of the top, caused by rain or dampness in the atmosphere.

B designates the covering, which is of cloth or some other flexible material, stretched tightly over the frame and fastened securely to the wire or cord passing around the same.

E designates the posts or standards for supporting the top. The upper ends of these posts fit in sockets formed in the ribs, whereby the ribs may be detached from the posts by raising the top.

F refers to sockets secured to the wagon or carriage body, and into which the posts are

removably fitted, so that the top and posts may be detached from the vehicle and stored away.

In order to brace the posts and ribs together I employ braces G, hinged to the ribs and to the posts. These braces may, however, be hinged at one end and formed at the remaining end with a hook for engagement with an eye either upon the post or rib, so that the ribs may be entirely freed from the posts.

In order to adapt the frame and its covering to be folded up like an umbrella after its removal from the vehicle, I provide a hinge-plate, H, to which the inner ends of the ribs are suitably hinged.

I also propose providing plate H with a screw-rod, I, upon its under side, and fitting upon the same a brace-plate, K, having curved arms L, each notched, so as to form a rest for the rib above it. This plate K is secured in place by a thumb-nut, L.

When corner-braces G are hinged both to the ribs and posts, the posts will be withdrawn by the operator from sockets F, the thumb-nut L and brace-plate K detached from screw-rod I, the posts folded under or inside of the top, with their lower ends near the central hinges, and the top then folded together like an umbrella.

When, however, the braces G have hooked ends, as shown in Fig. 7, the top may be entirely freed from the posts, and either hung up without removing the thumb-nut and brace-plate, or, by removing these two last-named devices, be folded up like an umbrella.

In Sheet 2 I have shown a folding frame, in which Figs. 5 and 6 illustrate the ribs or bars A, hinged to a central plate, H, and brace-rods h, hinged to the ribs and to a sleeve, H', which fits upon the screw-rod I.

Under this arrangement the brace-plate may be dispensed with, and the thumb-nut L alone used to hold the sleeve upon the screw-rod.

The top which I have described is chiefly designed as a protection from the sun, although it will serve in a great measure as a protection against rain and snow.

In some cases I propose fastening a cord to the under side of the central hinge-plate, and then securing the lower end thereof either to the seat-back or floor of the vehicle.

What I claim, and desire to secure by Letters Patent, is—

1. The hinged corner-braces G G, in combination with the covered ribs A and the posts E, substantially as shown and set forth.

2. In combination with the folding top composed of a central hinge-plate, H, hinged ribs A, and a covering, the screw-rod I and brace-plate K, adapted to brace up the ribs, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DANIEL GLOVER BEERS.

Witnesses:

HENRY T. NICHOLS,
MARY F. PECK.