

(No Model.)

J. BAUER.

BRACE FOR CARRIAGE TOPS.

No. 363,357.

Patented May 24, 1887.

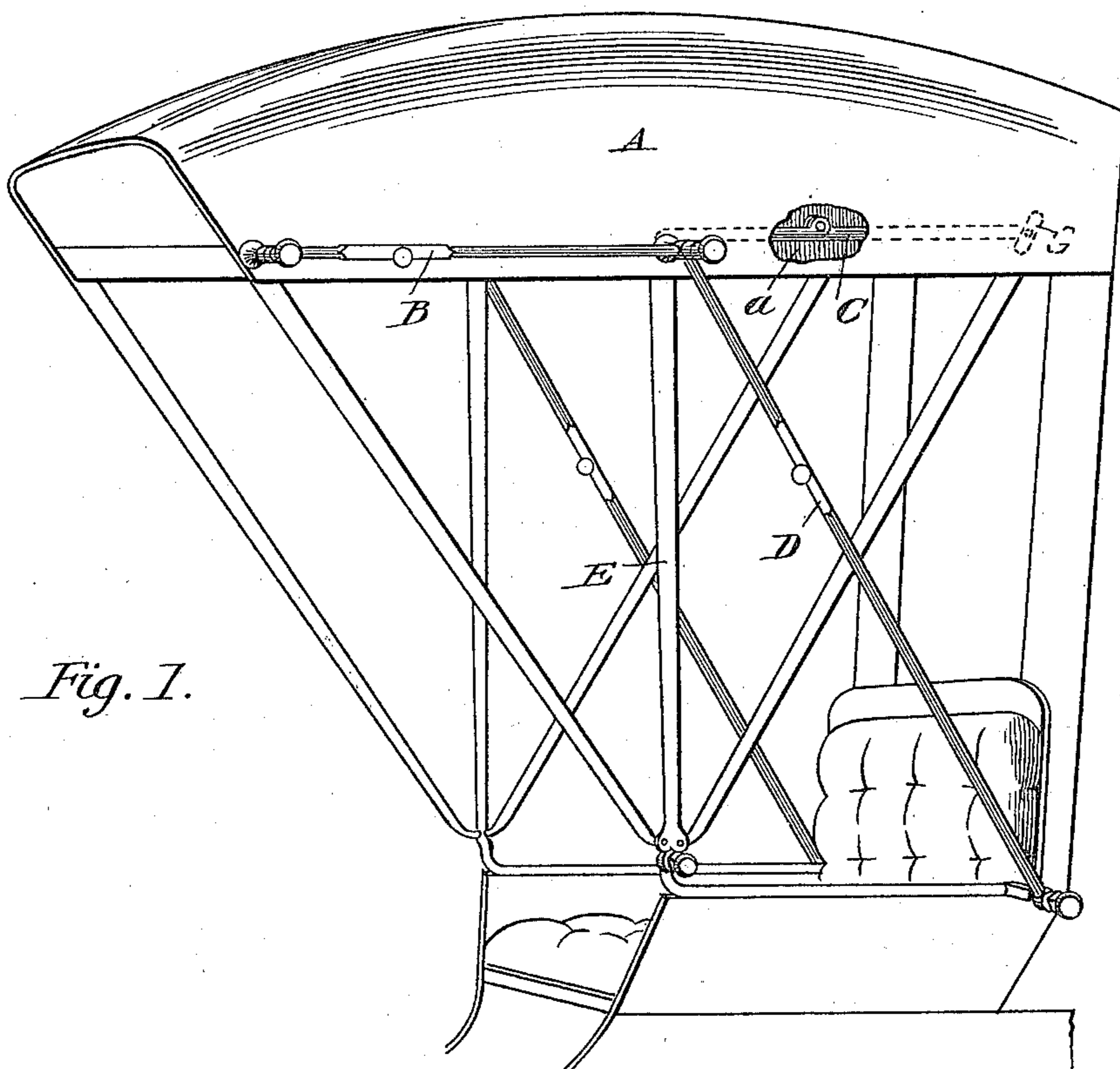


Fig. 1.

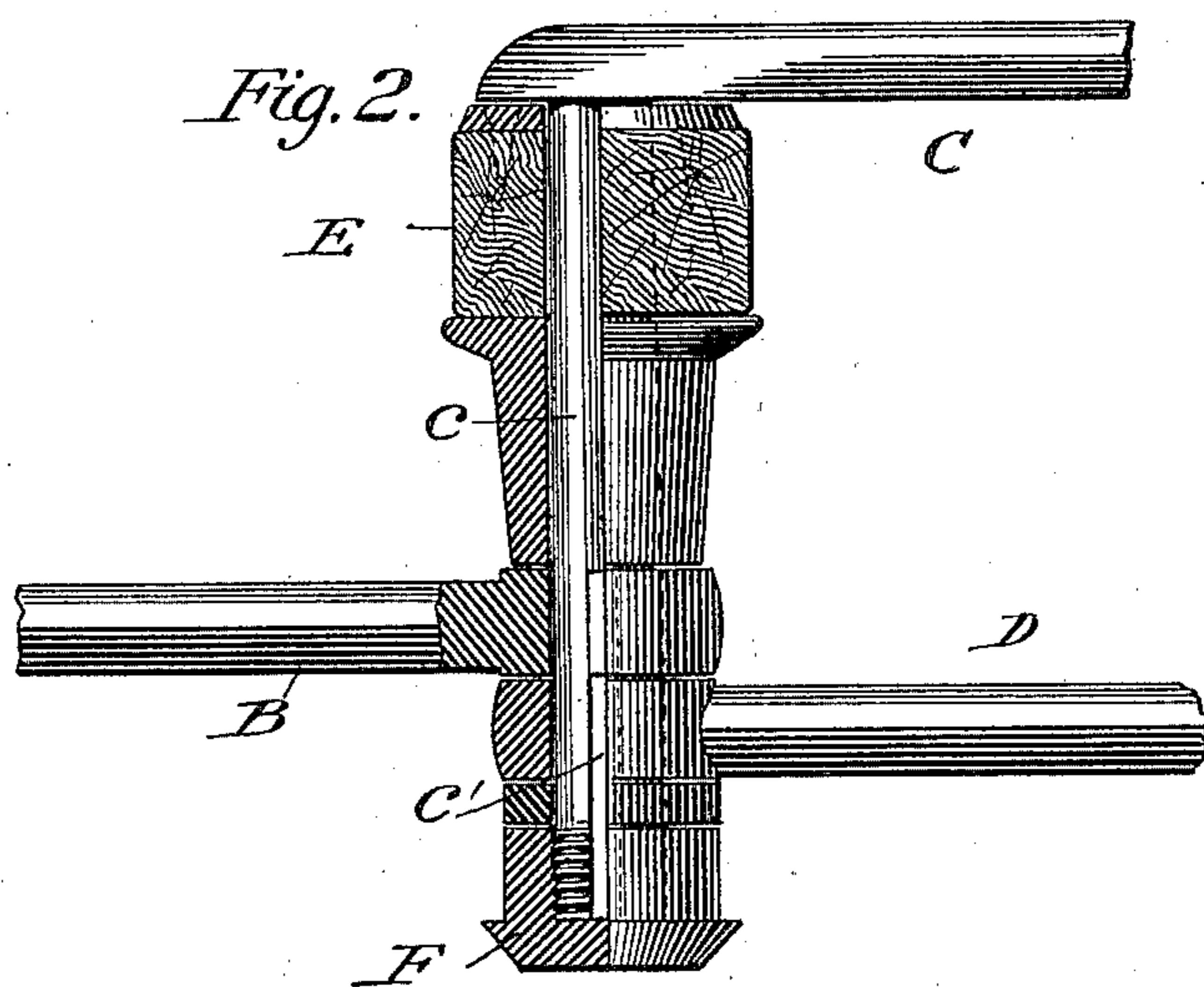


Fig. 2.

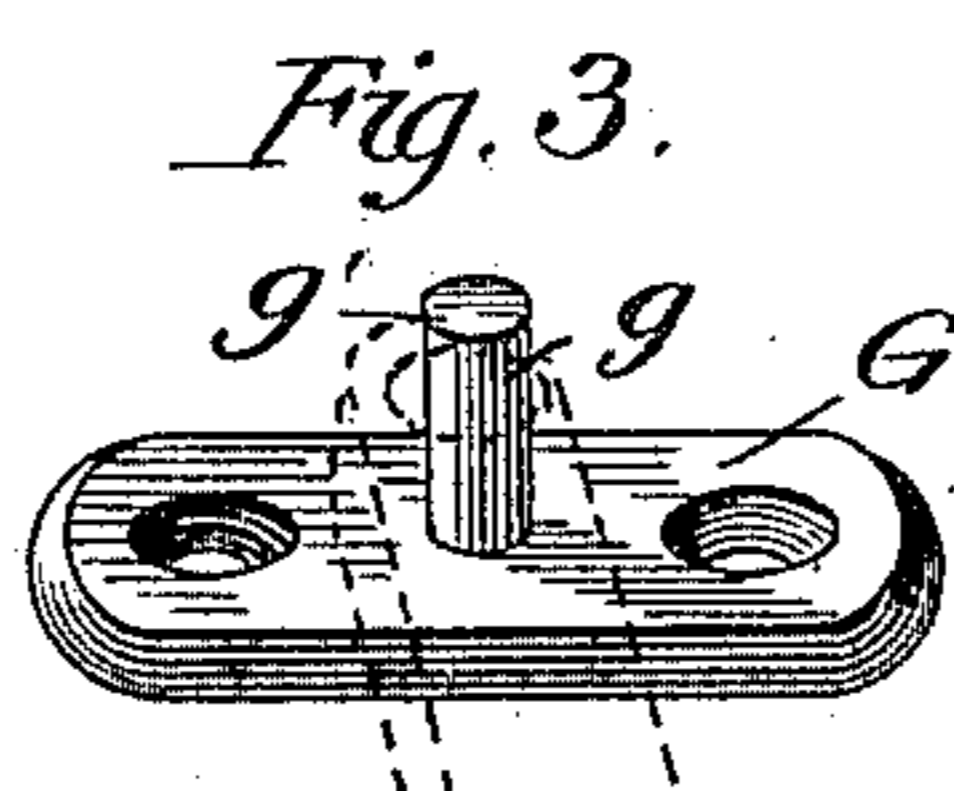


Fig. 3.

Witnesses.

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BRACE FOR CARRIAGE-TOPS.

SPECIFICATION forming part of Letters Patent No. 363,357, dated May 24, 1887.

Application filed November 20, 1886. Serial No. 219,434. (No model.)

To all whom it may concern:

Be it known that I, JACOB BAUER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Braces for Carriage-Tops; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to braces for carriage-tops, and particularly to the concealed brace which is uniformly placed between the cover and the lining of the top.

Heretofore, when it was desired to let the cover down as nearly horizontal as might be, it has been necessary to introduce the hand between the cover and the lining to bend the concealed brace at its joint before the cover could be folded down flat.

The object of the present invention is to produce a carriage-top provided with braces of the general form and arrangement, which shall be so arranged that by bending one to allow the top to be lowered the other brace or braces will be bent at their joints in order to permit the lowering of the top to a flat position quickly and with very little manipulation of the parts.

With this object in view my invention resides in a carriage-top provided with braces so connected at their adjacent ends by a shaft having a spline or otherwise formed that the bending of one brace shall have the effect of bending the other.

I have illustrated the invention in the accompanying drawings, in which—

Figure 1 is a perspective view of a carriage-top provided with the ordinary concealed brace and the outside brace, the two being made up of hinged sections and connected at their ends in accordance with my invention. Fig. 2 is a view representing, partly in section, the joint between the ends of the braces; and Fig. 3 is a perspective view of the peculiar form of stud which I employ to secure the end of the concealed brace to the uprights of the frame.

In the drawings, A represents the outer cover, usually of leather, and a represents the lining of the cover.

B represents the outside horizontal brace,

which is made of sections, as usual, the parts being joined by a hinge designed to be forced upward in folding the parts.

C represents a brace, which is connected to the uprights of the cover, and which is arranged between the leather and cloth of the cover. This brace is made up of sections connected by a hinge-joint, which is designed to be drawn down in folding the cover.

The adjacent ends of the braces B and C are connected in such manner that the bending of one will simultaneously cause the bending of the other. The preferred means of accomplishing this is by providing the forward portion of the brace C with an arm, *c*, projecting therefrom at right angles. This arm projects through the upright E, and is capable of revolving therein. The arm is formed with or attached to the brace C in such manner as to be turned when the brace is bent at the point where the hinge is placed. To the outer end of this arm is rigidly attached the rear section of the outer brace, B. This attachment may be accomplished by forming the arm *c* with a groove, and by forming that part of the opening in the end of the brace B which receives the arm so that the two may be locked by the insertion of a pin, *c'*. The parts have suitable washers placed between them, and are held in place by a nut, F, screwed upon the end of the arm *c*, in order to hold the parts in proper operative position.

The end of the brace C opposite to that upon which the arm *c* is placed is provided with an opening, which receives a stud, *g*, projecting from a plate, G. This plate G is secured to one of the uprights, and after the stud is inserted into the opening in the end of the brace the end of the stud is riveted, as shown in dotted lines in Fig. 3 of the drawings.

In a carriage-cover made in accordance with my invention it is only necessary to bend the brace B and the oblique brace D in order to completely fold the top. The upward bending of the joint on the front brace accomplishes, by reason of the rigid connection between the two, the downward bending of the hinge in the concealed brace.

I am aware that it has been proposed to rigidly connect the contiguous parts of the front and rear horizontal braces of a carriage-top, the parts so connected being in the same

vertical plane and outside of the bows of the top, and that in one such case the proposed rigid connection consists in forming in a single piece the rear joint of the front brace, the front joint of the rear brace, and the upper joint of the oblique brace. No system of top braces in which the rear horizontal brace is outside the bows can ever come into general use and sale, however, for the reason that in all high-grade carriages the rear horizontal brace is what is known in the trade as a "concealed joint," and must be inside the bows. The structure shown and described herein is, so far as I know, the first in which a front outside brace and a rear inside brace or concealed joint have had their contiguous ends rigidly connected, and the special means by which the rigid connection is attained are new without reference to the position of the braces.

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

1. The combination, with the bows of a carriage-top, of a front horizontal brace lying outside the bows, and a rear horizontal brace lying inside the bows and having its front end rigidly connected with the rear end of said front brace.

2. The combination, with the bows of a carriage-top and a horizontal pivot passing through one of them, of a front horizontal brace lying outside the bows and having its rear end rigidly fastened to said pivot, and a rear horizontal brace lying inside the bows and having its front end rigidly fastened to said pivot.

3. The combination, with the front and rear bows of a carriage-top and a bow intermediate between them, of a front horizontal brace outside the bows having its front-end pivoted to said front bow, a rear horizontal brace inside the bows and having its rear end pivoted to said rear bow, and a pivot passing through said intermediate bow and rigidly connecting the rear end of said front brace and the front end of said rear brace.

4. The combination, with the bows of a carriage-top, of front and rear horizontal braces whose ends overlap, one of said ends being provided with a key-seated horizontal arm or gudgeon and the other with a key-seated bearing therefor, and the two being rigidly connected by means of a key set in said key-seats.

5. The combination, with the bows of the carriage-top, of the front horizontal brace, B, lying outside the bows and having a key-seated bearing in its rear end, the rear horizontal brace, C, lying inside the bows and provided at its front end with the key-seated arm or gudgeon *c*, extending through one of the bows and through the bearing in the end of the front brace, and the key *c'*, lying in the key-seats and rigidly connecting said braces, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB BAUER.

Witnesses:

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A. KEITHLEY.