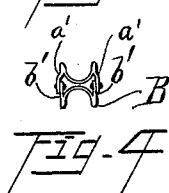
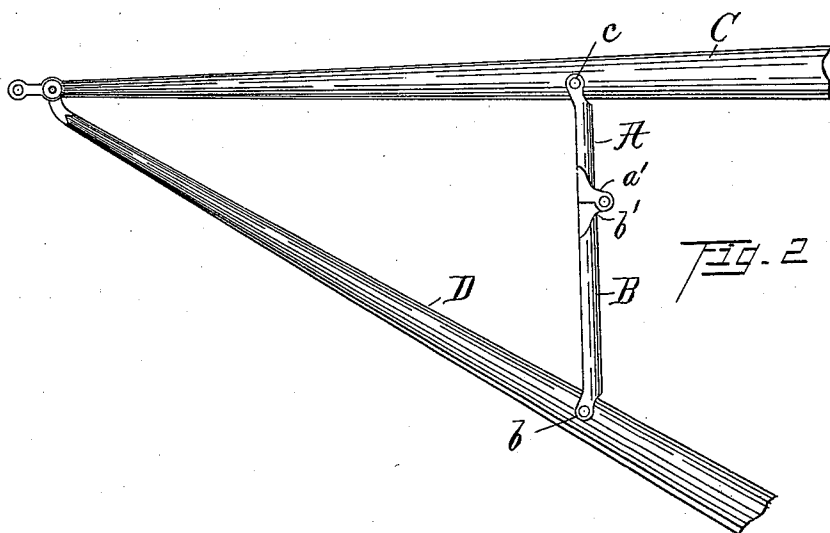
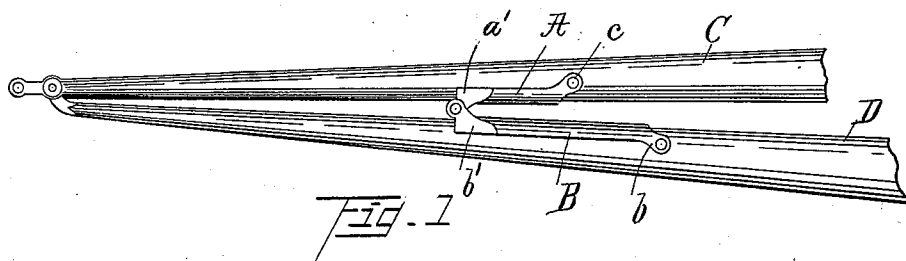


(No Model.)

H. C. MARTELL.
CONCEALED JOINT FOR CARRIAGE TOPS.

No. 546,705.

Patented Sept. 24, 1895.



Witnesses.

H. Griewold
Helen M. Wood.

Inventor.

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UNITED STATES PATENT OFFICE.

HERBERT C. MARTELL, OF COLUMBUS, ASSIGNOR TO THE EBERHARD MANUFACTURING COMPANY, OF CLEVELAND, OHIO.

CONCEALED JOINT FOR CARRIAGE-TOPS.

SPECIFICATION forming part of Letters Patent No. 546,705, dated September 24, 1895.

Application filed May 8, 1895. Serial No. 548,470. (No model.)

To all whom it may concern:

Be it known that I, HERBERT C. MARTELL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Concealed Joints for Carriage-Tops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of the invention is to provide a carriage-top with a concealed joint of novel construction, which when connected with the bows of the carriage-top will either hold taut the side quarters and inside trimmings thereof or will allow the top to be crushed closely together, depending, of course, upon the relative position of the parts of said joint. The construction is of such a nature that it does not catch the side quarters or trimmings as the top is being spread or let down, nor does it cause any bunches or wrinkles in said parts in any positions which they assume. I accomplish this purpose by means hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the center and rear bow of a three-bow top, the front bow being removed and the joint being folded together, so as to allow the bows to come closely together, as in case where a top is let down. Fig. 2 represents the same center bow and rear bow in the relative positions which they assume when the top is spread. Fig. 3 is a bottom view of my concealed joint; and Fig. 4 is an end view of the joint, looking to the right in Fig. 1.

Referring to the parts by letters, A and B represent the two parts of the joint, which are hinged together, and C and D the two bows to which the ends of said parts are pivoted. Each of the parts A and B is bent or curved longitudinally from end to end, whereby each is concavo-convex in transverse section, as shown in the drawings, the concave side of said parts being that which lies next to the bows when the joint is folded. The outer end of the part A is bifurcated, thereby forming the two ears *a*, which lie against oppo-

site sides of the bow C and are pivoted to said bow by the rivet *c*, which passes through both ears and the intermediate bow and has both of its ends headed or upset. Upon the outer end of the part B two ears *b b* are similarly 55 formed, which ears are in like manner pivoted to the bow D.

When the parts A and B are formed, as described, with ears, which are held against opposite sides of the bows, these ears, although 60 thin and light, will, nevertheless, form means for connecting these parts to the bows, which will in practical use permit substantially no side movement of said parts, such as might tend to bind the hinge-joint by which said 65 parts are connected with each other. Owing to the peculiar form of these parts—viz., concavo-convex from end to end—these parts, when the joint is bent as shown in Fig. 1, embrace and partly surround the bows, thereby 70 taking up very little room and permitting the top to crush more closely together than with the constructions heretofore used. These parts are preferably formed of sheet metal bent into the described form, this material 75 being preferred because it combines in the highest degree two desirable characteristics, viz., strength and lightness. On the inner ends of each of these parts A and B are the ears *a' a'* and *b' b'*, which when said parts are 80 formed of sheet metal are best formed integral with said parts and are bent outward and upward to the positions shown in Fig. 4. These ears are hinged together by two rivets *a² a²*. 85 When the parts are constructed and connected with each other and the bows, as described, the proximate ends of said parts A and B below the pivots *a²* abut when the joint is straightened, thereby preventing the bending of the hinge-joint in the reverse direction 90 and tending to hold the parts A and B from bending sidewise.

It is apparent that the particular hinge connection between the two concavo-convex parts A and B might be changed and the device 95 would accomplish the described result, and would still be within the scope of my invention.

Having described my invention, I claim—

1. A concealed joint for carriage tops com- 100

posed of two concavo-convex parts which are hinged together, substantially as and for the purpose specified.

2. In a buggy top, a concealed joint composed of two parts hinged together and having their outer ends bifurcated to form ears, combined with bows which lie between said ears and are pivotally connected with them, substantially as and for the purpose specified.

3. A concealed joint composed of two concavo-convex pieces of sheet metal, which have on their proximate ends two outwardly and upwardly bent integral ears,—the ears upon one part being hinged to the ears upon the

other part, substantially as and for the purpose specified.

4. In a carriage top, a concealed joint composed of two concavo-convex parts hinged together, and having their outer ends bifurcated to form ears, combined with bows which lie between and are pivoted to said ears, substantially as and for the purpose specified.

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

HERBERT C. MARTELL.

Witnesses:

JOSEPH A. PHELAN,
W. A. MCCOY.