

(No Model.)

K. W. HOLMES.
VEHICLE TOP.

No. 332,529.

Patented Dec. 15, 1885.

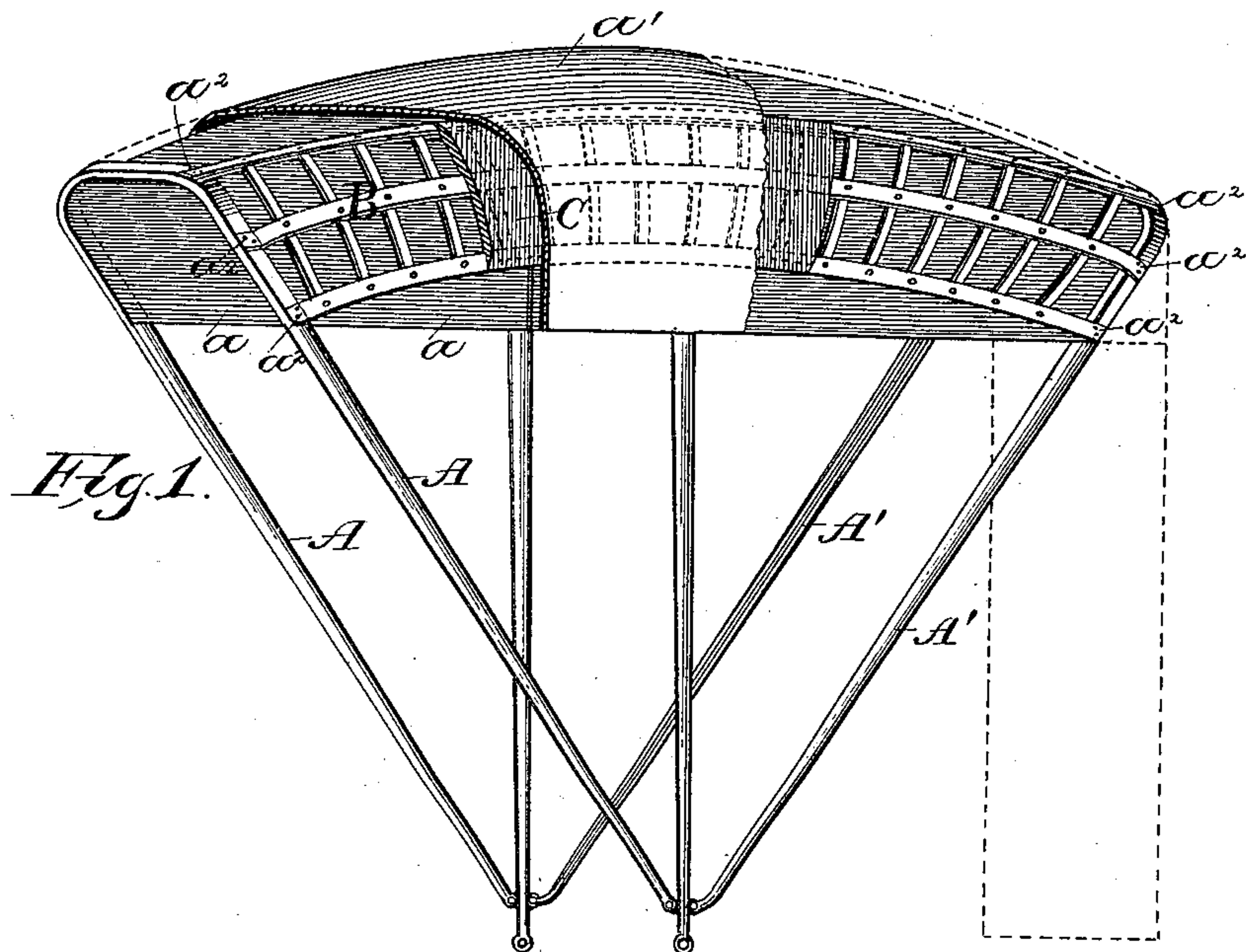
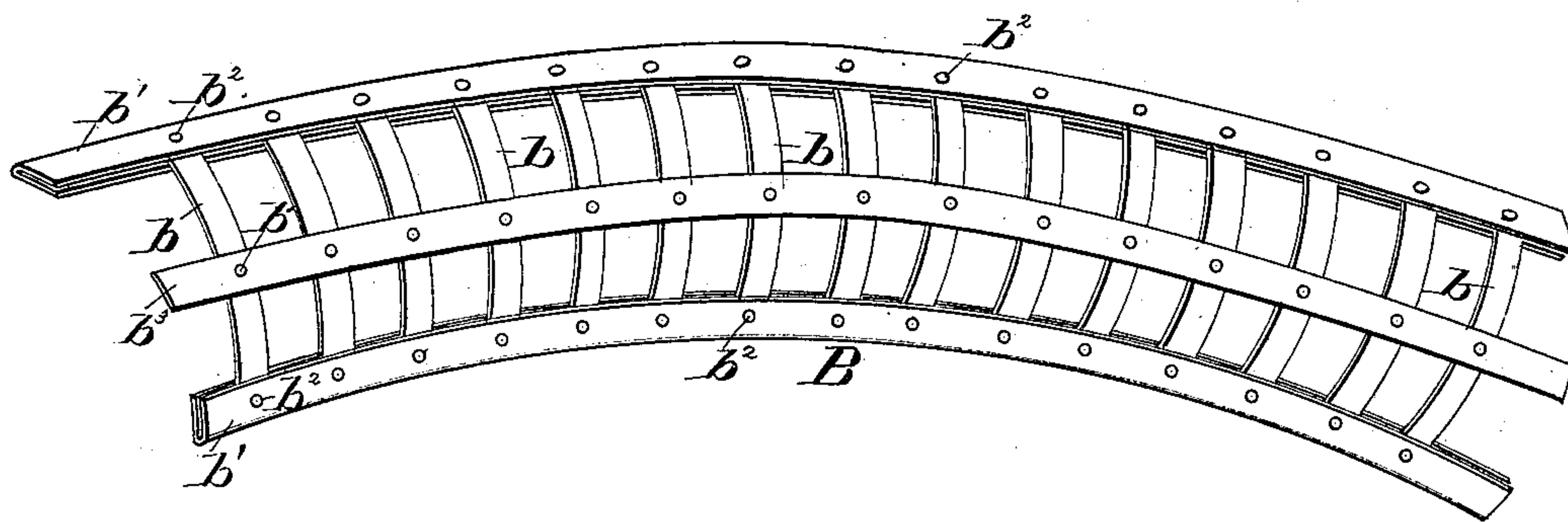


Fig. 2.



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UNITED STATES PATENT OFFICE.

KIRK W. HOLMES, OF COLUMBUS, OHIO.

VEHICLE-TOP.

SPECIFICATION forming part of Letters Patent No. 332,529, dated December 15, 1885.

Application filed October 19, 1885. Serial No. 180,301. (No model.)

To all whom it may concern:

Be it known that I, KIRK W. HOLMES, of Columbus, in the county of Franklin, and in the State of Ohio, have invented certain new and useful Improvements in Vehicle-Tops; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to the construction of vehicle-tops, and will be fully described hereinafter.

In the drawings, Figure 1 is a perspective view of a buggy-top embodying my invention, and Fig. 2 is a perspective view of my skeleton spring pad.

A A A' A' represent, respectively, the front and rear bows of a vehicle-top of ordinary construction, and B is my skeleton spring-pad, extending immediately over the bend of the bows on each side from the front bow to the back bow of said top, between the inner head-lining, *a*, of the carriage-top and the outer covering, *a'*, of leather or other material. Heretofore in ordinary cases this space between the lining and outside covers of vehicle-tops has been usually filled with hair, moss, and paste, which is objectionable, because the paste creates dampness and consequent mold and decay, besides which wet filling causes stiffness and interferes with folding the top down flat when desired.

My pad B is thus constructed: *b b b*, &c., are springs, made of any suitable elastic material—such as brass or other thin spring metal, or whalebone—curved, as shown, and preferably from a quarter to a half inch in width, and each some nine inches (more or less) in length. These springs are preferably united by edge strips, *b'*, of strong webbing or other suitable strong material, which is folded and applied as shown in Fig. 2, the end of the series of springs being inserted between the folds of the webbing and secured thereto by rivets *b²*, or other convenient fastening devices. In addition, a central strip, *b³*, of webbing, may be applied midway between the edge strips, *b' b'*, on one side of the springs *b b b* and riveted or secured thereto, as shown.

If desired, I may cover up the spring-skeleton entirely on either side with webbing or other suitable fabric, (in manner similar to

the construction of a corset;) but ordinarily the skeleton pad will be sufficient.

This skeleton pad may be made of any suitable length, according to the distance between the front and rear bows of the vehicle when extended in any given case; or I may make the said skeleton spring-pad by the yard and cut it off in proper lengths from time to time.

When it is desired to provide a soft cushion between the skeleton spring-pad B and the outside leather, *a'*, to relieve the friction which may be caused by the natural wear of the top, I may provide an intermediate cloth pad, C, of sheet-wadding, drugget, or other soft material, of from half an inch to an inch in thickness, and attach the same to the skeleton pad (after the latter is in position on the bows) by uniting the two along the edges before the leather or other outside material is applied.

By my invention I greatly simplify the construction of carriage and buggy tops, at the same time giving them a more elegant and durable shape and guarding against the falling down of the pad (as will happen with hair, moss, &c.) between the head-lining and outer covering, as my pad B is permanently secured at each end to the bows, as shown at *a²* in Fig. 1, and yet, owing to its construction, affording the greatest facility for the folding back of the bows of the vehicle-top when desired.

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

1. A skeleton spring-pad for vehicle-tops, consisting of the springs *b b*, united by the strips of webbing, &c., *b' b'*, substantially as set forth.

2. In a vehicle-top, the skeleton spring-pad B, permanently secured at each end to the front and rear bows, between the head-lining and the outer covering, substantially as set forth.

3. In a vehicle-top, the combination, with the front and rear bows, of the skeleton spring-pad B, secured thereto, and the cloth pad or cushion C, secured to the pad B, between it and the outer covering, substantially as set forth.

4. In a vehicle-top, in constructing the skeleton pad by weaving the springs or securing the springs by weaving them in with the fabric, so as to entirely or partially in-
5 close the spring, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Columbus, in

the county of Franklin and State of Ohio, in the presence of two witnesses.

KIRK W. HOLMES.

Witnesses:

NAT. F. DAVIS,
W. H. WEHRMAN.