W. B. DOOLITTLE.

CARRIAGE SLAT-IRONS.

No. 194,660. Patented Aug. 28, 1877.

Fig. 1.

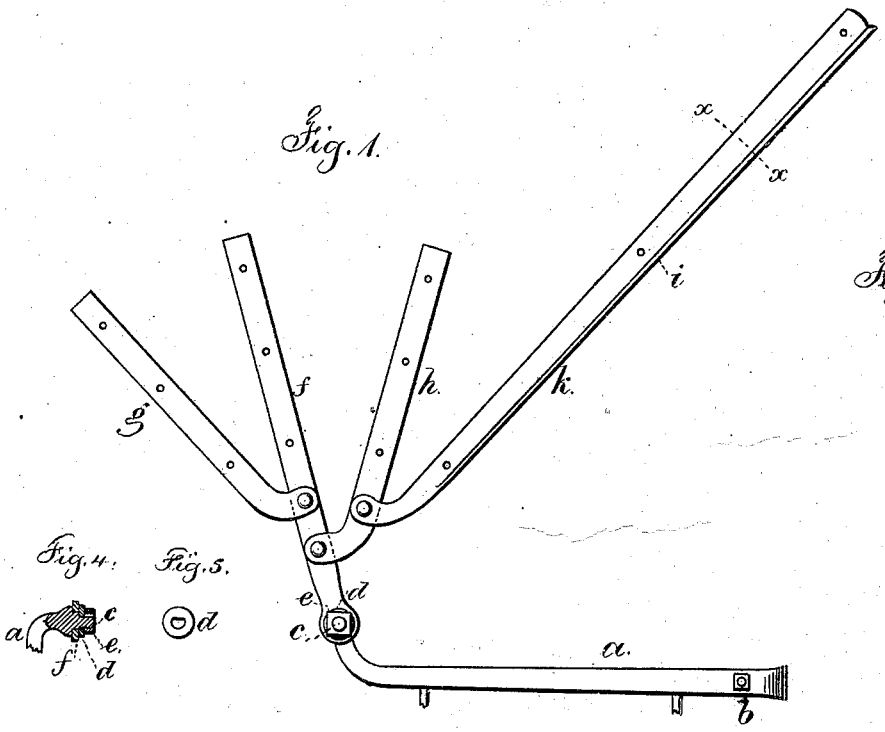


Fig. 2.

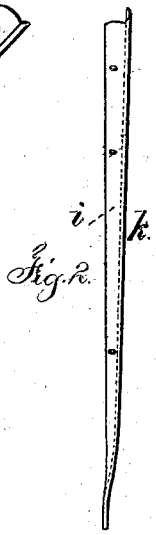
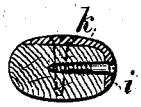


Fig. 4.

Fig. 5.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM B. DOOLITTLE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CARRIAGE-SLAT IRONS.

Specification forming part of Letters Patent No. **194,660**, dated August 28, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that I, WILLIAM B. DOOLITTLE, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Slat-Irons for Carriage-Bows, of which the following is a specification:

Carriage-bows are usually made of wood, and in order to obtain the desired elegance in appearance the same are thin and light; hence where the wooden bow is united to the slat-iron the bow is liable to become bent or sprung. This is especially the case with the back bow, which rests upon the prop-block when the top is lowered, and which is exposed to the strain of the flexible material upon the top and at the back.

My invention is made for strengthening the wooden bow without increasing the size thereof.

I make use of slat-irons that are longer than usual, and each is provided with a flange at one edge, that tapers down to the surface of the slat-iron, and the wooden bow is received into the trough formed by the slat-iron, and its flange and the wood are secured to the iron by screws. The result of this construction is that the lower part of the wooden bow is strengthened and stiffened in such a manner that it will not bend or spring out of shape by the strain to which it is subjected.

In the drawing, Figure 1 is a side elevation of the slat-irons and seat-rail. Fig. 2 is an edge view of one of the slat-irons. Fig. 3 is a section at the line *x x* in larger size. Fig. 4 is a section of the pivot-stud, and Fig. 5 an elevation of the washer thereon.

The seat-rail *a* is provided with the prop-block *b* and pivot-stud *c*, as usual, except that the pivot-stud *c* is flattened upon one side to receive the washer *d*, that has an opening, as shown in Fig. 5, to set upon said pivot-stud, and the nut *e* secures the washer *d* in place, and also the eye of the slat-iron *f*. This washer prevents the nut unscrewing by the movement of the slat-irons upon the pivot-stud, and is equally available and useful upon the pivot-studs of the carriage-props.

There are usually four bows in carriage-tops, and the slat-irons *f g h k* have been jointed together, as shown in the drawing.

My improvement is especially adapted to the back bow; but it may be applied to either or all the bows. I have shown the same as applied to the slat-iron *k* of the back bow; and the improvement consists in the flange *i*, extending outwardly from the back edge of the slat-iron, such flange being of a width to form with the slat-iron a trough, into which the lower portion of the carriage-bow is laid, the wood being shaped to correspond to the iron; and the exterior surfaces of the slat-iron and flange are convex, so as not to present any angles to the enameled-leather covering of the bow.

The flange *i* of the slat-iron tapers at the end toward the joint, so as to correspond to the tapering end of the wooden bow; and I remark that the slat-iron is to be secured to the wood by screws or rivets inserted through both the slat-iron and its flange, and these screws, being introduced alternately at right angles, connect the wood to the slat-iron in the most reliable manner, and lessen the liability to split the wood, and the number of screws is not necessarily increased.

I am aware that the slat-iron has been grooved near the joint for the reception of the end of the wood bow; but the same does not strengthen the wood or allow for the insertion of attaching screws or nails in two directions.

I claim as my invention—

The slat-iron for carriage-bows, made with a flange at one edge, that tapers at the end nearest the joint, and is provided with holes for the attaching screws or rivets, substantially as set forth.

Signed by me this 26th day of January, A. D. 1877.

W. B. DOOLITTLE.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.