

(No Model.)

G. H. WILLIAMS.
VEHICLE AXLE.

No. 286,358.

Patented Oct. 9, 1883.

Fig. 1.

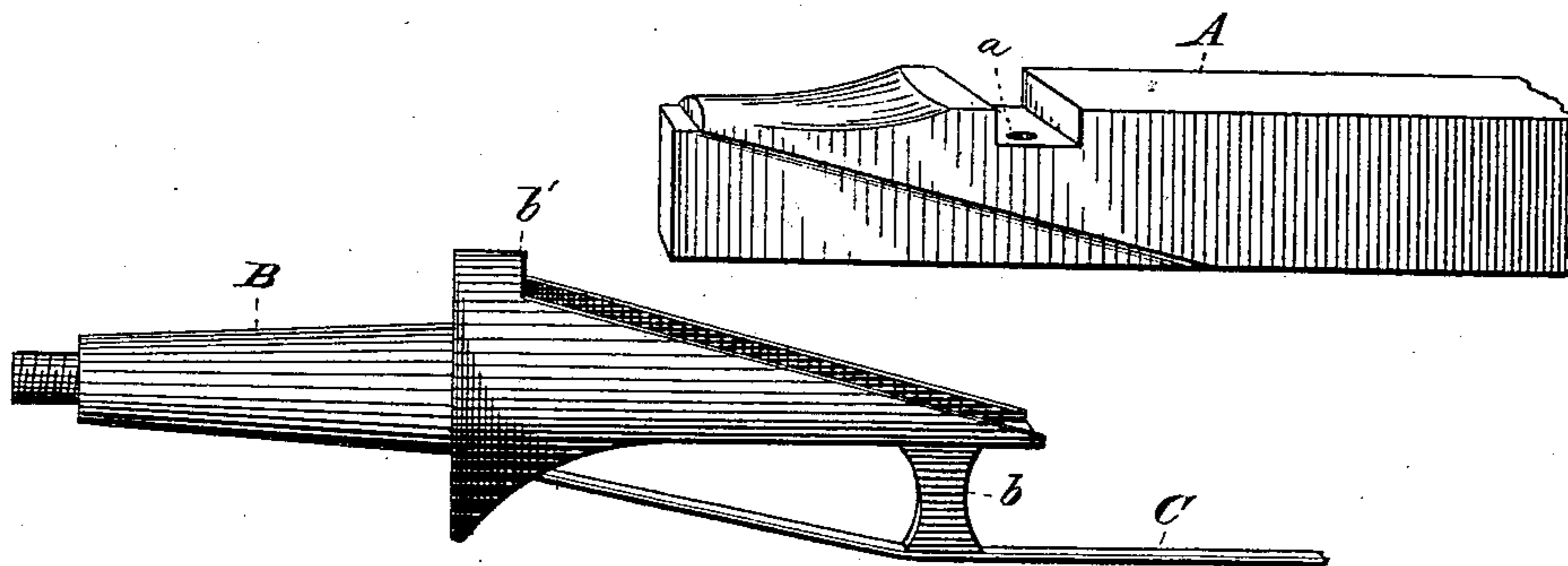
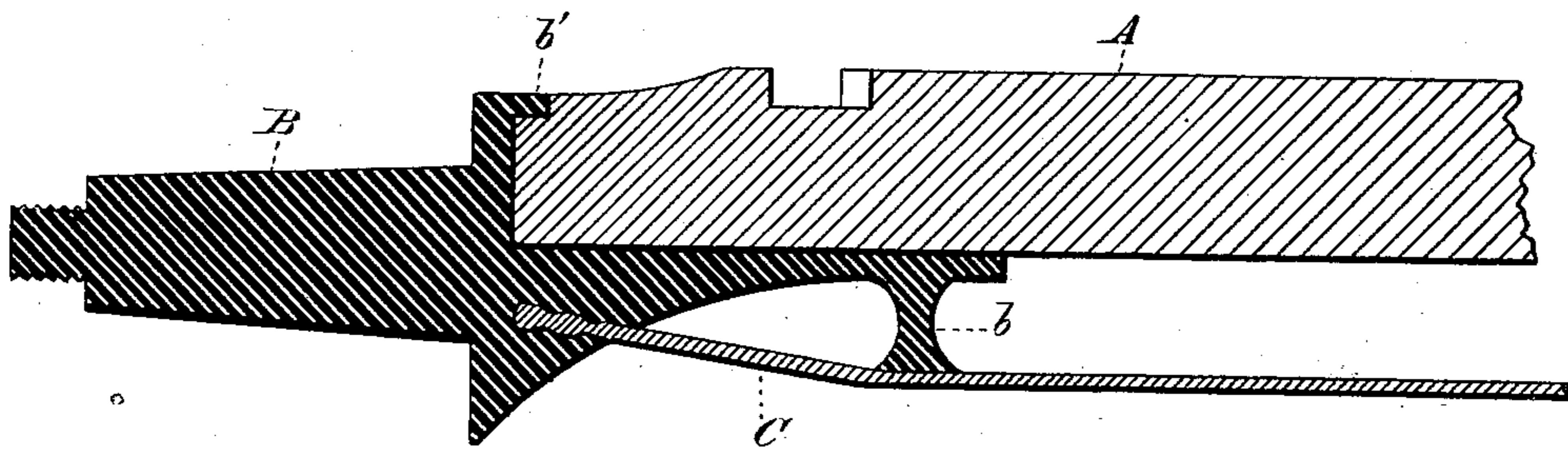


Fig. 2:



WITNESSES

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UNITED STATES PATENT OFFICE.

GURDON H. WILLIAMS, OF GREENSBURG, OHIO, ASSIGNOR OF ONE-HALF TO
LEMUEL M. DENNISON, OF SAME PLACE.

VEHICLE-AXLE.

SPECIFICATION forming part of Letters Patent No. 286,358, dated October 9, 1883.

Application filed June 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, GURDON H. WILLIAMS, of Greensburg, in the county of Trumbull and State of Ohio, have invented certain new and
5 useful Improvements in Axles for Vehicles; 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 pertains to make and use the
10 same.

My invention relates to improvements in axles for vehicles; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out
15 in the claim. My invention relates more especially to that class of axles where a central part of wood has attached at each end a metal skein or journal.

In the drawings, Figure 1 is a view in perspective of a skein, and the end of the wooden part of the axle suitably prepared for engaging the skein. Fig. 2 is a vertical section, showing the skein and wood in proper engagement.

25 A represents one end of the wood portion of the axle, and B the skein; *b*, a brace preferably cast on the skein, and C a truss-rod, the end of which, as shown, is cast into the skein, while the other end is threaded, but not shown
30 in the drawings. The rods are of such length as will extend to about the central part of the axle, and the contiguous end of these rods from the respective ends of the axle are joined by a turn-buckle or other similar device, by
35 which the rods may be drawn taut.

As shown, the skein is provided with a chamber for the reception of the wood, and a lip, *b'*, that holds the wood at this end from lifting from the socket. With this end of the wood
40 held firm in the socket, it will be seen that with the truss-rod C drawn taut all of the parts must remain firmly in their respective places. The truss greatly increases the

strength of the axle without adding much to the weight thereof.

As seen in Fig. 1, the hole *a* is not quite central laterally. This admits of entering the bolt from below without contact with the rod C; but as the hole is not central, as aforesaid, it is not shown in Fig. 2.

With the thimble-skeins heretofore in use the wood extended almost the entire length of the skeins, and this extra length of wood involved considerable extra cost, as wood for this purpose is of the best quality, and consequently commands a high price. The journal part of the skein, as herein shown, is solid, but may be made hollow, if desired. As the hollow in this part of the skein would be likely to be much smaller than the said chamber that receives the wood, there could be a sufficient seat for the end of the wood, so the only change necessary would be to make the journal part larger and hollow.

In case of the hollow journal the lip *b'* might, if desired, be dispensed with, and, instead, the wood might extend a short distance into the said hollow—say from a quarter to a half inch.

I am aware that it is not new to cast an axle-skein on a wrought-iron axle-bar, and make no claim to such construction of parts.

What I claim is—

The combination, with the wood axle A and the skein B, provided with an open-top slot for the reception of one end of the axle, a lip, *b'*, for retaining the wooden axle against vertical displacement, and a brace, *b*, of the truss-rod C, having its end cast in the axle-skein, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 22d day of June, 1883.

GURDON H. WILLIAMS.

Witnesses:

R. W. CRANE,
C. L. HIGGINS.