A. F. DIMOND & J. A. MULLEN.

WAGON STANDARD.

No. 183,910. Patented Oct. 31, 1876.

Fig. 1.

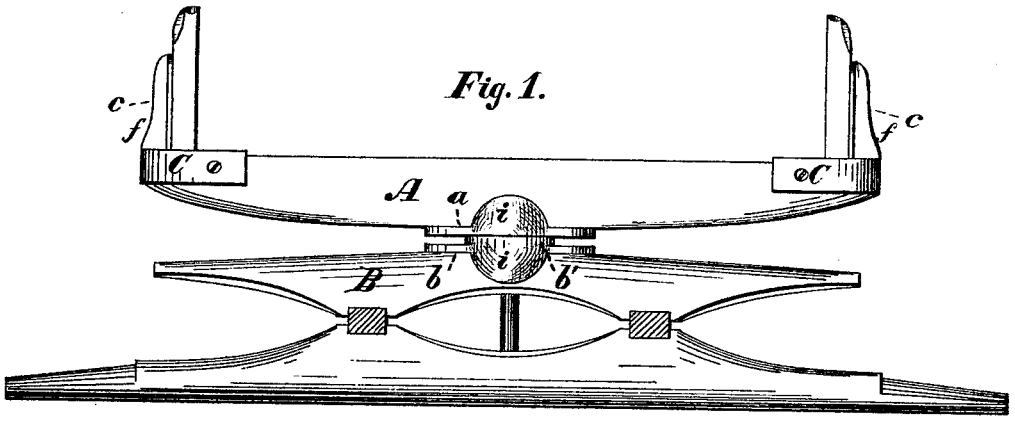


Fig. 2.

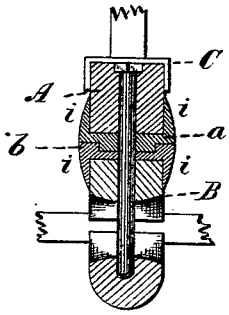


Fig. 3.

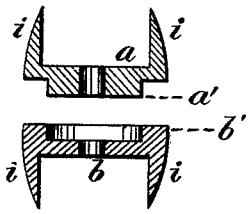


Fig. 4.

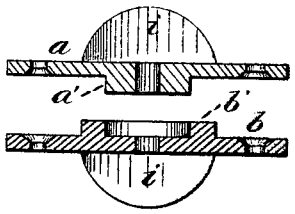


Fig. 5.

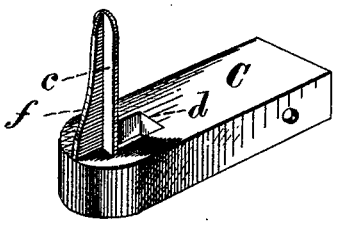
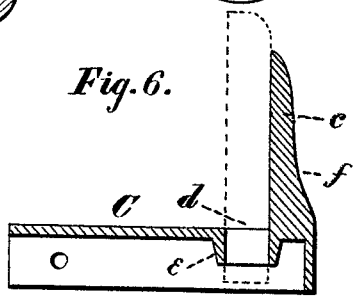


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBAN F. DIMOND AND JAMES A. MULLEN, OF SANDY CREEK, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO ROBERT MULLIN, OF WILKINSBURG, PA.

IMPROVEMENT IN WAGON-STANDARDS.

Specification forming part of Letters Patent No. **183,910**, dated October 31, 1876; application filed August 16, 1876.

To all whom it may concern:

Be it known that we, ALBAN F. DIMOND and JAMES A. MULLEN, of Sandy Creek, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bolster-Irons; and we 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 it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation of the bolsters and irons complete. Fig. 2 is a transverse vertical section of same at the middle. Fig. 3 is a detail section of plates, and Fig. 4 is the same in another direction. Fig. 5 is a view of cap. Fig. 6 is a longitudinal vertical section through the middle of same.

This invention has relation to bolster-irons; and consists in the novel construction and arrangement of the cast-metal caps fitting the ends of the bolster, as hereinafter described and specifically claimed.

A is the upper bolster; B, the lower. To the ends of bolster A a cap, C, of the form shown in Figs. 5 and 6, is fitted by a single bolt passing through transversely. This cap is made of a single piece of metal, cast and annealed, and is hollow, to fit down on the bolster. It has a rising brace, *c*, facing inwardly from its outer end, and has an aperture, *d*, at the base of brace *c*. This aperture has a downward bushing, *e*, on its under edge, which is let into the wood of the bolster. Its object is to form a seat for the standard, as seen in Fig. 6. In practice, we usually mortise the bolster to a greater depth than the bushing, but make the mortise at its extension slightly smaller than the opening *d*, so that when the standard is driven in it will be very firm and stiff. The cap is held in place by a single bolt passing through the bolster. Thus fitted, the standard is braced strongly against all pressure, and as only one bolt is used, no tendency arises in the bolster to split. Being cast and malleableized, the cap can be fitted, if desired, and is cheaply gotten up. The bolster-plates consist of two corresponding plates, *a b*, plate *a* being made with a circular boss, *a'*, and plate *b* with a matching annular boss, *b'*, or vice versa, and each furnished with two wings, *i*, to embrace the bolster. They are fitted to the bolsters by screws or spikes or other means. The bosses are so constructed, relatively, that the opposing faces of the plates *a b* shall not touch each other, as seen in Fig. 1. This takes away much of the friction, leaving the bearing altogether to the bosses *a'* and *b'*. Both are perforated centrally for the king-bolt. The wings take the strain off the screws or other attaching devices, and hence splitting is prevented altogether. The uprights extending from the caps C are made with a web, *f*, to strengthen them against the outward thrust of the standards, and there is then no chance for the brace to fracture at its base.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is as follows:

1. In combination with a bolster, a cap, C, made hollow to embrace the bolster end, and having the webbed upright *c* and aperture *d*, with its bushing *e*, substantially as and for the purposes described.

2. As a new article of manufacture, the bolster-iron consisting of the hollow open-bottomed cap C, having the webbed upright *c* and aperture *d*, with depending bushing *e*, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 9th day of August, 1876.

ALBAN F. DIMOND.
JAMES A. MULLEN.

Witnesses:
THOS. J. MCTIGHE,
ROBERT MULLIN.