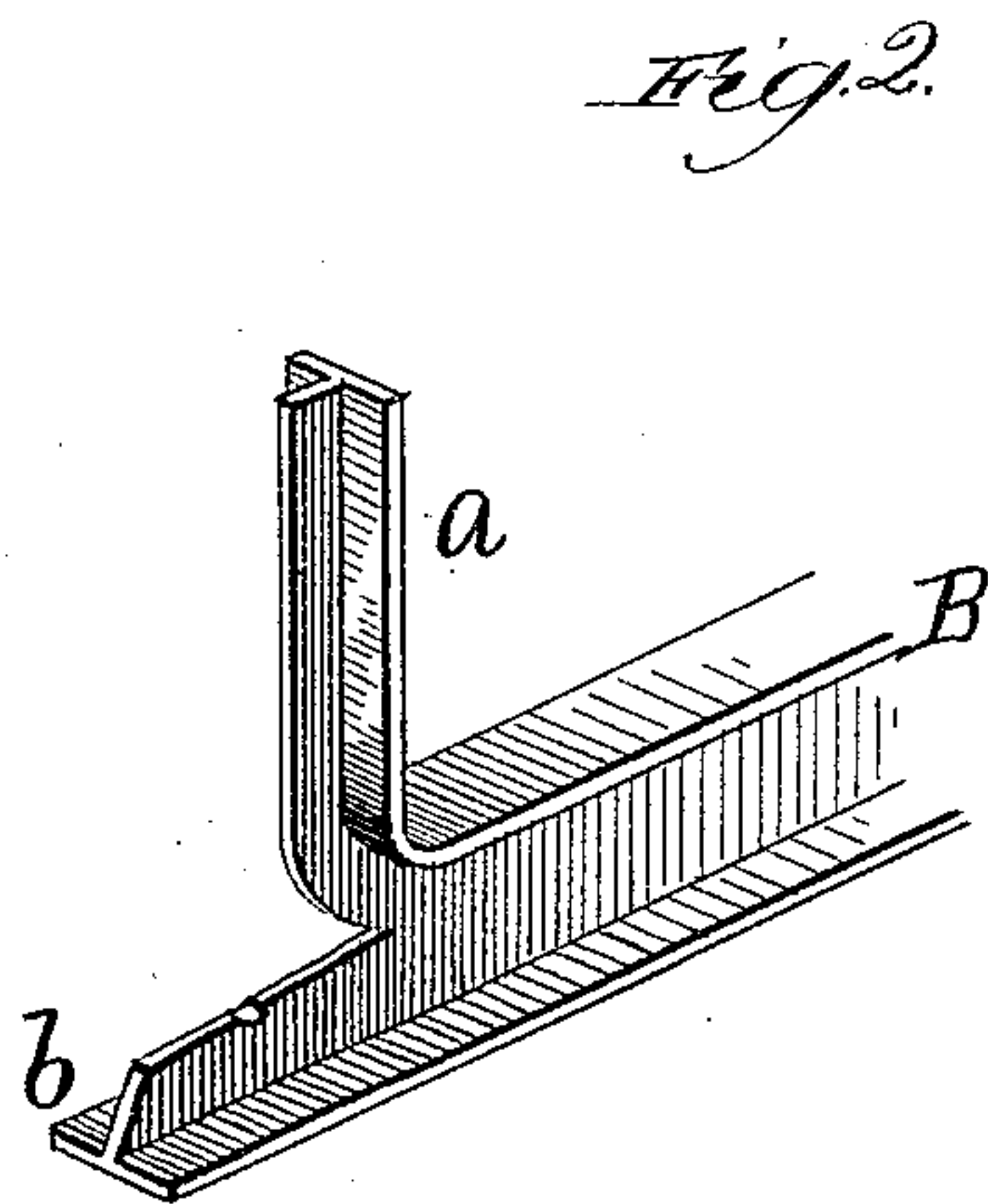
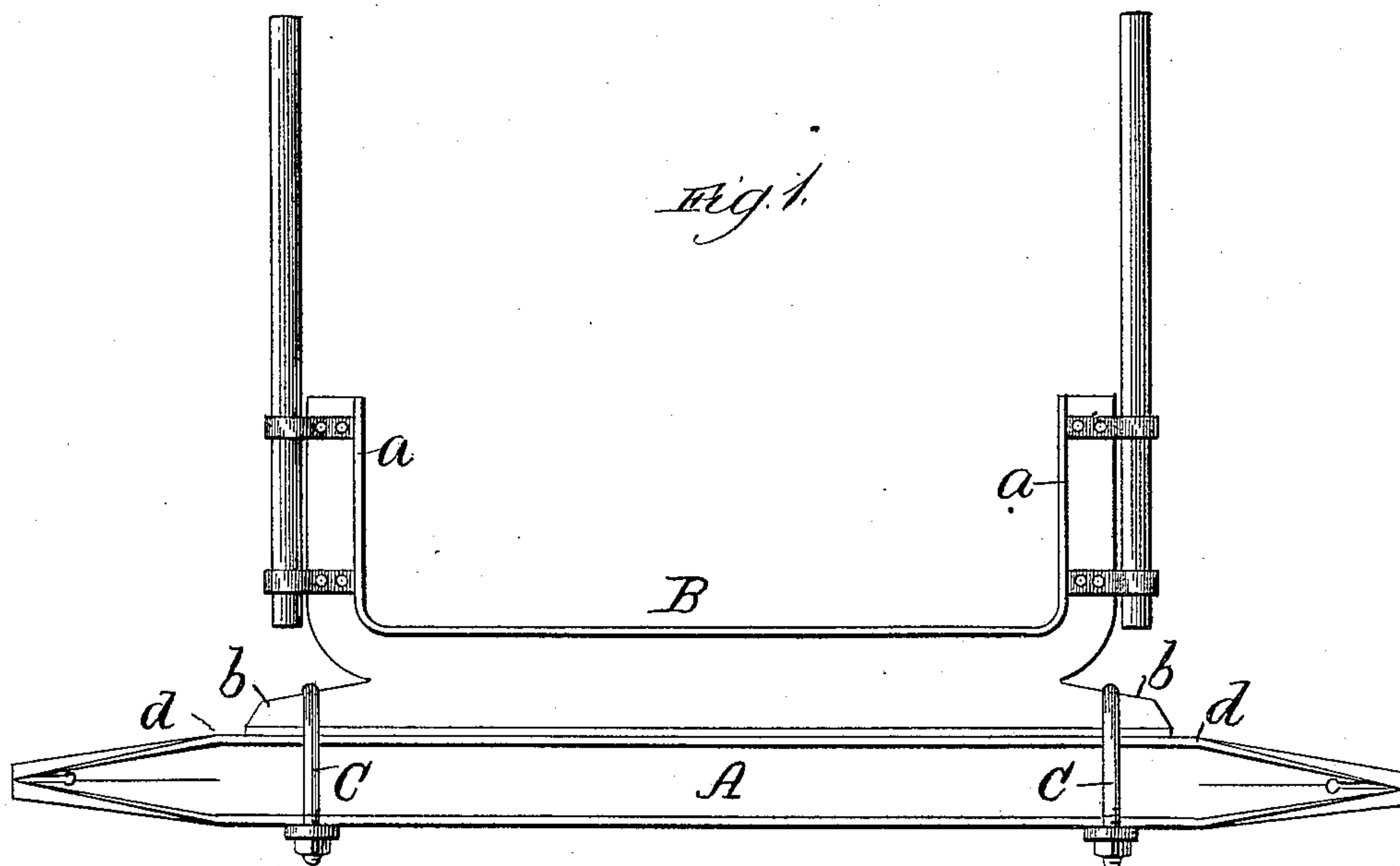


(No Model.)

L. P. FRIESTEDT.
VEHICLE AXLE AND BOLSTER.

No. 444,590.

Patented Jan. 13, 1891.



Witnesses:

E. J. Taylor
L. M. Truman

Inventor:

L. P. Friestedt
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UNITED STATES PATENT OFFICE.

LUTHER P. FRIESTEDT, OF CHICAGO, ILLINOIS.

VEHICLE AXLE AND BOLSTER.

SPECIFICATION forming part of Letters Patent No. 444,590, dated January 13, 1891.

Application filed October 22, 1890. Serial No. 368,929. (No model.)

To all whom it may concern:

Be it known that I, LUTHER P. FRIESTEDT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Vehicle Axle and Bolster, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to a combined axle-bar and bolster, and has for its object the providing of a structure of this character which possesses unusual strength and durability, and being more especially intended for use in the construction of heavy traffic wagons.

Figure 1 is a side elevation of an axle and bolster which embodies my improved features, and Fig. 2 a broken-away perspective of one end of the bolster detached from the axle.

Referring to the drawings, A represents the axle-bar, and B the bolster, both of which are formed from metal beams that are I-shaped in cross-section.

The axle will not be described in detail, as that forms the subject-matter of another application filed on the 22d day of October, 1890, Serial No. 368,930.

The bolster is formed by taking a piece of I-beam metal and splitting it inwardly from each end through the center of the web to the required depth, then bending the longer upper half of the split ends upwardly at right angles in a vertical plane, and forming the integral standards *a*, which are then T-shaped in cross-section, as shown in Fig. 2.

The lower flange of the bolster I-beam rests flatly upon the corresponding upper flange of the axle, the lower and shorter split T ends *b* terminating at the shoulder *d* on the axle,

thus affording additional strength to the same at the point where it is most liable to break.

The bolster is rigidly secured to the axle by means of the clips C. Other attaching devices may, however, be employed.

It will be observed that this arrangement forms a substantial and solid structure, to which there is but little wear, if any, and no possibility of any of the parts breaking.

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

1. The method herein described of forming a wagon or vehicle bolster, which consists in taking a piece of a metal I-beam and splitting the same inwardly some distance from both ends through the web, then turning the upper split part upwardly at right angles to form integral standards T-shaped in cross-section, substantially as set forth.

2. A wagon or vehicle bolster formed from a metal I-beam and having the respective ends turned upwardly at right angles to form standards integral therewith, substantially as described.

3. A wagon or vehicle bolster consisting of a metal I-beam split inwardly from both ends, the upper and longer split ends being turned upwardly to form standards and the lower or shorter ends lying flatly on the axle, substantially as described.

4. In a wagon or vehicle structure, the combination, with an axle-bar formed from a metal I-beam and having spindles integral therewith, of a bolster formed from a similar beam and rigidly secured to the axle, the respective ends of said bolster being bent upwardly to provide standards, substantially as described.

LUTHER P. FRIESTEDT.

Witnesses:

L. M. FREEMAN,
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