

G. W. HENDERSON.
Vehicle Axle.

No. 204,435.

Patented June 4, 1878.

Fig. 1.

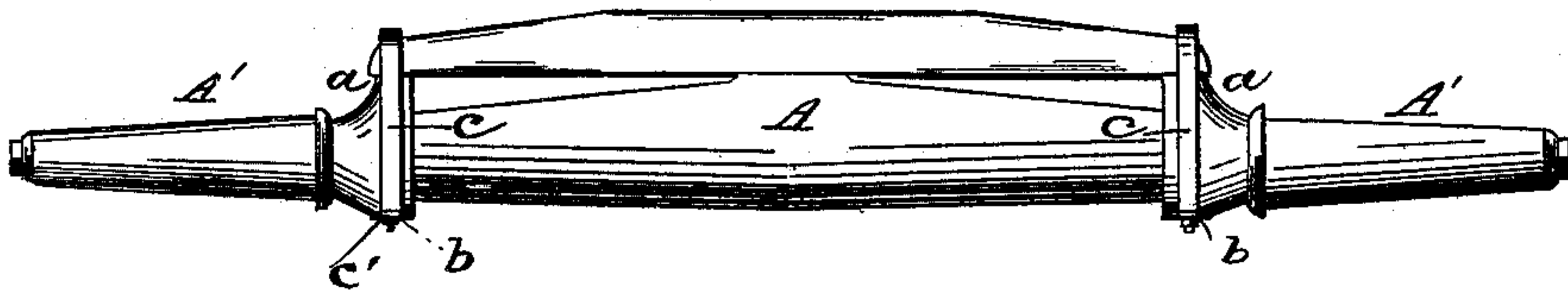
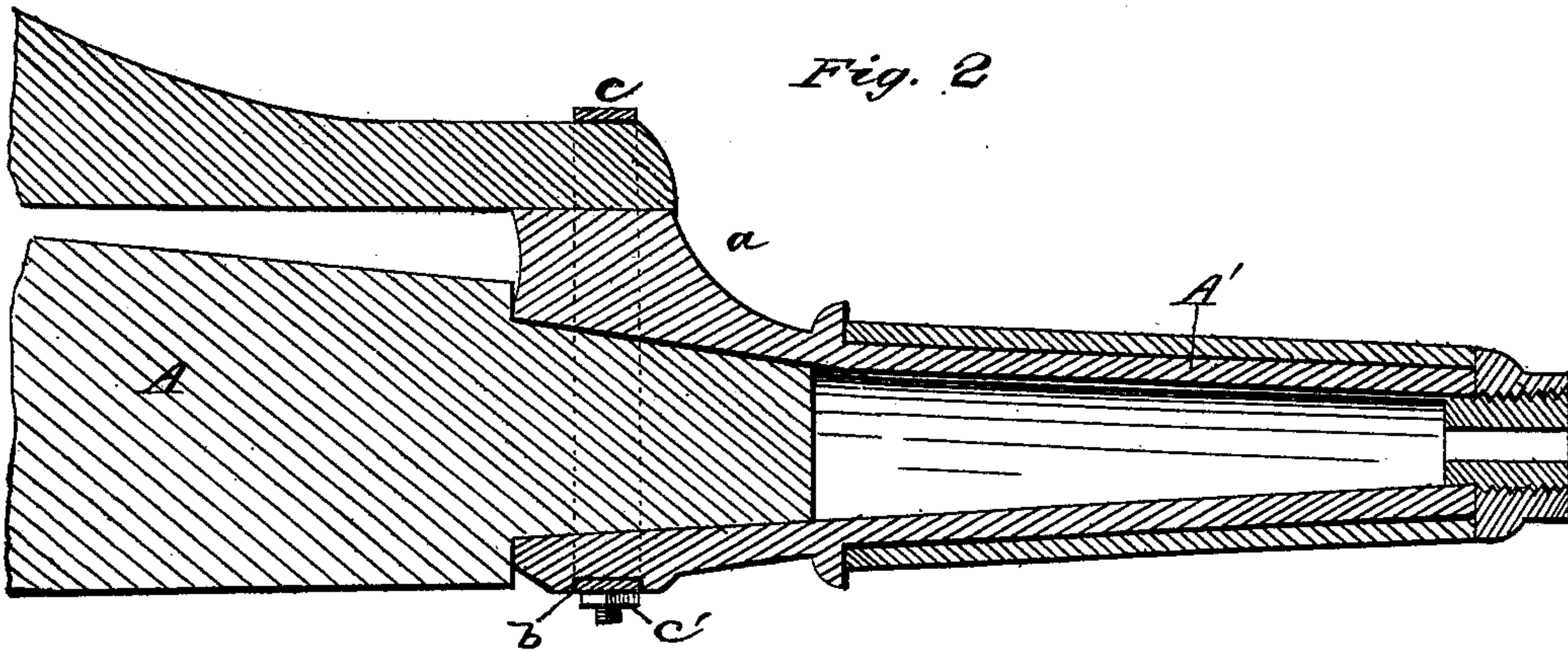


Fig. 2.



Witnesses
Fred G. Dietrich
[Signature]

Inventor
Geo. W. Henderson
by Lafayette Bingham *[Signature]*

UNITED STATES PATENT OFFICE.

GEORGE W. HENDERSON, OF UNITY, WISCONSIN.

IMPROVEMENT IN VEHICLE-AXLES.

Specification forming part of Letters Patent No. 204,435, dated June 4, 1878; application filed April 17, 1878.

To all whom it may concern:

Be it known that I, GEORGE W. HENDERSON, of Unity, in the county of Marathon and State of Wisconsin, have invented certain new and useful Improvements in Vehicle-Axles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a side view, and Fig. 2 a longitudinal section, of my improvement in axles.

The same part in the two figures is denoted by the same letter.

This invention relates to certain improvements in vehicle-axles; and it consists in the construction and arrangement of the parts, substantially as hereinafter more fully set forth.

In the annexed drawing, A refers to the axle, which is constructed with hollow detachable end sections A' A', which fit upon shouldered portions of the central solid portion A, as shown in Fig. 2. By this construction the sections A' A' need only be cast or made of iron, while the other portion can have the requisite strength and be made of a tough wood, or other and less expensive material. The sections A' A' are constructed with brackets or shoulders *a a*, and with grooves or recesses *b b*, to assist in strapping or securing the said sections to the rear or hind bolster, as shown, which also secures them in position upon the central solid section A.

It will be further observed, with reference

to the shoulders or supports *a a*, that they are provided with flat resting-surfaces upon which to support the bolster firmly in position, the ends of said bolster being secured by clips or bows *c*, yoking the same to the bolster by plates and nuts *c'*. These shoulders *a a* are also flared inwardly and toward the axle A around their circumference, to protect the said axle, at its point of contact with the arms, from the dirt or mud thrown up by the moving wheels, and also to impart a finished appearance to the shoulders and axle-arms.

The object of making the end sections of the axle, upon which the wheels revolve, of metal is obvious.

This invention comprehends lightness, cheapness, and simplicity, and therefore furnishes an article greatly to be desired.

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

The combination, with the axle A, of the axle arms or skeins A' A', having the bolster-supports *a a* formed thereon, said supports being flared circumferentially and toward the axle A, and fastened in position with the axle-arms upon the axle and to the bolster by the clips *c*, and plates and nuts *c'*, said plates extending through grooves *b b* in the lower side of the axle-arms, substantially as shown and described, for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE W. HENDERSON.

Witnesses:

J. H. COOK,

E. P. CRAREY.