

A. J. ALSTON.

Malleable Iron Axle Skeins.

No. 134,189.

Patented Dec. 24, 1872.

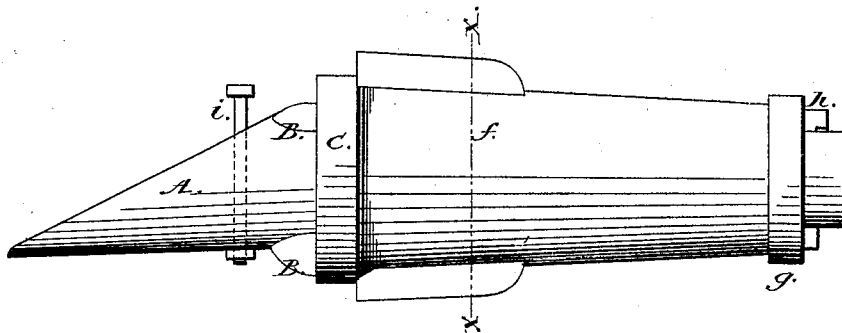


Fig. 1.

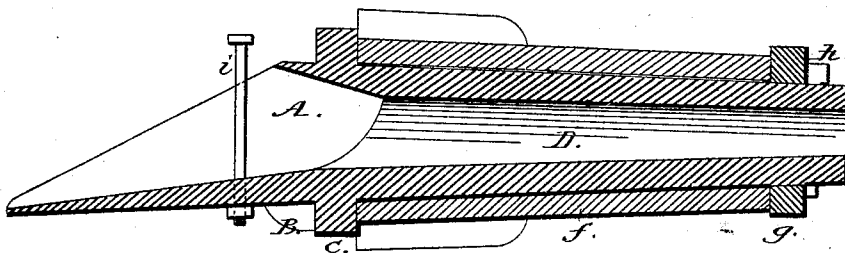


Fig. 2.

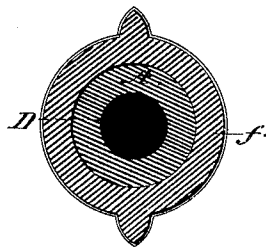


Fig. 3.

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UNITED STATES PATENT OFFICE.

ANDREW J. ALSTON, OF ALLEGHENY CITY, PENNSYLVANIA.

IMPROVEMENT IN MALLEABLE-IRON AXLE-SKEINS.

Specification forming part of Letters Patent No. 134,189, dated December 24, 1872.

CASE B.

To all whom it may concern:

Be it known that I, ANDREW J. ALSTON, of the city and county of Allegheny, and State of Pennsylvania, have invented a certain new and useful article of manufacture—an Axle-Skein constructed of Cast-Iron, subsequently converted into "Malleable Iron;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in furnishing a new article of manufacture, viz: An axle-skein constructed of cast-iron, subsequently converted into "malleable iron."

To enable others skilled in the art to make my new article of manufacture, I will proceed to describe more fully its construction.

In the accompanying drawing, which forms part of my specification, Figure 1 is a side view of my improved axle-skein and its "pipe-box." Fig. 2 is a longitudinal section of the same; and Fig. 3 is a transverse section of the same at line *x* of Fig. 1.

In the accompanying drawing, A represents the axle-skein, which is provided with braces B for the collar C, which may form part of the skein A, or may be made separate from it, but, in either case, the skein should be provided with the braces B. The skein is provided with an opening, D, through it for the reception of the axle. *f* represents the pipe-box for the hub of the wagon-wheel. *g* represents the washer, and *h* the linch-pin. The skein A is provided with an opening for

the bolt (indicated by dotted lines at *i*) used for securing it on the axle, and is also provided with openings for the linch-pin.

The skein A, collar C, pipe-box *f*, washer *g*, and linch-pin *h*, are constructed of cast-iron, through the medium of suitable patterns, and by the molding and casting process well understood by iron-molders and foundrymen. The castings are made of that brand of pig-iron known among foundrymen as "Missouri White Pig," or other pig-iron of the same nature, and having the same properties.

The several parts, after being cast, are properly cleaned, after which the skeins, collars, washers, and linch-pins are packed in an annealing-compound and placed in an annealing-oven and subjected to heat until the castings are converted into "malleable iron," which process of converting is well understood by manufacturers of malleable castings.

An axle-skein constructed as hereinbefore described will be very strong and cheap, and can be made with great facility, saving labor and time in its production; and, in use, it will be found that the pipe-box will turn upon it with less friction than upon the ordinary wrought or cast iron skeins.

What I claim as of my invention is—

A new article of manufacture—an axle-skein made of malleable iron, substantially as herein described, and for the purpose set forth.

ANDREW J. ALSTON.

Witnesses:

A. C. JOHNSTON,
JAMES J. JOHNSTON.