

(No Model.)

G. P. HOBBS.
AXLE.

No. 514,679.

Patented Feb. 13, 1894.

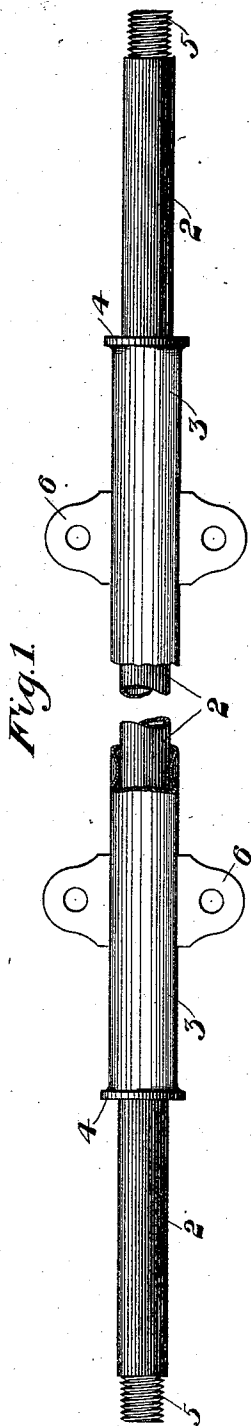


Fig. 1.

Fig. 2.

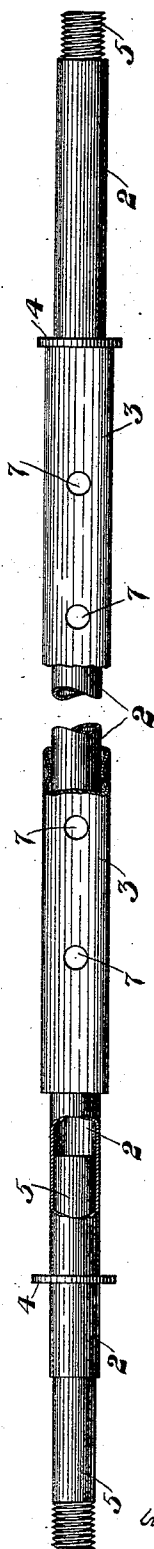
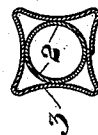


Fig. 3.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE P. HOBBS, OF WHEELING, WEST VIRGINIA.

AXLE.

SPECIFICATION forming part of Letters Patent No. 514,679, dated February 13, 1894.

Application filed August 30, 1893. Serial No. 484,373. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. HOBBS, of Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Axles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved axle, partly broken away. Fig. 2 is a similar view of a modified form, showing also the method of assembling the parts; and Fig. 3 is an enlarged cross-section of the casing.

My invention relates to the construction of axles used upon baby carriages and light vehicles, and is designed to simplify their construction, making them lighter, cheaper and stronger than was heretofore possible.

To that end it consists in an axle made of sheet metal (preferably sheet steel), bent up into axle form, with a longitudinal seam of either lap or butt-form.

It also consists in the construction and arrangement of parts, as hereinafter more fully described and set forth in the claims.

In the drawings, in which similar numerals indicate corresponding parts, 2 represents the body of the axle, consisting of a sheet metal tube having a butt-joint throughout its length. Surrounding the intermediate portion of this tube is the square casing 3, having its edges preferably slightly lapped past each other. In the bending up of this casing I prefer to make its sides concave, as shown in Fig. 3, as I find that this strengthens it and enables lighter metal to be employed. To cover up the joints at the ends of this casing and form end bearings for the wheel, I slide over the ends of the inner tube the washers 4 which fit snugly against the ends of the casing.

To strengthen the end portions of the tube and provide means for holding the wheels thereon, I provide short rods or cores 5, which are screw threaded at their outer ends to re-

ceive suitable nuts and are slid into each end of the tube. These rods stiffen the bearing for the wheel, and when the parts are assembled the whole axle is dipped in a bath of tin which, entering the seams, solders the rods in place, as well as uniting the casing, tube and washers.

To provide for the attachment of the springs or handles, I may provide the chairs 6 as in Fig. 1, which, being slipped on, are soldered by the step of dipping, or, in lieu thereof, I may form holes 7 through the casing and tube at suitable points as in Fig. 2.

The advantages of the axle result from the few parts, ease and cheapness of making and assembling, and the strength of the finished product.

It is evident that the form of the casing, washers, &c., may be greatly varied without departure from my invention, since what I claim is—

1. An axle consisting of a sheet metal tube, having a casing about its intermediate portion, substantially as described.

2. An axle, consisting of a sheet metal tube, having a casing about its intermediate portion, and washers at the ends of the casing; substantially as described.

3. An axle, consisting of a sheet-metal tube having a casing, said casing having concave faces, substantially as described.

4. An axle, consisting of a sheet-metal tube provided with an intermediate casing and end cores, substantially as described.

5. An axle consisting of a sheet-metal tube having a casing about its intermediate portion, strengthening end cores, and washers fitting around the cores at the ends of the casing, substantially as described.

In testimony whereof I have hereunto set my hand.

GEORGE P. HOBBS.

Witnesses:

R. S. AGNEW,
LOUIS J. KNABE.