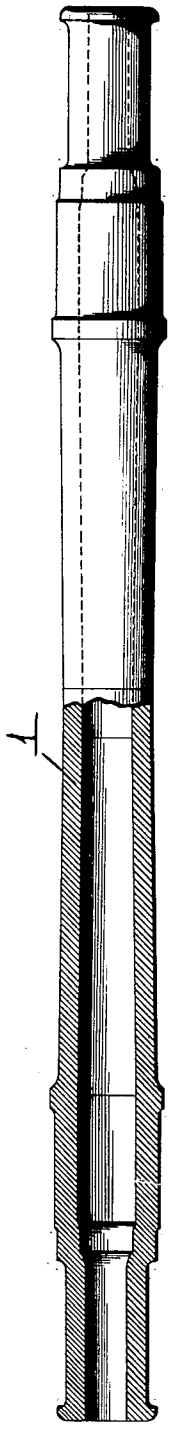
No. 875,455. PATENTED DEC. 31, 1907.

G. F. PRICE.

CAR AXLE.

APPLICATION FILED MAY 17, 1907.



ATTEST.

H. J. Fletcher.

Lily Root

INVENTOR.

G. FRANK. PRICE.

BY Geo. H. Knight

ATTY.

UNITED STATES PATENT OFFICE.

GEORGE FRANKLIN PRICE, OF ST. LOUIS, MISSOURI.

CAR-AXLE.

No. 875,455. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed May 17, 1907. Serial No. 374,219.

To all whom it may concern:

Be it known that I, GEORGE FRANKLIN PRICE, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Car-Axles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to an improvement in car axles and it has for its object the production of an axle that is much less expensive in manufacture and may be transported at a greatly decreased cost to which end the axle is made tubular throughout its length.

The drawing is a view partly in longitudinal section and partly in elevation of my improved axle.

In the accompanying drawing: 1 designates my axle which consists of a shell which is hollow from end to end. This axle may be produced of steel or other suitable metal in any desired manner but it is preferably made of cast steel and molded in a single piece so that it is integral throughout and has the requisite strength without departing in any degree from the requirements at present in effect of the Master Car Builders relating to the sizes and structures of railway car axles.

The axle herein described being of hollow form, may be manufactured much less expensively than the solid axles at present in use in railway cars, due to the decrease in the amount of metal incident to the production of a hollow axle as distinguished from a solid axle. Another important advantage in this axle lies in the fact that, due to its being much lighter in weight, there is a great saving in the cost of transportation and greater numbers of the axles may be loaded upon cars for transportation of stated capacities.

Another very important advantage in the use of my hollow axle to which I wish to direct attention is the fact that a railway car equipped with my axle is greatly reduced in weight as compared to a car equipped with the ordinary solid axles and there is a great difference existing in the dead weight in the rolling stock of the car.

I am aware that it has heretofore been proposed to make hollow car axles of wrought metal or metal in other natures from ingots which are first cast and from which the axle is produced by rolling the ingot. This method of production of the axle, however, is an expensive one and it is the object of my invention to construct the axle much less expensively than it can be produced by rolling it and without the use of expensive machinery incident to metal rolling operations. My car axle is cast in a single piece and in the full dimensions that are to be contained in the axle, and after the simple casting operation has been carried out it is only necessary to dress the journal portions of the axle to put it in condition for service, this dressing operation being a necessary one in the manufacture of an axle of any form or construction. There is also another object in constructing my axle from a single casting; namely, that of producing an axle of much greater strength of hollow form than that contained in a rolled axle, it being a well known fact that cast steel, in its original cast state, will resist much greater stress than rolled metal.

I claim:

1. As a new article of manufacture, a hollow car axle cast in a single piece having the full dimensions of the axle, substantially as set forth.

2. As a new article of manufacture, a cast car axle hollow from end to end, cast in a single piece having the full dimensions of the axle, substantially as set forth.

3. As a new article of manufacture, a cast steel car axle hollow from end to end cast in a single piece having the full dimensions of the axle, substantially as set forth.

GEORGE FRANKLIN PRICE.

In presence of—
LILY ROST,
H. G. FLETCHER.