(No Model.)

L. M. PRESNALL.

BUGGY AXLE.

No. 589,480. Patented Sept. 7, 1897.

FIG. 1.

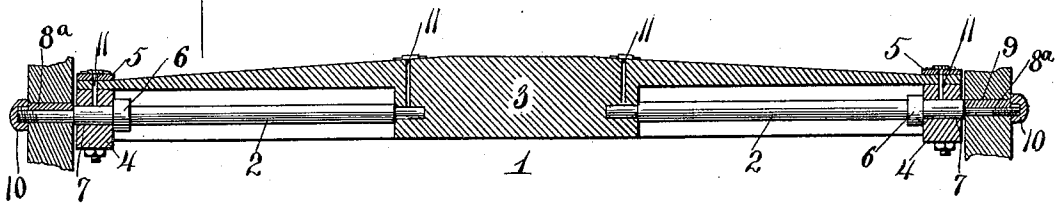


FIG. 2.

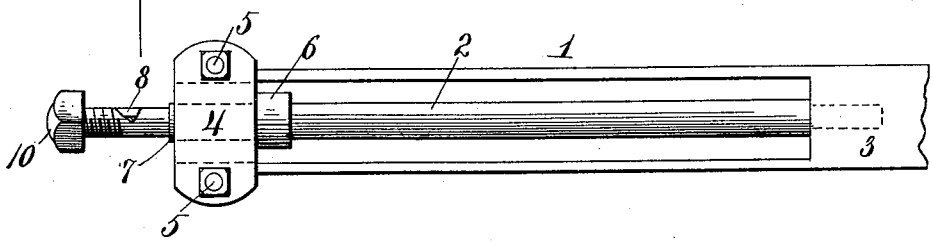


FIG. 3.

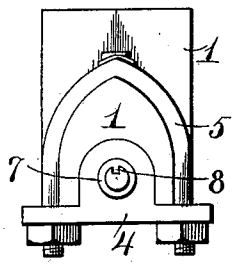
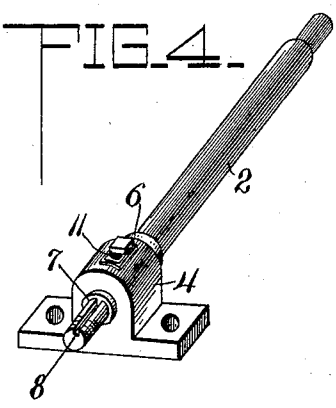


FIG. 4.



WITNESSES

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BUGGY-AXLE.

SPECIFICATION forming part of Letters Patent No. 589,480, dated September 7, 1897.

Application filed March 6, 1897. Serial No. 626,249. (No model.)

To all whom it may concern:

Be it known that I, LINDLEY M. PRESNALL, a citizen of the United States, residing at Hazelton, in the county of Barber and State of Kansas, have invented certain new and useful Improvements in Buggy-Axles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in axles designed for use in connection with vehicles of various characters, the object being to provide an axle which will permit of each wheel revolving independent of the other, which is simple, durable, and inexpensive in construction, which will prevent any looseness of the wheels, which frequently occurs to the wheels and axles at present used, and which also provides means whereby the parts can be lubricated without the necessity of removing the wheels.

To these ends my invention comprises certain novel features of construction and arrangement of parts whereby the above and other important advantages are gained, as will be hereinafter described, and specifically defined in the appended claim.

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of an axle embodying my invention. Fig. 2 is an inverted plan view of the same. Fig. 3 is an end elevation thereof on an enlarged scale, and Fig. 4 is a detail perspective view of one of the spindles and its outer bearing.

Similar reference-numerals indicate corresponding parts in all figures of the drawings.

1 represents the axle-cap, which in outward appearance and design resembles the ordinary cap now in use, but in this instance I prefer to construct it of steel or iron.

The cap 1 upon the under side is made hollow at each end, as clearly shown in Fig. 2, and these hollowed ends are designed to receive within them the spindles 2, whose inner ends are journaled in the solid intermediate portion 3 of the cap.

The outer ends of the spindles are supported in bearings 4, which are adapted to fit within the hollow ends of the cap 1, the said bearings being provided with laterally-projecting perforated ears or lugs, which receive therein the threaded extremities of the usual axle-clip 5.

The spindles are enlarged near their outer ends to form shoulders 6, which normally lie adjacent to the inner faces of the bearings 4, which will serve to prevent outward movement of the spindle, while the extreme inner ends of the spindles are reduced a portion of their length to form shoulders, which bear against the ends of the central solid portion of the axle-cap, and thus prevent any inward movement of the spindles.

The outer extremities of the spindles are reduced to form shoulders 7, against which the inner ends of the hubs of the wheels will bear, and these reduced ends are further provided with grooves or keyways 8, which are designed to receive keys or wedges 8^a, which enter therein, and corresponding keyways or grooves 9 in the bore of the boxing of the hub, thus effectually locking them, so that both will revolve together.

I contemplate threading the extreme outer ends of the axles for the purpose of receiving upon them suitable nuts 10, which, although performing no especial function, will serve to give to the axle every appearance of the ordinary ones now in use.

Suitable oil-holes 11 are provided in the axle-cap, being so arranged as to supply a lubricant to those parts needing it, and in practice I arrange suitable covers or caps to close these oil-openings in order that all dust, sand, or other grit may be excluded therefrom.

It will thus be seen that my invention provides an axle which is particularly well adapted for the purposes for which it is intended, which is simple in construction, which prevents all possibility of wear in the hub-boxing, which will give greater trueness to the wheels in their revolutions, and will obviate the necessity of supplying new studs at intervals when the old ones have become worn.

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

An axle for vehicles comprising an axle-cap having a central solid portion and outer hollow ends open at the under side, bearings located in the outer portions of the said hollow

ends of the cap and having ears extending from the bases thereof, clips surrounding the said hollow ends of the cap and having their lower portions secured in the said ears, and spindles mounted in said hollow portions of the cap and having the inner ends thereof rotatably mounted in the solid portion of the cap and the outer parts movable in the said bearings, and wheels fixed to the outer ends of said spindles, substantially as and for the purposes specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LINDLEY M. PRESNALL.

Witnesses:
J. W. HERRINGTON,
F. F. SEVERANCE.