(No Model.)

J. E. PRESCOTT.

AXLE FOR VEHICLES.

No. 383,066. Patented May 15, 1888.

FIG. 1.

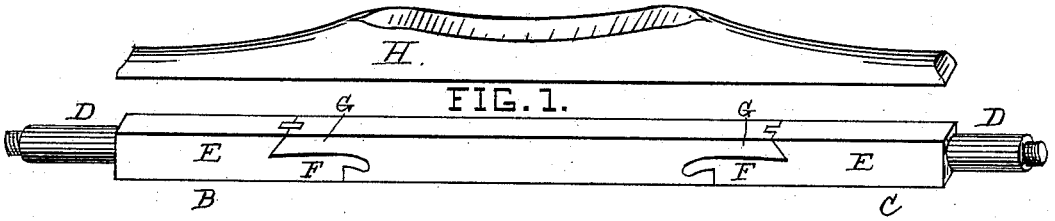


FIG. 2.

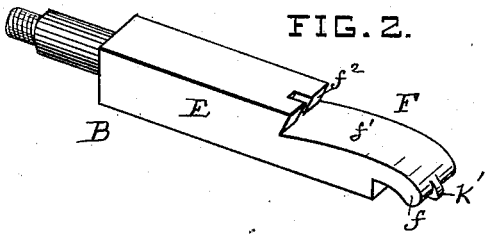


FIG. 3.

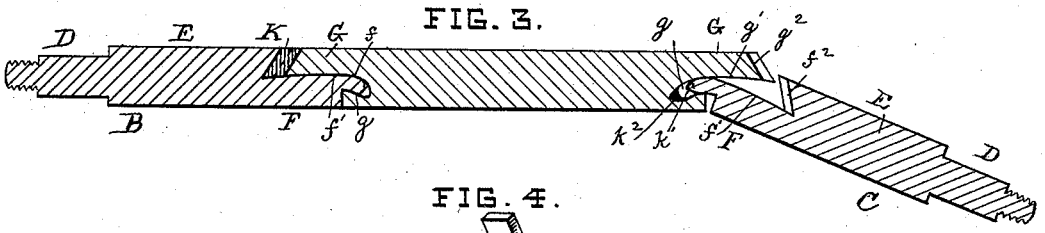
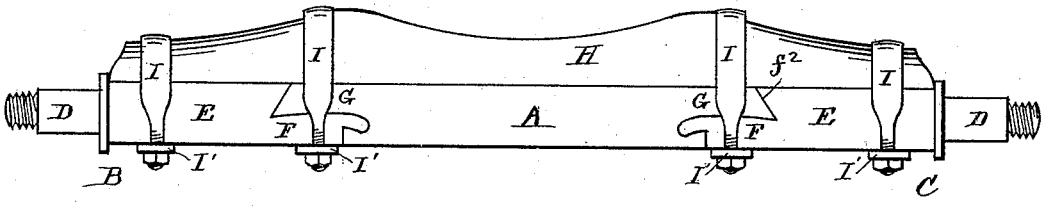


FIG. 4.

FIG. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES E. PRESCOTT, OF WAYNESBOROUGH, GEORGIA, ASSIGNOR OF ONE-HALF TO JOHN W. REYNOLDS, OF SAME PLACE.

AXLE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 383,066, dated May 15, 1888.

Application filed December 15, 1887. Serial No. 257,989. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. PRESCOTT, a citizen of the United States, and a resident of Waynesborough, county of Burke, State of Georgia, have invented new and useful Improvements in Axles for Vehicles, of which the following is a full and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to metal axles formed of two end or journal sections and an intermediate section interlocked with each other and secured to a wooden bolster, and which may be readily removed from the bolster and the sections separated from each other for renewal or repairs.

The object of my invention is to provide an improved interlocking joint between the sections of the metal axle, which may be easily forged into the required shape and will bind one upon the other with increasing strength when subjected to the weight of the load upon the wagon; and the improvement consists in certain constructions and combinations of parts hereinafter described with reference to the accompanying drawings, in which—

Figure 1 is a perspective of the bolster and the sectional metallic axle placed one slightly above the other; Fig. 2, a perspective of one of the journal-extensions detached; Fig. 3, a longitudinal section of the sectional metallic axle, showing one of the journal-extensions partly detached from the intermediate section; Fig. 4, a perspective of the key to prevent lateral dislocation of the sections, and Fig. 5 a longitudinal section of the axle and bolster complete.

The metal axle consists, essentially, of an intermediate section, A, and end or journal sections, B and C, the latter being each provided with a journal, D, formed integral with the stub end E, and having at their inner ends a joint-section, F, to match and interlock with a joint-section, G, formed upon the outer ends of the intermediate axle-section.

The joint-section F consists, essentially, of a rounded tongue or jaw, f, at the end of the stub E, a half-lap extension, f', upon the under side of the said stub and adjacent to the said jaw f, and an incut beveled shoulder, f^2, overlying the inner end of the half-lap extension f'.

The joint-section G upon each of the outer ends of the intermediate section, A, consists of a cup or rounded recess, g, to receive the jaw f, a half-lap extension, g', to overlie the extension f', and a beveled end, g^2, to fit and project beneath the shoulder f^2 of the stub E.

The axle-sections A, B, and C are interlocked with each other by engaging one joint with the other, as shown in Fig. 3, and are securely held together and held upon a wooden bolster, H, of well-known construction, by means of metal straps I, fitted with strap-plates I′ and nuts I^2. The straps I thus prevent the displacement of the joint-sections F and G, which match and interlock with each other, as above described, to receive the load without bringing the strain upon the straps I. The jaw f and cup or recess g prevent the endwise displacement of the joints and prevent the joint from being broken or loosened by the weight of the load or by the spreading of the lower portion of the wheels, and the shoulder f^2, overlying the beveled end g^2 of the joint-sections F and G, resists any strains brought upon the joint by the inward compression of the lower portion of the wheels, such as that caused by running in ruts or upon tracks of narrower gage than the tread of the wagon.

Two straps, I, are preferably employed for each of the joints, to resist the pulling strain upon the axle and the strains caused by obstructions met by the wheels, and such strains are also resisted by keys K, placed to cross the joints $f\,g$ and $f^2\,g^2$, or by fixed lugs K′, interlocking with recesses K^2 at the said joints, as shown in Fig. 2 and at one end of Fig. 3 of the drawings.

The half-lap extensions f' of the journal-sections are preferably convex, and the matching extensions g' of the intermediate section are concave, to overlie the extension f', and the jaw f and recess g are in the form of a rounded hook-shaped tongue-and-groove extension of the said half-lap surfaces.

The axle above described may be easily forged and shaped into the required form and the sections then fitted together by unskilled persons.

The intermediate section may be made of iron or soft metal and the journal-extensions made of steel or of a tougher or harder metal than that of which the intermediate section is made.

I claim as my invention and desire to secure by Letters Patent—

1. In a sectional metallic axle, the combination, with the intermediate section having a half-lap extension, g', and a recess, g, at the inner end thereof, the journal-sections having the half-lap extension f' and a hook-jaw, f, to engage with the recess g, and a bolster secured to the said axle-sections, substantially as described.

2. In a sectional metallic axle, the combination, with the intermediate section having a half-lap extension, g', a recess, g, at the inner end thereof, and a beveled outer end, g^2, of a journal-section having the half-lap extension f', and a hook-jaw, f, to engage with the recess g, and an overlying beveled shoulder, f^2, to engage with the matching portions of the intermediate section, and a bolster secured to the said intermediate and journal sections, substantially as described.

3. In a sectional metallic axle, the combination, with the intermediate section and journal-sections of said axle, having interlocking half-lap extensions, of the interlocking lug or tongue K′ upon the shoulders of the one, and the matching-recess K^2 upon the shoulders of the other, joints, to interlock with each other, a bolster, H, and straps I, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES E. PRESCOTT.

Witnesses:

J. F. RACKLEY,

JNO. S. BLOUNT.