

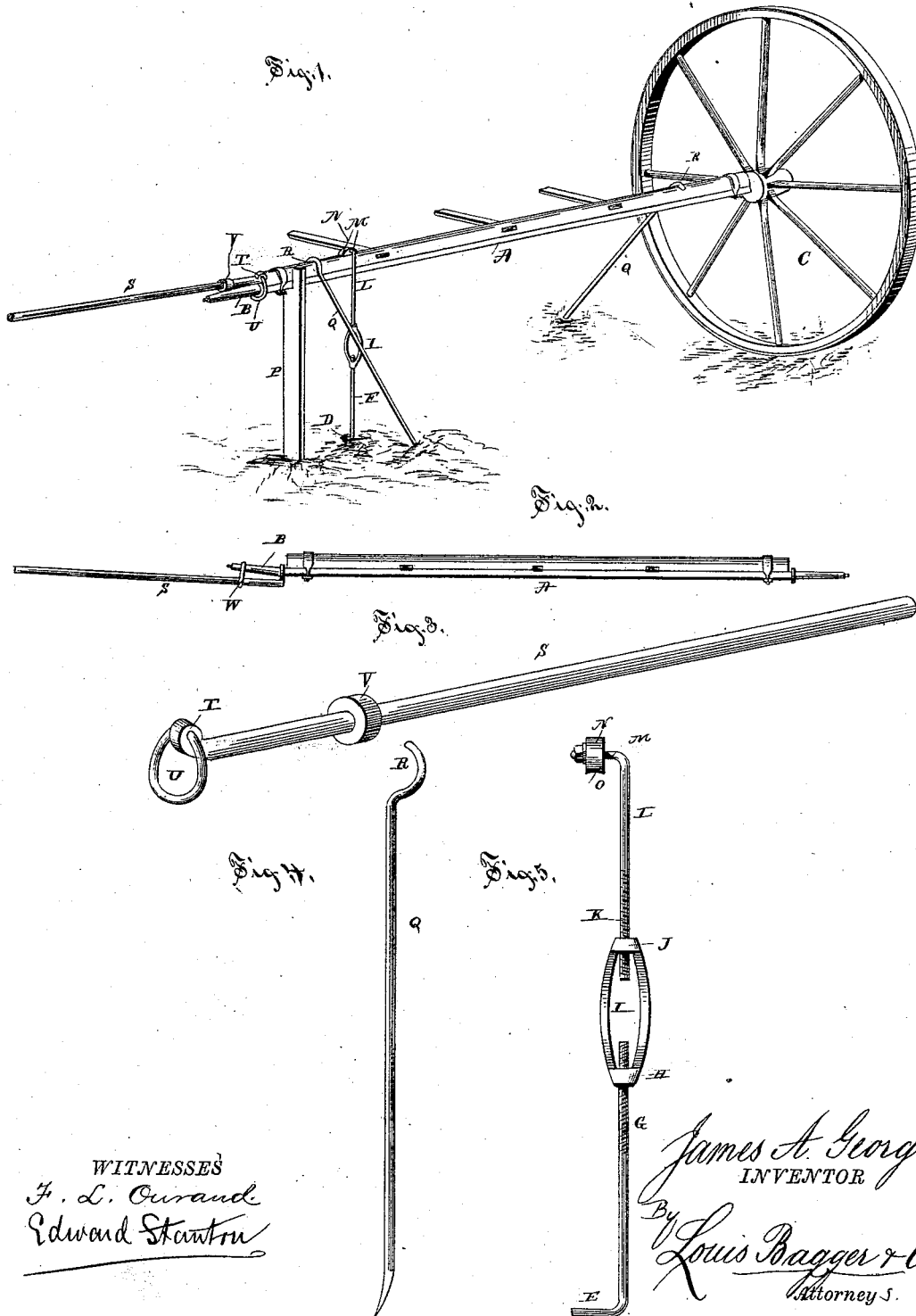
(No Model.)

J. A. GEORGE.

DEVICE FOR STRAIGHTENING CARRIAGE AXLES.

No. 347,588.

Patented Aug. 17, 1886.



UNITED STATES PATENT OFFICE.

JAMES ARIAL GEORGE, OF SOUTHBRIDGE, MASSACHUSETTS.

DEVICE FOR STRAIGHTENING CARRIAGE-AXLES.

SPECIFICATION forming part of Letters Patent No. 347,588, dated August 17, 1886.

Application filed April 10, 1886. Serial No. 198,514. (No model.)

To all whom it may concern:

Be it known that I, JAMES ARIAL GEORGE, a citizen of the United States, and a resident of Southbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Devices for Straightening Vehicle-Axles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a portion of the running-gear of a vehicle, showing my improved device for straightening axles applied. Fig. 2 is a rear view of the same, showing the implement or device used for straightening an axle which has been bent upward. Fig. 3 is a view of the lever. Fig. 4 is a view of the device for holding the axle down, and Fig. 5 is a view of one of the lateral braces for the axle.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to devices for straightening vehicle-axles which by accident have become bent, and it contemplates certain improvements upon the device for which Letters Patent No. 327,787 were granted to me on the 6th day of October, 1885; and it consists, to that end, in the improved construction and combination of parts of such an implement, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the axle. B is the spindle of the same, from which the wheel is shown removed, and C is the remaining wheel of the axle. A staple, D, is suitably secured in the ground, or in a floor or other suitable base, and the lower hooked end, E, of a rod, F, having its upper end, G, screw-threaded, is hooked into this staple when the device is to be used. The screw-threaded end of this rod fits and turns in a screw-threaded bearing, H, in the lower end of a link, I, the upper end of which link is provided with a screw-threaded bearing, J, into which the lower screw-threaded end, K, of a rod, L, fits and turns, the screw-threaded

ends of the rods and of their respective bearings winding in opposite directions, so that the rods will be drawn together or forced apart by revolving the link, while the rods are held so as not to revolve. The upper end, M, of the upper rod is bent at a right angle to the rod, and is provided with a block, N, preferably of wood, which block has its under side, O, concaved so as to fit upon the upper side of an axle, and the end of the axle from which the wheel has been removed is supported by a jack or board, P, of any suitable construction, so that the axle is supported from below at two points—at the remaining wheel and at the jack or board—while the device formed by the two rods and the link may serve to draw the axle down upon the two supports, keeping it rigidly supported while the axle is straightened, the link being turned upon the threaded ends of the rods, serving to draw them together when revolved in one direction.

Two braces, Q Q, having their upper ends, R, formed into sickle-shaped hooks, bear with the said hooks from opposite sides against the axle, being braced against the ground at their lower ends, and prevent any lateral displacement of the axle while the latter is being straightened.

The straightening device proper consists of a lever or bar, S, having an eye, T, formed at one end, in which transverse eye a ring, U, is secured, the said ring being of a sufficient diameter to be slipped over the spindle of the axle, and a perforated block or ring, V, fits upon the lever and slides upon the same.

When the device is applied, the ring at the end of the lever is slipped over the spindle to the inner end of the same, and the sliding ring or collar is slid upon the lever until the place is reached at which it is desired to exert the straightening pressure, and by bearing upon the lever with the ring at the end of the lever as fulcrum the sliding collar may be forced against the spindle, straightening the same.

In Fig. 2 a ring, W, is shown slipped upon the lever outside of the sliding collar, and by placing the collar to bear against the inner portion of the spindle and slipping the ring over the lever and spindle until it fits upon the place where pressure is desired to be ex

erted the axle may be straightened by bearing upon the lever, the sliding collar forming the fulcrum in this case.

5 The axle being braced in every direction, the spindle or any other part of the axle may be straightened by this device in any direction, up or down, or lateral bends or bulges in the axle or spindle.

10 It will be seen that all parts of the device, the supporting parts as well as the straightening parts, may be made very simple and strong, so that the device may be manufactured at a comparatively small cost, and may be used considerably without danger of injuring it, being simple and durable.

15 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

20 1. In a device for straightening vehicle-axes, the combination of a lever or bar having a ring, U, secured at its end, and a ring or collar, V, sliding upon the lever, as and for the purpose shown and set forth.

25 2. In a device for straightening vehicle-axes, the combination of suitable means for supporting the axle from below, and for drawing it down upon the said support, with braces having sickle-shaped hooks at their upper ends, bearing against the axle with the hooks from
30 opposite sides, and bearing against the ground with their lower ends, as and for the purpose shown and set forth.

3. In a device for straightening vehicle-

axes, the combination of a suitable jack for supporting the axle from below with a device 35 consisting of an upper hooked rod having a block for bearing upon the upper side of the axle upon its upper hooked end, and having its lower end screw-threaded, a hooked rod for engaging a staple in the ground, and provided 40 with a screw-threaded upper end winding in the opposite direction to the thread of the upper rod, and a link having threaded bearings at its ends, fitting upon the threaded ends, of the rods, as and for the purpose shown and set 45 forth.

4. A device for straightening vehicle-axes, consisting of a suitable jack, two rods having their hooked ends secured, respectively, to the ground and to the upper side of the axle, and 50 connected by a link having right and left handed bearings at its ends, fitting upon the right and left handed screw-threaded ends of the rods, braces having sickle-shaped hooks at their ends, bearing against the axle from 55 opposite sides and bearing against the ground, and a lever having a ring secured at its end, and having a sliding collar upon it, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my 60 own I have hereunto affixed my signature in presence of two witnesses.

JAMES ARIAL GEORGE.

Witnesses:

CAMILE CAROW,

C. A. PAIGE.