J. GORTON.

Setting Axles.

No 48,928. Patented July 25, 1865.

Fig. 1.

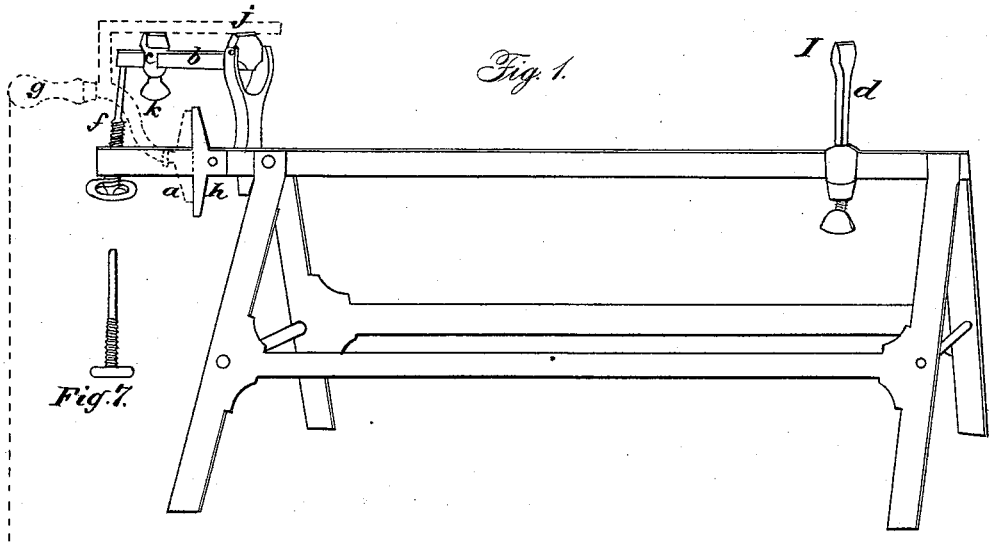


Fig. 7.

Fig. 5.

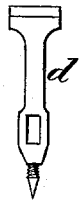


Fig. 2.

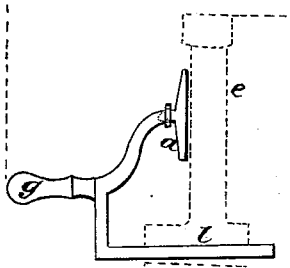


Fig. 3.

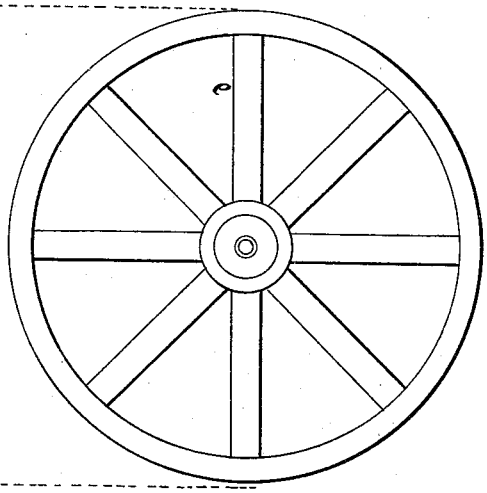
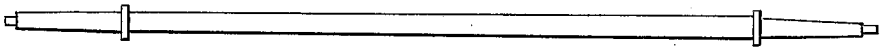


Fig. 6.

Fig. 4.



Witnesses:

Volney W. Mason

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Inventor:

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UNITED STATES PATENT OFFICE.

JOHN GORTON, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN GAGES FOR SETTING THE PITCH TO WAGON-AXLES.

Specification forming part of Letters Patent No. **48,928**, dated July 25, 1865.

To all whom it may concern:

Be it known that I, JOHN GORTON, of the city of Providence, and State of Rhode Island, have invented a new Machine for Setting Carriage-Axles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the whole machine, in which the parts are of iron or metal, or may be of wood. Fig. 2 is a view of the gage by which the angle of the inside of the box of the wheel is taken. This gage is metal, and has two straight-edges, the angles of which may be varied in relation to each other and held firmly by a thumb-screw, *k*, when adjusted. This gage is used to transfer the incline of the spokes. The firm straight-edge I is applied lengthwise inside of the box, while the movable straight-edge *a* is adjusted to the same plane as the spoke of the wheel, thereby accurately registering the "dish" of the wheel. Fig. 3 shows an ordinary carriage-wheel. Fig. 4 shows an axle. Fig. 5 represents the stand which slides on the stationary bar of Fig. 1, and supports one end of the axle while trying its set or angle. Fig. 6 represents the stand which slides on the short hinged bar *b*, and which, when set, indicates the angle on which the axle is to be set, and is adjusted to Fig. 2 gage. Fig. 7 shows the screw and wheel for raising and lowering one end of the hinged bar *b*, so as to adjust its angle to the angle of the gage shown by Fig. 2.

The same letters indicate like parts in each of the figures.

The object of my invention is to lessen the labor of setting carriage-axles or for more readily to adjust the part which enters the wheel box or hub, and on which the wheel revolves. Heretofore considerable skill or tact has been required to properly set a carriage-axle. By the use of my machine this labor is much lessened and workmen less skilled may set axles better and more expeditiously than heretofore.

My invention consists of two main parts.

The first consists in using an elevated bar on proper standards, on which slides a T piece or lip, which may be moved and secured lengthwise on the bar at any convenient point. On one end of this elevated bar is provided bearings to support a hinged bar which has a short projection or lip directly over the bearings; also, a second projection or lip, which may be adjusted lengthwise on the hinged bar. The hinged bar may also be adjusted vertically by a screw and wheel, so as to set or adjust the lips *c j i* at the proper angle on which the axle is to be set, this angle being first determined by applying the gage, Fig. 2 against the straight-edge *h* of Fig. 1, the straight-edge *h* being square with or at a right angle to a line drawn across the top surface of the two lips *i* and *j*. The points at which the gage is applied are represented by the red dotted lines.

The second part consists of the gage represented by Fig. 2, the bevel of which may be adjusted to suit the incline of the spokes, or, as it is termed, the "dish," of the wheel, and thence transfer the incline or bevel to the machine or part first, as shown by the dotted lines.

It will be obvious to those familiar with machinery that many, and perhaps all, of these parts may be modified without affecting the character of the machine. Therefore, I do not claim the parts of this machine separately; but

What I do claim, and desire to secure by Letters Patent, is as follows:

The adjustable gage described as Fig. 2, or its equivalent, in combination with the machine described as Fig. 1, or its equivalent, the whole substantially as described, for the purposes as set forth.

JOHN GORTON.

Witnesses:

OLNEY W. MASON,

LAYTON CAPWELL.