T. REICHELDERFER & P. W. WERTZ.

Vehicle-Axle.

No. 214,449. Patented April 15, 1879.

Fig. 1.

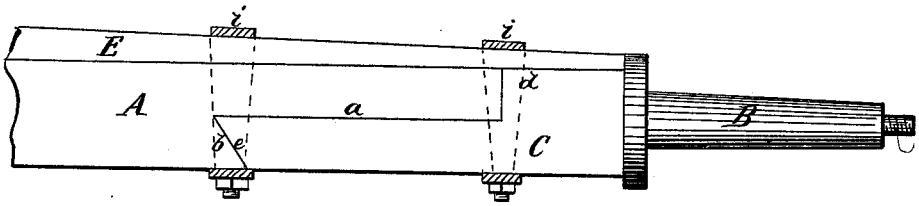


Fig. 2.

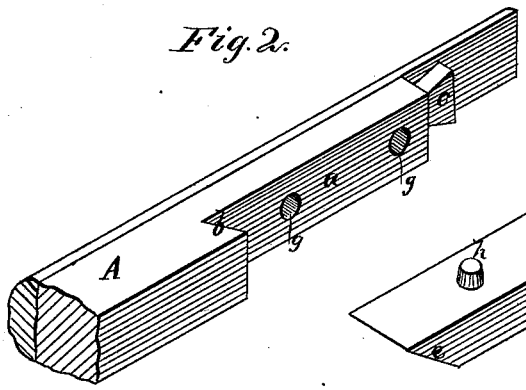


Fig. 3.

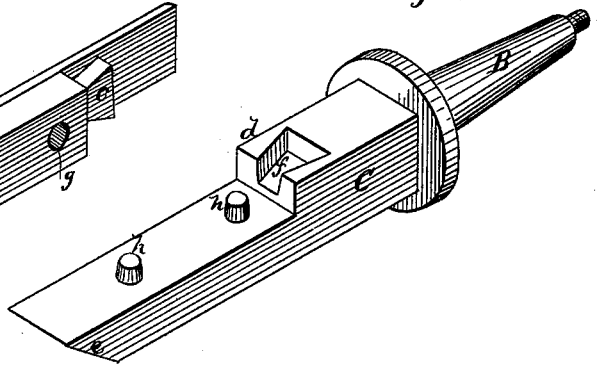
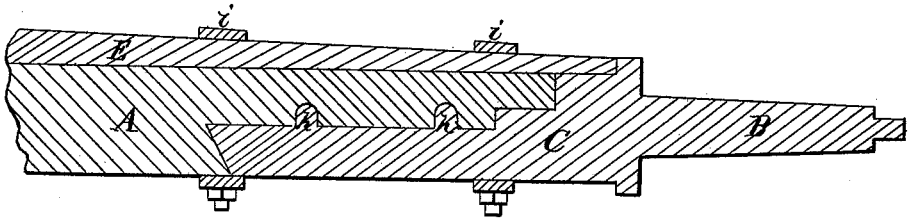


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS REICHELDERFER AND PETER W. WERTZ, OF LONGSWAMP, (MERTZTOWN P. O.,) PENNSYLVANIA.

IMPROVEMENT IN VEHICLE-AXLES.

Specification forming part of Letters Patent No. **214,449**, dated April 15, 1879; application filed November 13, 1878.

To all whom it may concern:

Be it known that we, THOMAS REICHELDERFER and PETER W. WERTZ, of Longswamp, (Mertztown P. O.,) in the county of Berks and State of Pennsylvania, have invented a new and Improved Axle, of which the following is a specification.

This invention relates to that class of axles for carriages, wagons, &c., generally made of iron, in which the spindles are provided with a stock and made separately from the axle-trees, with which they are connected by a spliced joint, strengthened and secured by clips.

The invention consists of a new splice-connection, the nature of which will be fully set forth in the following description.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of an axle and spindle connected together. Fig. 2 is an isometric perspective of the splicing end of the axle-tree. Fig. 3 is a similar view of spindle and stock, and Fig. 4 is a longitudinal section of Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the axle-tree, and B is the spindle, provided with a stock, C.

The axle-tree is made separately from the spindle and stock, and the former may be made of wood and the latter of iron, or both may be made of the same material, as is now generally done.

On the under side of the end of the axle-tree is made a rabbet, *a*, terminating in an incut bevel or chamfer, *b*, and the extremity of the tree is rabbeted and formed into the male dovetail *c*. The stock is likewise rabbeted from the shoulder *d*, and at the extremity is beveled or chamfered, as at *e*.

In the shoulder *d* is made the dovetailed recess *f*, corresponding in size and form to the dovetail *c*.

Holes *g g* are made in the rabbeted part of the axle-tree, and these are in position to receive the dowel-pins *h h* inserted in the rabbeted part of the stock.

E is the splicing-strip, laid on top of the axle when the spindle, stock, and tree are put together, and *i i* are the clips for securing the whole together.

The parts are put together in the following manner: The beveled or chamfered end *e* of the stock is inserted in the incut *b* of the axle-tree; then the stock is brought up against the tree; the dowel-pins *h h* enter the holes *g g*, and the dovetail *c* is entered into the recess *f*. The strip E is then placed on, and the whole is secured together by the clips *i i*, forming a complete axle-tree and spindle, as shown in Fig. 1.

Axles made in this manner possess many advantages over those made in a single piece.

Extra spindles and stocks can be carried in the wagon-box, and in case of breakage the broken one can be removed and a new one replaced instantly by anybody without the necessity of employing a blacksmith to make the repair.

Again, the axle-tree can be used for years, and will wear out many sets of spindles.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

As an improvement in axles composed of the tree A and the spindle and stock B C, the rabbeted parts of the axle-tree and stock, provided with the chamfered connection *b e* and dovetailed connection *c f*, in combination with the splicing-strips E and clips *i i*, substantially as described.

THOMAS REICHELDERFER.
PETER W. WERTZ.

Witnesses:
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JAMES BUTZ.