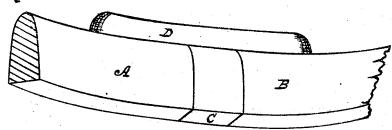
## D. GRIM.

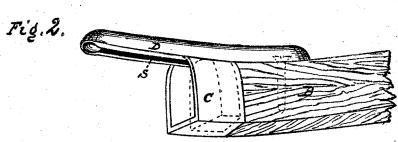
# Felly Clips for Carriage Wheels.

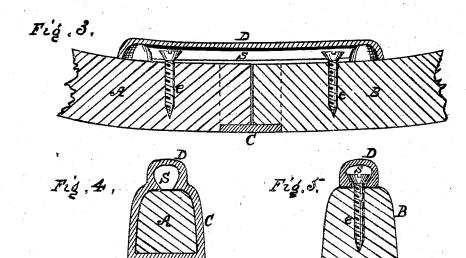
No. 116,050.

Patented June 20, 1871.









Wilnesses.

Inventor David Grim.

per his attorney.

Joseah M. Ells

# UNITED STATES PATENT OFFICE.

DAVID GRIM, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN FELLY-CLIPS FOR VEHICLE-WHEELS.

Specification forming part of Letters Patent No. 116,050, dated June 20, 1871.

To all whom it may concern:

Be it known that I, DAVID GRIM, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Felly-Clips, of which the following is a specification:

Nature and Objects of the Invention.

My invention consists of an improved method of securing the adjacent ends of carriage-fellies, the one to the other, by means of hollow dovetailed clips, which not only obviates the necessity of dowel-pins, but holds the ends of the fellies in place in a substantial, neat, and effective manner.

Description of the Accompanying Drawing.

Figure 1 represents a side view of my improved felly-clip as applied to the rim of a carriage-wheel; Fig. 2, a perspective view of a clip embracing the end of one felly; Fig. 3, a longitudinal vertical section of clip applied to adjacent fellies; Fig. 4, transverse section through the center of clip; Fig. 5, transverse section through one end of clip.

### General Description.

As my invention is applicable to all kinds of carriage-wheels made with spokes and fellies, no description of any particular wheel is herein deemed necessary, as the object is to secure the ends of the fellies, A B constituting the rims of such wheels where they abut the one against the other; and for this purpose they are to be surrounded by a metallic ferrule, C, supporting a rib, D, which, when in place, rests upon and extends some distance along the tops of said fellies.

This rib is hollow on its under side, which hollow, S, reaches from end to end, and is of a dovetail shape, as represented in its transverse section, Fig. 5, and so made as to slide over the heads and embrace the necks of a screw, e, inserted in and near the ends of each felly, by which the rib D is held firmly down in such a manner as to add greatly to the strength and stiffness of the joint.

Such are the construction, combination, and arrangement of parts that, while all lateral play of the joints is prevented, the screw-heads will slide along the hollow S of the rib D to admit the ends of the fellies AB being brought together by the operation of "setting the tire," without in any way interfering with the clip. And as the hollow rib D completely covers the heads of the screws ee, they are not only prevented from getting out of place, but a substantial, neat, and ornamental finish is given to the wheel.

#### Claims.

I claim—

1. The hollow rib D, in combination with the screws *e e*, as a means of securing the ends of carriage-fellies, in the manner shown and set forth.

2. The hollow rib D and screws e e, in combination with the ferrule C, in the manner shown, for the purposes set forth.

3. Such construction of the hollow rib D as will cover the heads of the binding screws e e and allow them to slide therein, in the manner shown, for the purposes herein set forth.

DAVID GRIM.

Witnesses:

PATRICK J. MAY, MICHAEL FLANAGAN.