

W. E. HAWKINS.
Vehicle Wheels.

No. 152,107.

Patented June 16, 1874.

fig. 1

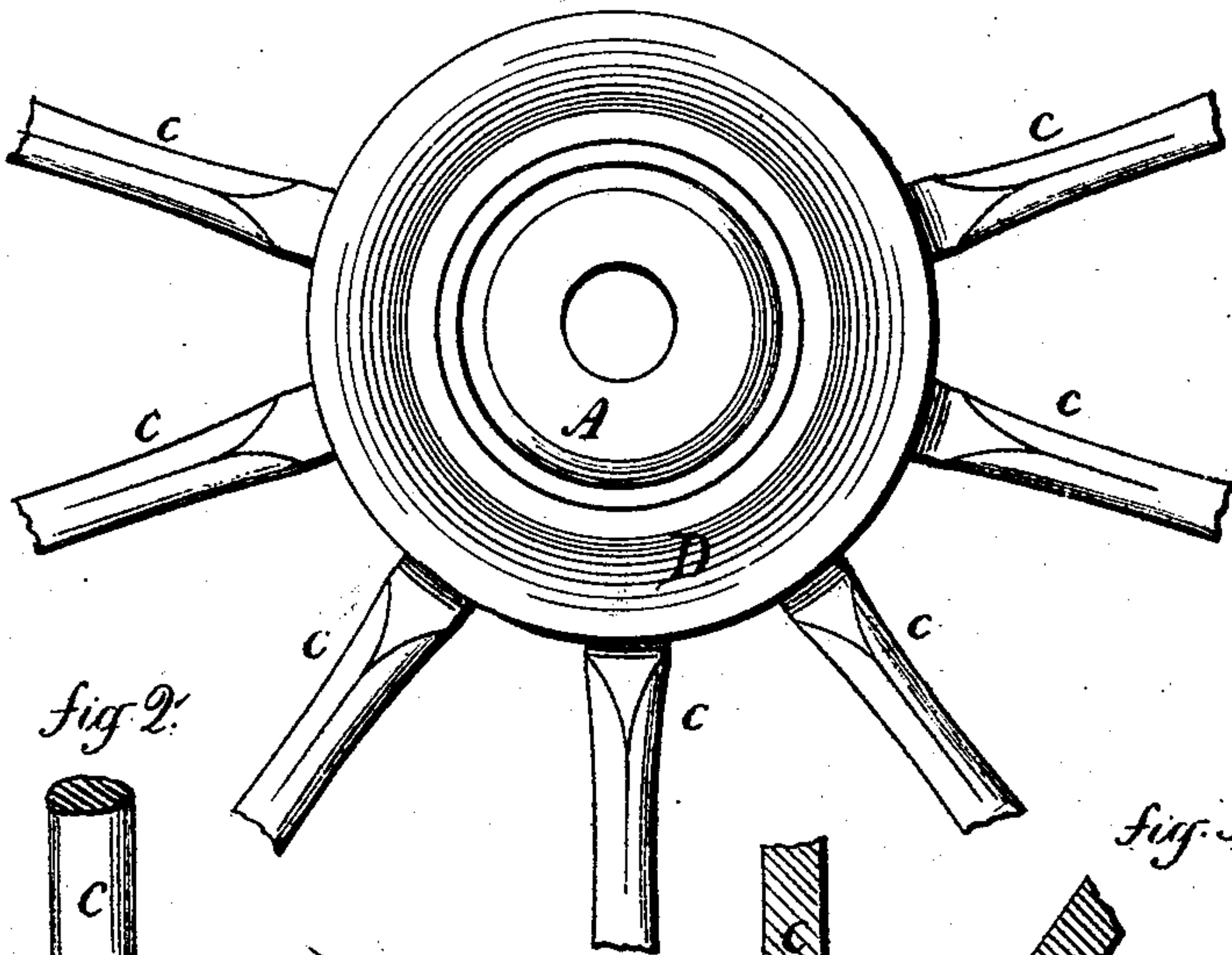


fig. 2

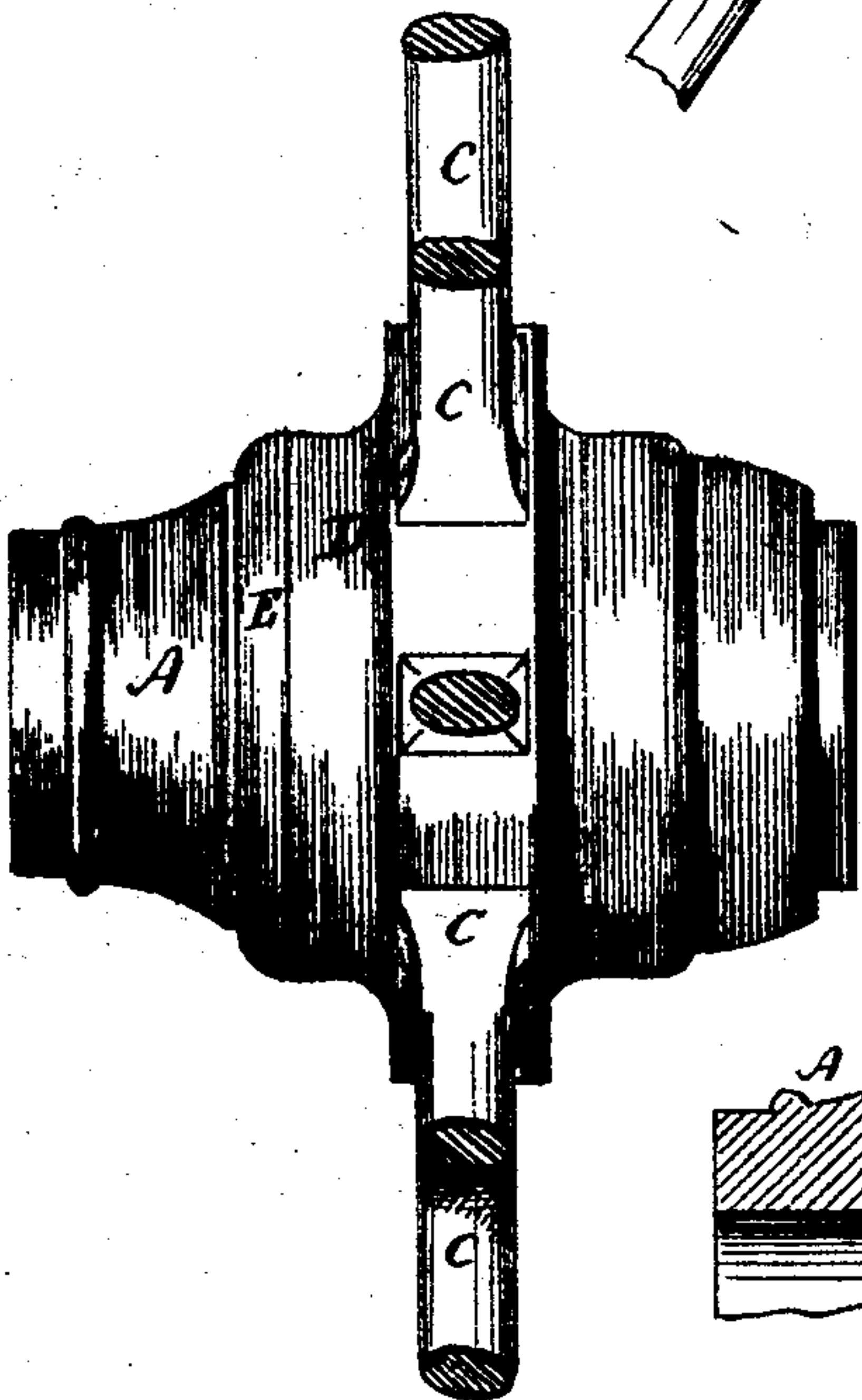


fig. 3

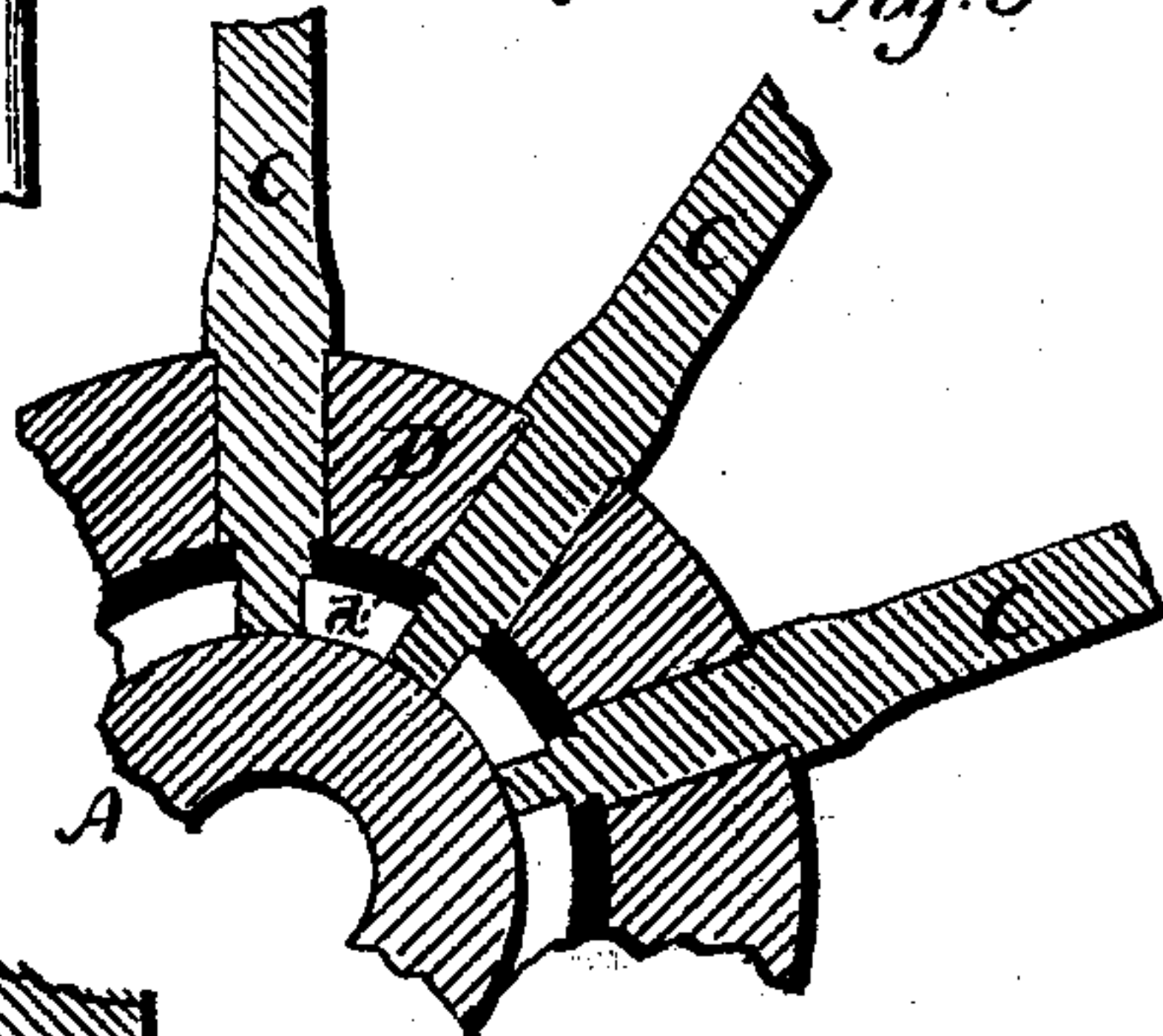


fig. 4

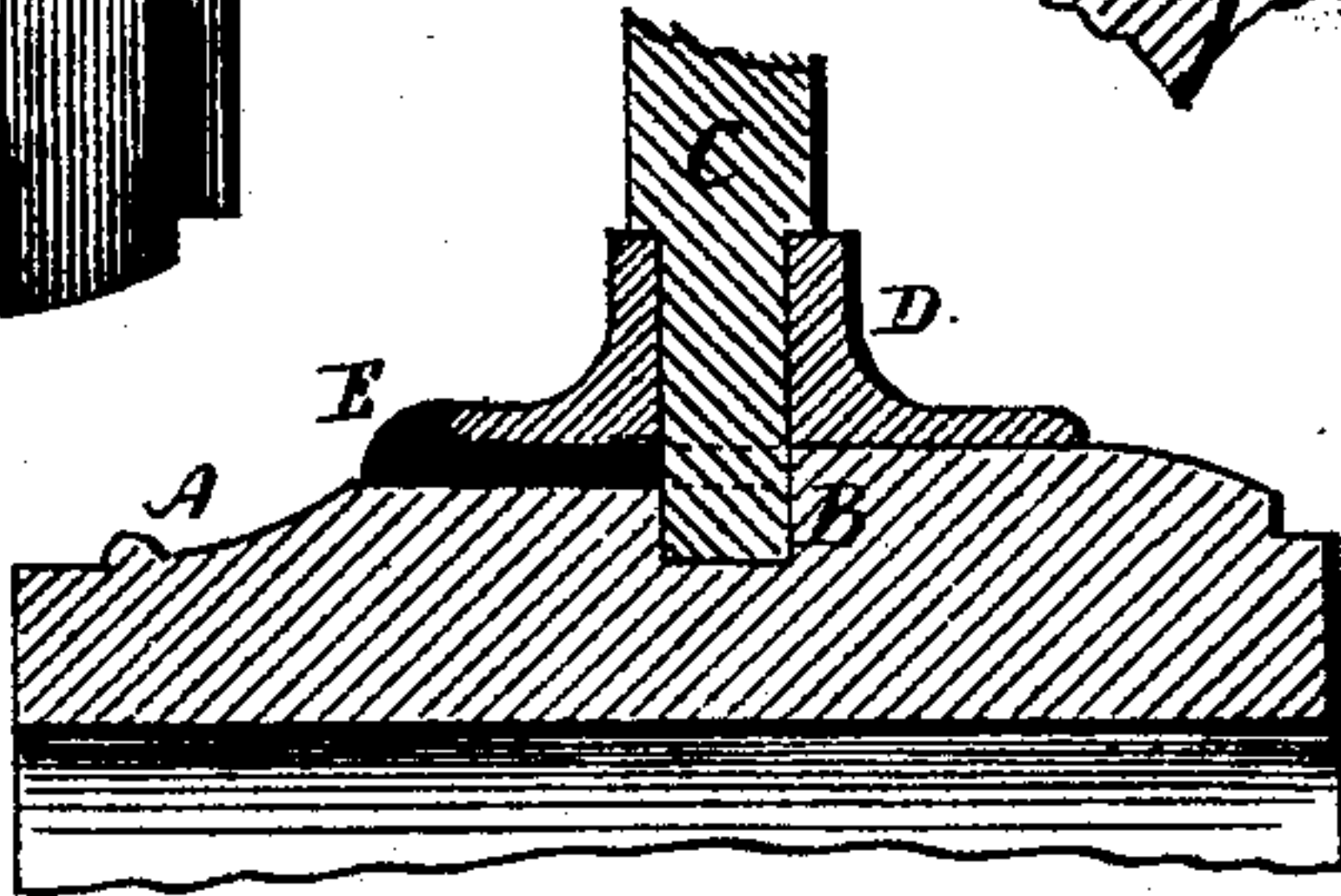
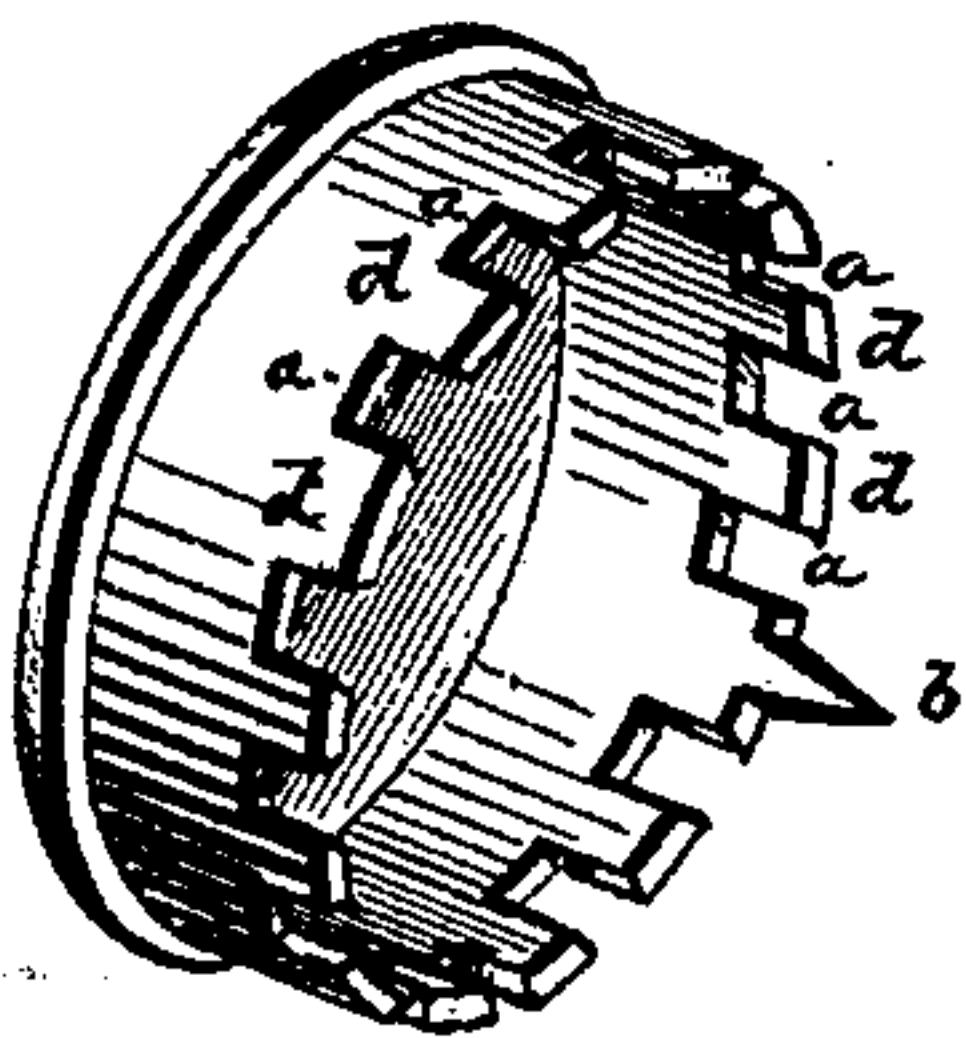


fig. 5



Witnesses.
H. B. Jones.
A. J. Tibbitts

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Inventor
By atty.
John O. Farber

UNITED STATES PATENT OFFICE.

WESTEL E. HAWKINS, OF WALLINGFORD, CONNECTICUT, ASSIGNOR TO
HIMSELF AND HENRY MARTIN, OF SAME PLACE.

IMPROVEMENT IN VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **152,107**, dated June 16, 1874; application filed
May 11, 1874.

To all whom it may concern:

Be it known that I, WESTEL E. HAWKINS, of Wallingford, in the county of New Haven and State of Connecticut, have invented a new Improvement in Carriage-Wheels; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view; Fig. 2, a side view; Fig. 3, a transverse section; Fig. 4, a longitudinal section; and in Fig. 5, a perspective view of the locking-band.

This invention relates to an improvement in that class of carriage-wheels which are made with a wood center or hub and a metallic band around the said hub, through which the wood spokes extend into the said hub; and the invention consists in a wood center or hub having an annular groove into which the ends of the spokes will sit, a metallic band mortised to receive the tenoned spokes, and a sleeve constructed with dovetail slots corresponding to the tenons of the spokes, and inserted from one side between the said band and hub, to engage the tenons of the spokes between the band and the annular groove in the hub, as more fully hereinafter described.

A is the wood center or hub, with a groove, B, formed around it on the line of the ends of the spokes C. D is the metallic band, mortised to receive the tenon of the spoke, through

which mortises the tenons extend into the annular groove in the hub, as seen in Figs. 3 and 4. The said band fits closely to the wood hub on one side of the groove. On the other side the wood hub is made of less diameter than the interior of the band, and into the space between the band and hub a sleeve or ring, E, is driven. This sleeve is constructed with slots *a* upon its inner edge, corresponding to the tenon of the spoke, so that the portions *d* of the sleeve between the slots *a* will pass in between the tenons. The portions *d* are made of dovetail form, as seen in Fig. 3, so as to lock into a corresponding dovetail form of the tenons, and thus tend to draw the spokes hard down into the band and groove, and firmly hold them in place. In order to prevent the sleeve, band, and spokes from turning on the wood center, the band and sleeve are firmly secured to the hub, and this is well done by forming sharp projections *b* on several of the portions *d* of the band, as seen in Fig. 5, which will enter the wood hub upon the opposite side of the groove.

I claim as my invention—

The combination of the grooved wood hub A, the mortised metallic band D, the tenoned spokes C, and the sleeve E, all constructed to operate substantially as described.

WESTEL E. HAWKINS.

Witnesses:

O. I. MARTIN,
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