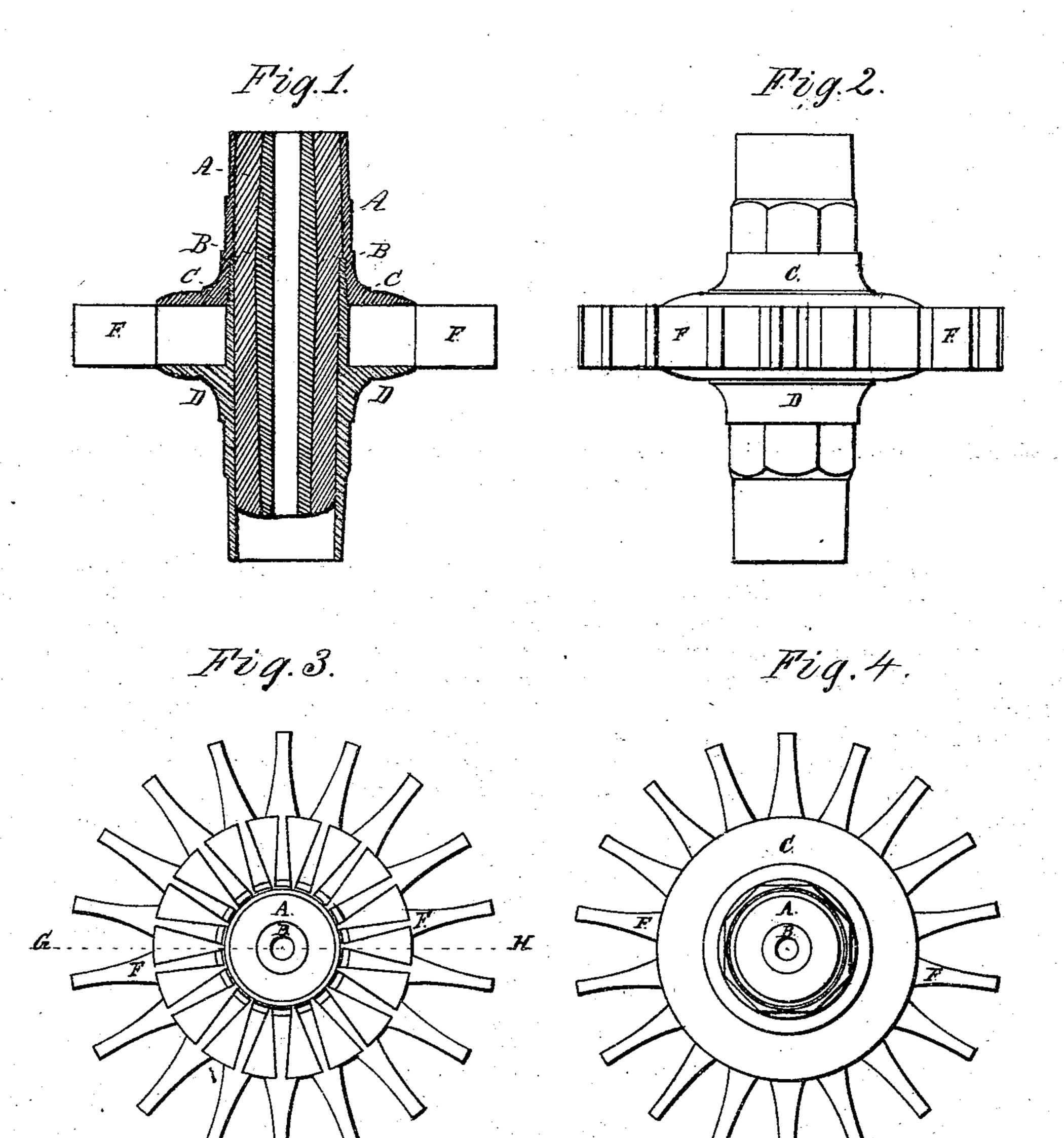
## C. T. SLEEPER. Wheels for Vehicles.

No.153,384.

Patented July 21, 1874.



Witnesses, f. le. French Samuel H. Hoas. Inventor. That Sleepen.

## UNITED STATES PATENT OFFICE.

CHARLES T. SLEEPER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO SAMUEL H. HAAS, OF SAME PLACE.

## IMPROVEMENT IN WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. 153,384, dated July 21, 1874; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, CHARLES T. SLEEPER, of Chicago, county of Cook and State of Illinois, have invented certain Improvements in Hubs for Wheels, of which the following is a specification:

My invention relates to combining the parts of a metallic hub for wheels in such a manner as that not only the hub is made quicker, cheaper, stronger, and more durable than other hubs, but the wheel made around this hub possesses the same advantages over others.

Being wholly metallic, except the wooden fillet or bushing between the box and shell, it does not need to be so large as others that are made of wood and metal. It needs no bands on the ends, but is complete in itself, and, by its construction, a broken spoke can be taken out and a new one put in without disturbing the tire or felly.

Figure 1 is a sectional view of the hub cut lengthwise. Fig. 2 is an elevation. Fig. 3 is a plan with the shell Caleft off. Fig. 4 is a plan with the shell C in place.

A A is a wooden fillet or bushing surrounding the box B, and filling the metallic shells C and D. The wooden bushing is turned tapering each way on the outside to fit the shells C and j D, which are made tapering on the inside. The

box B B is fitted to the inside of the wood bushing in the ordinary manner. The shell C and D may be made of any metal. I prefer malleable iron. They are united by the male and female screw shown in the section, Fig. 1. F F represent spokes cut off. On the inside face of the flange of the shell D are made projections, leaving mortises or spaces to receive the tenons of the spokes. The faces of the flange of the shell C are smooth, and it can be tightened or taken off at will.

I do not claim the rims or flanges, or the cylinders and wood filling separately; but

What I do claim as new, and desire to se-

The two tapering cylinders C and D, with flange-rims, the flange D having on its inside metallic divisions, which form lateral dovetail mortises to hold the tenons of the spokes, which project a little beyond the side of the mortises, and upon which the other flange can be tightened, in combination with a double tapering wood filling, A, to hold the axle-box, substantially as and for the purpose set forth.

CHAS. T. SLEEPER.

Witnesses:

J. C. FRENCH, SAMUEL H. HAAS.

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cure by Letters Patent, is—