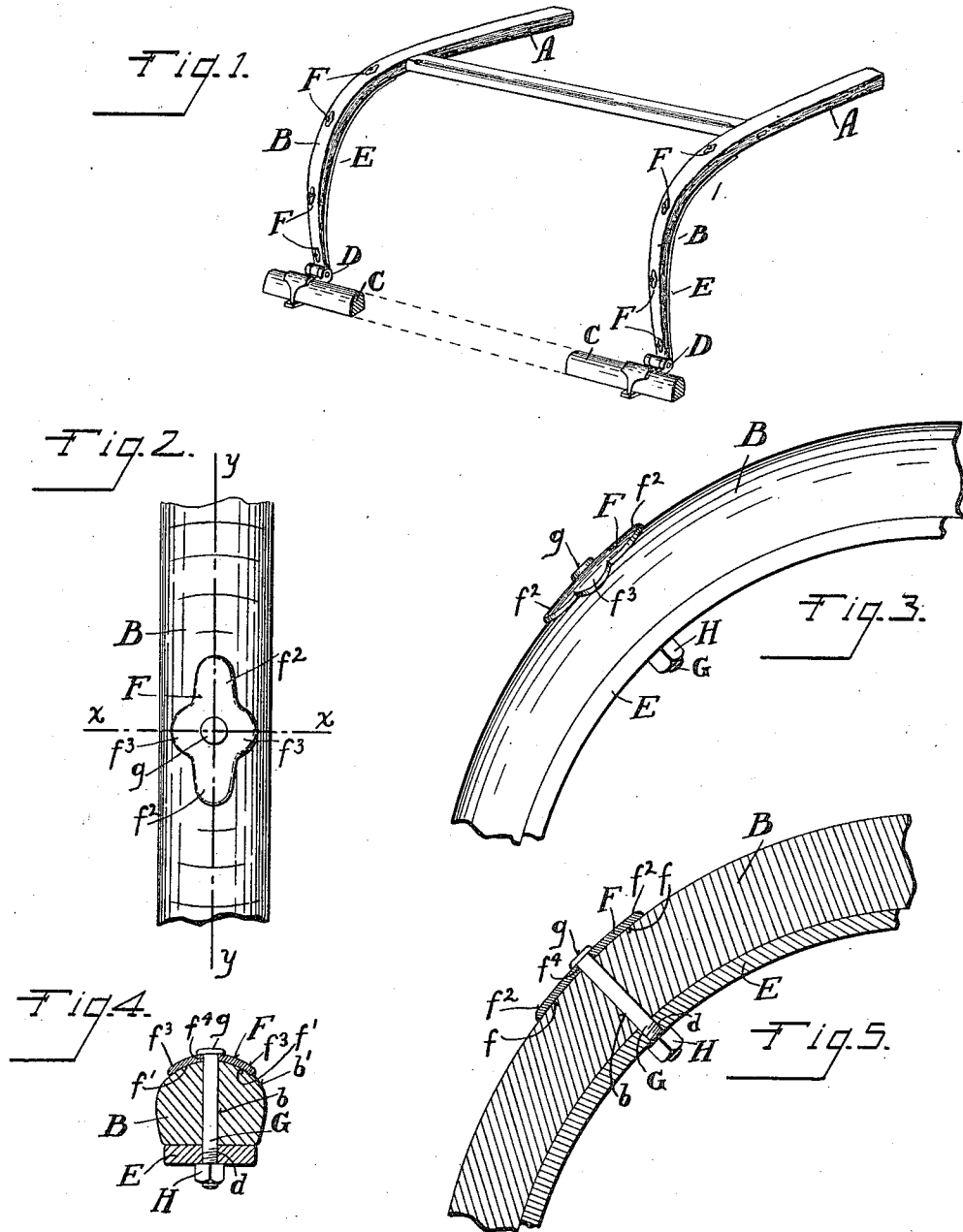


J. M. MEYER.
 MEANS FOR SECURING CURVED SHAFT HEELS TO SHAFT IRONS.
 APPLICATION FILED DEC. 6, 1907.

1,032,075.

Patented July 9, 1912.



WITNESSES.
 Homer Bradford.
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UNITED STATES PATENT OFFICE.

JOHN M. MEYER, OF CINCINNATI, OHIO, ASSIGNOR OF TWO-THIRDS TO THE SAYERS AND SCOVILL COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

MEANS FOR SECURING CURVED SHAFT-HEELS TO SHAFT-IRONS.

1,032,075.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed December 6, 1907. Serial No. 405,376.

To all whom it may concern:

Be it known that I, JOHN M. MEYER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Means for Securing Curved Shaft-Heels to Shaft-Irons, of which the following is a specification.

It is the object of my invention to provide securing means for attaching the curved heels of shafts to the shaft-irons which will prevent the splitting of the curved portions of the shafts, and the invention will be readily understood from the following description and claim, and from the drawings, in which latter:

Figure 1 represents a rear perspective view of a pair of shafts partly broken away, having my improved invention applied thereto. Fig. 2 is an enlarged front elevation of my improved device with the shaft partly broken away. Fig. 3 is a side elevation of the same. Fig. 4 is a cross-section of the same on the line $x-x$ of Fig. 2; and, Fig. 5 is a central longitudinal section of the same on the line $y-y$ of Fig. 2.

A A represent shafts, the heels B of which are curved downwardly to a point adjacent the front axle C of the vehicle.

D D are shaft-couplings, the shaft-irons E E of which are curved to correspond substantially to the curve of the heels of the shafts, the shaft-irons being secured to the under-sides of the heels of the shafts.

In practice, the curving of the shaft-heel is accomplished by steaming the wood of which the shaft is composed and bending it to shape while saturated with moisture, the same being dried in its curved form. This bending of the wood subjects the outer surface of the curve to great strains and to liability to fracture at the points where the same is perforated for the reception of bolts connecting the heel to the shaft-iron. In order to prevent this splitting I provide reinforce-plates of peculiar form for maintaining the wood in its curved shape without fracture. The heel of the shaft is provided with apertures b and the shaft-iron is provided with apertures d .

F is a reinforce-plate for keeping the wood in its bent shape without fracture at the apertures in the curved heel of the shaft.

The inner face of the reinforce-plate is

curved longitudinally as shown at f to correspond with the longitudinal curve of the heel of the shaft and the reinforce-plate is further curved laterally as shown at f' to correspond with the transverse rounding b' of said heel. The inner faces of the reinforce-plates are thus curved longitudinally and laterally for fitting the curve of the curved heel of the shaft and are clamped against the outer curved surface of the heel of the shaft for reinforcing the fibers of the wood adjacent the apertures in the shaft. I prefer to make these reinforce-plates with longitudinally extending ears $f^2 f^2$ and laterally extending wings $f^3 f^3$ for extending over those portions of the surface of the wood adjacent the apertures which are liable to fracture without covering more of the surface of the wood than necessary for the purpose.

For clamping the reinforce-plate in place I employ a threaded rod G extending through an aperture f^4 in the reinforce-plate and through the apertures b and d respectively in the shaft-heel and shaft-iron, a nut H screwing over the threaded rod and clamping the parts between the head g of the threaded rod and the nut. In my improved construction the fibers at the apertures are reinforced so as to prevent the beginning of fractures thereof at their most vulnerable points. My improved construction forms a cheap and ready means for preventing the fracturing mentioned. It is readily applied and is neat in appearance when applied.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

In means for securing curved shaft-irons to wooden shaft-heels, the combination with a longitudinally curved wood shaft-heel having a transversely curved upper surface, and a curved shaft-iron extending longitudinally of said curved shaft-heel under the same, of a protecting reinforce-plate F received over said curved shaft-heel and provided with longitudinally extending ears $f^2 f^2$, forming the major axis of said reinforce-plate, and with laterally extending wings $f^3 f^3$ forming the minor axis of said reinforce-plate, said ears and wings defining notches therebetween, the under surface of said reinforce-plate with its ears and wings being formed parallel to its said

major and minor axes with crossing concave curves, and securing means passing through said reinforce-plate, shaft-heel and shaft-iron for clamping said parts together,
5 substantially as and for the purpose described.

In testimony whereof, I have subscribed

my name hereto in the presence of two subscribing witnesses.

JOHN M. MEYER.

Witnesses:

CONSTANT SOUTHWORTH,
FLORENCE QUINN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."