W. L. McNAIR.

SHAFTING.

No. 171,680. Patented Jan. 4, 1876.

Fig. 1

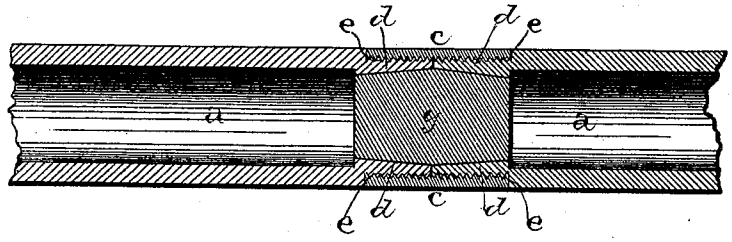

Fig. 2

WITNESSES.

Wm. Garner.

F. H. Burnham.

INVENTOR.

Wm. L. McNair

per

F. A. Lehmann

Atty

UNITED STATES PATENT OFFICE.

WILLIAM L. McNAIR, OF ALLEGHENY, PENNSYLVANIA.

IMPROVEMENT IN SHAFTING.

Specification forming part of Letters Patent No. **171,680**, dated January 4, 1876; application filed November 5, 1875.

To all whom it may concern:

Be it known that I, WILLIAM L. McNAIR, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Shafting; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in shafting; and it consists in the arrangement and construction of parts that will be more fully described hereinafter, whereby the sections of shafting are united together without forming any perceptible joints or enlargements, and so that the shafting will be of one uniform size throughout its length.

The accompanying drawings represent my invention.

a a represent two sections of hollow shafting, that are united together by the coupling *c*, which coupling is of the same size, in diameter, as the sections, so that there will be no enlargement upon the shafting at this point. In the end of each of the sections *a* there is swaged a short thick piece of tubing, *d*, upon the outer surfaces of which are cut screw-threads *e*, for screwing into the ends of the coupling *c*. These pieces of tubing are just the thickness of the coupling smaller than the sections *a*, so that when the sections are united together there will be one uniform thickness along the whole line of shafting without a single enlargement, break, or obstruction along its whole length.

By thus joining the sections together, so as to have no enlargement at the joints, the following advantages are gained: The usual costly cumbrous joints are dispensed with, the pulleys can be moved along to any point where it is desired to attach them, there is no danger of the clothes catching while oiling the bearings upon the bolt-heads or corners of the couplings, as is now the case, besides many other advantages that will readily suggest themselves to every engineer and mechanic.

In order to strengthen the shafting, at each joint there is inserted a short tapering plug, *g*, at the junction of the sections, as shown, which make the shafting as rigid and strong as though it were solid.

Having thus described my invention, I claim—

The combination of the sections *a*, coupling *c*, plug *g*, and tubing *d*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of September, 1875.

WILLIAM L. McNAIR.

Witnesses:

H. W. SELLERS,

WILLIAM F. ROBB.