

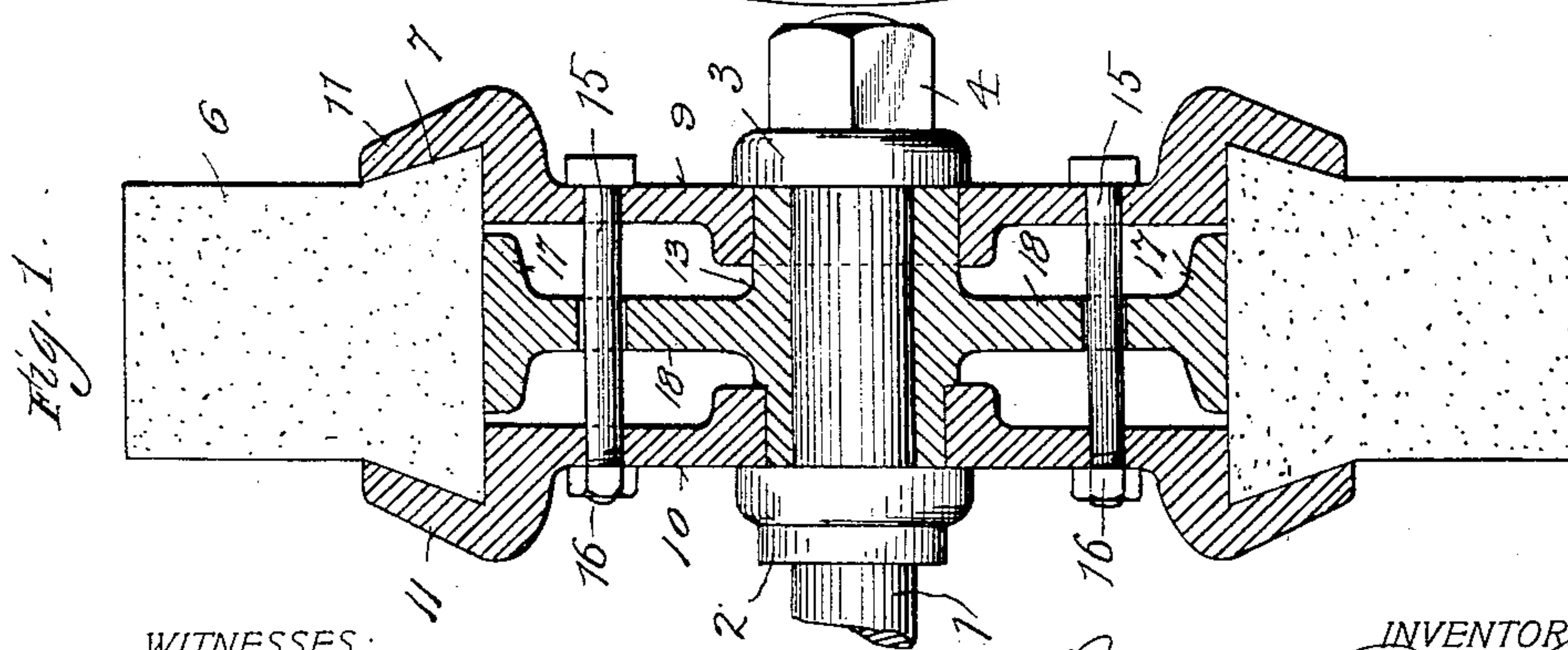
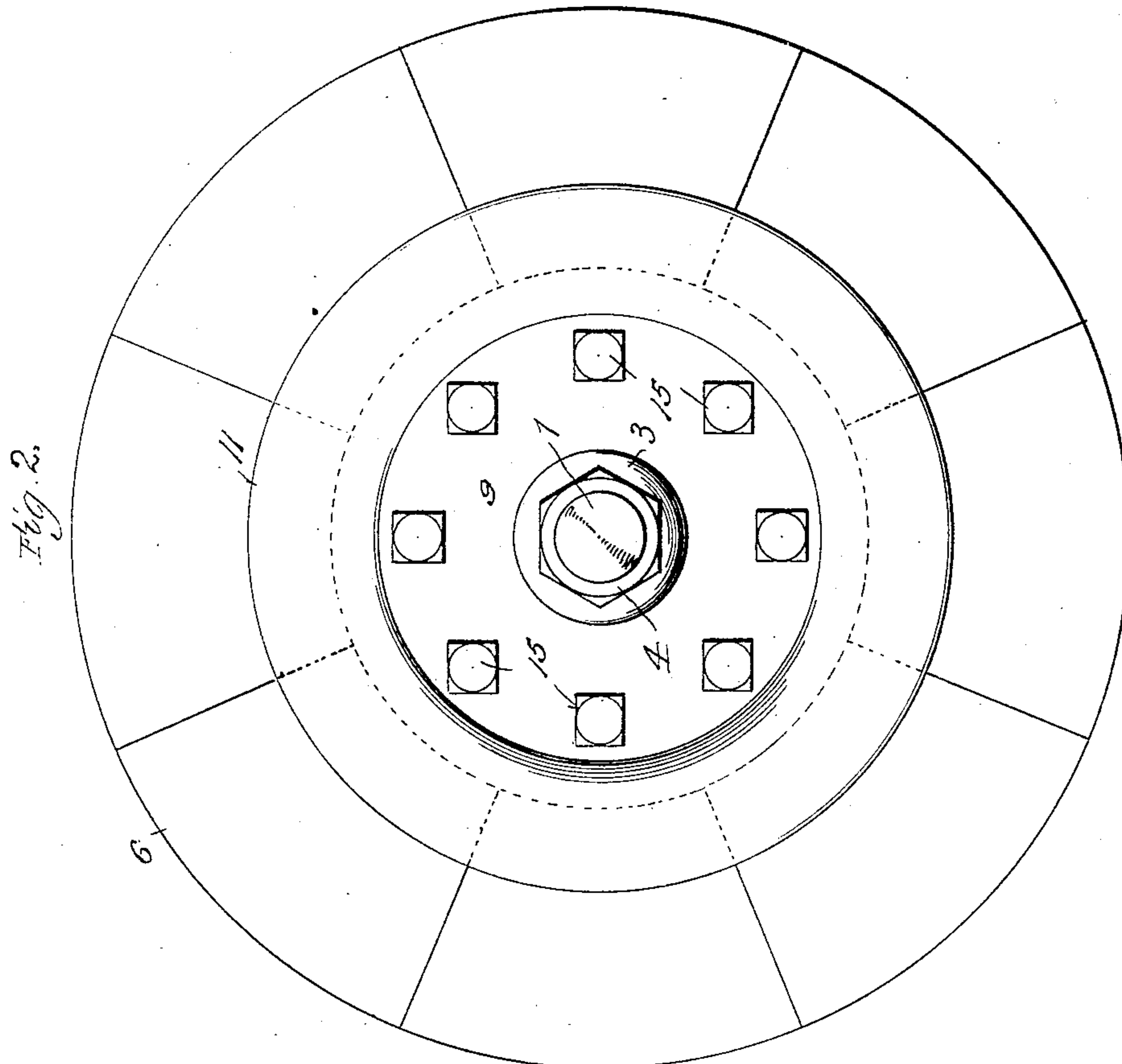
No. 750,653.

PATENTED JAN. 26, 1904.

D. B. HYDE.  
ABRASIVE WHEEL.

APPLICATION FILED JAN. 10, 1902.

NO MODEL.



WITNESSES:

J. D. Dawley  
W. O. O'Loughlin

INVENTOR  
David B. Hyde  
BY H. A. Toulmin  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

DAVID B. HYDE, OF SPRINGFIELD, OHIO.

## ABRASIVE WHEEL.

SPECIFICATION forming part of Letters Patent No. 750,653, dated January 26, 1904.

Application filed January 10, 1902. Serial No. 89,099. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID B. HYDE, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Abrasive Wheels, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to abrasive wheels, and more particularly to that class of wheels known as "composition" wheels, and has for its object to provide an efficient support for the abrasive annulus to enable it to effectively resist the inward thrust which it receives from the pressure against its periphery of the article being ground.

To these ends the invention consists in certain novel features, which I will now proceed to describe and will then particularly point out in the claim.

In the drawings, Figure 1 is a vertical sectional view of a structure embodying my invention in one form, and Fig. 2 is a side elevation of the same.

In the said drawings, 1 indicates the spindle on which the wheel is to be mounted, said spindle being provided with a fixed collar 2 and a movable collar 3 and being threaded at its outer end to receive the clamping-nut 4. 6 indicates the abrasive wheel proper, which is made in the form of an annulus. Said abrasive annulus may be constructed either in a single piece or in separate segments, as indicated in Fig. 2. Said annulus has a base portion 7 of increasing width toward the center of the wheel, being preferably made dove-tailed, as shown, although other forms of centrally-increasing width may be employed. The wheel thus constructed is held between plates 9 and 10, having flanges 11, shaped to conform to the sides of the base portions of the annu-

lus which is embraced between them. The plate 10 is secured on one end of a sleeve 13, preferably by shrinking it on. The other plate 9 has a sliding fit on the other end of the sleeve, and the two plates are connected by bolts 15 passing through both plates and provided with nuts 16. These bolts and nuts serve to clamp the annulus firmly between plates.

The sleeve 13 is provided with a central support to resist the inward thrust of the work against the annulus, said support being formed by a ring 17, against which the annulus bears, said ring being supported from the sleeve 13 by an annular web 18 and the sleeve, web, and ring being preferably integral, as shown.

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

The combination, with a composition abrasive annulus, of side plates adapted to grip the annulus laterally and support the same against inward thrust, a sleeve to which one of said side plates is secured, the other plate fitting movably on said sleeve, means for drawing said side plates toward each other to grip the annulus and to hold the plates and annulus in position on the sleeve, and a spindle fitting said sleeve and provided with means for clamping said sleeve thereon, said sleeve being provided with a central radial annular projection against which the inner surface of the abrasive annulus bears and by which the central portion thereof is supported, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID B. HYDE.

Witnesses:

E. O. HAGAN,  
IRVINE MILLER.