

No. 767,185.

PATENTED AUG. 9, 1904.

A. THUILLIER.  
SHAFT COUPLING.

APPLICATION FILED MAY 12, 1904.

NO MODEL.

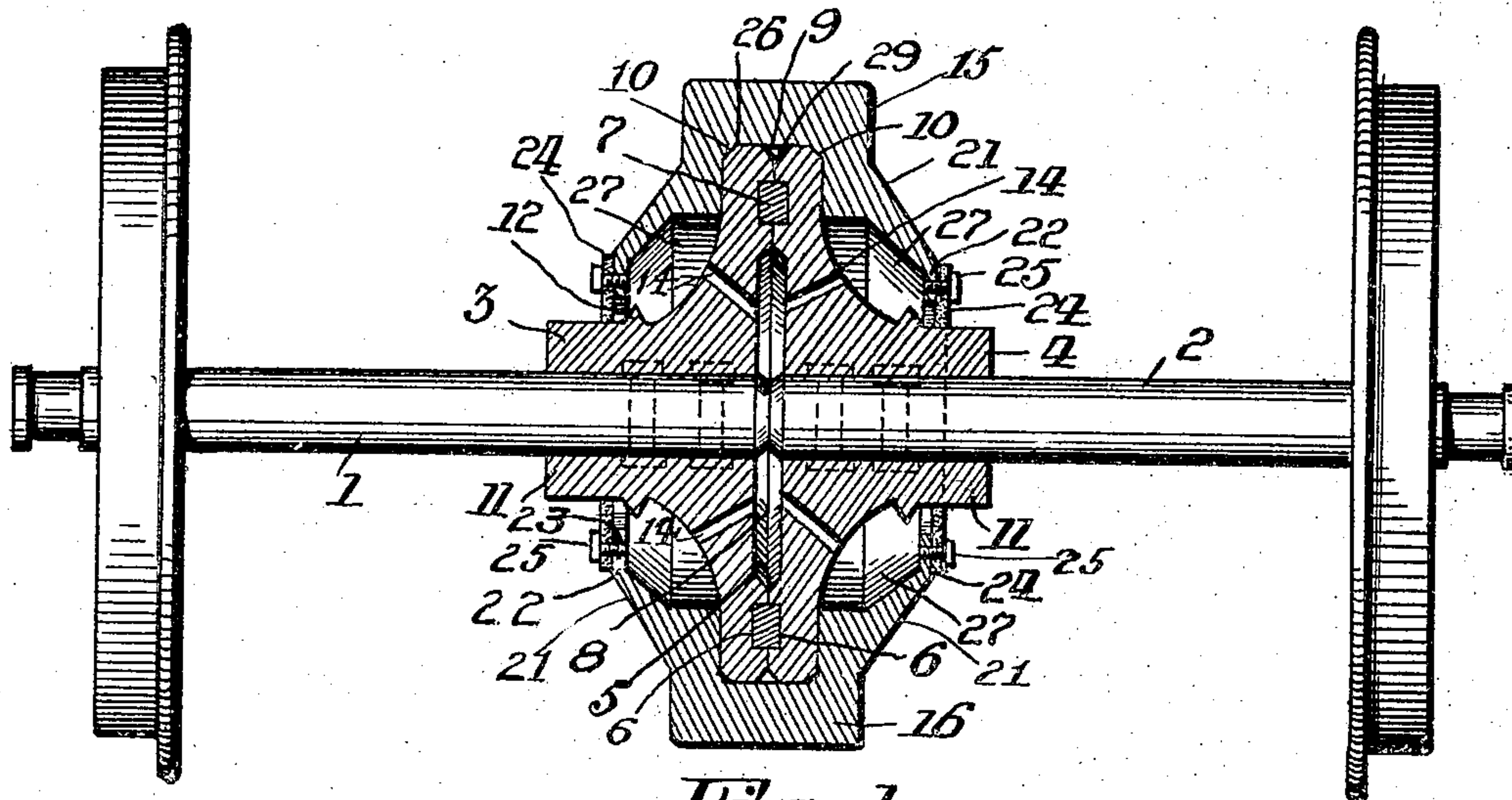


Fig. 1.

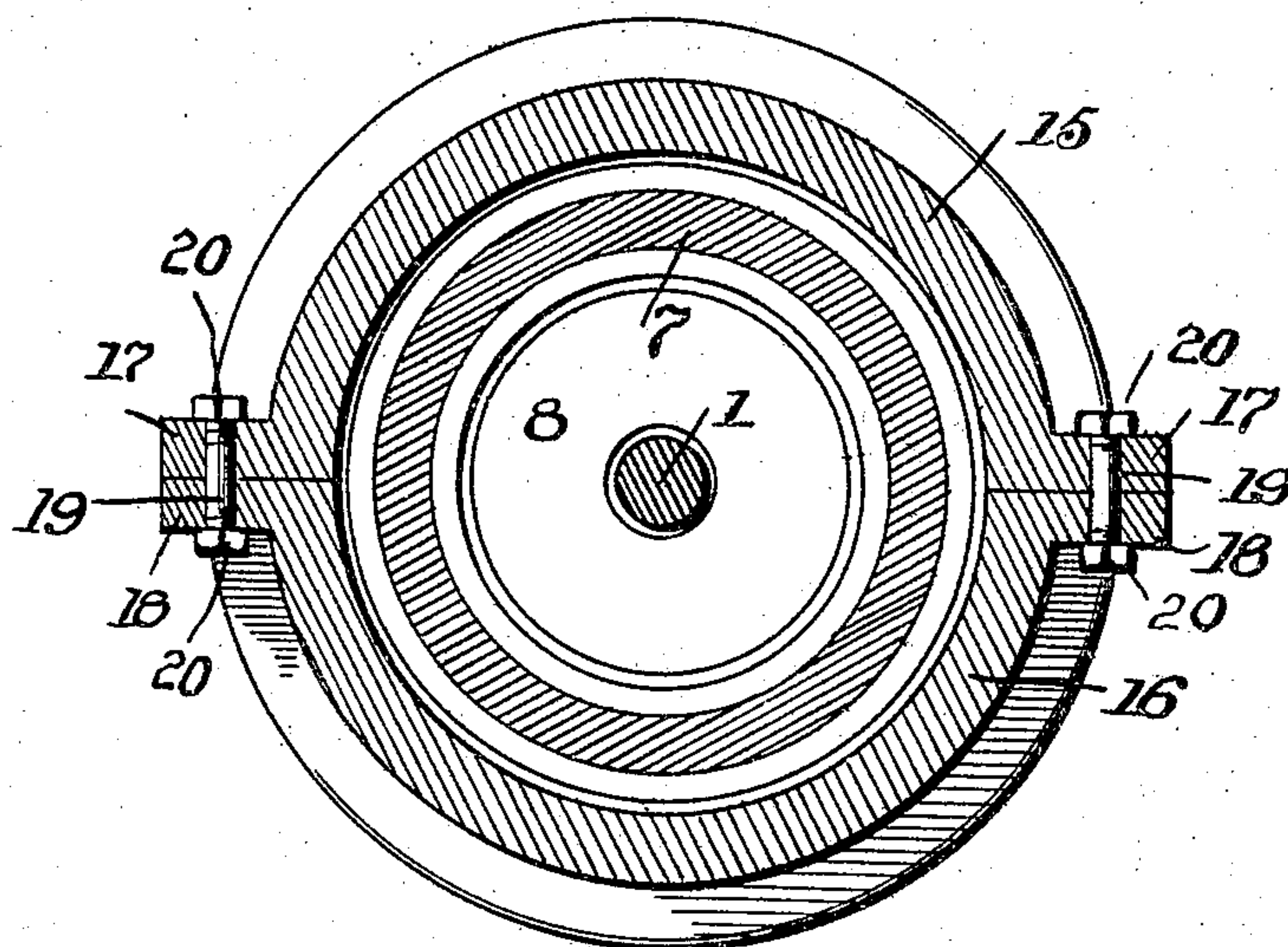


Fig. 2.

Witnesses:  
H. B. Butler,  
E. E. Potter,

Inventor  
A. Thuillier,  
By H. C. Everett & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

ADOLPHIE THUILLIER, OF HAZELWOOD, PENNSYLVANIA.

## SHAFT-COUPLING.

SPECIFICATION forming part of Letters Patent No. 767,185, dated August 9, 1904.

Application filed May 12, 1904. Serial No. 207,687. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPHIE THUILLIER, a citizen of the United States of America, residing at Hazelwood, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Shaft-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to shaft-couplings in general, and more particularly to that class in which a coupling may be employed to hold two sections of a shaft whereby they may turn in unison or may rotate independently and yet preserve their alinement and location.

The object of my invention is to construct a coupling of the above-described character which may be easily and quickly secured to two shaft-sections, and in constructing my improved coupler I have made the same dust-proof and in such a form that it serves the function of a lubricator.

Briefly described, my improved shaft-coupling consists of two cone-shaped sections which are placed together, a metallic ring being interposed between said sections, and in the adjoining faces of each cone-shaped section I have provided an annular recess, with which communicate lubricating-ports from the exterior of the cone-shaped sections, and over these sections are placed two clamping members which secure the cone-shaped sections together and form a lubricating-receptacle for the shaft-sections.

The above construction will be hereinafter more fully described, and specifically pointed out in the claims, and in describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, wherein like numerals of reference indicate like parts throughout both views, in which—

Figure 1 is a vertical sectional view of my improved shaft-coupling, showing the same mounted upon the ends of two axle-sections; and Fig. 2 is a central transverse sectional view of the same.

In the accompanying drawings the reference-numerals 1 and 2 indicate two sections of an axle upon which my improved shaft-

coupling is mounted, and in Fig. 1 of the drawings I have illustrated the coupling as connecting together two car-wheels, and the reference-numerals 3 and 4 designate two cone-shaped sections which are identical in construction, and I will therefore only specifically describe one of said sections. The cone-shaped section 3 is provided with an annular recess 5 in its one end or the base portion of the cone. Intermediate this annular recess 5 and the periphery of the cone-section I provide an annular groove 6, which when the two cone-shaped sections are placed together, as illustrated in Fig. 1 of the drawings, coincides with a similar groove carried by the cone-shaped member 4, forming an annular pocket, in which is placed a metallic ring 7, and as the cone-shaped section 4 is formed with an annular recess similar in construction to the annular recess 5 of the cone-section 3 these two sections when placed together form an annular pocket 8, the object of which will be hereinafter more fully described. The periphery of the cone-shaped section 3 is beveled upon its two edges, as indicated at 9 and 10, and upon the shank portion 11 of the cone-shaped section I provide an annular collar 12, this collar being formed upon the shank at a point where the contour of the cone leaves the shank portion of the cone-shaped section. The cone-shaped section is provided with ports 14, which are drilled at an angle to the longitudinal axis of the cone-shaped sections, and these ports communicate with the annular pocket 8 of said sections.

In order to secure the two cone-shaped sections together, I employ two semicircular members 15 and 16, these members carrying flanges 17 17 and 18 18, the flanges of each member being secured together by the screw-bolts 19 and the nuts 20 20. These semicircular members are identical in construction, and each one of said members forms a hood over the cone-shaped portions of the sections 3 and 4. The semicircular members are formed with angular sides 21, and the lower edges of these sides have a depending flange 22, said flanges being provided with a plurality of apertures 23, and when the two members 15 and 16 are placed together upon the cone-shaped sections



3 and 4 the depending flanges of each semicircular member 15 and 16 form a flat annular surface, against which is secured a felt ring 24, said rings being secured on the depending flanges by screw-bolts 25, which engage in the apertures 23 of said flanges, and the felt rings 24 are adapted to engage the shank portions 11 of the cone-shaped sections 3 and 4, this construction providing a dust-proof shaft-coupling, which will hereinafter be more fully described.

Each of the semicircular members 15 and 16 is provided with an annular groove 26, which when the members are placed over the cone-shaped sections 3 and 4 forms a seat for the base portions of the cone-shaped sections comprising the coupling, and by the construction of the angular sides of the members 15 and 16 two annular compartments 27 27 are formed.

It will be observed from the construction of my improved shaft-coupling that I have provided a lubricator for the axle or shaft sections which are to be coupled together, and to lubricate the shaft or axle the screw-bolts 25 are removed and the lubricating oil or material is injected into the annular compartments 27 through the apertures 23 of the depending flange, or the felt ring 24 may be removed and the oil or material placed in the compartment 27. The lubricating material placed in these compartments flows through the ports 14 and into the annular pocket 8, formed by the two cone-shaped sections 3 and 4, and the lubricating oil or material will then find its way between the abutting faces of the sections 3 and 4 and surround the metallic rings 7, from whence it will gradually pass to the annular pocket 29, formed by the beveled edges 9 9 of the sections 3 and 4, thoroughly lubricating all abutting faces of the coupling, at the same time lubricating the abutting ends of the axle or shaft sections. I have provided the annular collars 12, whereby the lubricating oil or material will be prevented from coming into contact with the felt rings 24 and the seepage of the oil through the felt rings prevented, and by placing the inner edges of these felt rings in engagement with the shank portions 11 of the sections 3 and 4 all dust, dirt, or ingredients foreign to the general operation of the shaft or axle sections is prevented from entering the compartments 27, which are in communication with the abutting ends of the shaft or axle sections.

It will be noted that the contour of the cone-shaped sections, the arrangement of the felt rings, and other slight changes may be made in the details of construction without departing from the scope of the invention.

What I claim is—

1. In a shaft-coupling, the combination

with two shaft-sections, of two cone-shaped sections, provided with an annular pocket formed in adjacent faces, ports communicating with said pocket, an annular ring interposed between said sections, and means for securing said sections together.

2. In a shaft-coupling, the combination with two shaft-sections, of two cone-shaped sections having annular collars formed thereon, said sections having annular pockets formed therein, and ports communicating with said pockets, annular grooves formed in said sections, a metallic ring mounted in said grooves and means for securing said sections together.

3. In a shaft-coupling, the combination with two shaft-sections, of two cone-shaped sections having annular collars formed thereon, each of said sections having an annular pocket formed therein, each of said sections having an annular groove formed therein, a ring in said grooves, two semicircular hollow members adapted to fit over said sections and means for securing said members together, substantially as described.

4. In a shaft-coupling, the combination with two shaft-sections, of two cone-shaped sections, an annular pocket formed in said sections, ports communicating with said pocket, an annular ring interposed between said sections, two hollow members adapted to fit over said sections, felt rings carried by said members, and means for securing said members together, substantially as described.

5. In a shaft-coupling, the combination with two shaft-sections, of two cone-shaped sections, having annular collars formed thereon, a pocket formed in said sections, said cone-shaped sections having ports formed therein communicating with said pocket, an annular ring interposed between said sections, two semicircular hollow members adapted to fit over said sections, felt rings carried by said members and adapted to engage the cone-shaped sections, and means for securing said members together, substantially as described.

6. A shaft-coupling comprising two cone-shaped sections having annular collars formed thereon, said sections having annular recesses formed therein, said sections having annular grooves formed therein, a ring mounted in said grooves, two semicircular hollow members adapted to fit over said sections and secure the same together, felt rings carried by said members and adapted to engage the cone-shaped sections, and means for securing said members together, substantially as described.

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

ADOLPHIE THUILLIER.

Witnesses:

WM. C. HETZ,  
K. H. BUTLER.