

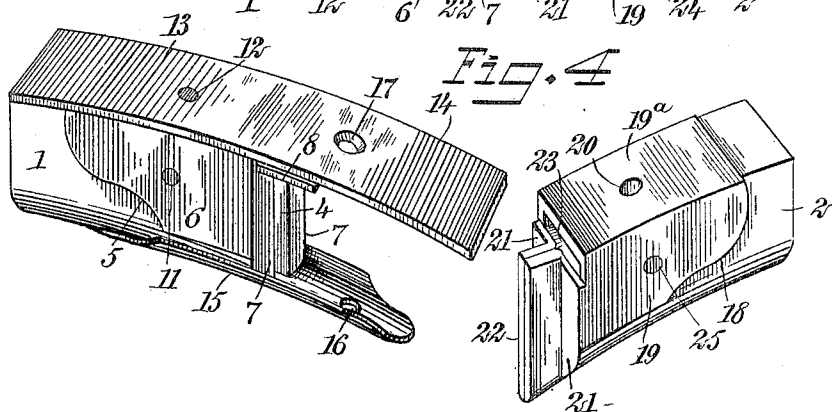
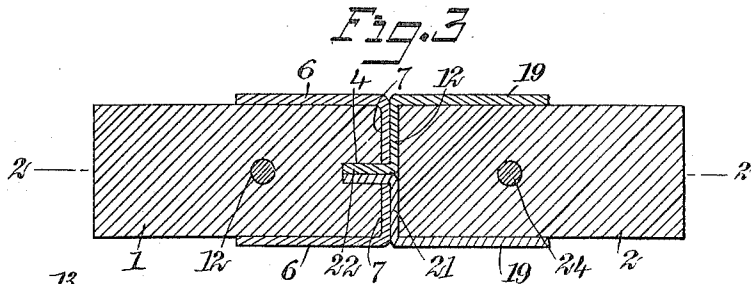
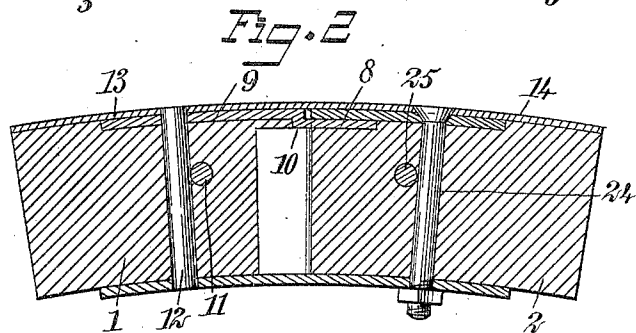
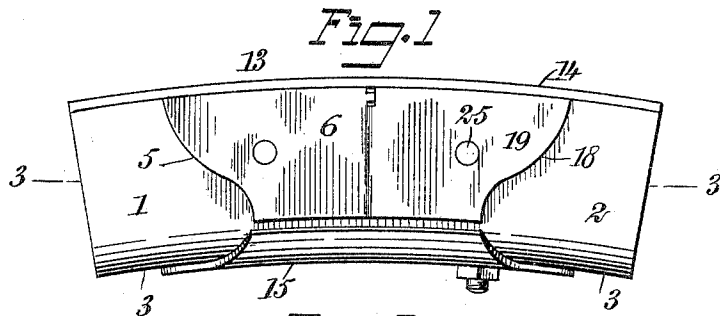
No. 820,788.

PATENTED MAY 15, 1906.

J. R. HUGHES.

CONNECTING DEVICE FOR WHEEL FELLIES.

APPLICATION FILED MAY 29, 1905. RENEWED MAR. 20, 1906.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## CONNECTING DEVICE FOR WHEEL-FELLIES.

No. 820,788.

Specification of Letters Patent.

Patented May 15, 1906.

Application filed May 29, 1905. Renewed March 20, 1906. Serial No. 307,066.

*To all whom it may concern:*

Be it known that I, JOHN RICHARDS HUGHES, a citizen of the United States, and a resident of Chama, in the county of Rio Arriba and Territory of New Mexico, have invented a new and Improved Connecting Device for Wheel-Fellies, of which the following is a full, clear, and exact description.

This invention relates to connecting devices for the sections of wheel-fellies; and it consists substantially in the details of construction and combinations of parts hereinafter more particularly described, and pointed out in the claims.

One of the principal objects of the invention is to provide a device of this character of an embodiment to overcome numerous disadvantages and objections encountered in the use of other structures hitherto devised for similar purposes.

A further object is to provide a device of the character referred to which is simple in construction and comparatively inexpensive to manufacture, besides being strong and durable, not liable to get out of order, and possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of sections of a wheel-felly having my improvements in connection therewith. Fig. 2 is a vertical longitudinal sectional view taken on the line 2 2 of Fig. 3. Fig. 3 is a horizontal longitudinal sectional view taken on the line 3 3 of Fig. 1, and Fig. 4 is a perspective view indicating the sections of a wheel-felly as disconnected and representing more clearly the construction and organization of the parts or elements constituting my improved connecting device for the ends of the sections.

Before proceeding with a more detailed description it may be stated that in the form of my improvements herein shown I employ a specially-constructed connecting device for the adjacent ends of the sections of the felly or wheel-rim, comprising complementary ferrules or caps, each of special construction, and cooperating with the other in the produc-

tion of a close joint between the sections, which is highly resistive to strains from all directions, besides preventing splitting of the sections.

While I have herein represented my improvements in a certain preferred embodiment, it will be understood, of course, that I am not limited thereto in precise detail, since immaterial changes therein may be resorted to coming within the scope of my invention.

Reference being had to the drawings by the designating characters thereon, 1 and 2 represent sections of a felly or wheel-rim of ordinary form, the outer faces of which are preferably flat and the inner faces of which are preferably curved or rounded, as indicated at 3. Formed in the end face of the said felly-section 1 is a straight mortise 4, extending the full distance between the outer and inner faces of the section, while fitted to the end of this section is a metal ferrule or cap 5, constructed of parallel side members 6, embracing the sides of the section for a suitable distance from the end, said ferrule or cap being formed of a single piece of metal and, further, comprising integral end sections 7, lying flat against the end face of the felly-section on opposite sides of the said mortise 4 therein, together with an outwardly-projecting member or tongue 8, integral with the top or outer section 9 of the said ferrule or cap and bent inwardly to form a shoulder 10. (See Fig. 2.) This ferrule or cap is secured to the end of the felly-section in any suitable manner, as by means of a rivet 11, and extending through the section from the outer to the inner face thereof is another rivet 12, disposed at right angles to the rivet 11 and which also extends through a suitable opening therefor in the said top section 9 of the ferrule or cap 5. This rivet 12 also serves to secure in place on the outer face of the felly-section a flat plate or iron 13, which projects some distance beyond the end of the tongue 8 of the ferrule or cap 5, as shown at 14 (see Figs. 1, 2, and 4,) serving at the same time to secure to the inner face of the felly-section a curved plate or iron 15, also projecting some distance beyond the end of the tongue 8 and provided therein with an opening 16, coinciding with an opening 17 in the projecting portion 14 of the flat plate 13, as shown, and

for the purpose presently explained. The adjacent end of the felly-section 2 is provided with a ferrule or cap 18, also formed of a single piece of metal and comprising parallel side members 19, embracing the sides of the felly-section, together with a connecting top section 19<sup>a</sup>, having therein an opening 20, coinciding with the openings 16 and 17, hereinbefore mentioned, this ferrule or cap further comprising duplicate end sections 21, lying flat against the end face of the said felly-section 2 and brought together and bent outwardly to form a tenon 22, adapted to enter or be received within the aforesaid mortise 4, formed in the end face of the said felly-section 1. (See Fig. 3.) The upper edges of the said end sections 21 of this ferrule or cap 18 terminate short of the adjacent edge of the said connecting top section 19<sup>a</sup> thereof, thus to provide a recess or socket 23 for receiving the hereinbefore-mentioned tongue 8 when the ends of the felly-sections are joined by the proper or intended association of the said ferrules or caps 5 and 18.

As will be noted in Figs. 1 and 2, the top section of each of the ferrules or caps is seated within a recess therefor in the outer face of the appropriate felly-section, thus to be flush therewith when the ends of the felly-sections are joined or united by forcing the ferrule or cap 18 between the projecting portions of the plates or irons 13 and 15 of the felly-section 1, with the tenon 22 entering the mortise 4 and the tongue 8 entering the recess or socket 23 beneath the top section 19<sup>a</sup> of said ferrule or cap 18. The joint or connection thus established is rendered secure and practically rigid by means of a bolt 24 extending through the felly-section 2 from the outer to the inner face thereof, as well as through the hereinbefore-mentioned coinciding openings 17 and 16 and 20, formed in the projecting portions of the plates or irons 13 and 15 and the top section 19<sup>a</sup> of the ferrule or cap 18, respectively. The connection or joint thus established is both strong and durable, as will be apparent, and it will be also apparent that the construction and organization of the several elements or parts constituting the improvements are such as to absolutely prevent and splitting of the felly-sections at the joint thereof, as well as any displacement of the ends of the sections either laterally or otherwise. The said elements or parts are simple and easily and quickly struck up into the desired shape, and the improvements are readily adapted for use in connection with the sections of wheel-fellies already in use. In applying the ferrules or caps to the ends of the felly-sections but little cutting of the latter is necessary, and the work of such application may be readily and quickly carried out. The embodiment of the entire structure is such that ample provision is made for expansion and contraction of the sections of the

felly, while at the same time the joint between the sections is effectually protected from the accumulations of dirt and moisture between the parts thereof. Extending through the felly-section 2 and the side members of the ferrule or cap 18 is also a rivet 25, corresponding to the rivet 11 of the felly-section 1 and ferrule or cap 5. These rivets 11 and 25 are preferably employed as auxiliaries to the rivet 12 and bolt 24 for securing the ferrules or caps to the felly-sections.

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

1. A connector for felly-sections comprising ferrules secured to the ends of the sections, each complementary to the other, the end face of one of the sections having therein a mortise and the ferrule of the other section having a tenon adapted thereto, constructed of integral portions of the ferrule bent together and thence outwardly.

2. A connector for felly-sections comprising complementary ferrules secured to the ends of the sections, the end face of one of the sections having a mortise therein and the ferrule of the other section having a tenon adapted to the mortise, constructed of integral portions of the ferrule bent together and thence outwardly this ferrule also having a recess, and the other ferrule having a projecting tongue for entering said recess.

3. A connector for felly-sections comprising complementary ferrules secured to the ends of the sections, and outer and inner irons lapping the sections at the joint, the end face of one of the sections having therein a mortise, and the ferrule of the other section having a tenon for entering the mortise.

4. A connector for felly-sections comprising complementary ferrules secured to the ends of the sections, and outer and inner irons lapping the sections at the joint, the end face of one of the sections having a mortise therein, and the ferrule of the other section having a tenon adapted to the mortise.

5. A connector for felly-sections, one having a mortise in the end face thereof, comprising complementary ferrules secured to the ends of the sections, and outer and inner irons lapping the ferrules at the joint, one ferrule having end sections lying at opposite sides of said mortise, and provided with a projecting tongue, and the other ferrule having a top section and end sections brought together and shaped into a tenon to enter the mortise, said end sections terminating short of the said top section to form a recess for receiving the tongue of the ferrule first named.

6. A connector for felly-sections comprising complementary ferrules secured to the ends of the sections, inner and outer irons lapping the sections at the joint, and a rivet and a bolt securing in place both the ferrules and the irons, the end face of one of the sec-

tions having therein a mortise and the corresponding face of the ferrule of the other section having a tenon entering said mortise.

5 7. A connector for felly-sections comprising complementary ferrules secured to the ends of the sections, inner and outer irons lapping the sections at the joint, and a rivet and a bolt securing in place both the ferrules and the said irons, one of said ferrules being

constructed with a socket and the other with a tongue received by the socket.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN RICHARDS HUGHES.

Witnesses:

F. C. BEATTY,  
Mrs. C. M. MARSHALL.