

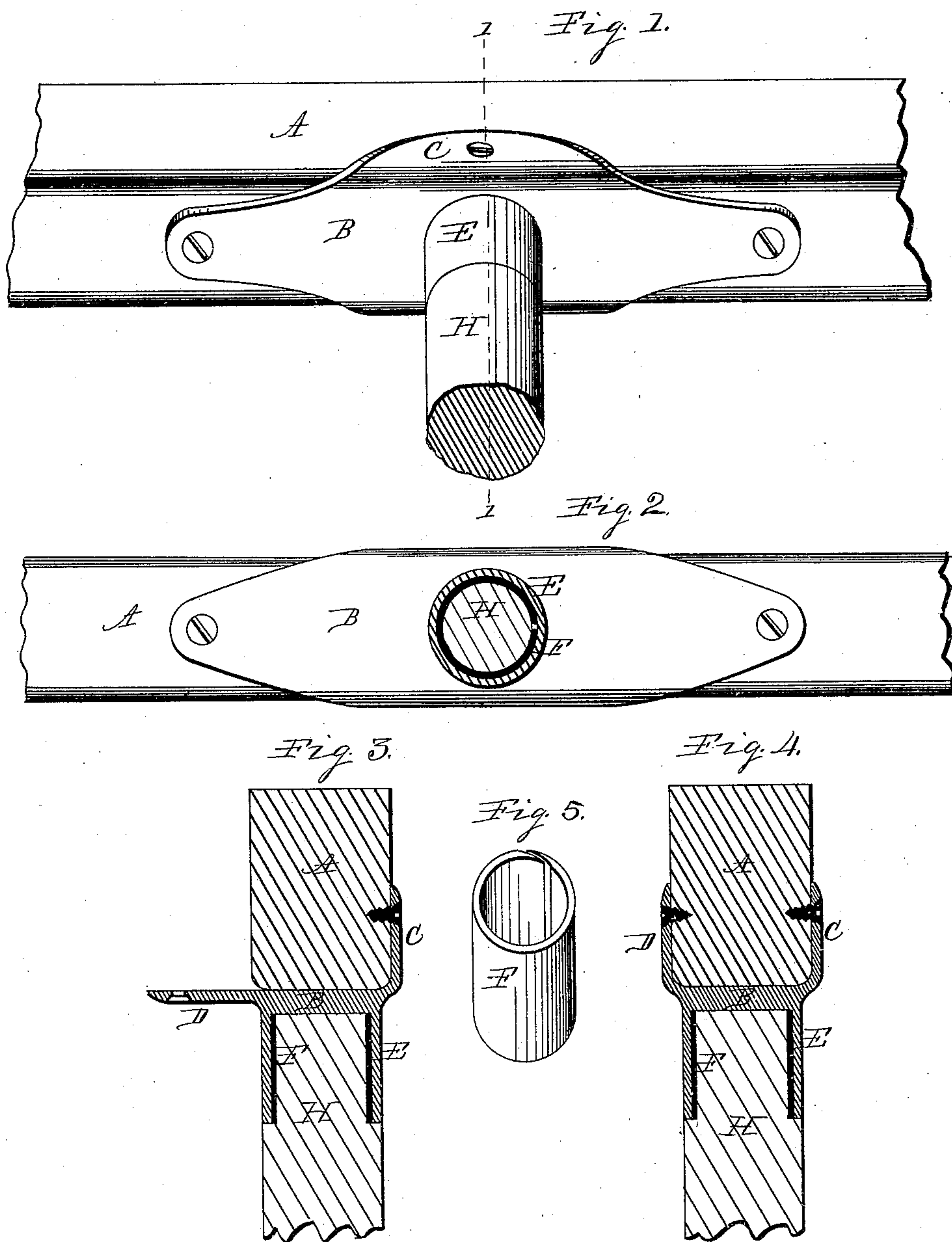
(No Model.)

H. H. STEVENS.

SPOKE SOCKET.

No. 343,504.

Patented June 8, 1886.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## SPOKE-SOCKET.

SPECIFICATION forming part of Letters Patent No. 343,504, dated June 8, 1886.

Application filed January 30, 1886. Serial No. 190,343. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY H. STEVENS, a citizen of the United States, residing at Marengo, in the county of McHenry, in the State of Illinois, have invented a new and useful Spoke-Socket, of which the following is a specification.

This invention relates to spoke-sockets employed in vehicle-wheels to connect the end of the spoke with the felly.

Its object is to produce a compensating spoke-socket having a construction to hold the spoke end with a uniform grasp in varying temperatures, and adapted to the construction of new wheels or in the repair of old wheels.

To this end I have designed and constructed the spoke-socket represented in the accompanying drawings, in which—

Figure 1 is an isometrical representation of my improved spoke-socket in its application to a wheel. Fig. 2 is an inner face view of a portion of a wheel-felly with the socket in place thereon. Fig. 3 is a transverse section on dotted line 1, showing the construction of the socket and its manner of application. Fig. 4 is also a transverse section on dotted line 1, showing the complete application of the socket. Fig. 5 shows a modified construction of the expansive ring.

In the figures the felly A is of the usual form in section, having its inner corners preferably in rounded form. The spoke-socket is produced of malleable material, and consists of a clasp-plate, B, constructed to engage the inner face of the felly, and one of its flanges, C, to embrace one of its inner corners and depend on its side face, the other flange, D, projecting laterally, or in the same plane of the central portion of the clasp-plate, to permit it when connected with the spoke to pass the inner face of the felly, to place the parts in position, and then to be bent to embrace the corner of the felly and depend on its side face. The clasp-plate is provided with holes at proper points to receive screws or nails to fix it to the felly when in place thereon, substantially as shown in the drawings. A cylindrical spoke-socket, E, rises from the central portion of the inner face of the clasp-plate, and an expansive open-sided thimble, F, produced from brass or other metal having a greater expan-

sive capacity than the material from which the socket is produced, is fitted to enter the socket snugly, but in such a manner as not to bring the contiguous edges of its open side quite in contact. The outer end of the spoke H is tenoned to receive the open-sided thimble in a manner to produce a driving fit of spoke and thimble in the socket. With the parts constructed as shown and described, the thimble is then placed on the tenoned end of the spoke, the socket is then driven on the tenoned end of the spoke over the thimble, the clasp-plate is then driven onto the inner face of the felly, and the flange D is then bent to embrace the felly, and screws or nails driven into the felly through the holes in the clasp-plate serve to prevent displacement of the parts in use. This construction and application of the socket is especially applicable in repairing wheels in which the tenon connecting the spoke with the felly has become broken, in which case the end portion of the spoke can be bent or sprung to the side of the felly to receive the tenoning implement, and when the tenon is produced the open thimble and socket can be put in place thereon and on the inner face of the felly, as hereinbefore stated. It is also well adapted to the repair of wheels where new spokes are required, which, when driven into the hub, may be tenoned and connected to the felly in the same manner as described in connection with the spoke with broken tenon, all of which repairs are completed without removing the tire.

My improvement is also designed for use in the construction of new wheels, and when so employed the felly is not weakened by boring to receive the tenoned end of the spoke, and hence the same strength of wheel may be obtained with a less thickness of felly or of less width of tread.

In this construction of the spoke-socket, the employment of an open-side thimble of a material having an expansive and contractive power greater than the material from which the socket is produced tends to preserve the fit of the parts within the socket under the varying temperatures of the seasons.

In the open-sided thimble shown at Fig. 5 the meeting edges are produced in an overlap, as clearly shown, which will be readily under-

stood without further description, and this form of thimble may be employed instead of the thimble F and still be within the scope of my invention.

5 I claim as my invention—

1. The combination, with a felly and spoke, of a spoke-socket consisting of a clasp-plate to engage the inner face of the felly, and a socket rising from the inner face of the plate,  
10 and an open-sided thimble adapted to fit within the socket and around the tenon of the spoke, as and for the purpose described.

2. The combination, with a spoke-socket and spoke, of an open-sided thimble capable of greater expansion and contraction than the  
15 socket under variations of temperature, substantially as described.

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Witnesses:

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