

No. 892,792.

PATENTED JULY 7, 1908.

H. WOLF & R. STRUCK.
PROCESS FOR MAKING NIPPLES.
APPLICATION FILED MAY 14, 1907.

Fig. I.

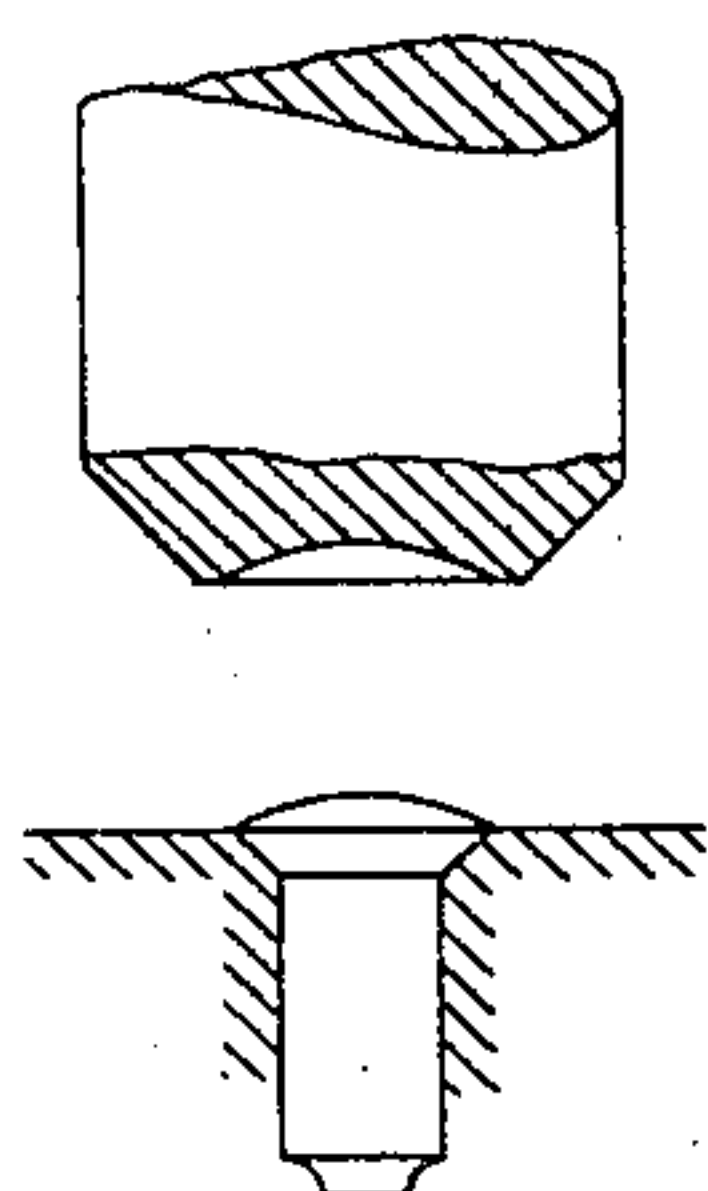


Fig. II.

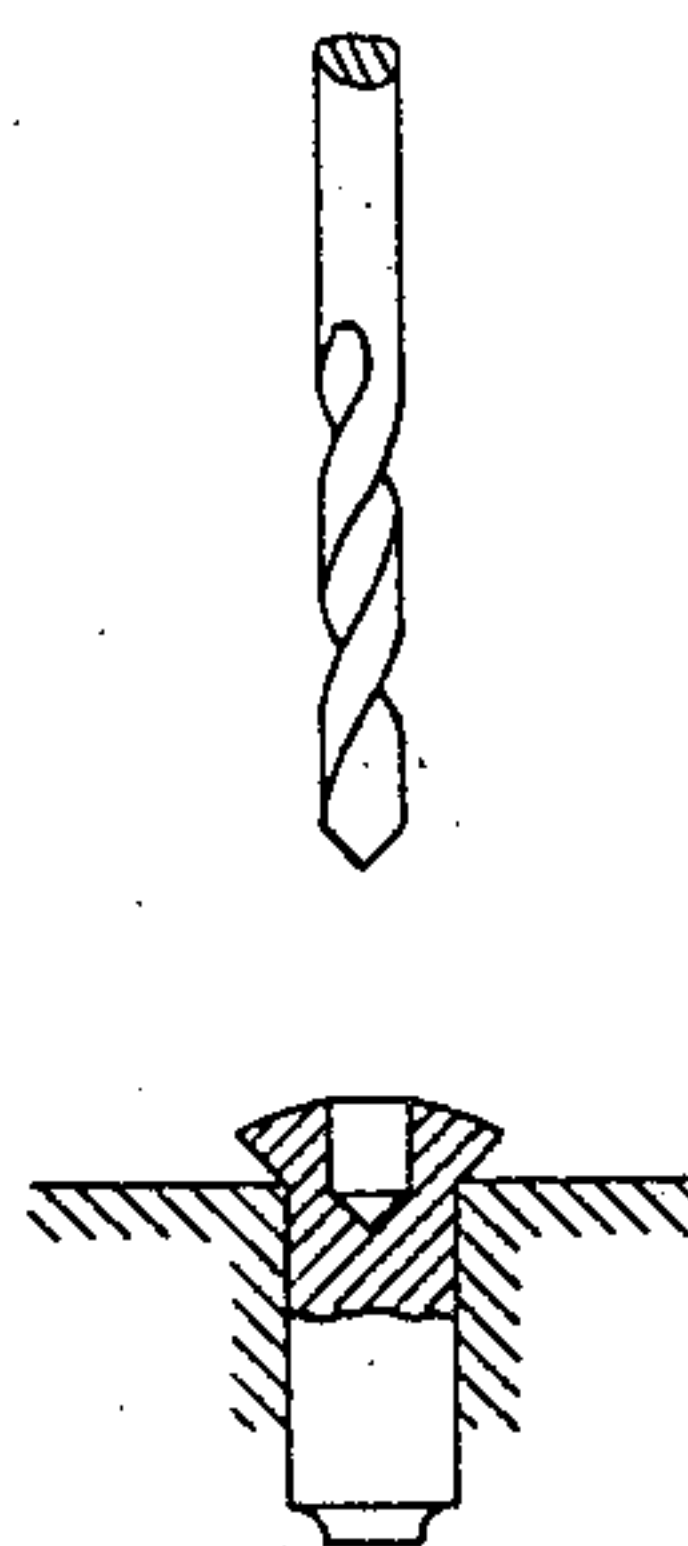


Fig. III.

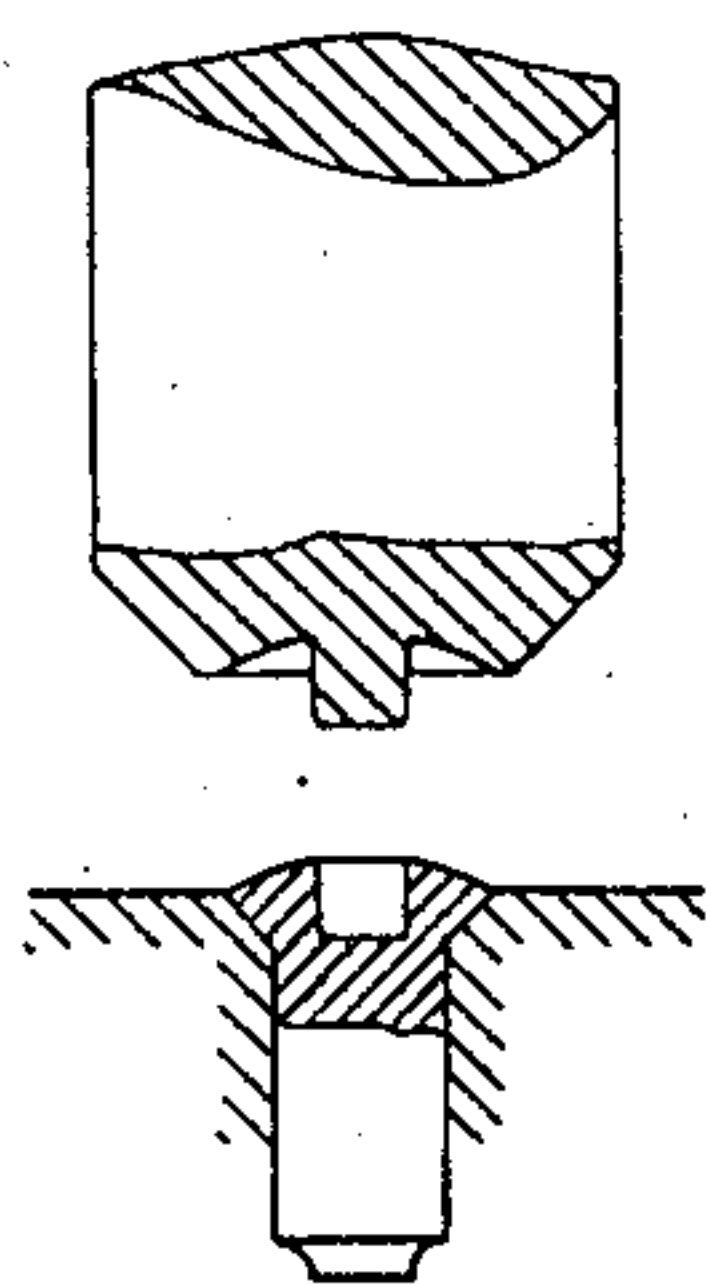


Fig. IV.



Witnesses:

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UNITED STATES PATENT OFFICE.

HERMANN WOLF AND ROBERT STRUCK, OF VAALS, NETHERLANDS.

PROCESS FOR MAKING NIPPLES.

No. 892,792.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed May 14, 1907. Serial No. 373,660.

To all whom it may concern:

Be it known that we, HERMANN WOLF and ROBERT STRUCK, citizens of the Empire of Germany, both residing in Vaals, Netherlands, have invented a Process for Making Nipples, of which the following is a complete specification, reference being had to the accompanying drawings.

Blanks for nipples for holding the spokes of cycle wheels and the like have preferably been made hitherto of brass wire in automatic machines, because other cheaper material, for example iron or its alloys offers great difficulty on account of the hardness of the latter. The heads of the nipples are usually upset or riveted, by which means the material in the head part is strongly condensed.

In the accompanying drawings, Figures 1, 2, 3 and 4 show various stages in the formation of nipples by the process hereafter to be described. Fig. 1 shows the method of forming the head, which is the same as the method heretofore used. Fig. 2 illustrates an important step of the new method. Fig. 3 shows the means for executing this step in a different way. Fig. 4 is a longitudinal section through a nipple, made according to the invention hereinafter described.

When brass is used the difference between the original consistency of the wire and that of the condensed material is comparatively small, but with iron and its alloys the difference is very considerable. Therefore, when iron or its alloys are used, the core drills and the taps cutting the screw thread generally break in the thickened head parts of the nipples. In order to avoid this difficulty, the head of the nipple according to the present

invention is bored with a drill of a greater diameter than the threaded part, see Fig. 2. It is evident, that a stronger drill will resist much better in the hardened metal, than the fine drill for the hole to be tapped, and breakage is effectively avoided. During the formation of the head by means of a suitably shaped die (see Fig. 3), the wider bore may be partly produced in the head by depressing the metal, so that the stronger drill finishes the perforation of the condensed metal part by a few turns. Thereupon the drilling can be continued safely with a fine drill and the thread can be tapped, the fine tools cannot come in contact with the condensed material and by this means the breaking of tools is avoided. Fig. 4 shows the finished nipple made according to this invention.

Having thus described our invention, what we claim is:

A process for the production of nipples for cycle wheels and the like, which consists in taking a blank with a head, hardened by upsetting, drilling a hole longitudinally through the condensed metal of the head and of a larger diameter than the part to be screw-threaded, then continuing the drilling longitudinally with a fine drill for the threaded part and finally reaming out the lower end of the nipple and tapping in the usual manner substantially as described.

In testimony of all of which we have hereunto subscribed our names.

HERMANN WOLF.
ROBERT STRUCK.

Witnesses:

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