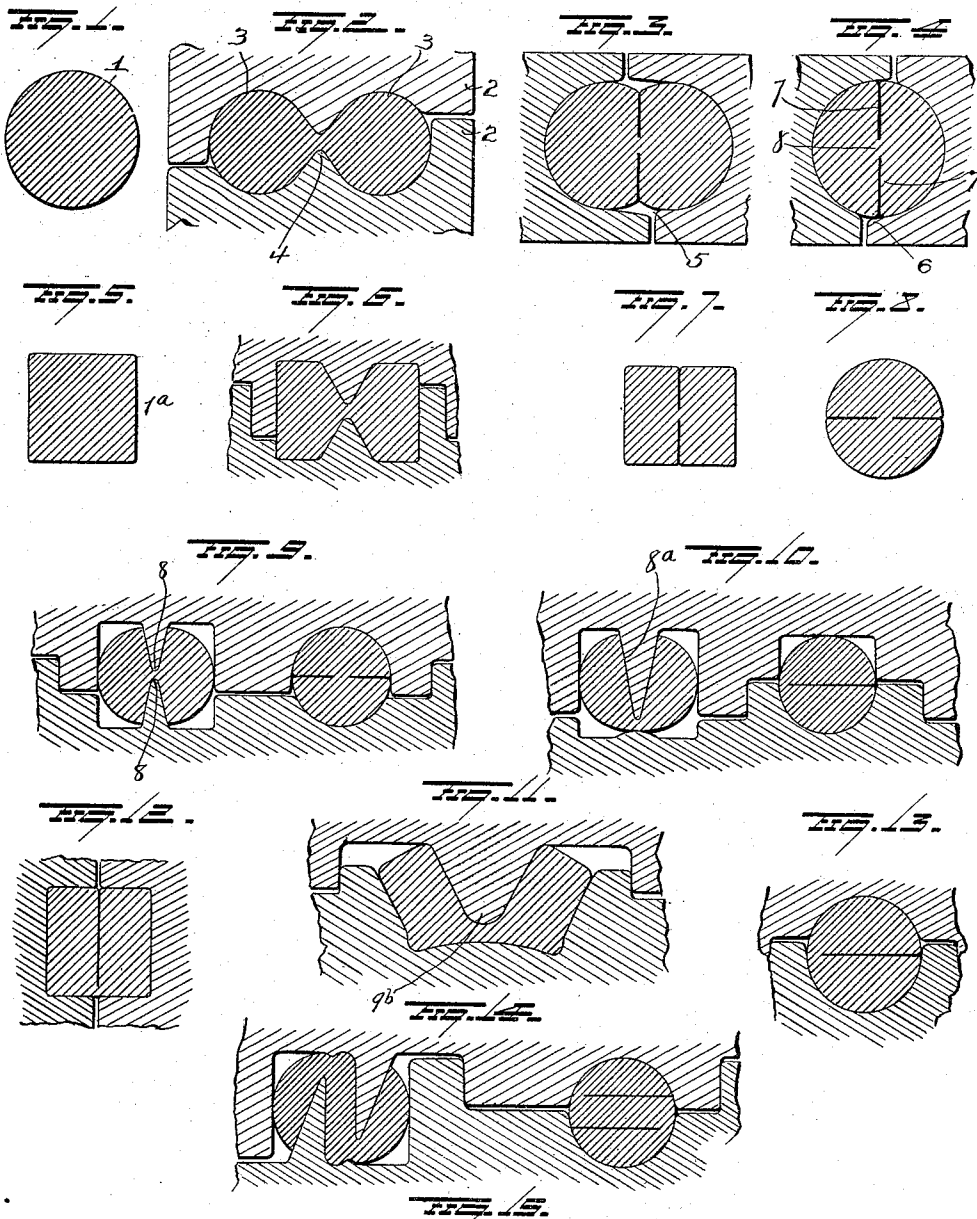


E. I. DODDS.
METHOD OF MAKING BLANKS FOR BOLTS.
APPLICATION FILED FEB. 25, 1915.

1,201,945.

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UNITED STATES PATENT OFFICE.

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METHOD OF MAKING BLANKS FOR BOLTS.

1,201,945.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ETHAN I. DODDS, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Methods of Making Blanks for Bolts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in the method of making bars from which flexible track and other bolts are made, and it consists in rolling a bar, either round, oblong or angular in cross section, between rolls having one or more grooving or slotting ribs whereby the bar will be grooved or slotted longitudinally throughout its length, closing the grooves or slots thus formed without welding the walls thereof, rolling the bar into circular form in cross section and then twisting it throughout its length to impart a spiral form to the slots.

In the accompanying drawings, Figure 1 is a view in cross section of a round bar from which the bars for bolt blanks are made; Fig. 2 shows the bar after it has been grooved and spread laterally by ribbed rolls; Figs. 3 and 4 the rolls for closing the grooves or slots in the bar; Figs. 5 to 14 inclusive are views illustrating modifications of the method, and Fig. 15 is a view of the slotted and twisted bar.

In carrying out my improvement I take a round bar of metal, of any length and pass it between one or more passes of rolls 2, which spread the metal of the bar laterally and groove it longitudinally, thus converting the bar into two round sections 3—3 connected by a central web 4. After the bar has been thus grooved, it is passed between rolls having passes 5 and 6 as in Figs. 3 and 4 respectively, which force the two half sections together, and into its original cylindrical form. The bar thus formed is however provided with oppositely disposed closed slots 7, separated by a central web 8.

Instead of starting out with a round bar

as in Fig. 1 the bar 1^a may be angular in cross section as in Fig. 5. It is grooved longitudinally between rolls, as shown in Fig. 6, after which the two half sections, caused by grooving, are forced together and finally rolled into cylindrical shape as in Fig. 8, the grooved bar thus formed being substantially identical with that shown in Fig. 4.

Instead of using rolls with blunt grooving or slotting ribs as in the previous forms, the said ribs 8 may be sharp and pointed, and instead of forming two slots, one roll only may have a rib 8^a as shown in Fig. 10. In Figs. 11, 12 and 13 I have shown an angular bar with a single slot formed by a blunt rib 9^a which slot is subsequently closed and the bar rounded as in Figs. 7 and 8.

In Fig. 14 I show rolls constructed to form two slots off the center of the bar, so that when the slots are closed, as shown in the pass at the right of Fig. 14, the slots will be on opposite sides of the longitudinal center of the bar and extend more than half way through the latter.

After the bar has been formed as above described it is twisted throughout its length in a suitable twisting machine so as to carry the slots spirally around the bar, after which the latter is cut up into bolt blanks which are then headed and threaded in the usual manner.

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

1. The method herein described of making flexible bolt blanks consisting in passing a bar between rolls having a slotting rib, closing the slot thus formed without welding the walls of the slot and rolling the bar to cylindrical shape in cross section.

2. The method herein described of making flexible bolt blanks consisting in passing a bar between rolls having a slotting rib, closing the slot thus formed in the bar without welding the walls of the same, rolling the bar into cylindrical shape in cross section, and then twisting the bar spirally throughout its length.

3. The method herein described of making flexible bolt blanks, consisting in passing

a bar between rolls each having a rib so as to produce slots or grooves on the opposite faces of the bar, closing the slots thus formed in the bar, rolling the bar into cylindrical shape in cross section and then twisting it spirally throughout its length.

In testimony whereof I have signed this

specification in the presence of two subscribing witnesses.

ETHAN I. DODDS.

Witnesses:

F. H. ALLISON,
EDWIN S. RYCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."