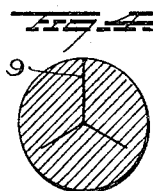
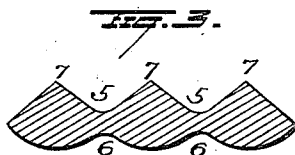
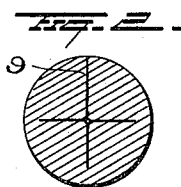
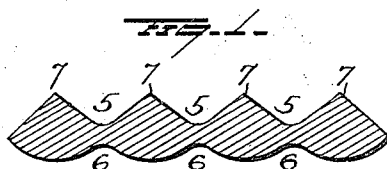


E. I. DODDS.
METHOD OF MAKING BLANKS FOR BOLTS.
APPLICATION FILED JUNE 15, 1915.

1,205,173.

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WITNESSES
E. J. Nottingham
G. F. Downing

INVENTOR
E. I. Dodds
Cy. H. A. Seymour Attorney

UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO FLANNERY BOLT COMPANY, OF PITTSBURGH, PENNSYLVANIA.

METHOD OF MAKING BLANKS FOR BOLTS.

1,205,173.

Specification of Letters Patent.

Patented Nov. 21, 1916.

Application filed June 15, 1915. Serial No. 34,266.

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 blanks for boiler stay bolts and also bolts for railroad track construction, the object being to simplify the process of manufacturing the blanks whereby the cost of production of the bolts will be reduced and the output increased.

The invention consists in rolling a flat or other shaped slab into a series of substantially triangular shape connected members, and then folding said members into cylindrical shape, thus producing a bar having an open slit extending longitudinally throughout its length, and a plurality of concealed slits communicating with said open slit, thus rendering the shank of the bolt made from blanks cut from this bar more flexible than a rigid shank and specially adapting it to location where it will be subjected to vibrations and longitudinal and torsional stresses.

In the accompanying drawing, Figure 1 is a view in cross section of the slab ready to be rolled into cylindrical form; Fig. 2 is a similar view of the same after it has been rolled into cylindrical shape, and Figs. 3 and 4 are similar views of a modified form.

In the manufacture of the bar, I take a slab of the proper size and pass it between rolls which are so shaped as to produce three angular or V-shaped grooves 5 on one face and three curved grooves 6 on its opposite face, the curved grooves 6 being located in the planes of the angular grooves 5 thus reducing the thickness of the slab at these points. The surface of the slab interme-

diate the grooves 6—and also between the grooves and edges of the slab, are convex so that the curved face is one compound curve from one end to the other, and the opposite face a continuous series of V-shaped faces, which are of such size and so shaped, that when the slab is folded longitudinally, the flat meeting faces of the four substantially triangular shaped members 7 will come together and form in effect a solid body as shown in Fig. 2. After the slab is rolled to the cross section shown in Fig. 1 it is then folded, transversely by rolling thus converting the slab into a cylindrical bar with an open or exposed slit 9 extending longitudinally of the bar and three concealed slits 90° apart and leading from the inner edge of the open slit nearly but not through the bar, thus forming a bar composed of four members united at the periphery of the bar, which will be of the same tensile capacity of a solid bar of the same cross sectional area, but more flexible than a solid bar, and especially adapted for stay bolts for boilers, track bolts and other parts that are subjected to violent stresses and vibrations when in place.

The construction shown in Figs. 3 and 4 is substantially the same as that above described except that the slab is rolled into three, instead of four, substantially triangle sections, and when rolled into cylindrical shape, has one open slit and two closed ones located 120° apart.

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 bars for bolt blanks consisting in rolling a slab having a series of substantially V-shaped longitudinal grooves in one face, into cylindrical form so as to produce a bar having an open slit and a plurality of closed slits the latter communicating with the open slit.

2. The method herein described of making bars for bolt blanks consisting in rolling a slab having a series of substantially

V-shaped longitudinal grooves in one face, and reverse curves on its opposite face, into cylindrical form so as to produce a bar having an open longitudinal slit and a plurality of concealed slots all the slits extending lengthwise the bar.

In testimony whereof, I have signed this

specification in the presence of two subscribing witnesses.

ETHAN I. DODDS.

Witnesses:

F. H. ALLISON,
EDWIN A. RYCE.

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