E. I. DODDS.

BLANK FOR BOILER STAY BOLTS.

APPLICATION FILED SEPT. 14, 1915.

1,205,175. Patented Nov. 21, 1916.

Fig. 1.

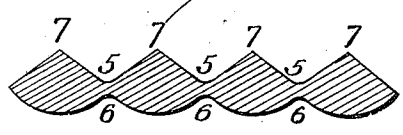


Fig. 2.

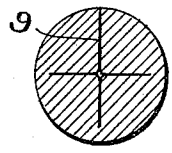


Fig. 3.

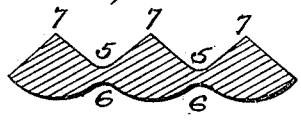
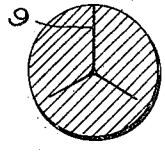


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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

BLANK FOR BOILER STAY-BOLTS.

1,205,175. Specification of Letters Patent. Patented Nov. 21, 1916.

Original application filed June 15, 1915, Serial No. 34,266. Divided and this application filed September 14, 1915. Serial No. 50,660.

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 Blanks for Boiler Stay-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 blanks for boiler stay bolts and also bolts for railroad track construction, and is a division of application Serial Number 34,266 filed by me June 15, 1915.

The object of the invention is to provide a bar made up of a series of connected members, which will be of approximately the same tensile capacity as a solid bar of the same cross sectional area, but more flexible and adapted particularly for stay bolts for boilers, and it consists in a bar having an open slot extending lengthwise the same and a plurality of connected slots communicating with the open slot.

In the accompanying drawings, 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 intermediate 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 slot 9 extending longitudinally of the bar and three concealed slots 90° apart and leading from the inner edge of the open slot 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 triangular sections, and when rolled into cylindrical shape, has one open slot 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:—

A bar for bolt blanks having an open slot extending lengthwise the bar and a plurality of concealed slots communicating with the open slot.

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."