

H. A. McLAUGHLIN.
WELDLESS PILE BAND.
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993,538.

Patented May 30, 1911.

Fig. 2

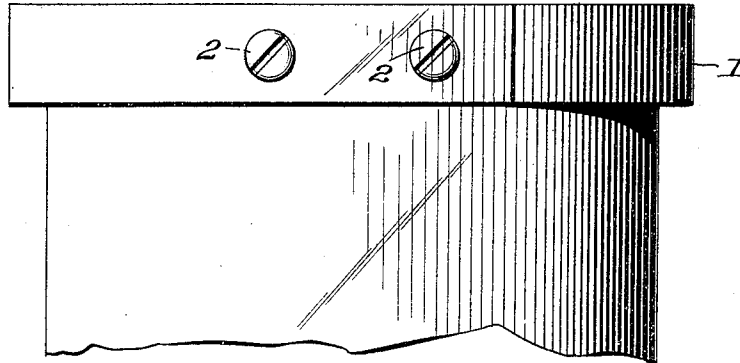
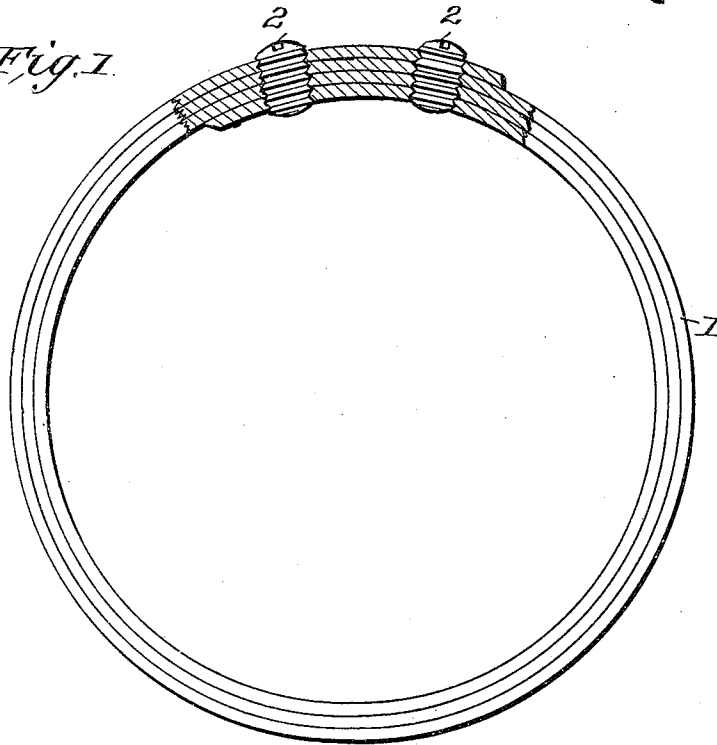


Fig. 1



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UNITED STATES PATENT OFFICE.

HENRY AUGUSTON McLAUGHLIN, OF JACKSONVILLE, FLORIDA.

WELDLESS PILE-BAND.

993,538.

Specification of Letters Patent. Patented May 30, 1911.

Application filed September 10, 1910. Serial No. 581,465.

To all whom it may concern:

Be it known that I, HENRY A. McLAUGHLIN, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented certain new and useful Improvements in Weldless Pile-Bands; 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.

In driving wooden piles it has been found necessary to apply a metallic band or cap to the top thereof in order to prevent the splitting and shattering of the upper portion of the pile by the repeated blows of the hammer thereon. Up to the present time, the most common means for protecting the heads of the piles has been a band formed by bending an iron bar and welding the ends thereof together. These welded bands, however, are very unsatisfactory, since the edges of the bands very quickly become battered under the blows of the hammer, and the bands are continually bursting at the welded joint.

The object of the present invention has been to overcome this difficulty by the provision of a weldless pile band which possesses great flexibility and strength and will not burst under any ordinary conditions of use.

The invention further contemplates the provision of a pile band of this character which is inexpensive in its construction, and which is formed without the necessity of heating the iron, thereby eliminating any possibility of crystallization of the metal which is a very frequent defect in the welded bands.

With these and other objects in view, the invention consists in certain combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a top plan view of a weldless pile band parts being broken away to show joint, and Fig. 2 is a side elevation of the same in place on the end of a pile.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In constructing one of the weldless pile bands, a strip of iron or other suitable metal is coiled upon itself a number of times to provide a ring formed with several thicknesses of material. In the present instance, the strip of iron which is designated by the numeral 1 is coiled upon itself three times so that the ring has three thicknesses, except at the point where the ends of the strip 1 overlap, where the ring has four thicknesses. At this point where the ends of the strip overlap, a number of threaded openings are provided to receive the tap bolts 2. These tap bolts serve to secure the ends of the strip 1 so that a ring is formed without the necessity of a welded joint.

It will be obvious that when the band is in use, the friction between the various layers or thicknesses thereof will serve to prevent any excessive strain from being brought upon the tap bolts 2. Attention may also be directed to the fact that a band thus formed of several layers of material will have greater flexibility than a solid band and will not batter up on the edges under the blows of the hammer as quickly as a solid band. A band constructed as above described has the further advantage of being cold rolled, which renders it impossible for the metal to become crystallized as frequently happens where it is necessary to bring the iron into contact with a fire for the purpose of forming a welded joint.

This weldless pile band can be used repeatedly without material deterioration, and will never break under ordinary circumstances.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A pile band comprising several thicknesses of material and formed by coiling

a single metallic strip upon itself a number of times, means being provided for securing the extremities of the strip to intermediate convolutions thereof.

- 5 2. A pile band formed with a plurality of layers of material and constructed by spirally coiling a non-heated metallic strip, bolts being provided which pass through the

extremities of the strip and intermediate convolutions thereof.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY AUGUSTON McLAUGHLIN.

Witnesses:

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