J. J. JONES.

PILING.

APPLICATION FILED APR. 4, 1910.

976,573. Patented Nov. 22, 1910.

Fig. 1.

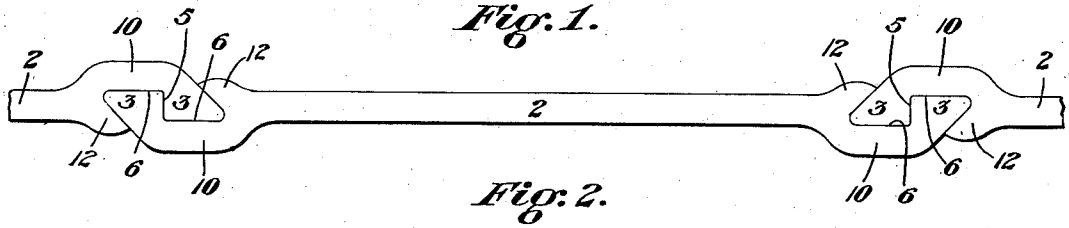


Fig. 2.

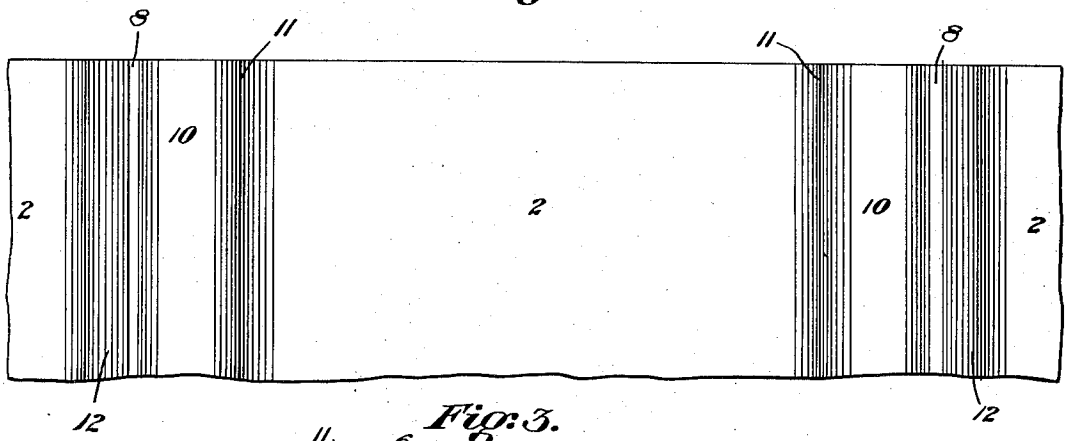


Fig. 3.

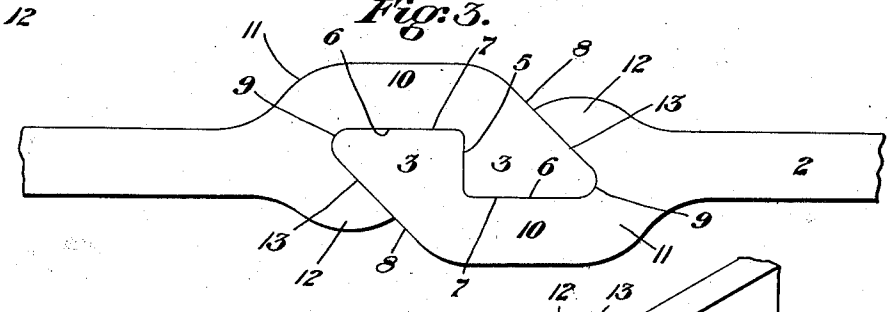
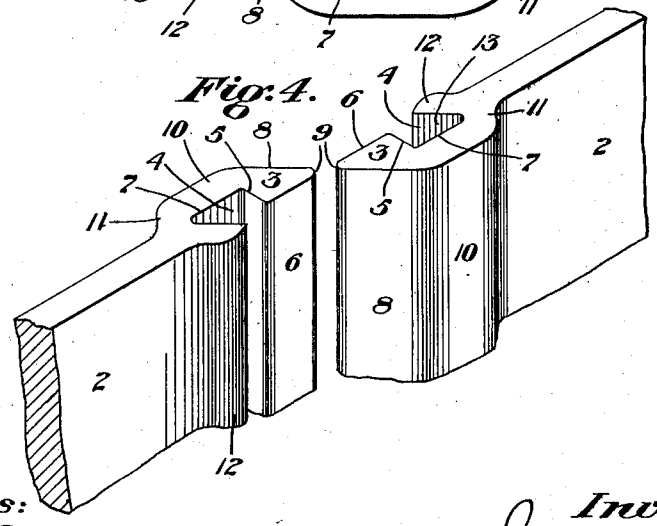


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSHUA J. JONES, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO GEORGE H. BLAXTER, OF BEAVER FALLS, PENNSYLVANIA.

PILING.

976,573. Specification of Letters Patent. **Patented Nov. 22, 1910.**

Application filed April 4, 1910. Serial No. 553,314.

To all whom it may concern:

Be it known that I, JOSHUA J. JONES, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Piling, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention consists of an improvement in metal piling of the class wherein a series of rolled metal piles are connected together at their edges by means of co-acting holding portions capable of relative longitudinal movement and providing for the formation of a continuous rigid wall.

The particular object of the invention is to provide a construction whereby the edge of one pile will be engaged by the other to provide a strong bracing joint, preventing lateral movement of one pile relative to the other, permitting connection or separation longitudinally, and by means of interfitting co-acting edge terminals, constructed and adapted to operate in the manner hereinafter described.

Referring to the drawings:—Figure 1 is a plan view showing a plurality of connected piles. Fig. 2 is a view in elevation of the tops of said piles. Fig. 3 is an enlarged plan view of the connected ends of adjacent piles showing the joint. Fig. 4 shows the said ends separated, in perspective.

Generally stated, each pile consists of a rolled metal longitudinal web portion 2 having boundary edges arranged to telescopically interfit and co-act with the edges of adjoining piles. The interlocking elements comprise an angular or dove-tailed key 3 and a correspondingly shaped recess 4, the inner face or wall 5 of the key constituting one wall of the recess, and being arranged transversely of and substantially co-extensive with the width of the web 2. Also, the outer side face 6 of the key 3 and the inner side face 7 of the recess 4 substantially alined with the side faces of web 2, whereby the interlocking keys or shoulders 3, 3, of connected piles engage each other for substantially the same area as the cross sections of the pile web. The opposite face 8 of key 3 tapers backwardly and outwardly from face 6 and the rounded front edge 9 and merges into the lateral embracing wall 10 forming a continuation of the main web and laterally off-set therefrom as at 11. At the opposite side the web is provided with a lateral extension 12 rounded at its outer portion and having an inner face 13, sloping at the same angle as the outer co-acting face 8 of terminal key 3, and rounded or filleted to substantially the same radius as the front edge of said portion, as will be clearly seen.

By this construction the full strength of the web is maintained, for the thickness of the side wall 10 and the bearing or shouldered surfaces or faces 5 are substantially the same width of the web. The embracing lateral extension 12 firmly engages the interfitting key of the companion pile, and when the joint is complete the full strength of the web is maintained while the co-acting parts are firmly braced.

The advantages of the invention lie in its simplicity of construction, great strength and stiffness, ease of erection, stability and facility in driving, and continuous holding power.

The individual piles may be made of any desired length, and may have right and left terminals as shown, or otherwise. Any desired bend may be made longitudinally of the web for the purpose of deflecting the direction of the piling or other obvious changes may be made by the skilled mechanic without departure from the invention.

What I claim is:—

1. A rolled metal pile having a main web and a terminal dove-tail key in the plane of the web and connected therewith by a laterally off-set portion, and a laterally deflected angularly arranged portion extending from said web and forming with the laterally off-set portion and said dove-tail key, a receiving recess corresponding in outline to said key, substantially as set forth.

2. A rolled metal pile having a terminal shouldered locking key and a receiving recess respectively in alinement with the web of the pile, the recess being between the key and said web.

3. A rolled metal pile having a terminal dove-tailed key and a laterally arranged embracing wall and an opposite lateral extension of the pile forming an intervening corresponding dove-tailed recess.

4. A rolled metal pile consisting of a web portion deflected laterally to provide a recess in alinement with the web and then re-bent

to provide a shoulder in the plane of the web.

5. A rolled metal pile consisting of a web portion deflected laterally to provide a recess in alinement with the web and then re-bent to provide a shoulder in the plane of the web, said shoulder having a tapered terminal portion.

6. A rolled metal pile consisting of a web portion deflected laterally to provide a recess in alinement with the web and then re-bent to provide a shoulder in the plane of the web and having an angularly bent portion at the other side partly inclosing said recess.

7. A rolled metal pile consisting of a web portion deflected laterally to provide a recess in alinement with the web and then re-bent to provide a shoulder in the plane of the web and having an angularly bent portion at the other side partly inclosing said recess, the re-bent portion having a cross section corresponding to said recess.

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

JOSHUA J. JONES.

Witnesses:

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