

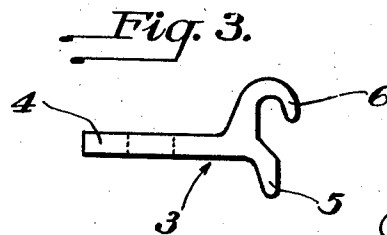
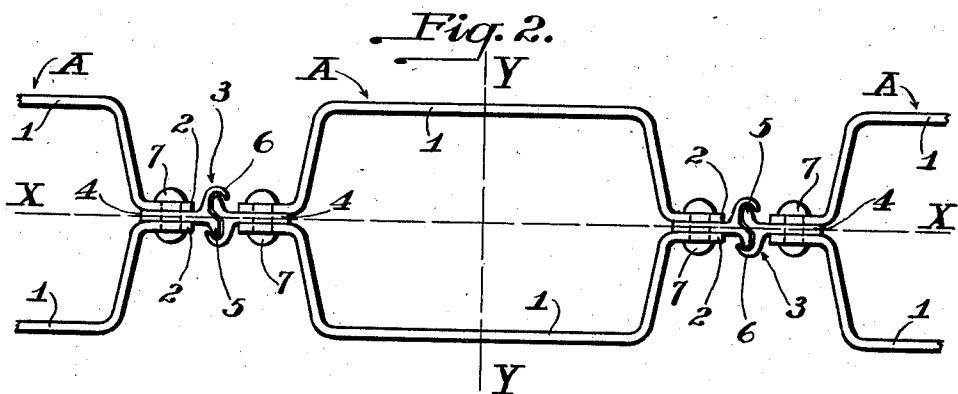
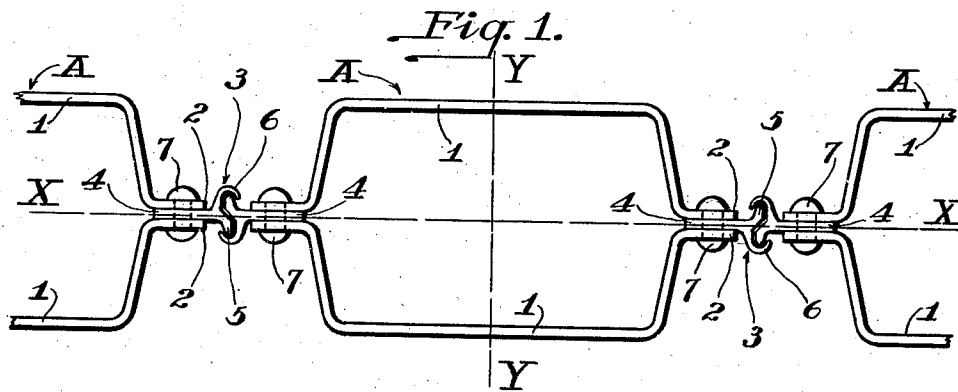
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1,590,302

J. LINDENLAUF

SHEET METAL PILING

Filed Jan. 15, 1926



INVENTOR

Joseph Lindenlauf
by
James C. Brasler
att'y

UNITED STATES PATENT OFFICE.

JOSEPH LINDENLAUF, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR OF THREE-EIGHTHS TO HERMAN STRATMAN AND TWO-EIGHTHS TO HARVEY M. ARONSON, BOTH OF PITTSBURGH, PENNSYLVANIA.

SHEET-METAL PILING.

Application filed January 15, 1926. Serial No. 81,398.

The invention relates to rolled sheet metal piling, and particularly to the box type, in which each pile is made up of two oppositely turned sections or shapes of U-form in cross section, riveted together at their meeting edges, which are turned laterally for this purpose. The invention has for its principal objects the provision of an improved pile of the type specified; (1) in which all of the parts making up the pile may be rolled without any difficulty by ordinary methods; (2) in which an accurately fitting interlock is insured at the meeting edges of the piles; (3) which is adapted to be rolled into shapes having unusual depth where additional strength is desired; and (4) which is readily adapted to be rolled into a wide variety of depths with simple changes in the rolls required. One embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is an end view of a part of a wall formed from the improved pile. Fig. 2 is a similar view showing a slight modification. And Fig. 3 is an end view of the interlocking shape.

Referring to the drawings, A, A, A are three piles all similar, arranged in interlocking position. Each pile consists of a pair of opposing U-shapes 1, 1 having their opposing flanges 2, 2 turned outward, and a pair of interlocking shapes 3, 3, one at each side of the pile.

The shapes 3, 3 are similar, and are rolled members, each comprising a flange 4 (Fig. 3) and an interlock consisting of the tongue 5 and the hook 6. The interlock itself is that shown and described in my Patent No. 1,543,676 of June 30, 1925. The flanges 4 of the shapes 3, 3 fit between the opposing flanges 2, 2 of the shapes 1, 1, and the parts are rigidly secured together by the rivets 7, 7, one line only of which is shown, but it will be understood that by providing longer flanges to give the necessary space, more lines of rivets may be used, if desired. The pile is symmetrical with respect to its axis y, y .

The neutral axis of the pile lies approximately upon the center line x, x of the wall, in the Fig. 1 construction, being only slightly below such line due to the fact that the hooks 6, 6 which lie below the neutral axis have their centers of gravity slightly

further from the center line x, x than the centers of gravity of the tongues 5, 5. This is practically negligible, but is corrected in the Fig. 2 construction, in which the shapes 3, 3 at the two sides of the pile are reversed in position, the hook 6 lying below the center line x, x on one side of the pile, and above it on the other side. Otherwise, the arrangement of Fig. 2 is identical with that of Fig. 1.

The great advantage of the pile just described is the ease with which the different parts may be rolled in the mill and put together in the shop. The interlocking pieces are narrow and light members easily rolled and formed in the mill and easily handled in the shop, while the main U-shapes are entirely devoid of any parts requiring special care in rolling or handling. Variations in the widths of the main shapes and in the widths of the connecting web of the interlocking pieces are easily taken care of in locating the rivet lines in the shop and in no way affect the accuracy of the interlock, while the distance between the centers of the latter may easily be made very accurate.

A further important advantage is the fact that by spreading the rolls the thickness of the main U-shapes may be gauged to suit any practical requirement. As the interlocking pieces are rolled separate these are not affected thereby, whereas, if they were an integral part of the main shape, spreading the rolls would become impractical.

What I claim is:

1. A pile comprising a pair of opposing rolled U-shapes with out-turned flanges, and an interlock at each side of the pile comprising a rolled shape with a flange at its inner side secured between said out-turned flanges and an interlocking device at its outer side.

2. A pile comprising a pair of opposing rolled U-shapes with out-turned flanges, and an interlock at each side of the pile comprising a rolled shape with a flange at its inner side secured between said out-turned flanges and an interlocking device at its outer side, the said interlocks at the two sides of the pile being counterparts.

3. A pile comprising a pair of opposing rolled U-shapes with out-turned flanges, and an interlock at each side of the pile comprising a rolled shape with a flange at its inner side secured between said out-turned

flanges and a tongue and hook interlocking device at its outer side.

4. A pile comprising a pair of opposing rolled U-shapes with out-turned flanges, and
5 an interlock at each side of the pile comprising a rolled shape with a flange at its inner side secured between said out-turned flanges and a tongue and hook interlocking

device at its outer side lying in part on one side of the neutral axis of the pile and in 10 part on the other side of said axis.

In testimony whereof, I have hereunto subscribed my name this 6th day of January, 1926.

JOSEPH LINDENLAUF.