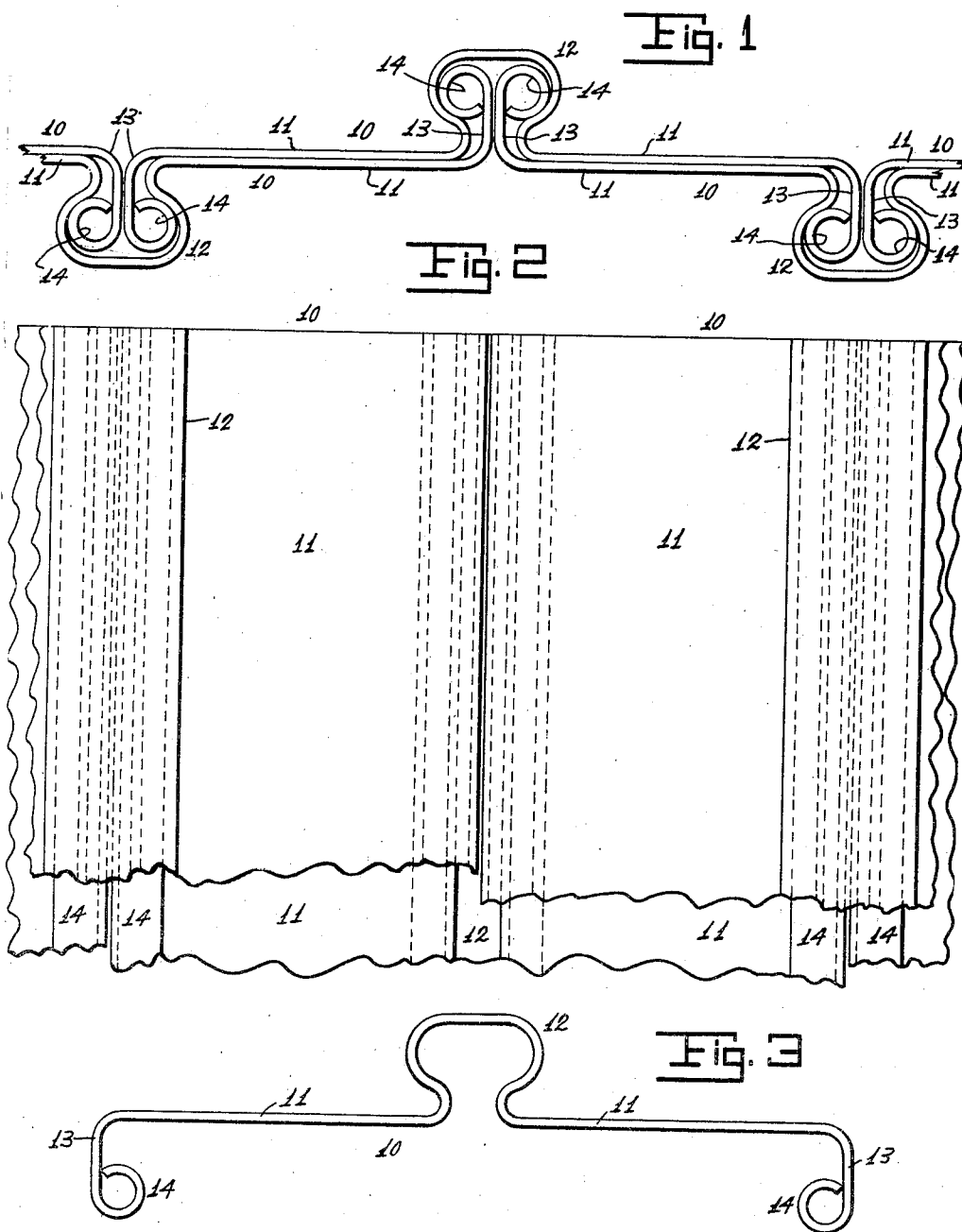


No. 836,725.

PATENTED NOV. 27, 1906.

J. R. WILLIAMS.
METAL SHEET PILING.
APPLICATION FILED SEPT. 8, 1906.



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METAL SHEET-PILING.

No. 836,725.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed September 8, 1906. Serial No. 333,765.

To all whom it may concern:

Be it known that I, JOHN R. WILLIAMS, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Metal Sheet-Piling, of which the following is a specification.

The invention relates to improvements in metal sheet-piling; and it consists in the novel features hereinafter described and claimed.

The object of the invention is to produce a metal sheet-piling of superior character and comprised of sections of novel form and construction, adapting them for all the uses to which metal sheet-piling may be put.

Among the specific objects attained by my invention it may be mentioned generally that the sections of my piling may be very easily formed; that they are strong; that the sections are formed integrally with means whereby the sections may be locked together, thus dispensing with separate locking-flanges and the like riveted to the sections; that each section is locked at advantageous points to each adjoining section; that the sections are all alike in construction, except where corners are to be formed; that the sections are each novel in form and construction, and that the wall formed of these novel sections will have two thicknesses of metal.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a top edge view, partly broken away, of a metal sheet-piling comprising sections embodying my invention. Fig. 2 is a face view, partly broken away, of same; and Fig. 3 is a detached top edge view of one of the sections of the piling.

The metal sheet-piling is formed of corresponding integral overlapping sections 10 of the form and construction shown in Fig. 3, in which it may be seen that the section is formed from sheet metal and is of the novel form presented comprising the two alined flat members 11, connected together at their inner edges at the vertical center of the section by a partly-closed integral loop member 12 and at their outer edges formed with corresponding members each comprising a right-angular flange 13 and locking-section 14, preferably in the form of a loop, the member 12 being extended from one side of the

section, and the flanges 13 form the opposite side thereof, while the locking sections or loops 14 extend toward each other from the said flanges 13 in a direction parallel with the alined flat members 11 and the entire section being in one integral piece of sheet metal.

The manner of uniting the sections 10 as driven is illustrated in Fig. 1, in which it may be seen that the central loop member 12 of each section receives the adjoining members 14 of the immediately adjacent sections, that the flat or web members 11 of adjacent sections are parallel with each other and form a wall of two thicknesses, that each section is locked to each adjacent section at both its central part and outer edge, and that when the sections are united the loops 12 and sections 14 cooperate to resist any strains tending to separate the sections.

The flanges 13 extend through the narrow mouth of the loop members 12 and enable the locking-sections 14 to be driven into said members 12.

In assembling the sections 10, all being alike in construction, the alternate sections will be oppositely disposed—that is to say, the members 12 14 of one section will respectively face in directions oppositely to the directions in which the like members of the next adjacent sections will face, as shown in Fig. 1.

The sections 10 are owing to their simple open outline, capable of being very easily formed from sheet metal, and since the sections when brought together present a piling having a double wall I am enabled to utilize thinner metal than would otherwise be possible in their formation without sacrificing the strength of the piling, this employment of the thinner metal facilitating the formation and handling of the sections. The general form of the sections 10 is also of advantage in that each section has at its central point and edges oppositely-extending integral substantially right-angular portions which afford stiffness to the section and enable the sections to be conveniently driven, one guiding and lapping upon the other and the entire piling being rivetless.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A metal sheet-piling composed of interlocked sections each comprising integrally a partly-open loop portion and edge locking members, the latter extending in a direction from one side of the section and the said loop

being extended from the opposite side thereof and adapted to receive and enter into locking engagement with the adjacent edge locking members of the adjoining sections; substantially as set forth.

2. A metal sheet-piling composed of interlocked sections each comprising integrally a partly-open loop portion and edge locking members, the latter comprising flanges extending in a direction from one side of the section and having locking-sections extending toward each other, and said loop being extended from the opposite side of the section and adapted to receive and enter into locking engagement with the adjacent edge locking members of the adjoining sections; substantially as set forth.

3. A metal sheet-piling composed of interlocked sections each comprising integrally a partly-open loop portion and edge locking members, the latter comprising flanges extending in a direction from one side of the section and having loop-locking sections extending toward each other, and said loop portion being extended from the opposite side of the section and adapted to receive and enter into locking engagement with the adjacent edge locking members of the adjoining sections; substantially as set forth.

4. A metal sheet-piling composed of interlocked sections each comprising integrally a central partly-open loop portion and edge locking members, the latter comprising

flanges extending in a direction from one side of the section and having loop-locking sections, and said loop portion being extended from the opposite side of the section and adapted to receive and enter into locking engagement with the adjacent edge locking members of the adjoining sections; substantially as set forth.

5. A metal sheet-piling composed of interlocked overlapping integral sections and presenting on opposite sides a series of loops formed integrally with and intermediate the edges of the sections and entirely closed at their outer sides, said sections having at their edges integral locking-loops to enter endwise and form a locking engagement with the aforesaid loops; substantially as set forth.

6. A metal sheet-piling composed of interlocked overlapping sections each comprising integrally a partly-open loop portion, web portions at the sides thereof and edge locking members, said locking members of each section being adapted to the loop portions of the adjacent sections so as to enter and pass into locking engagement therewith; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 6th day of September, A. D. 1906.

JOHN R. WILLIAMS.

Witnesses:

CHAS. C. GILL,

ARTHUR MARION.