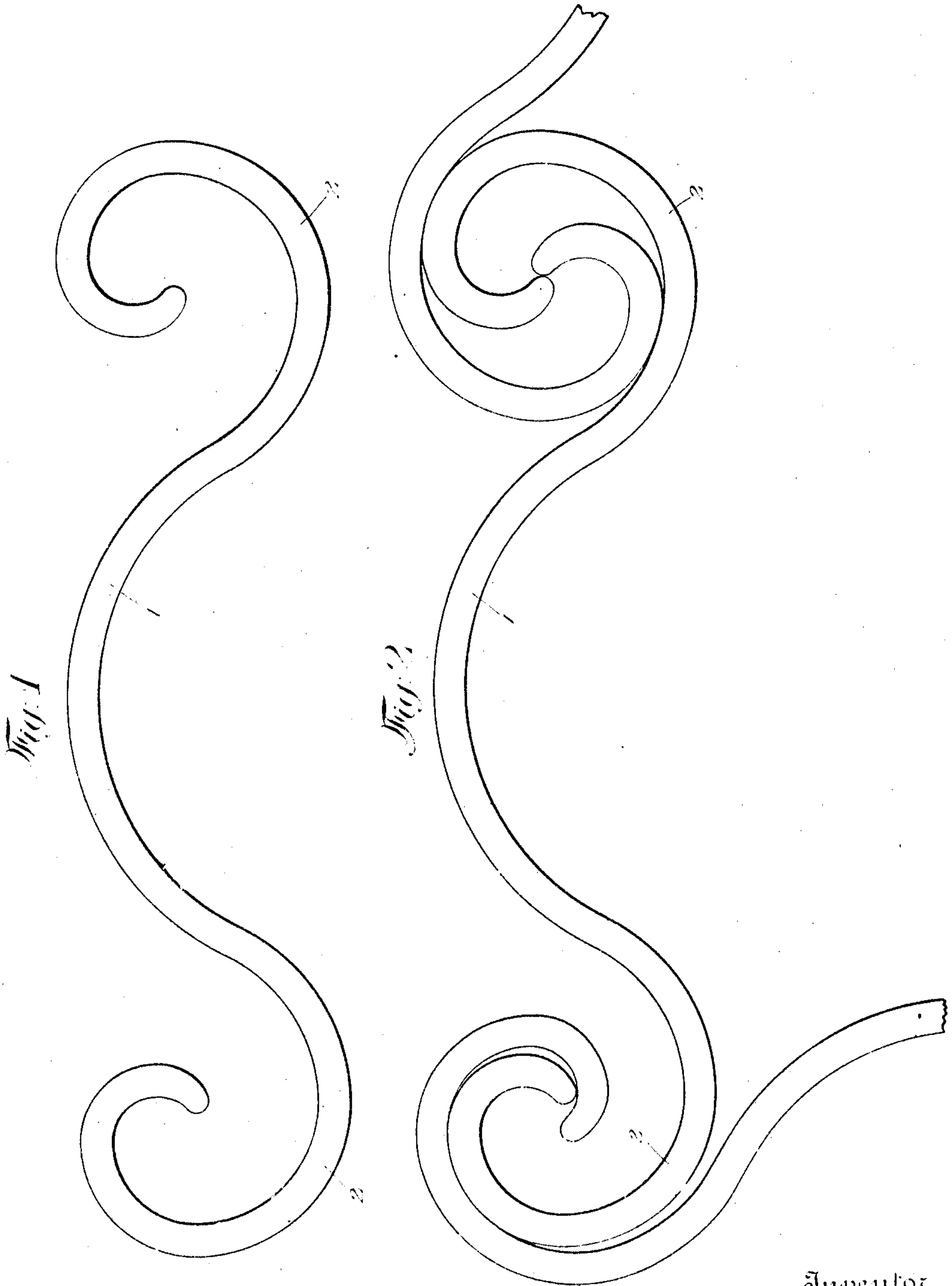


J. F. JOHNSTON.
SHEET PILING.
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993,779.

Patented May 30, 1911.



Witnesses
Minerva Rohel
Marian Meikle

Inventor
John Franklin Johnston
By Attorneys
Burdette & Wright

UNITED STATES PATENT OFFICE.

JOHN FRANKLIN JOHNSTON, OF BETHLEHEM, PENNSYLVANIA.

SHEET-PILING.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN FRANKLIN JOHNSTON, of Bethlehem, in the county of Northampton and in the State of Pennsylvania, have invented a certain new and useful Improvement in Sheet-Piling, and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to piling which may be put up in sheets or sections which interlock with one another so as to form a wall, for levees, docks, coffer-dams, caissons and all similar work where a permanent or temporary wall is required.

In the forms of sheet piling which have been previously used, while the sections have been arranged in such a manner as to interlock with one another, it has been necessary when it was desired to build a wall in an angular position to provide special sections for this purpose to form the apex of the angle. With my construction, on the other hand, it is not necessary to provide any additional special sections for this purpose but the construction is such that any section can be located at an angle to the adjoining section with any desired degree of inclination within an arc of 180 degrees, without in any way interfering with the locking or tight-fitting of the sections together. My construction is such, furthermore, as to cause the adjacent sections to be in intimate contact with each other thereby forming an effective seal to prevent the passage between the sections of any liquid or plastic materials.

I have shown one form of my invention in the accompanying drawings in which—

Figure 1 is a top view of a section of sheet piling made in accordance with my invention, and Fig. 2 is a top view of a wall of sheet piling made up of sections such as those shown in Fig. 1.

Each of the sections comprises a plate 1, of metal formed into a shape having a spiral 2 at each end thereof, and as shown in the drawings, the sections to which I refer have the spirals located on the same side of the plate of metal, although I do not in any way consider this position of the spirals essential.

Many different forms of curves or spirals may be used upon the plates 1, but in the drawings I have shown particularly an Archimedean spiral, the property of which is that the radius of the spiral increases uniformly with the angle of the curve.

As shown in Fig. 2, the joints between the sections are such as to effectively prevent seepage or the passage of any appreciable quantity of liquid or plastic materials between the sections. Furthermore, as shown in the same figure, the sections can be readily turned at an angle to one another within an arc of 180 degrees without in any manner destroying the tightness of the joint for preventing seepage or in any way interfering with the effectiveness of the locking of the sections to one another. It will be seen, furthermore, that any one of the sections may be turned to the right or to the left of an adjacent section so that the wall being erected by means of the sheet piling can be readily turned to the right or to the left, as desired. Finally, it is not only possible to locate the different portions of the wall at an angle to one another, but the sections can be located in such a manner, if desired, as to form a closed circular wall, a type of wall which is of wide use in engineering operations.

While I have described my invention above in detail, I wish it to be understood that many changes may be made therein without departing from the spirit of my invention.

I claim:

1. In a device of the character described, a section of sheet piling having an Archimedean spiral at its edge.

2. In sheet piling, a plurality of interlocking sections adapted to be rotated with regard to one another while retaining the same degree of contact.

3. In sheet piling, a plurality of interlocking sections adapted to be rotated with regard to one another through an angle of at least 180 degrees.

4. In sheet piling, a plurality of interlocking sections adapted to be rotated with regard to one another through an angle of at

least 180 degrees, without becoming unlocked.

5. In sheet piling, a plurality of interlocking sections adapted to be rotated with regard to one another through an angle of at least 180 degrees while retaining a tight joint between the sections.

In testimony that I claim the foregoing I have hereunto set my hand.

JOHN FRANKLIN JOHNSTON.

Witnesses:

J. S. KRAUSE,

HOWARD L. LATZINGER.