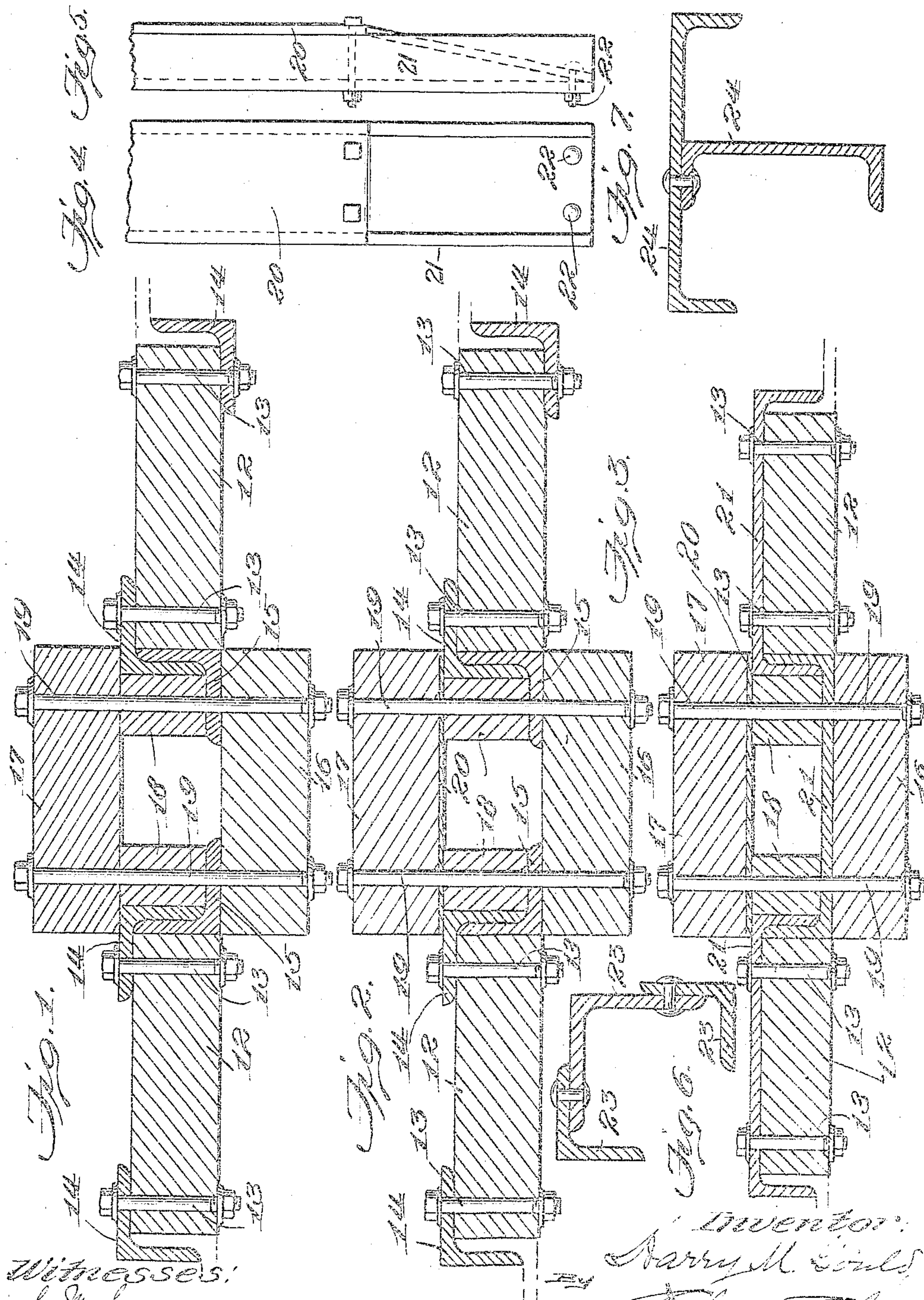


SHEET PILING.

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929,935.

Patented Aug. 3, 1909.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

HARRY M. GOULD, OF NASHVILLE, TENNESSEE.

## SHEET-PILING.

No. 929,935.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed March 15, 1909. Serial No. 433,597.

*To all whom it may concern:*

Be it known that I, HARRY M. GOULD, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented or discovered certain new and useful Improvements in Sheet-Piling, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to sheet piling adapted for use for coffer-dam work or other purposes where it is desirable to provide water-tight joints, and the invention relates more particularly to that class of sheet piling composed of sections or parts having interlocking joints, and has for its object to provide sheet piling which will be comparatively inexpensive in construction, which will have great strength and rigidity, and in which the joints will be absolutely water-tight.

In the accompanying drawings Figure 1 is a horizontal section of a piling part or element adapted to be interlocked with a similar part or element, and Figs. 2 and 3 are views, similar to Fig. 1, showing two forms of the invention which are slightly different from that illustrated in Fig. 1. Figs. 4 and 5 are detail views showing a preferred form of construction of the lower end of a metal part of one of the piling sections, and Figs. 6 and 7 are detail views showing corner sections for the improved sheet piling.

Referring to the drawings, 12 denotes wooden beams of any suitable length, and to which are secured, by bolts 13 metal angle-beams 14. The beams 12 are spaced apart from each other and are joined together by connecting sections comprising metal angle-beams 15, inner wooden beam 16 and outer wooden beam 17 between which wooden beams are preferably interposed spacers consisting of beams or blocks 18 which may be either of wood or metal. Passing through the beams 16 and 17, angle-beams 15 and spacers 18 are bolts 19 by which all of the said parts are rigidly secured together with the angle-beams 14 and 15 interlocked with each other.

In the construction shown in Fig. 2 a metal plate 20 is interposed between the outer beam 17, the angle-beams 14 and spacers 18, said metal plate providing a more secure bearing against said angle-beams 14 than in the construction shown in Fig. 1.

Instead of using the metal angle-beams 14 and 15, as shown in Figs. 1 and 2, interlock-

ing metal channel-beams 21 may be employed, as shown in Fig. 3, either with or without the metal plate 20. When the metal plate 20 is employed its lower end will preferably be sheared off or reduced in width at its sides, as shown in the detail view Fig. 4, and the narrower part of said plate will then be bent inwardly, as denoted in Fig. 5, and secured at its lower end by bolts 22 to the opposite channel beam or the angle beams in connection with which it is used. Figs. 4 and 5 show the plate 20 in connection with a channel beam 21 as employed in the construction illustrated in Fig. 3.

The construction hereinbefore described provides a sheet piling in which the joints will be absolutely water-tight; as, when the parts are bolted together, the wood composing the beams 12, 16 and 17, will swell when wet, and this will tend to tighten the joints at the points of contact with the angle-beams or channel-beams, as will be understood.

The piling sections may be joined at corners of a coffer-dam or other structure, when the improved sheet piling is used for making an inclosure, by means either of connected angle-beams 23, as shown in Fig. 6, or connected channel-beams 24, as shown in Fig. 7, and the flanges of which corner angle-beams or channel-beams will be caused to properly interlock either with the flanges of the angle-beams 14 or with the flanges of the channel-beams 21, as may be required.

Having thus described my invention I claim and desire to secure by Letters Patent:

1. Sheet piling comprising sections each of which is composed of wooden beams spaced apart from each other and which are provided with metal beams bolted thereto and having interlocking flanges, and parts connecting said spaced wooden beams comprising inner and outer wooden beams, metal beams interlocked with the first-named metal beams and interposed between the said inner and outer wooden beams, spacers also interposed between said inner and outer wooden beams, and bolts by which said inner and outer wooden beams, spacers, and interposed interlocking metal beams are secured together.

2. Sheet piling comprising sections each of which is composed of wooden beams spaced apart from each other and which are provided with metal angle-beams bolted thereto and having interlocking flanges, and



parts connecting said spaced wooden beams comprising inner and outer wooden beams, metal angle-beams interlocked with the first named metal angle-beams and interposed  
 5 between the said inner and outer wooden beams, spacers also interposed between said inner and outer wooden beams, and bolts by which said inner and outer wooden beams, spacers, and interposed interlocking metal  
 10 angle-beams are secured together.

3. Sheet piling comprising sections each of which is composed of wooden beams spaced apart from each other and which are provided with metal beams bolted thereto  
 15 and having interlocking flanges, and parts connecting said spaced wooden beams comprising inner and outer wooden beams, metal beams interlocked with the first-named metal beams and interposed between  
 20 the said inner and outer wooden beams, spacers also interposed between said inner and outer wooden beams, bolts by which said inner and outer wooden beams, spacers, and interposed interlocking metal beams  
 25 are secured together, and a metal plate secured between said outer wooden beam and said first-named metal beams.

4. Sheet piling comprising sections each of which is composed of wooden beams  
 30 spaced apart from each other and which are provided with metal angle-beams bolted thereto and having interlocking flanges, and parts connecting said spaced wooden beams comprising inner and outer wooden beams,  
 35 metal angle-beams interlocked with the

first-named metal angle-beams and interposed between the said inner and outer wooden beams, spacers also interposed between said inner and outer wooden beams, bolts by which said inner and outer wooden  
 beams, spacers, and interposed interlocking metal angle beams are secured together, and a metal plate secured between said outer wooden beam and said first-named metal  
 beams.

5. Sheet piling comprising sections each of which is composed of wooden beams spaced apart from each other and which are provided with metal beams bolted thereto  
 and having interlocking flanges, and parts  
 50 connecting said spaced wooden beams comprising inner and outer wooden beams, metal beams interlocked with the first-named metal beams and interposed between the said inner and outer wooden beams, spacers also  
 55 interposed between said inner and outer wooden beams, bolts by which said inner and outer wooden beams, spacers, and interposed interlocking metal beams are secured together, and a metal plate secured between  
 60 said outer wooden beam and said first-named metal beams, said plate being reduced in width at its lower end and bent inward and bolted to the opposite metal beam or beams.

In testimony whereof I affix my signature, 65  
 in presence of two witnesses.

HARRY M. GOULD 66

Witnesses:

C. K. AUSTIN,  
 C. L. SCOTT.