

No. 816,994.

PATENTED APR. 3, 1906.

G. E. NYE.

INTERLOCKING SHEET PILING.

APPLICATION FILED AUG. 7, 1903. RENEWED SEPT. 8, 1905.

Fig. 1.

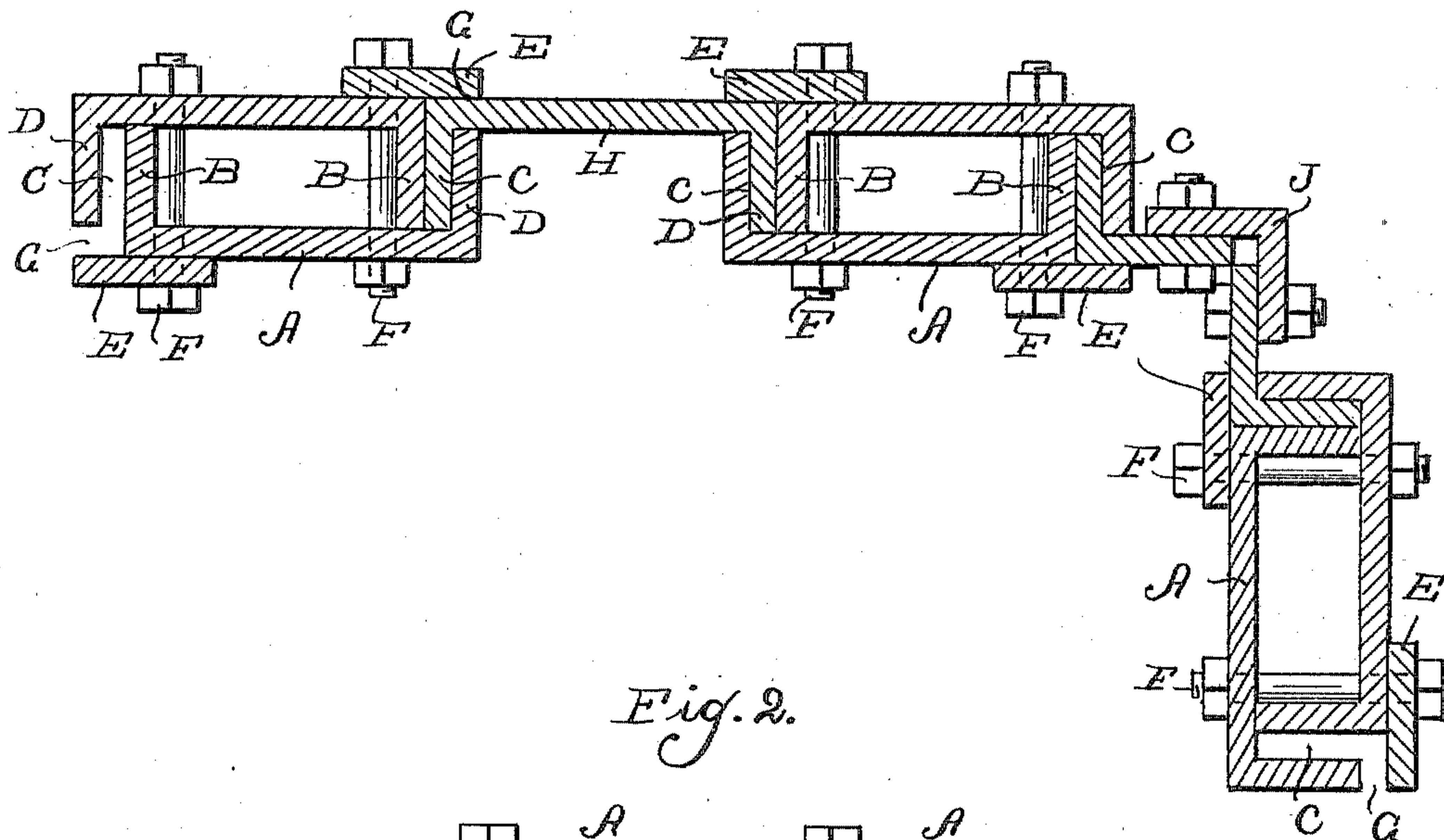


Fig. 2.

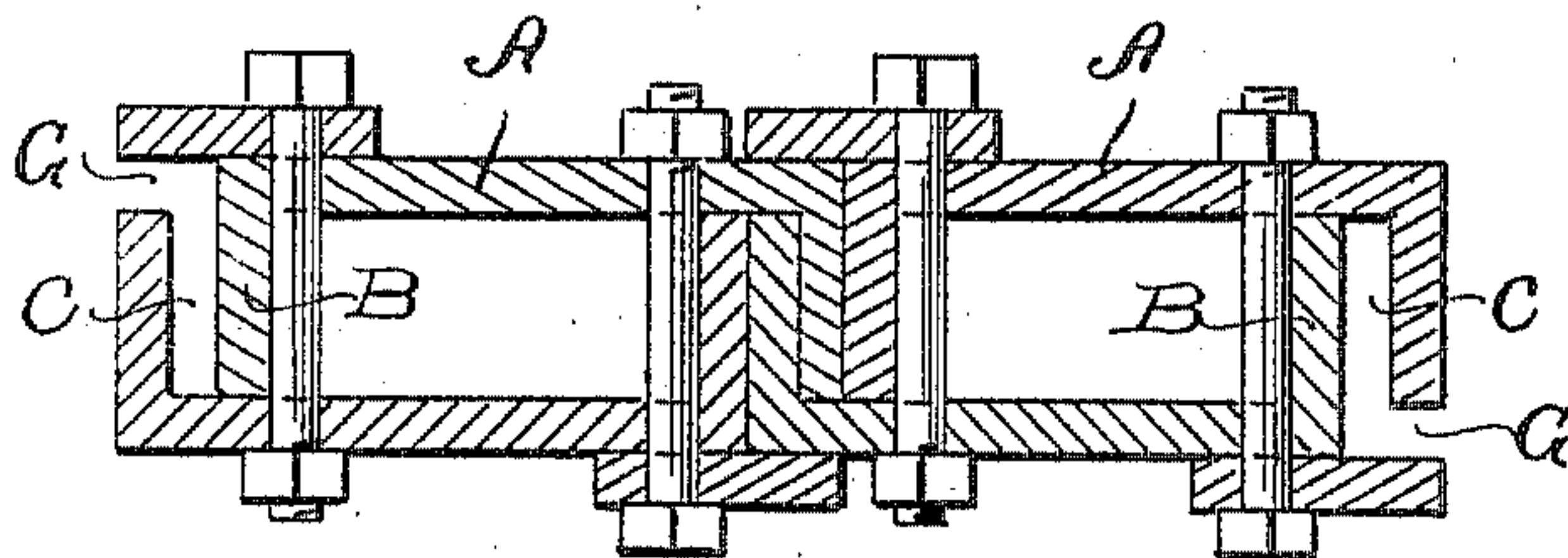
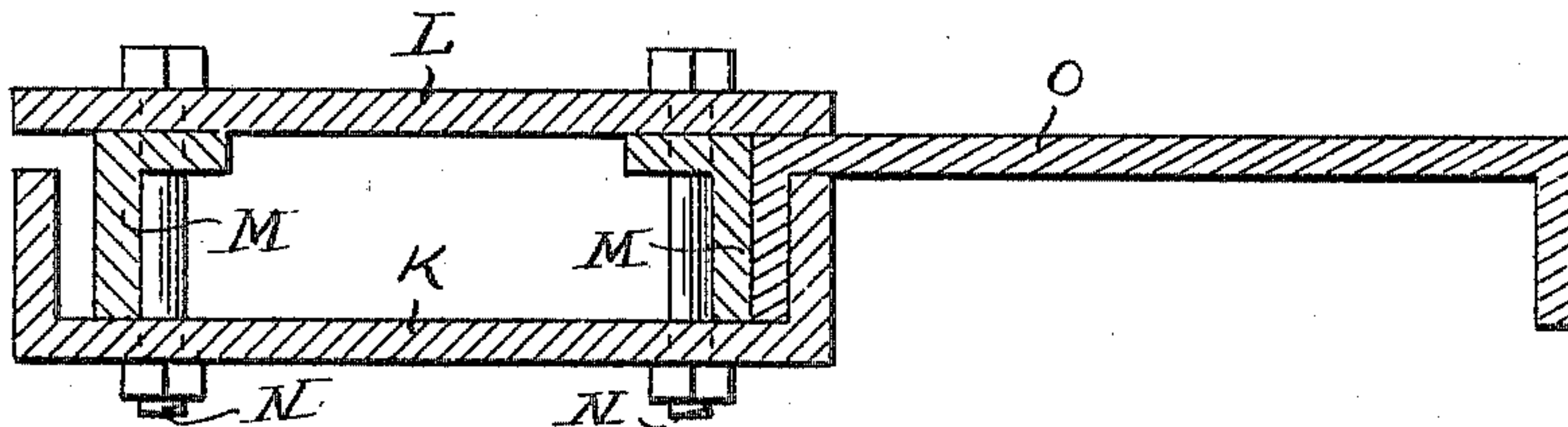


Fig. 3.



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INTERLOCKING SHEET-PILING.

No. 816,994.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed August 7, 1903. Renewed September 8, 1905. Serial No. 277,588.

To all whom it may concern:

Be it known that I, GEORGE E. NYE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Interlocking Sheet-Piling; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in interlocking metal sheet-piling, the object being to provide sheet-piling of very simple construction and great strength capable of use in the construction of dams, cofferdams, mine-shafts, &c.; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a horizontal section of sheet-piling constructed in accordance with my invention. Fig. 2 is a similar view showing a slightly-modified form of construction. Fig. 3 is a similar view showing a modified construction of interlocking unit.

My invention consists, primarily, in providing an interlocking unit A, which consists of two channel-beams so relatively placed that one of the flanges B of each projects between the flanges of the other and lies in contact with the inner face of the web of the other, the space C between the flange B of one channel-beam and the flange D of the other being practically equal to the thickness of one of said flanges. To the outer face of each channel-beam on the edge adjacent the flange B thereof I secure a plate E, which projects beyond said edge and forms a flange overhanging said space C, said plate being secured in place by means of bolts F, passing through said plate and through the webs of both channel-beams, thereby serving also to secure the latter in relative position. The spaces C between the flanges of said channel-beams and the spaces G between the plates E and the edges of the flanges D together form L-shaped recesses, which are oppositely disposed at opposite ends of said unit and are adapted to receive the flanges and part of the web of a channel-beam H, which may be alternated with said units A in the construction of the piling.

As shown in Fig. 1, the sheet-piling may be extended at right angles by the interposition of a corner-unit J, consisting of three angle-irons bolted together to form a W.

As shown in Fig. 2, the units A may be used exclusively, particularly in cases where great strength is required, said units being adapted to interlock on their edges, as shown.

In Fig. 3 I have shown a modified construction of unit which consists of a channel-beam K, a plate L, of equal width with said channel-beam, and two angle-irons M, resting on the edge of one flange on the inner face of the web of said channel-beam K and having their other flanges lying in contact with said plate L, said plate and angle-irons being secured to said channel-beam by means of bolts N, passing through all three of said members. The said angle-irons M are so set that the flanges lying in contact with the plate L extend toward each other, so that between the outer faces of the other flanges and the flanges of the channel-beam and between the edges of the latter and said plate L L-shaped recesses are provided for the reception of the flange and part of the web of a channel-beam O, which is alternated with said unit to form the sheet-piling.

The above-described sheet-piling, particularly as shown in Figs. 1 and 2, is very efficient and can be used to great advantage for all constructions for which sheet-piling is adapted.

It will be noted that in the constructions shown in Figs. 1 and 2 the channel-beams are continuously abutted against each other throughout the entire wall, thereby giving the latter great lateral strength.

I claim as my invention—

1. An interlocking unit for sheet-piling comprising two channel-beams relatively so set that one flange of each extends between the flanges of the other and adjacent one flange thereof, plates secured to the outer faces of the webs of said channel-beams along one edge and projecting beyond said edge to overhang the free flange of the other channel-beam, thereby forming L-shaped recesses at the sides of the unit, and bolts or the like passing through the webs of said channel-beams and through said plates for securing the latter in place and securing said channel-beams in relative position.

2. An interlocking unit for sheet-piling

comprising two parallel channel-beams relatively so secured that one flange of each extends between the flanges of the other, leaving a space practically equal to the thickness of one flange between the free flange of one beam and the contained flange of the other beam, a plate secured to the outer face of the web of each of said beams along one edge and overhanging the free flange of the other beam, thereby forming L-shaped recesses in the side edges of said unit adapted to receive the free flange and free portion of the web of the next adjacent unit to interlock therewith.

3. Sheet-piling comprising in combination a series of units each comprising two parallel channel-beams relatively so secured that one flange of each extends between the flanges of the other, leaving a space practically equal to the thickness of one flange between the free flange of one beam and the contained flange of the other beam, a plate secured to the outer face of the web of each of said beams along one edge and overhanging the free flange of the other beam, thereby forming L-shaped recesses in the side edges of said unit adapted to receive the free flange and free portion of the web of the next adjacent unit to interlock therewith.

4. Sheet-piling comprising in combination a unit consisting of two parallel channel-beams relatively so secured that one flange of each extends between the flanges of the other, leaving a space practically equal to the thickness of one flange between the free flange of one beam and the contained flange of the

other beam, a plate secured to the outer face of the web of each of said beams along one edge and overhanging the free flange of the other beam, thereby forming L-shaped recesses in the side edges of said unit and a unit consisting of a single channel-beam the flanges and adjacent portions of the web of which are adapted to enter and fit said L-shaped recesses of said first-named unit and interlock therewith.

5. Sheet-piling comprising in combination a unit consisting of two parallel channel-beams relatively so secured that one flange of each extends between the flanges of the other, leaving a space practically equal to the thickness of one flange between the free flange of one beam and the contained flange of the other beam, a plate secured to the outer face of the web of each of said beams along one edge and overhanging the free flange of the other beam, thereby forming L-shaped recesses in the side edges of said unit and a corner unit consisting of three angle-irons secured together to form a W, the free flanges and adjacent portions of the web of which are adapted to enter said L-shaped recesses of said first-named units and interlock therewith.

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

GEORGE E. NYE.

Witnesses:

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