

W. A. KREIDLER.
SHEET PILING.

APPLICATION FILED JULY 17, 1905. RENEWED APR. 1, 1909.

937,817.

Patented Oct. 26, 1909.

Fig. 1

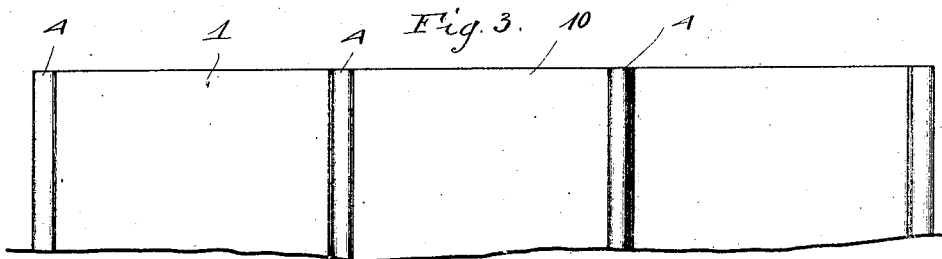
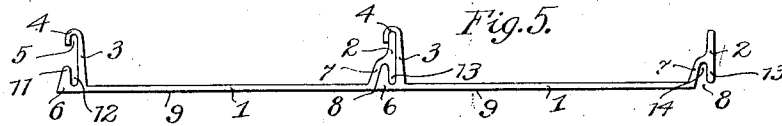
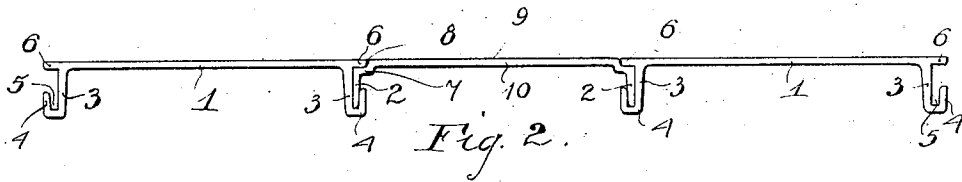
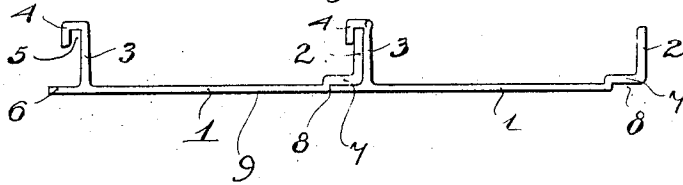
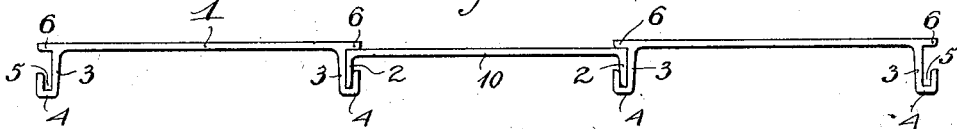


Fig. 4



Witnesses:

Leonard W. Novander.

Charles J. Schmidt, By

Inventor

William A. Kreidler

Charles A. Brown
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM A. KREIDLER, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO LACKAWANNA STEEL COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

SHEET-PILING.

937,817.

Specification of Letters Patent.

Patented Oct. 26, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM A. KREIDLER, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sheet-Piling, (Case 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to sheet piling, and its object is to provide an improved construction and arrangement of the sections composing it.

In the accompanying drawing which illustrates my invention, Figure 1 shows a portion of piling employing one modified form of section. Fig. 2 shows a piling wall employing a section of slightly different construction and arrangement. Fig. 3 is an elevation view of the wall shown in Fig. 2, and Fig. 4 shows another modification of the sections composing the wall, and Fig. 5 shows another modification and arrangement.

In Fig. 1 each section consists of a web or body part 1 having at its one end a lateral projection 2 and at its other end a lateral projection 3 extending in the same direction and terminating in a hook 4 forming the recess 5. The longitudinal extension 6 below the hook 5 may be a continuation of the web 1, and the section 7 of the other end of the web is offset a distance equal to the thickness of the extension 6. Upon assembly of the piling members the lateral extension 2 of one member engages in the recess 5 of the hook 4 of the adjacent member and the longitudinal extension 6 of the adjacent member engages in the recess 8 below the opposite section 7, and thus the built up wall will present a plane unbroken face 9. The sections of this modification are all similar and may be rolled integral.

In Fig. 2 the wall is composed of two sets of similar members or sections. Instead of providing each member at one end with the hooked extension and at the other with the straight extension as shown in Fig. 1, the members of one set are provided at each end with a hooked member, while the members of the other set are provided at each end with the straight members for engaging the hooked members of the adjacent sections. Each member of the first set consists of the

web portion 1 having at each end a lateral extension 3 terminating in a hook 4 to form the recess 5, while the longitudinal extension 6 opposite the hook forms a continuation of the web 1. Each member of the other set consists of the web part 10 provided at each end with a straight extension 2, which straight extensions upon assembly engage in the recesses of the hooks of adjacent sections of the first set. The web 10 may be straight as shown in Fig. 4, or the end sections 7 thereof may be offset the thickness of the extensions 6 to form recesses 8 whereby this wall will also present a plane unbroken face 9. These sections comprising the wall shown in Figs. 2 and 4 also may be rolled integral.

The arrangements shown in Figs. 1, 2 and 4 render the wall proof against buckling only in one direction, that is when the strain is against the plane face thereof.

Fig. 5 shows the construction of the sections slightly modified to enable the wall to resist buckling strains in any direction. The projections 6 at their ends have the extension 11 to form recesses 12, while the lateral extension 2 is continued to the other side of the web to form the extensions 13 and the recesses 14. Upon assembly in the same manner as in the other figures, the extensions 11 will engage the recesses 14 and the extensions 13 will engage in the recesses 12 and the structure will resist buckling strains from any direction. The amount of offset of the end 7 of the web may be such that when the sections are assembled the wall will present the plane unbroken face 9 as in Figs. 1 and 2.

Many modifications may readily be made without departing from the spirit of the invention.

I do not wish to be limited to the exact arrangement and construction shown and described, and

I claim as new and desire to secure by Letters Patent:

1. A sheet piling built up of integral sections, each section consisting of a web portion having at one end an offset and a straight lateral projection and at the other end a hooked lateral projection for engaging the straight lateral projection of an adjacent section, and a longitudinal extension below the hooked projection for engaging the offset on the web below the straight pro-

section of the adjacent section the webs of adjacent sections thereby forming a uni-planer wall.

2. A sheet piling built up of sections, each section consisting of a web portion having at one end a straight lateral projection and at the other end a hooked lateral projection for engaging the straight lateral projection of an adjacent section, and a longitudinal extension below the hooked projection for engaging the web below the straight projection of the adjacent section, the section of the web below the straight projection corresponding in length to the longitudinal projection being offset to form a recess for receiving this longitudinal projection whereby the wall presents a plane unbroken face.

3. A sheet piling built up of sections, each section consisting of a web portion having at one end a straight lateral projection and at its other end a hooked lateral projection parallel to the other projection and terminating in a hook for engaging the straight projection of the adjacent section, the end of the web portion directly below the straight projection being offset to form a recess, and a longitudinal projection below the hooked projection at the other end for engaging the recess of the adjacent section.

4. A sheet piling wall composed of similar sections, each section consisting of a web portion having a straight lateral projection at one end and a hooked lateral projection at the other end, said lateral projections extending from the same side of the web and parallel to each other, a longitudinal projection opposite the hooked lateral projection, and a recess in the web opposite the straight projection for receiving the longitudinal projection of an adjacent section.

5. A sheet piling wall composed of similar sections, each section consisting of a web portion, a lateral projection at one end of the web portion terminating in a hook, a continuation of the web forming an extension opposite the hook, a straight lateral extension at the other end of the web and on the same side as the hooked projection, said web below said straight projection being offset a distance equal to the length of the longitudinal extension for receiving the

longitudinal extension of the adjacent section, the hook of said adjacent section engaging over the straight projection.

6. A sheet piling wall composed of integral sections, each section consisting of a web having an offset at one end, a lateral hooked extension at the other end of each member, a longitudinal extension at the end of said member opposite the hook, the engaging end of the adjacent section being provided with a straight lateral projection for engaging within said hook and said longitudinal extension said extension engaging in the offset in the adjacent section, thereby forming a uni-planer wall.

7. A sheet piling wall composed of sections, each section consisting of a web, a lateral flange at the end of one section terminating in a hook, a longitudinal projection from the web of said member opposite said hook, the web of the adjacent member being provided at its engaging end with a straight lateral projection for engaging within said hook and said longitudinal projection of the other member, the section of the web opposite said straight projection being offset to form a recess for receiving said longitudinal projection.

8. A sheet piling wall composed of sections, each section consisting of a web, the web of one section terminating at one end in a lateral extension ending in a hook, and a longitudinal projection forming a continuation of the web of said section opposite said hook, the web of the adjacent section terminating at the engaging end in a lateral straight projection for engaging within the longitudinal projection and the hook of the other section, the section of the web opposite the straight lateral projection being offset the thickness of the longitudinal projection to form a recess for receiving said longitudinal projection and whereby the wall presents a plane unbroken face.

In witness whereof, I hereunto subscribe my name this 14th day of July A. D., 1905.

WILLIAM A. KREIDLER.

Witnesses:

HARVEY L. HANSON,
JOHN STAHR.