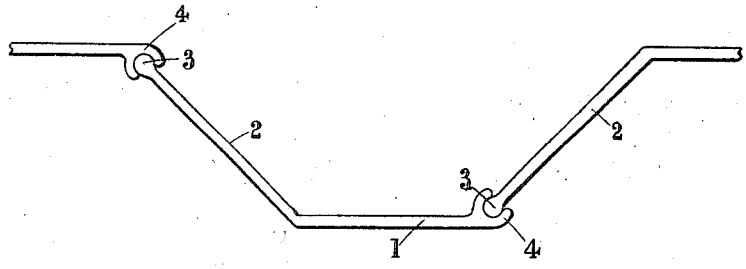
June 26, 1923.,

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J. VER MEHR ET AL

METALLIC SHEET PILING

Filed March 10, 1922



INVENTORS
John ver Mehr &
J. S. Owens.
By Lawrence Langnes
Attorney

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UNITED STATES PATENT OFFICE.

JOHN VER MEHR AND JOHN S. OWENS, OF LONDON, ENGLAND.

METALLIC SHEET PILING.

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To all whom it may concern:

Be it known that we, JOHN VER MEHR, a citizen of the United States of America, and JOHN SWITZER OWENS, a subject of the King of Great Britain, both residing at London, England, have invented new and useful Improvements Relating to Metallic Sheet Piling, of which the following is a specification.

This invention has reference to metallic piling for coffer dams and other constructional purposes and relates more particularly to piling of the kind consisting of a rolled metal section provided with locking means formed integrally therewith upon each of its two longitudinal edges whereby contiguous pile members may be interlocked to form a practically continuous wall of piling of the desired extent.

Amongst the several objects of the present invention are to provide a metal piling which shall possess the greatest practical moment of inertia for a given weight of metal, to provide for as great a depth of the piling members as convenient and a concentration of the metal at the greatest possible distance from the neutral axis, to provide an improved piling in which the neutral axis is situated in the middle of the line of piling with the pile material disposed symmetrically on each side thereof thereby obtaining equal resistance against bending or distortion from strains or stresses exerted from either side, and to provide a pile which while being comparatively light in weight will be sufficiently rigid to enable it to be driven without fear of buckling during this operation.

With these and such other objects as may hereinafter appear or are incidental thereto our invention in its broadest conception may be said to be embodied in a rolled metal piling member which is substantially L-shape in cross section and having interlocking means formed integrally therewith upon each of its two longitudinal edges whereby the individual pile members may as they are driven be interlocked with each other to form a wall of piling.

In order that our invention may be readily understood and carried into effect we will now proceed to describe the same in detail for which purpose reference will be had to the accompanying drawing which represents in section a portion of a wall of piling the individual members of which are constructed in accordance with the present invention.

In the form of piling illustrated the individual pile members consist of a rolled metal section comprising a limb 1 and a limb 2 arranged at an angle of 135° to the limb 1.

The limb 1 is provided at its extremity with a clutch member 4 adapted to receive a co-operating clutch member 3 formed upon the extremity of the limb 2 of a juxtaposed pile member so that individual piling members may be interlocked one with another as they are driven to form a substantially watertight joint.

The form of the interlock which we prefer to employ is of the well known ball and socket or knuckle-joint type as shown, as it admits of relative movement around a vertical axis passing through the joint thus allowing of variation within certain limits in the line of piling and enabling curves to be negotiated without difficulty.

It is to be observed that in a wall of piling constructed with our improved pile members, the neutral axis is situated approximately in the middle of the assembled piling and that the joints between the individual pile members are situated alternately on opposite sides of and as far as possible from the neutral axis. Such an arrangement ensures the symmetric disposition and concentration of the metal at the greatest possible distance from the neutral axis so that the wall of assembled piling possesses the maximum resistance to strains or stresses which may be exerted upon it from either side.

Pile members in accordance with this invention are reversible and right angled corners or curves may be negotiated by merely reversing one pile end for end that is to say without the employment of specially formed independent locking strips or clips.

What we claim is:—

1. A metal piling member composed of two straight limbs one of which is disposed at an angle of 135° to the other and having

interlocking means formed integrally therewith upon each of its two longitudinal edges.

2. Metallic piling comprising a plurality of piling members each of which is formed of two straight limbs disposed at an angle of 135° to one another the piling members being interconnected and arranged so that the joints between the piles are alternately upon opposite sides of the neutral axis of the assembled piling.

JOHN VER MEHR.
J. S. OWENS.