

No. 850,122.

PATENTED APR. 9, 1907.

G. E. NYE.

INTERLOCKING METAL SHEET PILING.

APPLICATION FILED FEB. 4, 1907.

Fig. 1.

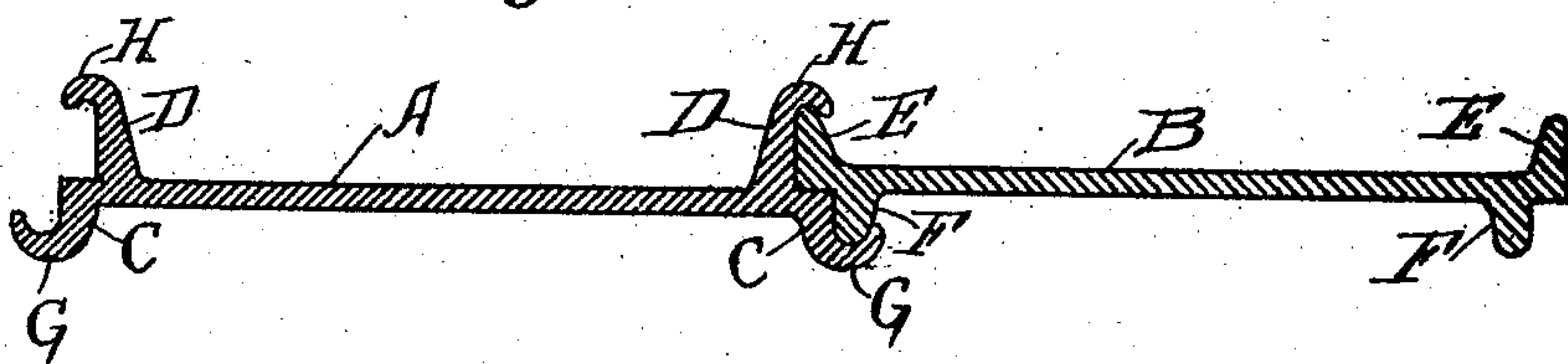


Fig. 2.

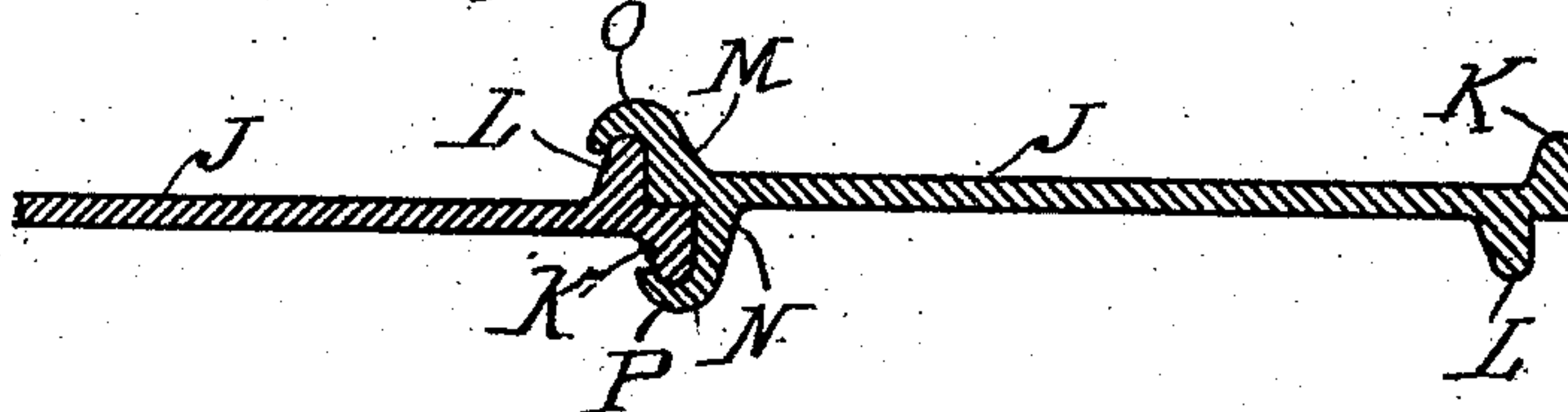
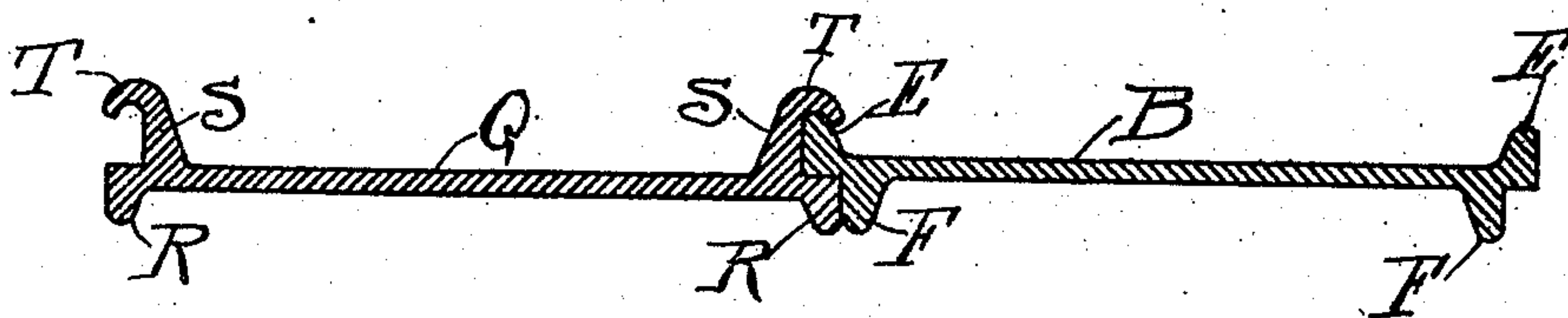


Fig. 3.



Witnesses:

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INTERLOCKING METAL SHEET-PILING.

No. 850,122.

Specification of Letters Patent.

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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 Metal 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.

This invention relates to a novel construction in interlocking metal sheet-piling, the object being to provide simple and efficient piling adapted more particularly for relatively light work, and 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 plan section of sheet-piling constructed in accordance with my invention. Figs. 2 and 3 are similar views of modified forms of construction.

My said piling comprises channel-bar units A and B, each provided on opposite sides of its web with flanges C D and E F, respectively, the flanges C and E being disposed on the side edges and the flanges D and F inwardly of said side edges and being oppositely disposed relatively to said flanges C and E. The flanges C and D of said unit A are provided at their free ends with outwardly-extending hooks G and H, in which the free ends of the flanges F and E of adjacent units B are adapted to be received and engaged, respectively. The edge flanges of both units when interlocked become oppositely disposed, and those portions of the web of each unit lying between the side edges and the inwardly-disposed flange D and F lie in contact with each other. The said units are thus held against relative movement in all direction except longitudinally and are particularly firmly held against lateral movements in the direction of projection of the flanges thereof, there being a stepped joint besides the two hooked joints between the same to resist such lateral movement.

The member B herein shown and described coincides in shape with the channel-bar shown in Letters Patent No. 832,407, issued to me on October 2, 1906, in which two of said members coupled together form a double unit, which is adapted to interlock with the said member constituting a single unit. By combining said unit B with the

unit A herein shown and in which the flanges are merely increased in depth and bent over at their free ends to form the hooks specified single-wall sheet-piling, which is very light and efficient, may readily be formed.

I am aware that the use of units having hooked flanges is not entirely novel; but I believe that such units in which all of the flanges are turned over to form hooks alternated with units have similarly-disposed flanges, all of which are plane, is novel, particularly where the oppositely-disposed flanges of each unit are offset relatively to each other. Such relative offsetting of said flanges is very effective for the reason that the stepped joint formed is far more watertight, is better qualified to resist relative lateral movement of said units in one direction, and also relieves the hooks and flanges of a part of the strain to which they are apt to be subjected.

In the construction shown in Fig. 2 the units J are all of the same shape, each being provided at and adjacent one side edge with oppositely-disposed plane flanges K and L, respectively, and at and adjacent its other side edges with oppositely-disposed flanges M and N, respectively, provided at their free ends with hooks O and P, which are adapted to receive the free ends of said flanges K and L of the next adjacent unit. This construction I consider most practicable for the reason that all units are of the same shape, and therefore only one set of rolls would be required to produce the same.

In the construction shown in Fig. 3 I have combined a unit B with a unit Q, conforming in construction to some extent with the unit forming subject of the patents to Vanderkloot, Nos. 763,526 and 786,329, said unit Q having two plane edge flanges R extending in the same direction and two flanges S oppositely disposed to and offset inwardly relatively to the flanges R, said flanges S being provided at their free ends with hooks T, adapted to receive the free ends of the flanges E of the unit B. The said flanges E of the latter are preferably short and relatively thick, their free ends being rounded. By forming a snug fit between said flanges E and the recess receiving the same the units B and Q will be very firmly held against relative lateral movement in all directions. Relative pivotal movement in one direction will be least resisted; but owing to the thickness of the flanges E and the short radial

distance between the fulcrum and the outermost corner of said unit such movement will cause said units to bind, so that said flange E becomes so firmly jammed in the recess receiving it as to necessitate bending of the flange R to cause said members to yield. This would require unusual strain.

I claim as my invention—

1. Interlocking metal sheet-piling comprising in combination a channel-bar member having a plane edge flange, and a plane oppositely-disposed flange adjacent its edge, and a channel-bar member provided with an edge flange and an oppositely-disposed flange inwardly of its edge, the free end of said last-named flange being provided with a hook adapted to receive the free end of the edge flange of the first-named member.

2. Interlocking metal sheet-piling comprising in combination, a channel-bar member having a plane edge flange, and a plane oppositely-disposed flange adjacent its edge, and a channel-bar member provided with an edge flange and an oppositely-disposed flange

inwardly of its edge, the free ends of said last-named flanges being bent over outwardly to form hooks adapted to engage the free ends of said flanges of the first-named member.

3. Interlocking metal sheet-piling comprising in combination, a channel-bar unit provided with plane edge flanges, and with plane flanges offset inwardly of its side edges and oppositely disposed relatively to said first-named flanges, and a channel-bar unit having similarly-disposed flanges having their free ends bent over outwardly to form hooks, the latter being adapted to receive the free ends of the oppositely-disposed flanges of said first-named unit.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

GEORGE E. NYE.

Witnesses:

RUDOLPH WM. LOTZ,
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