

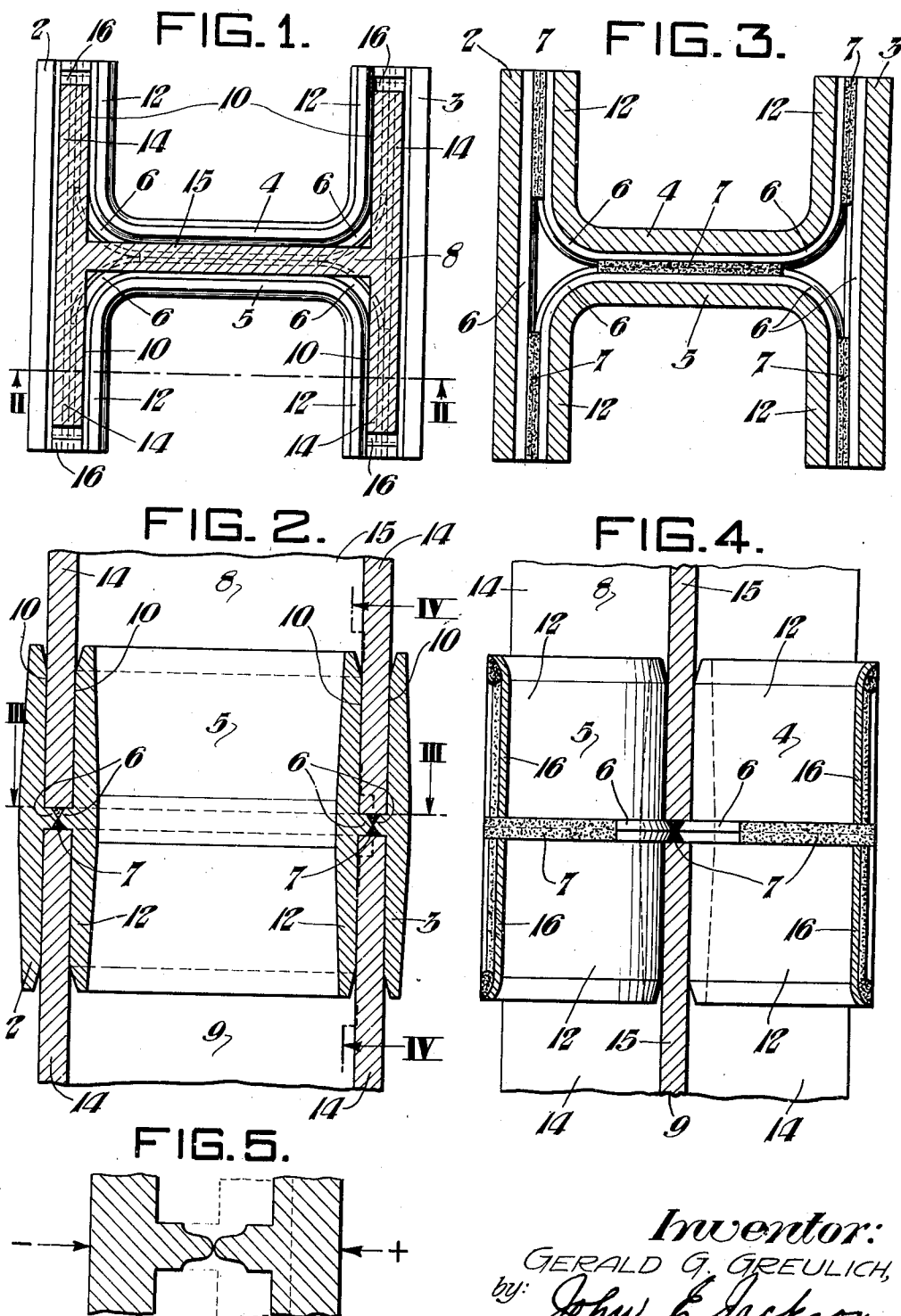
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SPLICE FOR STEEL BEARING PILES

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SPLICE FOR STEEL BEARING PILES

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4 Claims. (Cl. 61—53)

The present invention relates to a splice for bearing piles.

An object of the invention is to provide a splice for securing the adjacent ends of superimposed bearing pile sections in alignment.

A further object of the invention relates to providing a fabricated sleeve, including rolled sections welded together to provide a socket for receiving the ends of the adjoining bearing pile sections.

Other objects and advantages of the present invention will become apparent as the description proceeds and reference is had to the accompanying drawing, in which:

Figure 1 is a transverse section of the present invention;

Figure 2 is a section on line II—II of Figure 1;

Figure 3 is a section on line III—III of Figure 2;

Figure 4 is a section on line IV—IV of Figure 2; and

Figure 5 is a detailed section showing the manner of welding the rib members to form the splice.

In the drawing, the splice or joint comprises a fabricated sleeve including a plurality of rolled sections 2, 3, 4 and 5. These sections are of identical construction and each is provided with a centrally disposed rib 6 projecting from one face thereof. When the respective rolled sections are assembled in proper relation to each other, with the ribs all projecting inwardly and the rib on each section in substantial contact with the rib of adjoining sections, they are welded together as indicated at 7 in Figure 3 to provide a unitary splice assembly for receiving the adjacent ends of the piling sections 8 and 9.

The individual sections are rolled, in any conventional manner, so as to provide a straight inner face 10 on the side with the ribs 6. The ribs are beveled, as clearly indicated in Figure 2, so that, when the ribs 6 of the complementary sections project inwardly and about each other, there is provided a substantially V-shaped pocket within which is positioned a welding medium 7, in order to securely form the plurality of rolled sections into a unitary splice assembly.

The rolled sections 4 and 5 are bent, in any conventional manner, into U or channel-shaped cross section. The ribs 6 of these sections 4 and 5 are positioned in back-to-back relationship with each other so as to provide, when welded together, a seat or supporting means, as shown in Figure 2 for the ends of the piling sections 8 and 9. The rib on the flange portions 12 of said U or channel-shaped sections abut portions of the rib on the sections 2 and 3 so as to form a seat

or supporting means for the flanges 14 of the members 8 and 9, while the web 15 is supported by the seat formed by the welding together of the ribs of the rolled sections 4 and 5 positioned in back-to-back relationship.

The outer surface of the rolled sections is tapered, being thinner at the top and bottom edges of said joint than at the center where the maximum forces must be resisted. When the sections 2, 3, 4 and 5 are properly positioned so that all of the ribs 6 project inwardly of the assembled structure, V-shaped bodies of welded metal 7 are disposed in the V-shaped grooves formed by the abutting edges of said rib members 6 so, that upon welding, a unitary structure is provided. Under such a construction, there is provided a double-ended H or I-shaped sleeve joint having H or I-shaped grooves or sockets within which is positioned the flanges 14 and web 15 of the superimposed piling sections 8 or 9. An end-plate 16 is welded to the ends of the flanges of the bearing pile sections and the ribs of the abutting rolled sections in order to close the ends of said grooves or sockets formed by the joining of the sections 2 and 3 with the flanges of the rolled sections having U or channel cross section. After a piling section similar to 9 has been driven into the ground to a certain depth, the splice is placed over the end of the piling section and an additional piling section 8 is fitted into the sockets or grooves formed therein so that continued driving of the bearing pile may be continued.

While I have shown and described a specific embodiment of the present invention, it will be seen that I do not wish to be limited exactly thereto, since various modifications may be made without departing from the scope of the invention, as defined by the following claims.

I claim:

1. A splice for bearing piles, comprising a plurality of pieces cut from a rolled metal section having the general contour of a plate with a longitudinal rib formed on one of its faces between its edges, two of said pieces being bent in the direction of their rolling into similar channels with said rib extending outwardly in each instance, said channels being positioned with the rib on the web of one registered and joined to the rib on the web of the other to provide oppositely facing bearing pile web sockets, and two of said pieces being straight with one positioned with the rib thereon registered and joined to the rib on the oppositely extending adjacent flanges of said channels and with the other of said pieces positioned with the rib thereon registered and joined

to the rib on the other oppositely extending adjacent flanges of said channels so as to form oppositely facing bearing pile flange sockets properly associated with said web socket.

- 5 2. A splice for bearing piles, comprising a plurality of pieces cut from a rolled metal section having the general contour of a plate with a longitudinal rib formed on one of its faces between its edges, two of said pieces being bent in the
- 10 direction of their rolling into similar channels with said rib extending outwardly in each instance, said channels being positioned with the rib on the web of one registered and joined to the rib on the web of the other to provide op-
- 15 positely facing bearing pile web sockets, and two of said pieces being straight with one positioned with the rib thereon registered and joined to the rib on the oppositely extending adjacent flanges of said channels and with the other of said pieces
- 20 positioned with the rib thereon registered and joined to the rib on the other oppositely extending adjacent flanges of said channels so as to form oppositely facing bearing pile flange sockets properly associated with said web socket, said
- 25 rolled metal section having its face opposite said rib tapered toward its edges from a line aligned with said rib, whereby said sockets have walls that diminish in thickness outwardly of the end walls of said sockets provided by said rib.
- 30 3. A splice for bearing piles, comprising a plurality of pieces cut from a rolled metal section having the general contour of a plate with a longitudinal rib formed on one of its faces between its edges, two of said pieces being bent in the
- 35 direction of their rolling into similar channels with said rib extending outwardly in each instance, said channels being positioned with the rib on the web of one registered and joined to the rib on the web of the other to provide op-
- 40 positely facing bearing pile web sockets, and two of said pieces being straight with one positioned with the rib thereon registered and joined to the rib on the oppositely extending adjacent flanges of said channels and with the other of said pieces
- 45 positioned with the rib thereon registered and

joined to the rib on the other oppositely extending adjacent flanges of said channels so as to form oppositely facing bearing pile flange sockets properly associated with said web socket, said rolled metal section having its edges reduced in thickness to provide grooves for receiving welding metal when said pieces are positioned as herein described, and welding metal being deposited in said grooves so the rib on said pieces is in each instance joined as herein described by said welding metal.

4. A splice for bearing piles, comprising a plurality of pieces cut from a rolled metal section having the general contour of a plate with a longitudinal rib formed on one of its faces between its edges, two of said pieces being bent in the direction of their rolling into similar channels with said rib extending outwardly in each instance, said channels being positioned with the rib on the web of one registered and joined to the rib on the web of the other to provide oppositely facing bearing pile web sockets, and two of said pieces being straight with one positioned with the rib thereon registered and joined to the rib on the oppositely extending adjacent flanges of said channels and with the other of said pieces positioned with the rib thereon registered and joined to the rib on the other oppositely extending adjacent flanges of said channels so as to form oppositely facing bearing pile flange sockets properly associated with said web socket, said
- 15 rolled metal section having its face opposite said rib tapered toward its edges from a line aligned with said rib, whereby said sockets have walls that diminish in thickness outwardly of the end walls of said sockets provided by said rib, and said rolled metal section having its edges reduced in thickness to provide grooves for receiving welding metal when said pieces are positioned as herein described, and welding metal being deposited
- 20 in said grooves so the rib on said pieces is in each instance joined as herein described by said welding metal.
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