

No. 848,144.

PATENTED MAR. 26, 1907.

J. R. WEMLINGER.
METAL SHEET PILING.
APPLICATION FILED OCT. 18, 1905.

Fig. 1

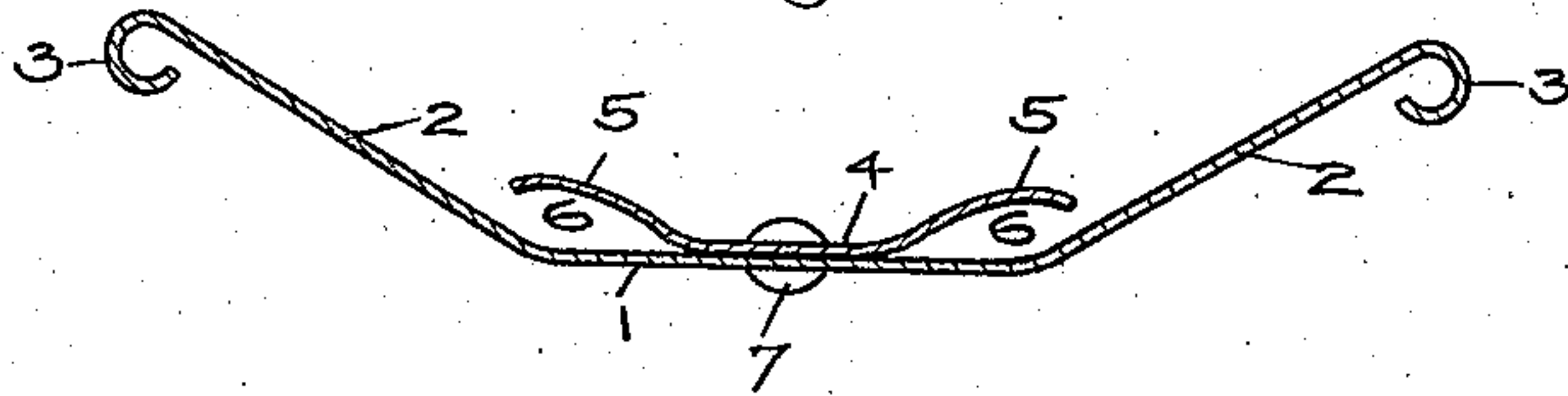


Fig. 2

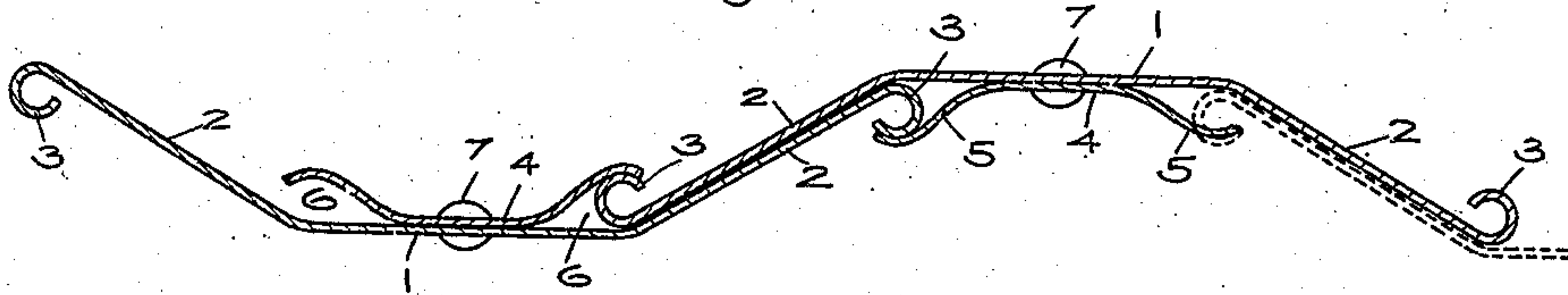
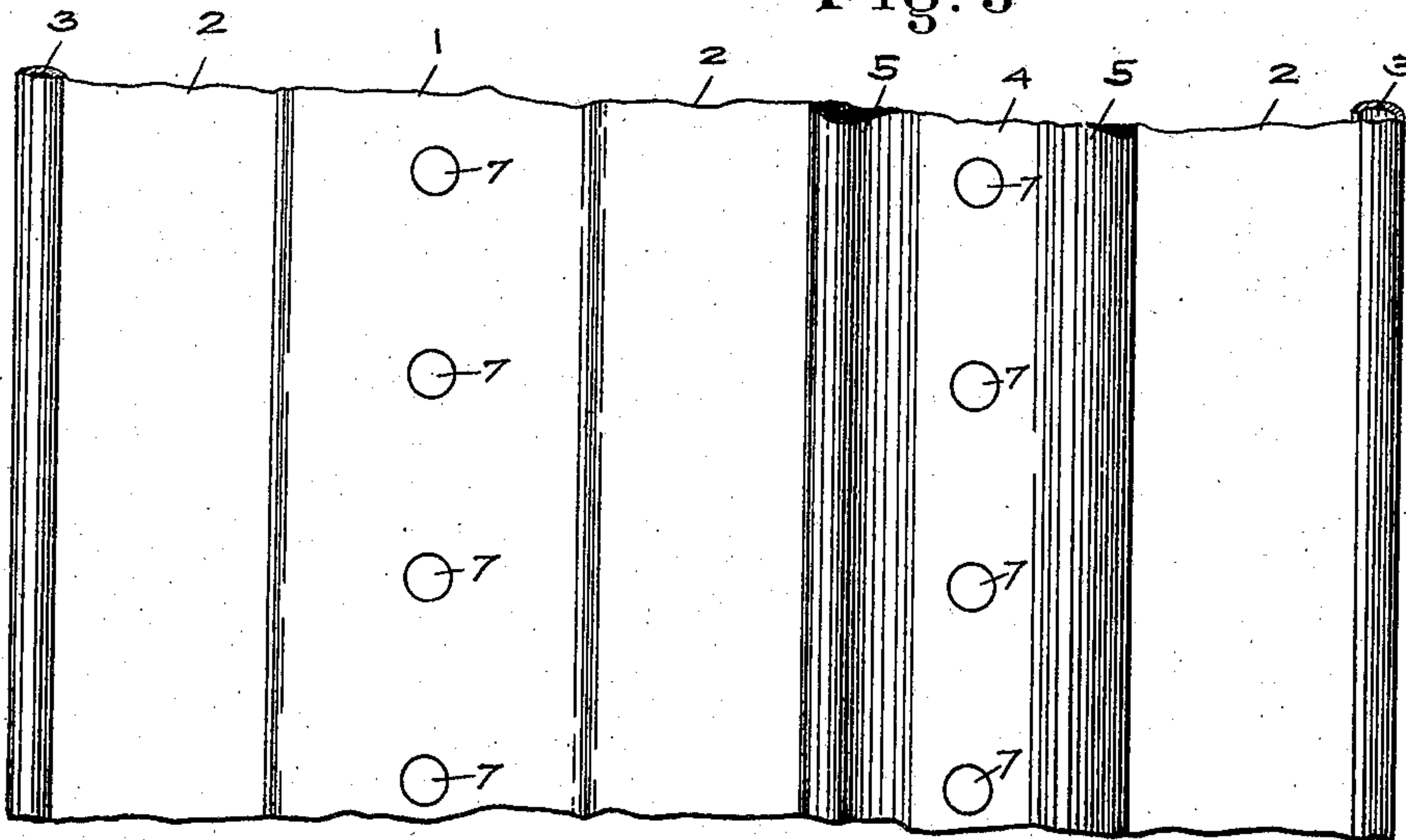


Fig. 3



Witnesses

H. T. Allen
Attest

Inventor

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UNITED STATES PATENT OFFICE.

JULIUS R. WEMLINGER, OF BROOKLYN, NEW YORK.

METAL SHEET-PILING.

No. 848,144.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed October 18, 1905. Serial No. 283,207.

To all whom it may concern:

Be it known that I, JULIUS R. WEMLINGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Metal Sheet-Piling, of which the following is a specification.

My invention relates to metal sheet-piling, and has for its object to provide an improved form of interlocking metal piling particularly adapted for use in situations where water-tightness is paramount—as, for instance, when the piling is used in coffer-dams, core-walls of dams, embankments, jetties, and the like to prevent seepage or percolation of underground water. Very often in such cases the piling may be made very light, because the material to be penetrated is soft or loosely packed.

The metal piling herein described is especially well suited to this important application of metal sheet-piling, because in very light sections it possesses all the requirements of strength and penetration, while the arrangement of the details is such that absolute impermeability may be obtained.

Referring now to the drawing, Figure 1 is a transverse sectional view of one unit of my new metal sheet-piling. Fig. 2 is a transverse sectional view of two units joined together. Fig. 3 is an elevation of part of the units shown in Fig. 2.

Each unit, as shown, comprises a web 1, sides 2, and locking edges 3. These are preferably formed by curving the margin of each side 2 into a cylindrical extension, the object being to provide elastic locking edges for the purpose hereinafter described. The web 1 is arranged with locking-splices formed of a stationary portion 4, secured to said web by rivets 7 and having resilient edges or flanges 5, which provide spaces 6 for receiving and locking the edges 3 of the contiguous units as the piling is driven in the usual way. The edges 3 are of dimensions slightly larger than the width of the spaces 6, as shown by dotted lines at the right-hand side of Fig. 2, so that when the piling is driven there exists a strong pressure between the locking edges 3, the flanges 7, and the web 1, which makes the wall of sheet-piling absolutely water-tight. The edges 3 are easily introduced into the spaces 6 by simply flattening the said edges at the leading end of the unit, which may be done equally well in the shop or in the field,

as will be readily understood. The locking edges 3 and the flanges 5 are both resilient or elastic; but, if preferred, the flanges 5 of the splices may be made rigid and the locking edges 3 supplied with all the required elasticity, or vice versa.

What I claim as new, and desire to secure by Letters Patent, is—

1. In metal sheet-piling, units of trough shape having resilient cylindrical edges.

2. In metal sheet-piling, units of trough shape having curved edges and resilient means for locking the said units together.

3. In metal sheet-piling, units of trough shape having resilient cylindrical edges and means for locking the said units together.

4. In metal sheet-piling, units of trough shape having compressible edges and means for joining the said units together.

5. In metal sheet-piling, the combination of units having compressible edges and elastic locking-splices for joining the said units together.

6. In metal sheet-piling, the combination of units each having a web and two sides, both said sides having resilient curved locking edges.

7. In metal sheet-piling, the combination of units each having a web and sides, said sides having cylindrical edges, resilient splices secured to said web for joining the said units together.

8. In metal sheet-piling, the combination of units each having a web and sides, said sides having resilient curved edges, means secured to said web for receiving and holding the said edges.

9. In metal sheet-piling, the combination of units each having a web and sides, said sides having cylindrical extensions, resilient splices secured to said web for receiving and holding the said extensions.

10. In metal sheet-piling, the combination of units each having a web and sides, said sides having resilient cylindrical extensions, splices secured to said web having edges fitting over the said extensions.

11. In metal sheet-piling, the combination of units each having a web and sides, said sides having resilient curved edges, splices secured to said web having elastic extensions for receiving and compressing the said curved edges.

12. In metal sheet-piling, the combination of units each having a web and sides, said

sides having curved edges, splices secured to said units and formed of strips having elastic locking extensions which fit over the said curved edges.

5 13. In metal sheet-piling, the combination of units each having a web and sides, said sides having resilient cylindrical edges and arranged so that the sides of contiguous units overlap each other, means for securing the
10 said units together.

14. In metal sheet-piling, the combination of units each having a web and sides, said sides having cylindrical extensions and arranged so that the sides of contiguous units
15 overlap each other, resilient means secured to said web for locking the said units.

15. In metal sheet-piling, the combination of trough-shaped units having compressible edges and arranged so that the sides of con-
20 tiguous units overlap each other across their

entire width, resilient means for locking the said units together.

16. In metal sheet-piling, the combination of trough-shaped units with splices formed of flat strips having elastic edges. 25

17. In metal sheet-piling, the combination of trough-shaped units having elastic edges and splices each formed of a flat strip having upturned elastic edges.

18. In metal sheet-piling, the combination 30 of units each having a web and sides, said sides having compressible edges, splices secured to said units and each formed of a flat strip having upturned curved edges.

In testimony whereof I affix my signature 35 in presence of two witnesses.

JULIUS R. WEMLINGER.

Witnesses:

ALFRED MULLER,
LOUISE H. STAADEN.