No. 841,773. PATENTED JAN. 22, 1907.

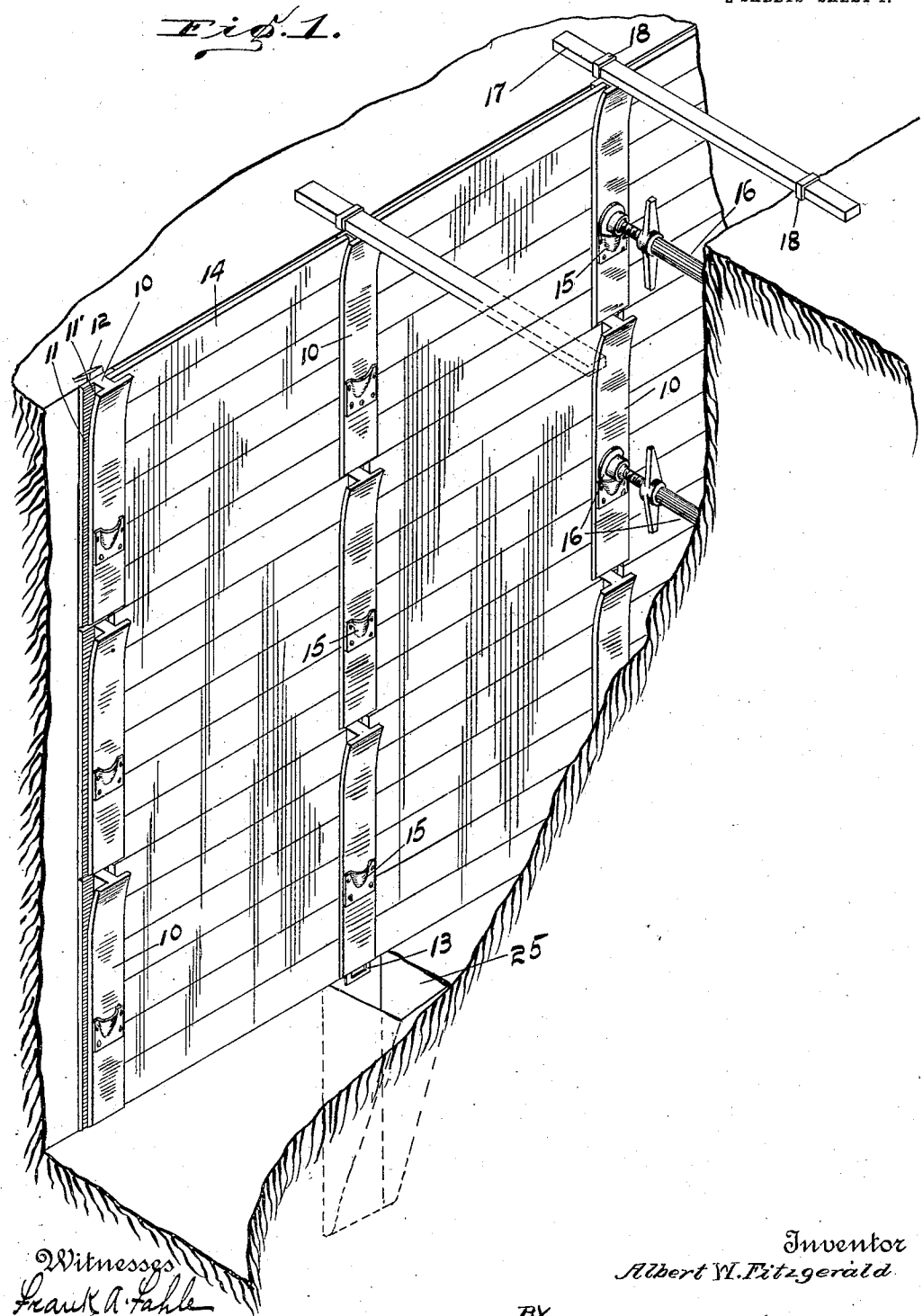
A. W. FITZGERALD.

TRENCH SHEETING,

APPLICATION FILED MAR. 15, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



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TRENCH SHEETING.

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2 SHEETS—SHEET 2.

Fig. 2.

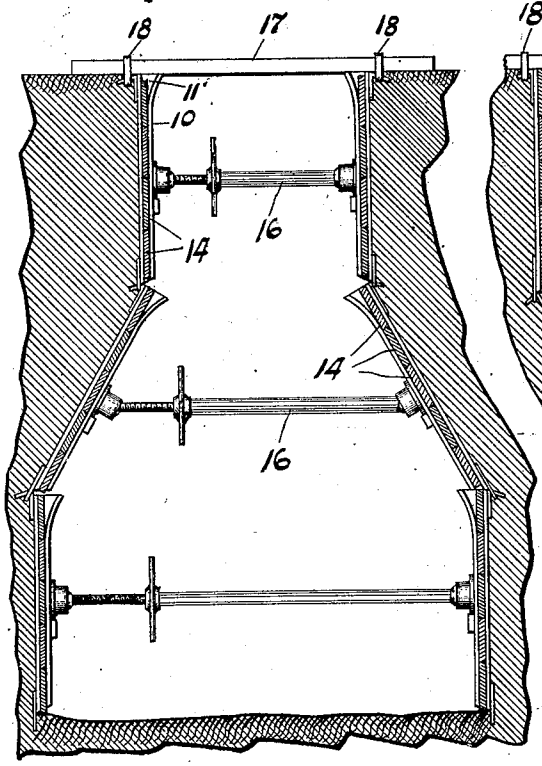
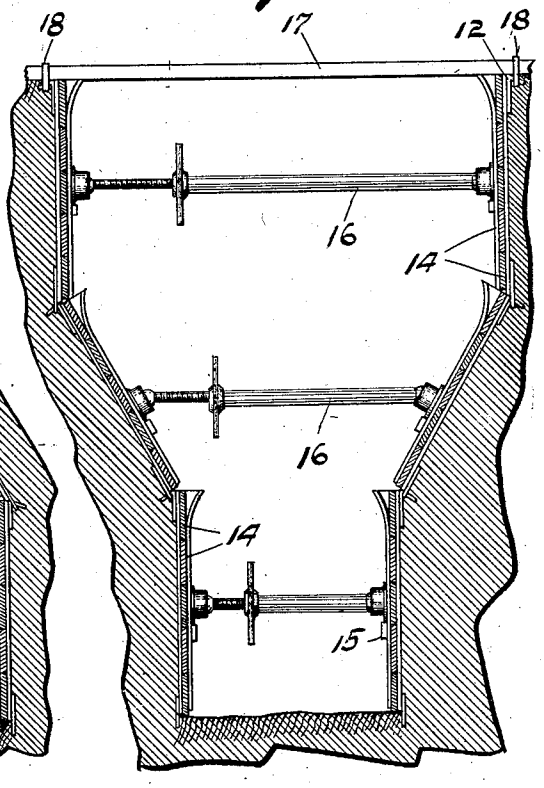


Fig. 3.



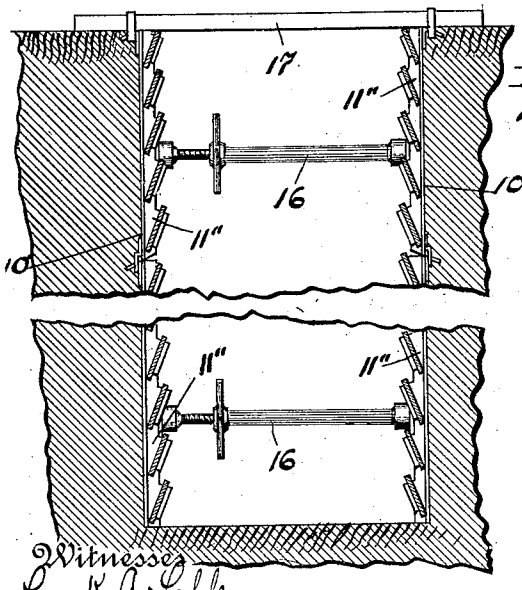


Fig. 4.

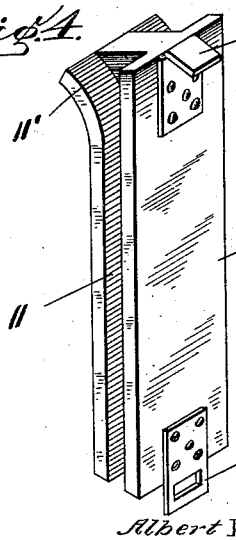


Fig. 5.

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UNITED STATES PATENT OFFICE.

ALBERT W. FITZGERALD, OF TERRE HAUTE, INDIANA.

TRENCH-SHEETING.

No. 841,773. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed March 15, 1906. Serial No. 306,125.

To all whom it may concern:

Be it known that I, ALBERT W. FITZGERALD, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Trench-Sheeting, of which the following is a specification.

In the digging of trenches for the construction of sewers, foundations, and the like it is necessary when the trenches are deep to provide sheeting for the side walls to prevent caving, and such sheeting is ordinarily composed of vertical strips driven vertically along the sides of the trench. Where the trench is very deep, the sheeting must be put in in sections, and consequently the upper width of the trench must be very considerably greater than is necessary for the actual construction to be placed on the bottom of the trench.

The object of my present invention is to produce a sheeting-support of such character that the sheeting may be very readily placed in position without the necessity of driving, the construction being such that the trench may be either narrowed or widened at the bottom and also being such that it can be used in very soft ground.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of a trench provided with my improved sheeting; Fig. 2, a vertical section showing a trench widened at the bottom by the use of my sheeting; Fig. 3, a similar view showing the trench narrowed at the bottom; Fig. 4, a similar view showing a modified form of post-section for use in very soft ground, and Fig. 5 a perspective view of a convenient form of post-section.

In the drawings, 10 indicates a supporting post-section or hanger provided at opposite vertical edges with grooves 11, which are widened at one end to form open mouths 11′ to permit insertion of the sheeting. Each post 10 is provided on its back or outer face with a hook 12 at one end and an eye 13 at the other end, the arrangement being such that the hook 12 may be received in the eye 13 of another post-section, so as to form a continuous member or sheeting-guide the sections of which may be placed at any desired angle. The grooves 11 are adapted to receive the ends of horizontal sheeting-strips 14, which may be of any convenient length and width.

The post-sections and sheeting may be of any desired dimensions; but in practice I find it convenient to make the post-sections from three to four feet in length and the sheeting-sections from six to eight feet in length, their width being an aliquot part of the length of the post-sections. The inner face of each post-section is provided with a suitable brace-support 15, adapted to form a rest or support for the end of any desirable sewer-brace 16.

In operation the trench is dug to a depth slightly in excess of the length of one of the post-sections 10, and transverse braces 17 are then laid across the open mouth of the trench. Each of these braces carries at each end an eye or hanger 18, adapted to receive the hook 12 of a post-section 10, and one of the post-sections is hung in each of these eyes. The sheeting members 14 are then introduced in the adjacent pairs of grooves 11, and braces 16 are put in position. The trench is then dug another section deeper and a second set of post-sections hung to the lower ends of the first set, with proper braces 16 placed in position. The sheeting members 14 are then introduced between the new set of post-sections through the inwardly-opening mouths 11′ of the grooves 11. This operation is repeated as often as necessary.

If the ground is too soft to permit the digging of the trench a full post-section deeper at any time, I find it convenient to use a special post-section. (Shown in Fig. 4.) In this form the post-section 10′ is provided on opposite vertical edges with sheeting-pockets 11″, which have inwardly-inclined open upper ends, so that sheeting members may be introduced successively as the excavation proceeds. When working in very soft ground, the operators will dig a wedge-shaped hole 25 at the lower end of each post-section and introduce the new post 10′ before the main portion of the excavation is made.

As shown in Fig. 2, it is possible by swinging the lower ends of the lower post-sections outward to widen the lower portion of the trench with ease, and in the same manner, as shown in Fig. 3, the trench may be narrowed at the bottom by swinging the lower ends of the lower post-sections inward.

I claim as my invention—

1. A post-section for trench-sheeting having sheeting-receiving grooves formed in opposite edges thereof, and an inwardly-open mouth leading thereto.

2. A post-section for trench-sheeting having sheeting-receiving grooves formed in opposite edges thereof, an inwardly-open mouth leading thereto, and means carried by the opposite ends of said post for interengagement with an adjacent post.

3. A post-section for trench-sheeting having sheeting-engaging portions along the vertical sides with a receiving-mouth below the top thereof so arranged so as to permit introduction of sheeting from the inner face of the post.

4. A post-section for trench-sheeting having sheeting-engaging portions along opposite edges thereof, and means carried at opposite ends of the posts for interengagement with a similar section end to end.

5. A trench-sheeting comprising a plurality of post-sections, each having sheeting-engaging portions along opposite edges and means at opposite ends by which they may be connected in vertical series; and a plurality of horizontal sheeting members adapted to bridge the space between adjacent vertical series of post-sections.

6. A trench-sheeting comprising a plurality of post-sections, each having sheeting-receiving means capable of receiving sheeting from opposite sides, and means at opposite ends by which they may be connected in vertical series; and a plurality of horizontal sheeting members adapted to bridge the spaces between adjacent vertical series of post-sections.

7. A trench-sheeting comprising a plurality of post-sections, means carried by each post-section for successive endwise engagement with another, a plurality of sheeting members, and means carried by the post-sections for engaging the ends of sheeting members.

8. A trench-sheeting comprising a plurality of post-sections, means carried by each post-section for successive endwise engagement with another, a plurality of sheeting members, means carried by the post-sections for engaging the ends of sheeting members, said means being such as to permit the placing of sheeting members at points intermediate the total length of a series of post-sections.

9. A post-section for trench-sheeting having a series of vertically-arranged inwardly-opening sheeting-pockets for the reception of sheeting members.

10. A post-section for trench-sheeting having a series of sheeting-pockets for the reception of sheeting members, and means carried by the ends of each post-section for endwise connection with another post-section.

11. A trench-sheeting comprising a plurality of vertical series of post-sections detachably connectible by hinge connections, and horizontal sheeting members engaging adjacent vertical series of post-sections and bridging the space therebetween.

12. A trench-sheeting comprising a plurality of vertical series of post-sections detachably connectible by hinge connections, and horizontal sheeting members engaging adjacent vertical series of post-sections and bridging the space therebetween, the engagement between the post-sections and sheeting members being such as to permit application of sheeting members at points intermediate the total length of a series of post-sections.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 12th day of March, A. D. 1906.

ALBERT W. FITZGERALD. [L. S.]

Witnesses:
W. H. HARRIS,
THOMAS W. MCMEANS.