June 24, 1930. W. S. RAMEY 1,768,146

RETAINING DEVICE OR FORM WHEN EXCAVATING

Original Filed Nov. 22, 1928

Fig. 1.

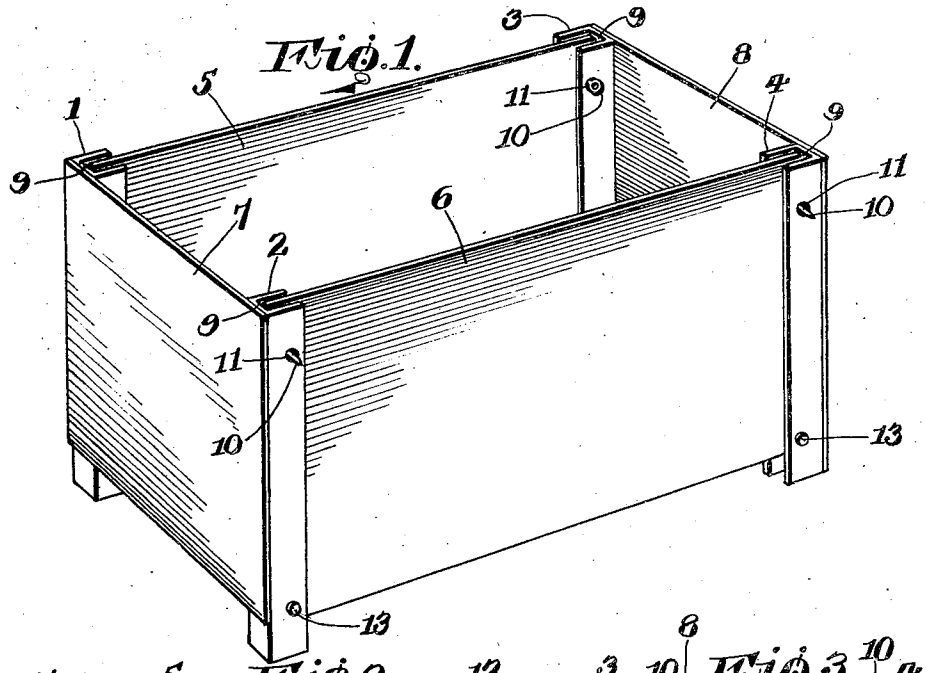


Fig. 2.

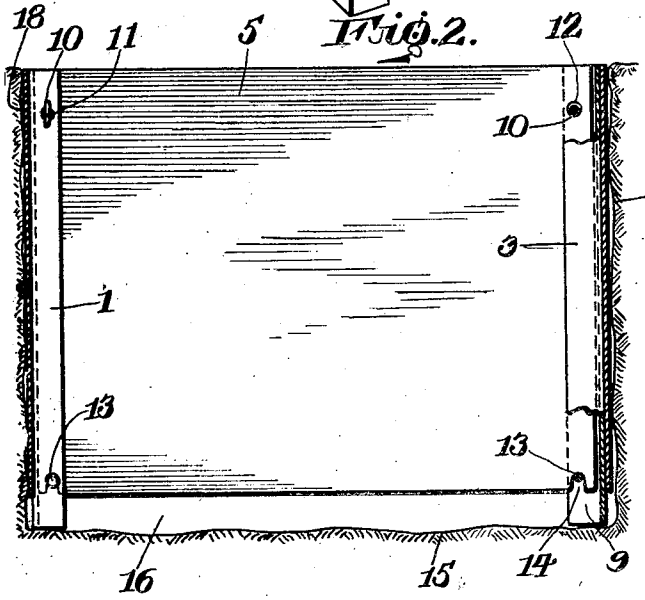


Fig. 3.

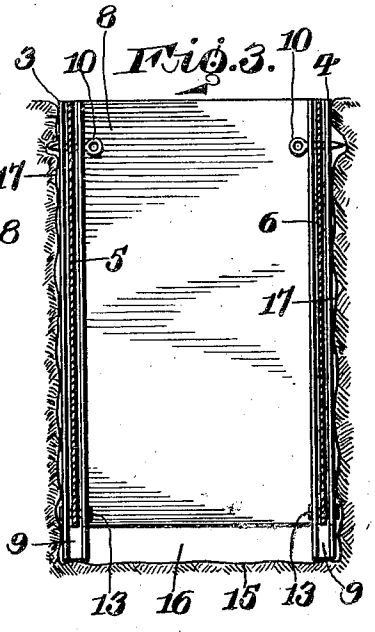
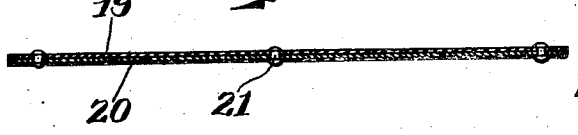


Fig. 4.



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UNITED STATES PATENT OFFICE

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RETAINING DEVICE OR FORM WHEN EXCAVATING

Application filed November 22, 1928, Serial No. 321,160. Renewed April 12, 1930.

This invention relates to a retaining device or form designed primarily for use during the excavating of a grave, but it is to be understood that a device in accordance with this invention may be employed for any purposes for which it is found applicable, such as a lining for graves or other excavations, and the invention has for its primary object to provide, in a manner as hereinafter set forth, a device to prevent the falling of earth into graves during the excavation thereof or after the graves have been completed.

The purpose of a retaining device or form in accordance with this invention is to allow the workmen to operate inside of the device during excavating and with the device sinking as the depth of the excavation increases until the grave is completed. The device, after the grave has been formed, is retained in the latter until after the undertaker turns the work over to one in charge, such as a superintendent of the graveyard and the device remaining in the grave will prevent danger of a cavein at a critical time.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a retaining device or form for the purpose referred to which is simple in its construction and arrangement, strong, durable, readily assembled and disassembled, thoroughly efficient in its use, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawing, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Figure 1 is a perspective view of a retaining device or form for use in excavating, in accordance with this invention.

Figure 2 is a fragmentary view in longitudinal section of the device and illustrating the same within a grave.

Figure 3 is a view similar to Figure 2 taken at right angles thereto.

Figure 4 is a sectional detail illustrating a modified form of a side wall of the device.

The retaining device or form is of a shape to correspond to the excavation to be made, and as the device is designed primarily for use in excavating graves, the contour of the device will be rectangular as illustrated.

The device comprises four corner posts 1, 2, 3, 4, a pair of side walls 5, 6 and a pair of end walls 7, 8. Each corner post is in the form of a channel iron to provide a combined guide and retainer for an end of a side wall. As each corner post is in the form of a channel iron a passage 9 is formed for the reception of the ends of the end walls.

The corner post 1 opposes the post 3, but is oppositely disposed with respect thereto and the corner post 2 opposes the post 4 and is oppositely disposed with respect thereto. The posts are of greater height than the side and end walls and when the said walls are arranged with respect to the posts the top edges of the walls are flush with the upper ends of the posts. The side walls 5, 6 are of greater length than the end walls 7, 8, but the side and end walls are of the same height.

The end wall 7 is fixedly secured against the outer face of the corner posts 1, 2 and connects said posts together. The end wall 8 is fixedly secured to the outer face of the corner posts 3, 4 and connects said posts together.

The side walls 5, 6 are detachably connected to and supported from the corner posts and the means which detachably connect the side walls to the posts consists of transversely extending pins 10, and each of which is removably mounted in a pair of aligning openings 11 formed in a corner post in proximity to the upper end thereof. See Figure 2. The pins 10 extend through openings 12 formed in the side walls in proximity to the ends thereof. The means for supporting the side walls consists of

short, cylindrical, headed members 13 which are fixedly secured to the corner posts in proximity to the lower ends thereof and which are adapted to extend into notches 14 formed in the bottom edges of the side walls in proximity to the ends thereof. The members 13 are spaced a substantial distance from the lower ends of the corner posts whereby when in supporting position with respect to the side walls 5, 6 the bottom edges of these latter will be spaced a substantial distance above the bottom 15 of the grave or excavation 16.

The side walls 5, 6 are positioned in close proximity to the side walls 17 of the grave or excavation 16 and the end walls 7, 8 are arranged in close proximity to the end walls 18 of the grave or excavation 16. The device corresponds in height to the depth of the excavation or grave. As the walls of the device are spaced above the bottoms of the corner posts a clearance is provided so that the loose dirt at the bottom of the excavation can be conveniently removed.

When the device is used it sinks as the depth of the excavation increases, thereby acting as a protecting medium to prevent the walls of the excavation from falling or caving in.

In Figures 1, 2 and 3 of the drawing the side walls 5, 6 are illustrated as constructed of a single plate of sheet metal, but in Figure 4 a modified form of side wall is illustrated and which consists of two plates of sheet metal 19, 20 fixedly secured together by rivets 21. Although the end walls 7, 8 are shown formed from a single plate of sheet metal, yet it is to be understood that they can be constructed in the same manner as that shown in Figure 4, with respect to the side walls.

When the device is set up the side walls are positioned in the passages 9 and extended downwardly therein so that the notches 14 will seat on the supporting members 13 and after the side walls 5, 6 are arranged in such manner, the pins 10 are extended through the registering openings 11 and 12 to detachably secure the side walls 5, 6 to the corner posts.

It is thought the many advantages of a retaining device or form in accordance with this invention and for the purpose set forth can be readily understood, and although the preferred embodiment of the invention is as illustrated and described, yet it is to be understood that changes in the details of construction can be had which fall within the scope of the invention as claimed.

What I claim is:

1. A retaining device for the purpose set forth comprising a set of corner posts each provided with a channel, and walls secured to said posts for connecting them together, supporting members extending across said channels in proximity to the lower ends of the posts, side walls having their ends positioned in said channels, said walls seating on said members, and means extending through said posts and side walls in proximity to the upper ends thereof for detachably connecting the side walls to said posts.

2. A retaining device for the purpose set forth comprising a set of corner posts each provided with a channel, end walls secured to said posts for connecting them together, supporting members extending across said channels in proximity to the lower ends of the posts, side walls having their ends positioned in said channels, said walls seating on said members, means extending through said posts and side walls in proximity to the upper ends thereof for detachably connecting the side walls to said posts, and each of said side walls having its lower end provided with spaced notches for the reception of said supporting members.

3. A retaining device for the purpose set forth comprising a set of corner posts each provided with a channel, end walls secured to said posts for connecting them together, supporting members extending across said channels in proximity to the lower ends of the posts, side walls having their ends positioned in said channels, said walls seating on said members, means extending through said posts and side walls in proximity to the upper ends thereof for detachably connecting the side walls to said posts, and said side and end walls having their bottom edges spaced above the lower ends of said posts.

4. A retaining device for the purpose set forth comprising a set of corner posts each provided with a channel, end walls secured to said posts for connecting them together, supporting members extending across said channels in proximity to the lower ends of the posts, side walls having their ends positioned in said channels, said walls seating on said members, and means extending through said posts and side walls in proximity to the upper ends thereof for detachably connecting the side walls to said posts, each of said side walls having its lower end provided with spaced notches for the reception of said supporting members, and said side and end walls having their top edges flush with the upper ends of said posts and their lower edges spaced above the lower ends of the posts.

5. A retaining device for the purpose set forth comprising a set of corner posts, end walls connecting said posts together, supporting members carried by said posts above and in proximity to their lower ends, side walls having their bottom edges provided with notches for the reception of said supporting members whereby these latter will

support said side walls, and means arranged in proximity to the upper ends of said posts and extending through the posts and the side walls for detachably connecting the side walls to the posts.

In testimony whereof, I affix my signature hereto.

WINFIELD SCOTT RAMEY.