Aug. 13, 1935. A. E. SCHISLING 2,011,527

COLLAPSIBLE CONCRETE FORM

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Fig. 1.

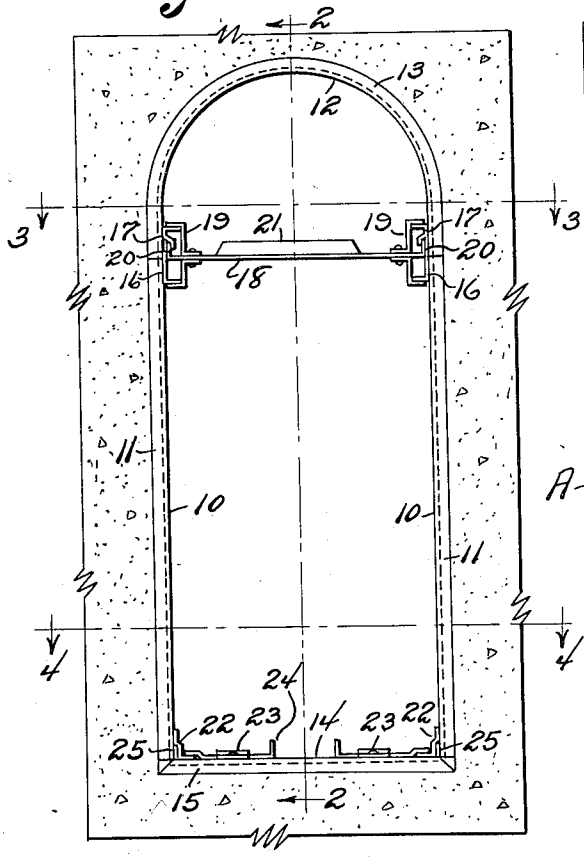


Fig. 2.

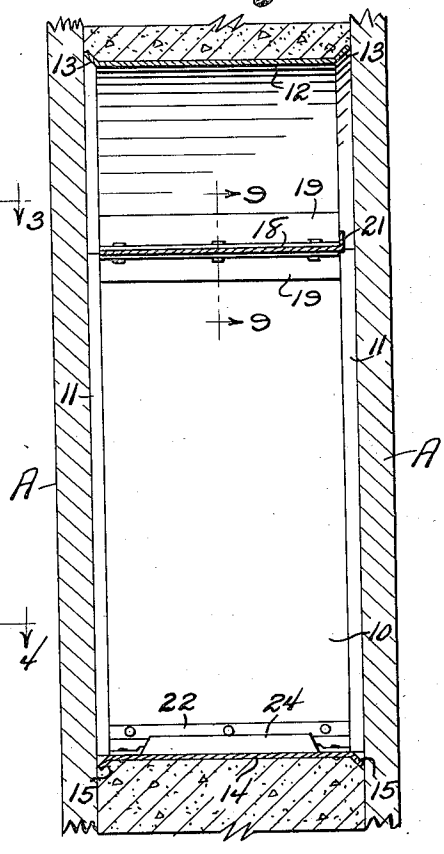


Fig. 3.

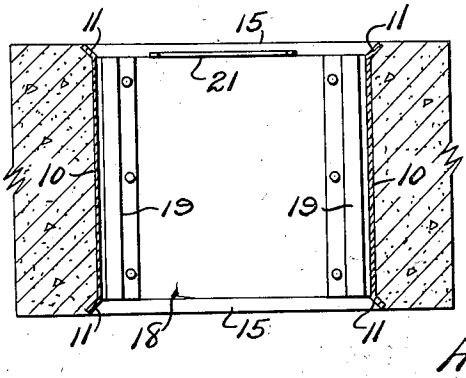
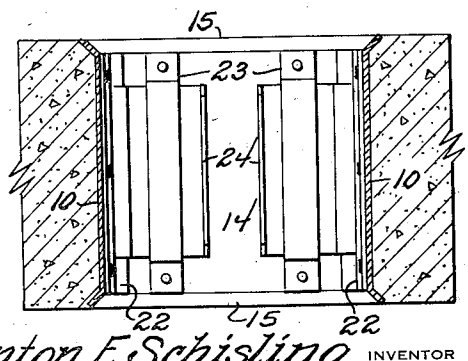


Fig. 4.



Anton E. Schisling INVENTOR

BY Victor J. Evans & Co.

ATTORNEY

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Fig. 5.

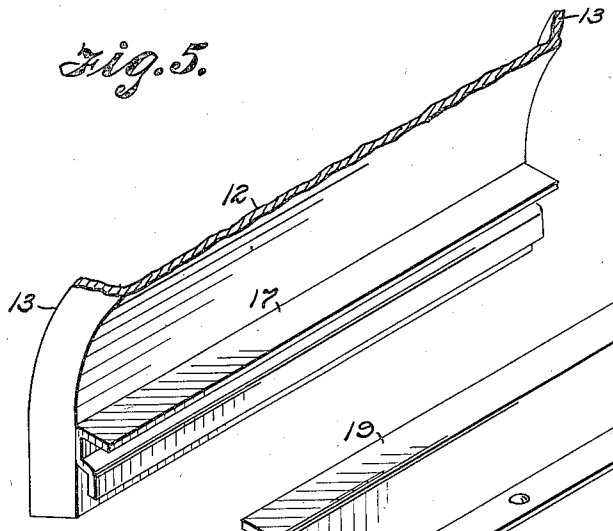


Fig. 7.

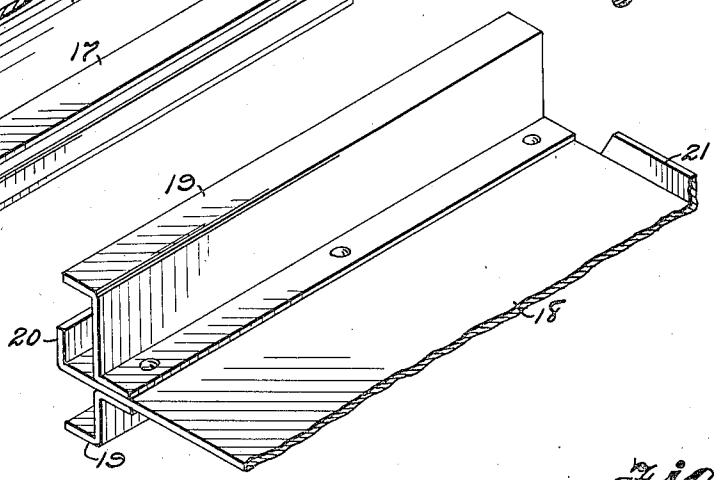


Fig. 6.

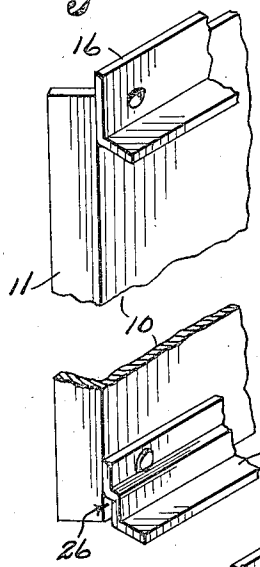


Fig. 10.

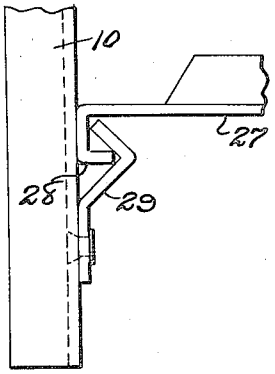


Fig. 9.

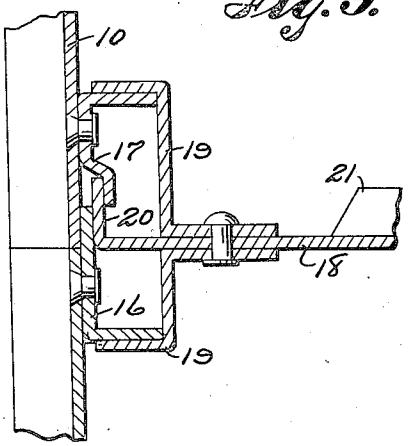
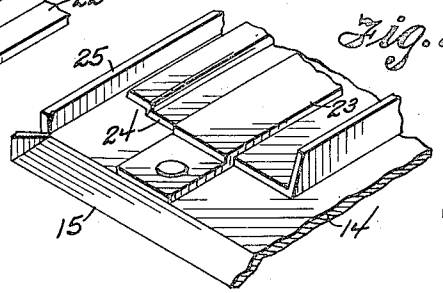


Fig. 8.



Anton E. Schisling
INVENTOR

BY Victor J. Evans & Co.
ATTORNEY

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UNITED STATES PATENT OFFICE

2,011,527

COLLAPSIBLE CONCRETE FORM

Anton E. Schisling, Tomahawk, Wis.

Application March 5, 1934, Serial No. 714,138

1 Claim. (Cl. 25—131.5)

The invention relates to a concrete form and more especially to a collapsible concrete form.

The primary object of the invention is the provision of a form of this character wherein it is so constructed as to permit of the building of the hand rail from concrete in the erection of a bridge or culvert passover or the like, the form being of novel construction so that when the same is set up for use the parts thereof will be detachably locked together for the shaping of the side or hand rail of concrete construction, to have the opening as made by the form smooth and true in shape, the form being readily collapsed for its removal on the hardening of the concrete formation for the hand rail.

Another object of the invention is the provision of a form of this character which is comparatively simple in construction, thoroughly reliable and efficient in its purposes, light of weight yet strong, durable, readily and easily set up and collapsed at the will of the user, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a side elevation of a form constructed in accordance with the invention and set up for use in the formation of the hand rail of concrete make-up.

Figure 2 is a sectional view on the line 2—2 of Figure 1 showing in position the side wall form for the rail formation.

Figure 3 is a sectional view on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a sectional view on the line 4—4 of Figure 5 looking in the direction of the arrows.

Figure 5 is a fragmentary perspective view of the head piece of the form.

Figure 6 is a fragmentary perspective view of one side piece of the form.

Figure 7 is a fragmentary perspective view of the lock device for the form.

Figure 8 is a fragmentary perspective view of the base piece of the form.

Figure 9 is an enlarged sectional view on the line 9—9 of Figure 2 looking in the direction of the arrows.

Figure 10 is a fragmentary elevation of a spreader piece for the form particularly when used without the base piece.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the form constituting the present invention comprises spaced vertical side pieces 10, each preferably made from galvanized sheet metal having outwardly beveled edge flanges 11 at opposite longer edges thereof, an upwardly arched head or top piece 12 provided with the edge flanges 13 to provide continuations to the flanges 11, and a base or bottom piece 14 provided with the edge flanges 15 complementary to the flanges 11.

The meeting ends of the side pieces 10 and the head or top piece 12, at the inner faces of the same, carry angle cleats 16 and 17, respectively, for cooperation with a locking device for detachably uniting these pieces together and hereinafter fully described.

The locking device comprises a plate 18 having riveted or otherwise made fast thereto overlapping cleats 19 for the respective cleats 16 and 17, while at the ends of this plate 18 are locking flanges 20 which abut the cleats 16 on the side pieces 10 and interlocked with the cleats 17 on the head or top piece 12, the plate 18 being slidably engaged with said cleats 16 and 17 by insertions in a horizontal plane between the side pieces 10 and such plate has struck upwardly therefrom a hand rib 21 for convenience in manual placement of such locking device.

At the lower ends and at the inner faces of the side pieces 10 are substantially L-shaped cleats 22, while fitted in guide straps 23 carried by the base or bottom piece 14 are slidable keepers 24, these being engageable with the cleats 22 for the detachable securing of the base or bottom piece 14 with the side pieces 10. The base or bottom piece 14 is provided with upturned flanges 25, these being received in seats 26 formed from the cleats 22 for the interfitting engagement of the base or bottom piece 14 with the side pieces 10, as should be apparent from Figures 1 and 8 of the drawings.

In Figure 10 of the drawings there is shown for use with the side pieces 10 a spreader plate 27 which is usable only when the base or bottom piece 14 is discarded or not in use. This spreader plate 27, at each end, has the hook-like flange 28 which slidably fits in a companion interfitting flange 29 carried by the side piece 10 so that in this manner, when the spreader plate 27 is engaged with the flange 29, each side piece 10 will

be prevented from separation or spreading with relation to the other side piece of the form.

In the use of the form, when set up as heretofore indicated, the same is placed between wood side wall forms A, these being held in place so that concrete, when soft, can be poured about the form as set up and between the side wall forms A for the building of a hand side rail to a concrete bridge construction. The concrete when hardened or set will effect an opening therein in conformity with the collapsible form constituting the present invention. This collapsible form is removable from the set concrete by releasing the locking device which frees the side pieces 10 from the head or top piece 12 and also by detaching the base or bottom piece 14, if used, from said side pieces, whereupon such pieces are freely removable from the builded structure.

What is claimed is:

A concrete form comprising straight spaced vertical sides and an upwardly arched top having outwardly beveled edge flanges throughout their extent, a base piece fitted with the sides and having outwardly beveled edge flanges matching the flanges of said sides, angle cleats oppositely arranged on the sides, top and base piece, a plate located between the sides and having cleats for overlapping the cleats on the sides and top, locking flanges at the ends of the plate between the overlapping cleats and engageable with the cleats on the top for the fastening of said top and sides together, and slidable keepers carried by the base and engageable with the cleats on the sides to separably lock the base with the sides.

ANTON E. SCHISLING.