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COLLAPSIBLE FORM FOR ARCHES AND SEWERS.

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2 SHEETS—SHEET 1.

FIG. 1.

FIG. 4.

FIG. 6.

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COLLAPSIBLE FORM FOR ARCHES AND SEWERS.

To all whom it may concern:

Be it known that I, William J. Beighle, of Bingham Canyon, Utah, have invented certain new and useful Improvements in Collapsible Forms for Arches and Sewers, of which the following is a specification.

This invention relates to forms for construction of masonry such as arches, tunnels, sewers, sub-ways and the like, the form being collapsible and adjustable and of such organization as to be repeatedly used, thereby materially reducing the cost of construction both with respect to time and material.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is an end view of a form embodying the invention. Fig. 2 is a perspective view showing the braces and stays folded. Fig. 3 is an end view of the form reduced in size. Fig. 4 is a perspective view of a brace. Fig. 5 is a detail perspective view of a stay, showing the sections partly folded. Fig. 6 is a vertical central longitudinal section of the form.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The form comprises radial braces 1 and diametrical braces 2, the latter being similar in construction to the radial braces, only being stouter so as to resist the extra strain to which they are subjected. Each brace has a longitudinal slot 3 through which the fastening 4 passes, said fastening consisting either of a bolt or a rod.

Stays are interposed between the outer ends of adjacent braces, each stay consisting of similar bars, or members 5, which are pivotally connected at their inner ends by a suitable fastening 6. Openings 7 are formed in the bars, or members, of the stay adjacent to their pivotal connection 6 to receive fastenings by means of which wooden segments are connected to said stays. A slot 9 is formed in the outer end of each bar, or member, 5 and receives the fastening 60 by means of which adjacent stays are connected to one another and to the brace. The slot 9 admits of a limited adjustment of the stays and braces, whereby the circumference of the form may be increased, or diminished, within certain limits as may be required.

The braces and stays consist of metal bars of suitable construction according to the design and special work 55 for which the form is devised.

The wooden segments 8 are approximately of uniform size, the arc of each depending upon the circumference of the circle or curvature of the arch, or other work to be turned or shaped about the form. The end portions of the segments overlap, the overlapped ends being firmly connected to each other and to convenient parts of the frame.

It is observed that the wooden segments supplement the action of the stays embracing the frame, while at the same time providing convenient means for attaching the slots, or cribbing thereto which directly supports the material, such as concrete, masonry, or the like, employed in the work.

It is apparent from the foregoing that the form may be readily set up and after the work has hardened sufficiently to admit of removal of the form, the same may be collapsed and moved to a new position, or may be reduced to a compact form and laid aside for future use.

To collapse the frame, it is only necessary to remove 75 the wooden segments, when the stays may be folded inward and the several braces folded together as will be readily understood.

To materially reduce the size of the form, one or more stays may be omitted and the braces correspondingly moved inward so as to shorten their radii. It is to be understood that the wooden segments are to be of standard size according to the outline of the work in hand, the frame being readily adjustable to said segments within certain limits.

Having thus described the invention, what is claimed as new is:

1. A form for masonry comprising radial braces and stays between the outer ends of the braces, each of said stays being composed of sections.

2. In a form for masonry, or like work, the combination of radial braces and stays between the outer ends of the braces, each of said stays being composed of pivotally connected parts.

3. In a form for masonry, or like work, the combination of radial braces and stays between the outer ends of the braces and having adjustable connection with one another and with said braces.

4. A frame for masonry, or like work, comprising radial braces adjustable radially and stays connecting the outer ends of said braces.

5. In a form for masonry, or like work, comprising radial braces and stays connecting the outer ends of the
braces, wooden segments having their end portions overlapped and connected to one another and to the braces and stays.

6. A frame for masonry, or like work, comprising radial braces having longitudinal slots in their inner ends, stays connecting the outer ends of the braces, each stay consisting of pivoted members, the outer ends of the members having longitudinal slots, means connecting the inner ends of the stays to one another and to the braces and wooden segments having their ends overlapped and connected to one another and to the parts of the frame.

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

WILLIAM J. BLUMLE.

Witnesses:
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