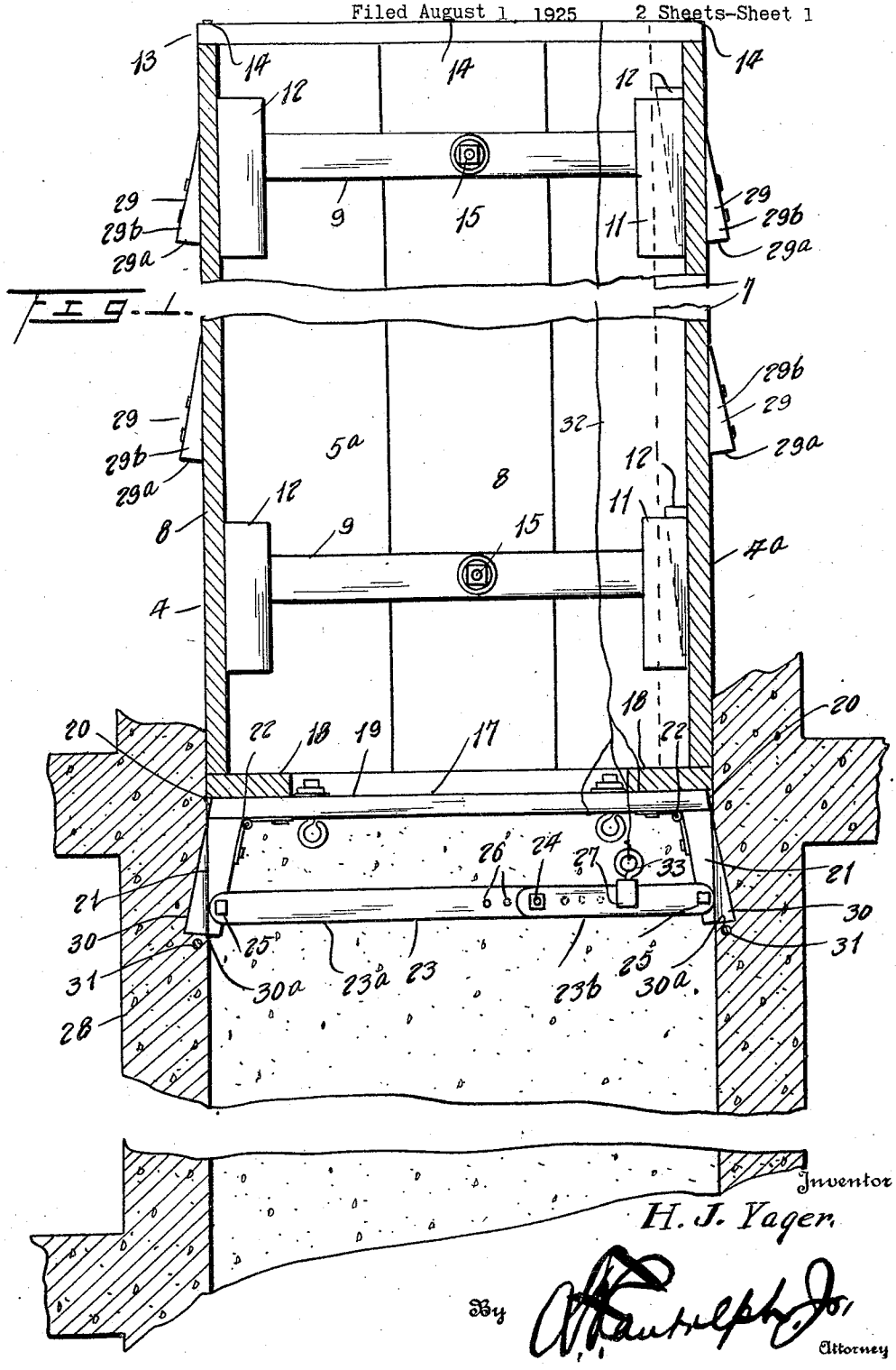
July 6, 1926. 1,591,907

H. J. YAGER

COLLAPSIBLE AND PORTABLE CORE FORM

Filed August 1, 1925 2 Sheets-Sheet 1



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Fig. 2.

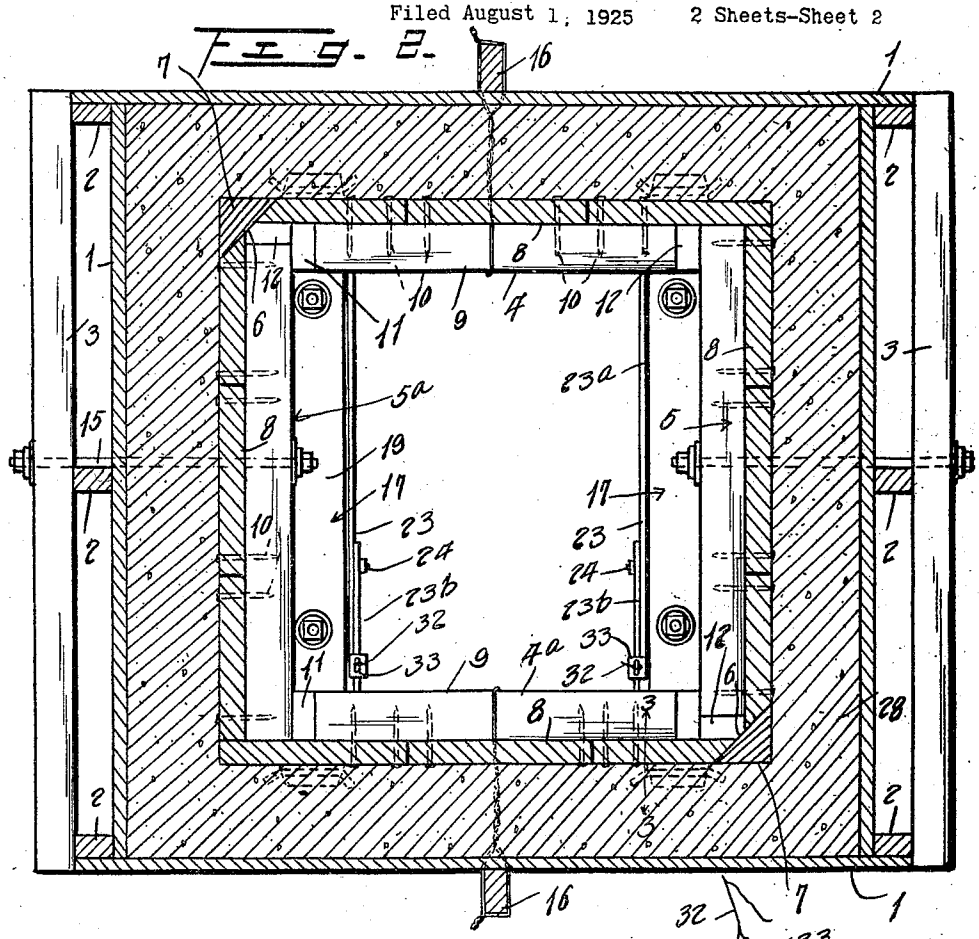


Fig. 5.

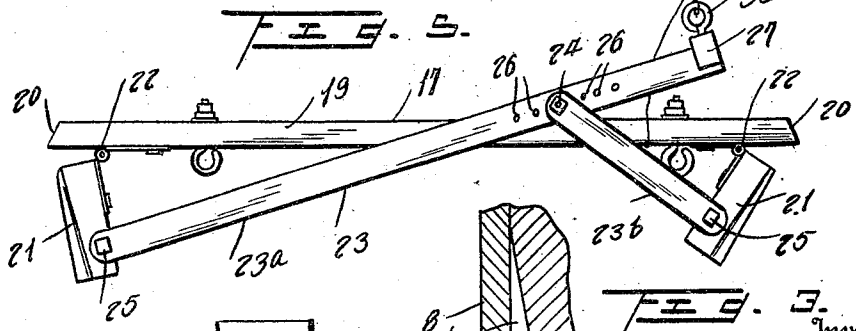
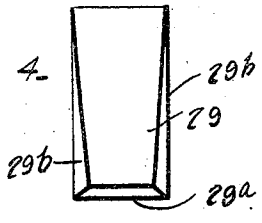


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE AND PORTABLE CORE FORM.

Application filed August 1, 1925. Serial No. 47,603.

This invention has for one of its objects the provision of a collapsible and portable core form for molds of that type used in building concrete chimneys and elevator shafts, and it consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, wherein:

Figure 1 is a sectional view taken on a plane extending vertically through the core form and a finished section of a chimney or elevator shaft, the core form being shown in position to permit the building of another section of the chimney or elevator shaft;

Figure 2 is a sectional view taken on a plane extending horizontally through the core form, chimney or elevator shaft and outside form;

Figure 3 is a detail sectional view taken on the vertical plane indicated by the line 3—3 of Figure 2;

Figure 4 is a detail plan view of the recess mold block of the core form, and

Figure 5 is a detail view in side elevation of the core form supporting truss.

Corresponding and like parts are referred to in the following description, and designated in the several views of the accompanying drawings, by similar reference characters.

The mold of which the core form forms a part includes an outside form which is of the usual construction and comprises sheeting boards 1, studs 2 and wale pieces 3.

The core form is, in accordance with my invention, made up of opposite similar sides 4 and 4^a and opposite similar sides 5 and 5^a, the latter being located between the former. Diagonally opposite corners of the core form are beveled as indicated by the numeral 6 and positioned at and contacting with these corners are removable strips 7 which correspond in length to the corresponding dimension of the core form and which are of right-angled triangular formation in cross section. Each of the sides $4—5^a$ comprises sheeting boards 8 and wale pieces 9 which are connected together by nails 10 or the like. The wale pieces 9 of the sides 4 and 4^a are located between and having their ends spaced from the corresponding parts of the sides 5 and 5^a. Wedges 11 are located between the ends of the wale pieces 9 of the sides 4 and 4^a and the inner sides of the wale pieces 9 of the sides 5 and 5^a. The wale pieces 9 of the side 5 are spaced from the sides 4, and the wale pieces 9 of the side 5^a are spaced from the side 4^a, and wedges 12 are located between said wale pieces and the sides 4 and 4^a. Stays 13 are nailed or otherwise secured as at 14 to the upper edges of the sides $4—5^a$ and strips 7.

The sides $4—5^a$ of the core form are retained in the desired spaced relation with respect to the sides of the outside form by bolts 15 and wire loops 16, and the core form is adapted to be supported by trusses 17 and timbers 18 mounted upon the trusses 17.

Each of the trusses 17 comprises a top chord 19 provided with downwardly and outwardly beveled ends 20, posts 21 pivotally connected as at 22 to the underside of the chord 19, and a bottom chord 23 of sectional formation. The chord sections 23^a and 23^b are pivotally connected together as at 24 and to the posts 21 as at 25. The chord section 23^a is longer than the chord section 23^b, and is provided with a longitudinal series of openings 26 through a selected one of which the pivot 24 passes. This chord section is also provided with a hook 27 which embraces chord section 23^b to limit the downward movement of the sections.

The core form is adapted to be used for building the entire chimney or elevator shaft. After a section of the structure is completed, the core form is taken apart and removed and again erected and supported in an upwardly extending position with relation to the completed section, as clearly illustrated in Figure 1. In this and Figure 2, 28 designates the partly completed chimney or elevator shaft. Opposite sides of the core form are provided with substantially wedge shaped mold blocks 29 which are adapted to form recesses 30 in inner opposite sides of the structure 28. Mold blocks 29 are provided with inwardly and upwardly inclined lower ends 29^a and inwardly and outwardly inclined vertical edges 29^b in order to permit them to be readily withdrawn from the concrete. The recesses 30 are adapted for the reception of the truss posts 21, and to prevent the seats 30^a of the recesses 30 from breaking down under the weight placed thereon, reinforcing rods 31 are embedded in the structure 28 directly below said seats.

To permit the trusses 17 and timbers 18 to be removed from the completed section of

the structure 28 after the removal of the core from, cables 32 are provided. The cables 32 extend upwardly through the core form and are connected to the timbers 18, the chords 19 of the trusses, and to eyes 33 secured to the free ends of the truss sections 23^a, as clearly illustrated in Figure 1. An upward pull on the cables 32 will break the chord sections 23^a and 23^b upwardly and thus will withdraw the posts 21 from the recesses 30. After this has been done the trusses 17 and timbers 18 may be withdrawn from the completed section of the structure. The trusses 17 may be used after the completion of the structure for the purpose of supporting a scaffold within the structure to permit it to be lined with bricks, and to this end the chords 19 are provided with eyebolts 34.

From the foregoing description, taken in connection with the accompanying drawings, it will be understood that the core form may be readily taken apart and removed from the completed section of the structure after the removal of the bolts 15 and wires 16. To permit the core form to be taken apart, it is only necessary to remove the stays 13, strips 9, and wedges 11 and 12. It should also be understood that the core form may be readily erected, and that as it provides each completed section of the structure with the recesses 30 it may be readily supported from a completed section in position to permit the building of the next section.

While I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the invention as claimed.

What is claimed is:

1. A core form comprising separable sides and provided with diagonally opposite beveled corners, strips located at and contacting with said corners, and wedges located between the sides.

2. A core form comprising separable sides and having beveled corners, strips arranged at and contacting with said corners, each side including wale pieces, wedges located between certain of said wale pieces and certain sides, and wedges located between the wale pieces.

3. A core form provided with wedge blocks adapted to form recesses in inner opposite sides of the structure being built, a truss for supporting the core form and provided with posts entering said recesses, and means for withdrawing the truss.

4. A mold for building hollow concrete structures including a core form provided at its outer side with mold blocks adapted to form recesses in the inner faces of the structure, and a core supporting member adapted to be supported by the bottom walls of said recesses.

5. A mold for building hollow concrete structures including a core form provided at its outer side with mold blocks adapted to form recesses in the inner faces of the structure and having horizontal bottom walls and upwardly and inwardly inclined inner walls, and a core supporting member adapted to be supported by the bottom walls of the recesses.

In testimony whereof I affix my signature.

HARVEY J. YAGER.