No. 745,570. PATENTED DEC. 1, 1903.

W. H. CLARKE.

METALLIC STRUCTURE.

APPLICATION FILED APR. 16, 1903.

NO MODEL.

Fig. 1.

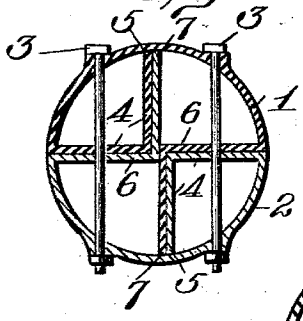


Fig. 4.

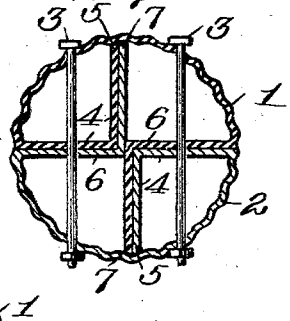


Fig. 6.

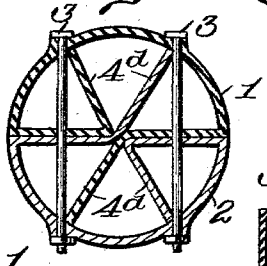


Fig. 2.

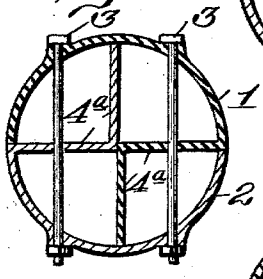


Fig. 5.

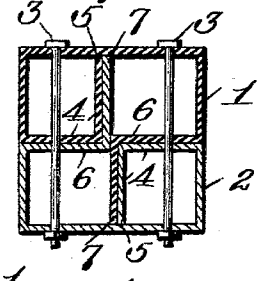


Fig. 7

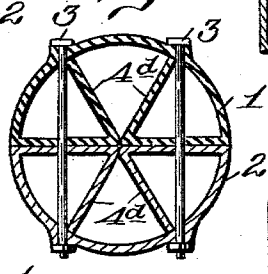


Fig. 3.

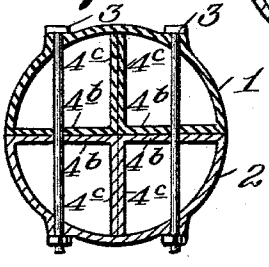
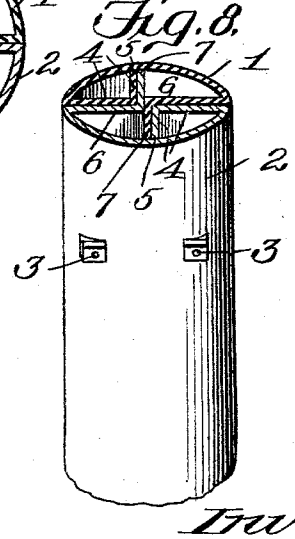


Fig. 8.



Witnesses:

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No. 745,570. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM H. CLARKE, OF WASHINGTON, DISTRICT OF COLUMBIA.

METALLIC STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 745,570, dated December 1, 1903.

Application filed April 16, 1903. Serial No. 152,868. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CLARKE, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Metallic Structures, of which the following is a specification.

This invention relates to metallic structures such as are employed in the construction of wagon-tongues, whiffletrees, neck-yokes, telegraph-poles, fence-posts, piles, fishing-rods, canes, umbrellas, and other articles of a similar nature.

The invention has for its object the provision of a structure which is strong, rigid, light, durable, and inexpensive in construction and adapted to be easily manufactured and assembled.

Other objects and advantages of the invention will be apparent from the following detail description, and its novel features will be defined by the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 illustrates in cross-section a metallic structure made according to my invention. Figs. 2, 3, 4, 5, 6, and 7 illustrate modifications, and Fig. 8 illustrates in perspective a structure made according to my invention.

Like reference-numerals indicate like parts in the different figures of the drawings.

The metallic structure of my invention is preferably made in two parts 1 and 2, which are assembled and held together by cross-rods 3 or other suitable fastening means. Each part of the structure is preferably made from sheet metal, which is bent into the proper shape by any suitable means. As will be seen from the drawings, each part of the structure is approximately channel-shaped, being either of concave, square, or any other desired form in cross-section, and is provided on one side with a wing 4, which is angular in cross-section and is bent down and terminates adjacent to the lowermost portion of the channel-shaped part at the point indicated by reference character 5, and on the other side with a similar angular wing 6, which is bent in an opposite direction to the wing 4 and terminates adjacent to the channel portion of the other part of the structure at the point indicated by the reference-numeral 7, as shown in Fig. 1 of the drawings. It will be seen that when the parts or sections 1 and 2 are fitted together, as shown, the angular wing 6 of one section lies in parallel proximity to the angular wing 4 of the other section.

In Fig. 2 of the drawings I have illustrated a modified construction wherein but one angular wing 4^a is provided on each of the parts or sections.

According to the construction illustrated in Fig. 3, the angular wings 4^b on each part 1 2 are bent in parallel relation to each other at the portions 4^c, as shown.

The construction illustrated in Fig. 4 is similar to that of Fig. 1 except that the parts 1 2 are corrugated to produce greater rigidity and strength, and the construction illustrated in Fig. 5 is also similar to that of Fig. 1 except that the parts are shaped to form a square structure when assembled.

It will be understood, of course, that the structures illustrated in the other figures may also be corrugated or squared, if desired.

In Figs. 6 and 7 the wings 4^d instead of being bent at approximate right angles, as in the other figures, are bent at acute angles, as shown, so as to brace the structure in all directions.

While it is preferable to form each of the parts 1 2 from sheet-metal blanks bent to the proper shape, it will be understood, of course, that they may be produced in other ways—such, for example, as by casting—without departing from the spirit of my invention. It will also be understood that the parts of the structure may be soldered together or held in assembled position by other means than the cross-rods described, if desired.

The structure which I have devised is adapted for use in the manufacture of whiffletrees, neck-yokes, metallic telegraph-poles, metallic piles, fishing-rods, canes, umbrellas, electric conduits, multiple pipes, &c. Furthermore, the nature of my invention is such that changes in the precise details of construction illustrated and described may be made without departing from the spirit of the invention, and I therefore do not desire to be limited in any manner except as defined by the following claims.

By having the angular wings of the parts 1 and 2 terminate adjacent to the inner walls

of the assembled structure the whole structure is braced and rendered rigid, strong, and durable.

While I have described my invention in connection with a metallic structure, it will be apparent that I may also construct non-metallic articles in the manner described without departing from the spirit of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a structure made in a plurality of parts, each part having an inwardly-extending wing terminating in contact with the inner wall of said structure, said wings contacting with each other adjacent to the center of said structure.

2. As a new article of manufacture, a structure made in two parts, each part having a plurality of inwardly-extending wings terminating adjacent to the inner wall of said structure, said wings contacting with each other adjacent to the center of said structure.

3. As a new article of manufacture, a structure made in two parts, each part having a plurality of inwardly and oppositely extending wings terminating adjacent to the inner wall of said structure.

4. As a new article of manufacture, a structure comprising a plurality of assembled parts, each part being channel-shaped and having an angular wing extending from each of its sides and being disposed over the channel portion thereof, said wings extending in opposite directions and terminating adjacent to the inner wall of the assembled structure.

5. As a new article of manufacture, a structure comprising a plurality of assembled parts, each part being channel-shaped and corrugated and having an angular wing disposed over the channel portion thereof.

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

WILLIAM H. CLARKE.

Witnesses:
R. M. ELLIOTT,
M. J. WARRINER.