

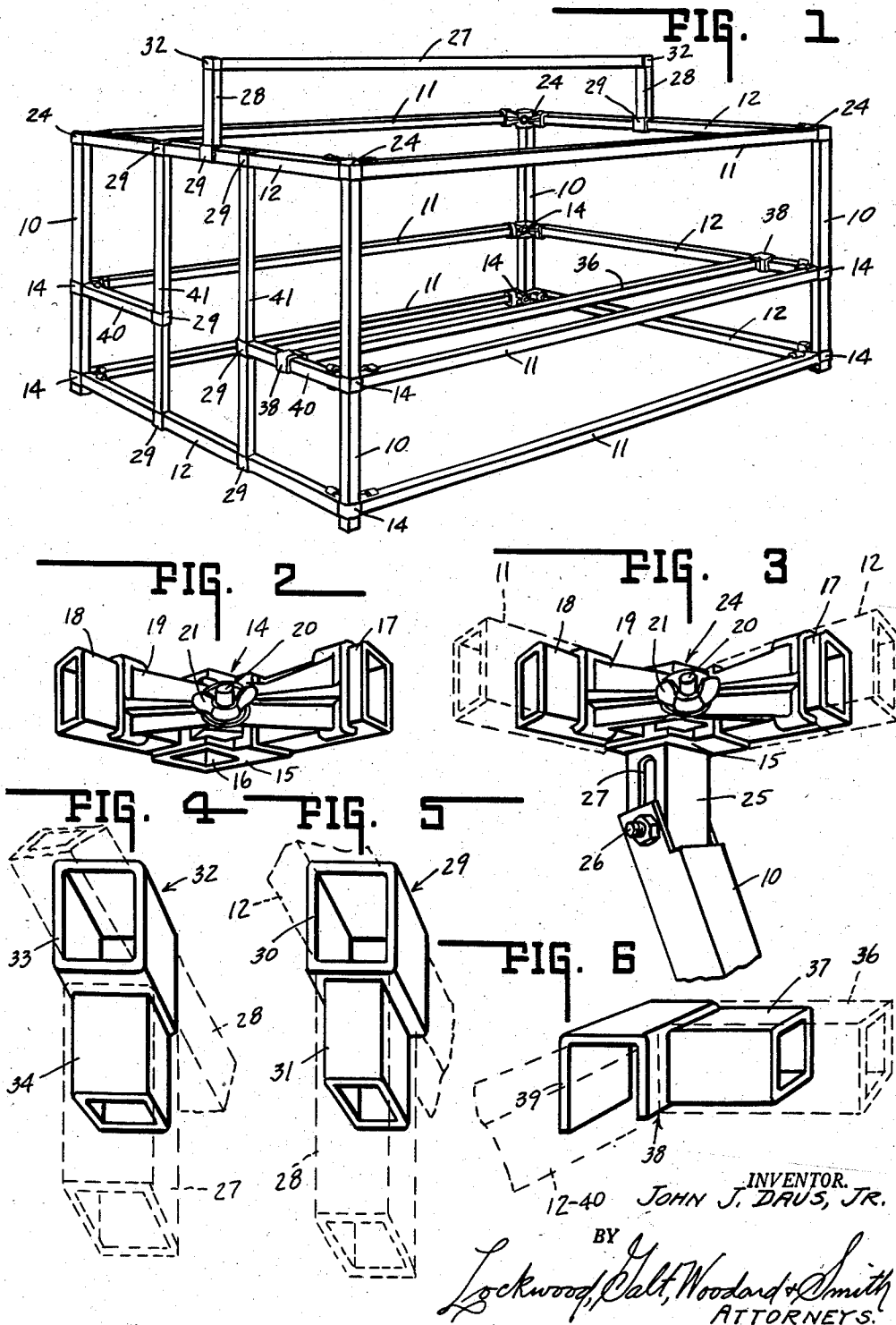
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J. J. DAUS, JR

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PREFABRICATED TENT FRAME

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PREFABRICATED TENT FRAME

John J. Daus, Jr., Evansville, Ind., assignor to Anchor Supply Company, Inc., Evansville, Ind., a corporation

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This invention relates generally to frames for fabricated tents, and more particularly it relates to a prefabricated tent frame which may be readily assembled and disassembled.

Conventional tent frames usually comprise corner posts and side-supporting members made of wood and having fittings cooperating with the various frame members to hold them in assembled relation with one another and utilizing bolts or screws as a fastening means. Because the structural members of conventional frames are made of wood they become damaged from continued assembling and disassembling to such an extent that it is usually impossible to assemble the frame after a relatively short period of use. The ends of the structural members become cracked or screw holes and bolt holes become damaged to such a degree that screws or bolts can no longer be used to provide reliable fastening.

Prefabricated tent frames are used extensively for industrial displays at country and state fairs and also in carnival shows or circuses. In these fields of use, tents are erected usually in rows closely adjacent to one another with as little as one foot or one and one-half feet between each tent. The aisles between such rows of tents are used for trucks and other rolling equipment at the time that the tents are being erected. Consequently, there is limited space within which to erect each tent.

Accordingly, the principal object of this invention is to provide a prefabricated tent frame consisting of metallic structural members and cooperating metallic fittings for uniting the structural members into a complete frame structure.

Still another object of this invention is to provide a prefabricated tent frame having metallic structural members of polygonal cross sections and fittings for uniting said structural members having similar cross sections whereby an assembled frame may have substantial rigidity without the use of braces.

A further object of this invention is to provide a prefabricated tent frame having metallic structural members and fittings of such character as to permit erection of the frame within areas substantially equal to the floor area of the tent.

In accordance with this invention there is provided a prefabricated tent frame comprising polygonal metallic members and various means for assembling such members in relatively rigid relation to one another.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

Fig. 1 is a perspective view of the tent frame provided in accordance with this invention;

Fig. 2 is an enlarged perspective view illustrating corner fittings for attaching the lower and middle frame members to the corner posts illustrated in Fig. 1;

Fig. 3 is an enlarged perspective view illustrating the corner fittings utilized at the top ends of the corner posts shown in Fig. 1;

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Fig. 4 is an enlarged perspective view of the fittings utilized for supporting the ridge pole shown in Fig. 1;

Fig. 5 is an enlarged perspective view of the fitting utilized for supporting the vertical ridge pole supporting posts; and

Fig. 6 is an enlarged perspective view of the fitting utilized for supporting a horizontal shelf support on a pair of the horizontal frame members shown in Fig. 1.

Referring to the drawings, this invention comprises a tent frame having polygonal corner posts 10 from which are supported polygonal horizontal side frame members 11 and polygonal end frame members 12. The posts 10 and the frame members 11 and 12 are preferably hollow, rectangular, or triangular metallic members. For supporting these members on the posts 10 there are provided a plurality of clamps such as those shown in Figs. 2 and 3.

The clamp 14 shown in Fig. 2 is utilized for securing the horizontal frame members 11 and 12 to the lower ends and the intermediate points of posts 10. Clamp 14 comprises a body 15 having a polygonal or, for example, a rectangular hole 16 therein of proper size to fit over and be fixed to the posts 10. It is intended that clamps 14 be permanently fixed to posts 10 so that they will not become lost when the frame is disassembled. Formed integrally with and projecting out of the body portion 15 are the male frame receiving members 17 and 18. When the frame is assembled, the side frame members 11, for example, may be fitted over the male members 17, and the end members 12 may be fitted over the male members 18. For clamping the frame members to the male members, there is provided a clamping bar 19, the opposite ends of which are intended to engage with the ends of frames 11 and 12 when they are mounted on the male members 17 and 18.

A threaded stud 20 may be fixed to a portion of the body member 15 and the clamping bar 19 may be mounted thereon and secured thereto by means of a wing nut 21. After the frame members 11 and 12 are mounted on the male members 17 and 18, the clamping bar 19 may be mounted over the stud 20 and clamped in position to push the inner sides of the frame members into frictional engagement with the male members 17 and 18 with sufficient force to secure the frame members firmly to the male members 17 and 18. It should be noted that the corner posts 10 cannot lean in any direction due to the fact that the polygonal, rectangular, or straight-sided configuration of the frame members and the male members 17 and 18 prevents any rotational movement of these members with respect to one another.

The clamping member 24 shown in Fig. 3 is similar in most respects to the clamping member 14 shown in Fig. 2 and corresponding numerals indicate corresponding parts.

The body portion 15 includes a rectangular extension 25 to which the corner posts 10 may be attached by means of a bolt 26 mounted in the end of post 10 and extending through slots 27 formed oppositely to one another in extension 25. Slots 27 are elongated to permit clamp 24 to be pivoted on bolt 26 with respect to post 10. When the frame is disassembled the clamp 24 may be pulled outwardly of post 10 and pivoted with respect to the post so that the post 10 may be folded inwardly to lie alongside the frame member 12. Thus, frame members 11 may be disengaged from clamp 24 leaving frame members 12 attached to the corresponding clamps 24. This feature of the invention provides a space saving action and is also of appreciable advantage in assembling the frame and tent. For example, the frame may be assembled by pivoting the clamp 24 and its attached post 10 into a position where extension 25 is in alignment with a post. The extension 25 may then be

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moved downwardly into the post 10 where it is confined and cannot move with respect thereto. Frame members 11 may then be mounted on male members 17 and this will form the upper rectangular frame supported on the downwardly extending supporting posts 10 since the cross members 12 are permanently attached to clamps 24 at the upper ends of post 10. When the tent is being assembled in a confined area, the top panel of canvas may be laced or fastened to the frame before the posts 10 are hinged downwardly thereby eliminating the need for step ladders.

For mounting the ridge pole 27, there is provided a pair of vertical posts 28 mounted over fittings 29 shown in Fig. 5. The fittings 29 include a female member 30 adapted to receive the upper end frames 12. The post 28 may then be mounted on the male members 31. The ridge pole 27 may then be mounted on post 28 by means of the fittings 32, a male portion 34 of which mounts within the ends of posts 28 and the female portion 33 of which receives the end of ridge pole 27. By this arrangement, the canvas top of the tent serves to hold the ridge pole down without the use of screws, bolts, dowels or the like.

When it is desired to provide a shelf supporting structure within a tent frame, a support member 36 may be mounted on the portion 37 of the fitting 38 and the U-shaped portion 38 may be placed over the horizontal side member 12 and one of the horizontal side members 40, as shown in Fig. 1.

In order to provide a door frame, a pair of vertical posts 41 may be positioned as illustrated in Fig. 1 by utilizing fittings 29 and mounting them as shown on the upper and lower end members 12. The pair of horizontal members 40 may be provided, as braces for posts 41, whereby both of the door posts 41 may have lateral support.

From the foregoing description, it will be apparent that this invention provides a prefabricated tent frame which may be readily assembled and disassembled and which is of rigid construction. Furthermore, repeated assembly and disassembly can cause no substantial dam-

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age to the various clamps and other structural members, whereby the useful life of the tent frame is materially increased.

What I claim is:

1. A prefabricated tent frame comprising upright corner posts formed of polygonal hollow metallic members, corner clamps each of which includes a vertical female projection fitted over the end of a post, horizontal male projections on said clamps and disposed at right angles to one another, horizontal frame members comprising hollow polygonal metallic members mating at their ends with said male projections, each of said clamps including a clamping bar disposed diagonally of said male projections, and a threaded stud and wing nut mounted in said clamp for supporting said bar and drawing its ends into clamping engagement with the ends of said horizontal frame members.

2. A prefabricated tent frame comprising upright corner posts formed of polygonal hollow metallic members, corner clamps each of which includes a vertical projection fitted to the end of a post, horizontal projections on said clamps and disposed at right angles to one another, horizontal frame members comprising hollow polygonal metallic members mating at their ends with said horizontal projections, each of said clamps including a clamping bar disposed diagonally of said projections, and means mounted in said clamp for supporting said bar and effecting clamping engagement of the ends of said horizontal frame members with said horizontal projections.

References Cited in the file of this patent

UNITED STATES PATENTS

949,394	Daly	Feb. 15, 1910
1,150,781	Louden	Aug. 17, 1915
1,558,618	Jasper	Oct. 27, 1925
1,617,435	Coleman et al.	Feb. 15, 1927
2,002,296	Pope	May 21, 1935

FOREIGN PATENTS

471,236	France	July 6, 1914
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