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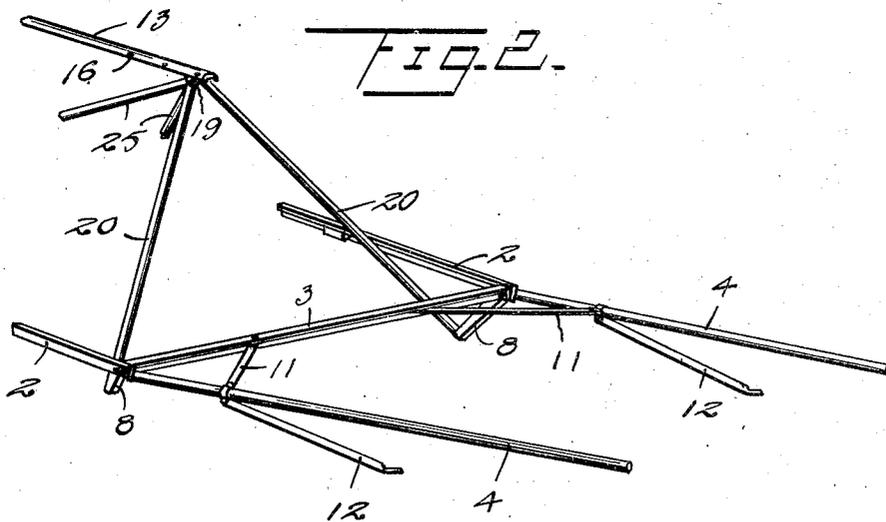
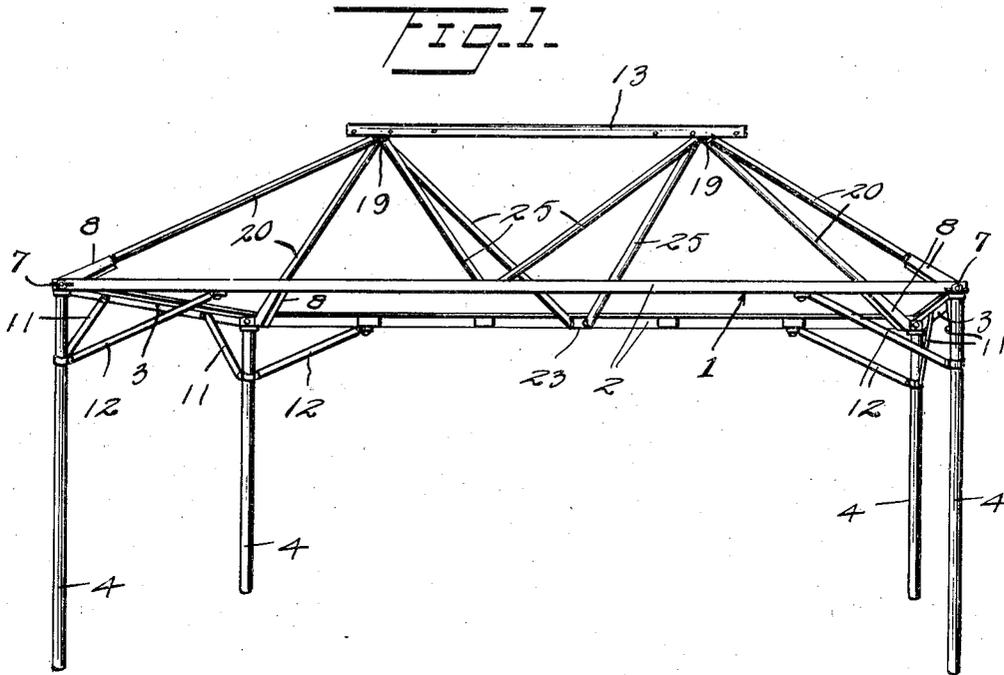
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2,135,961

TENT FRAME

Filed Oct. 22, 1936

2 Sheets-Sheet 1



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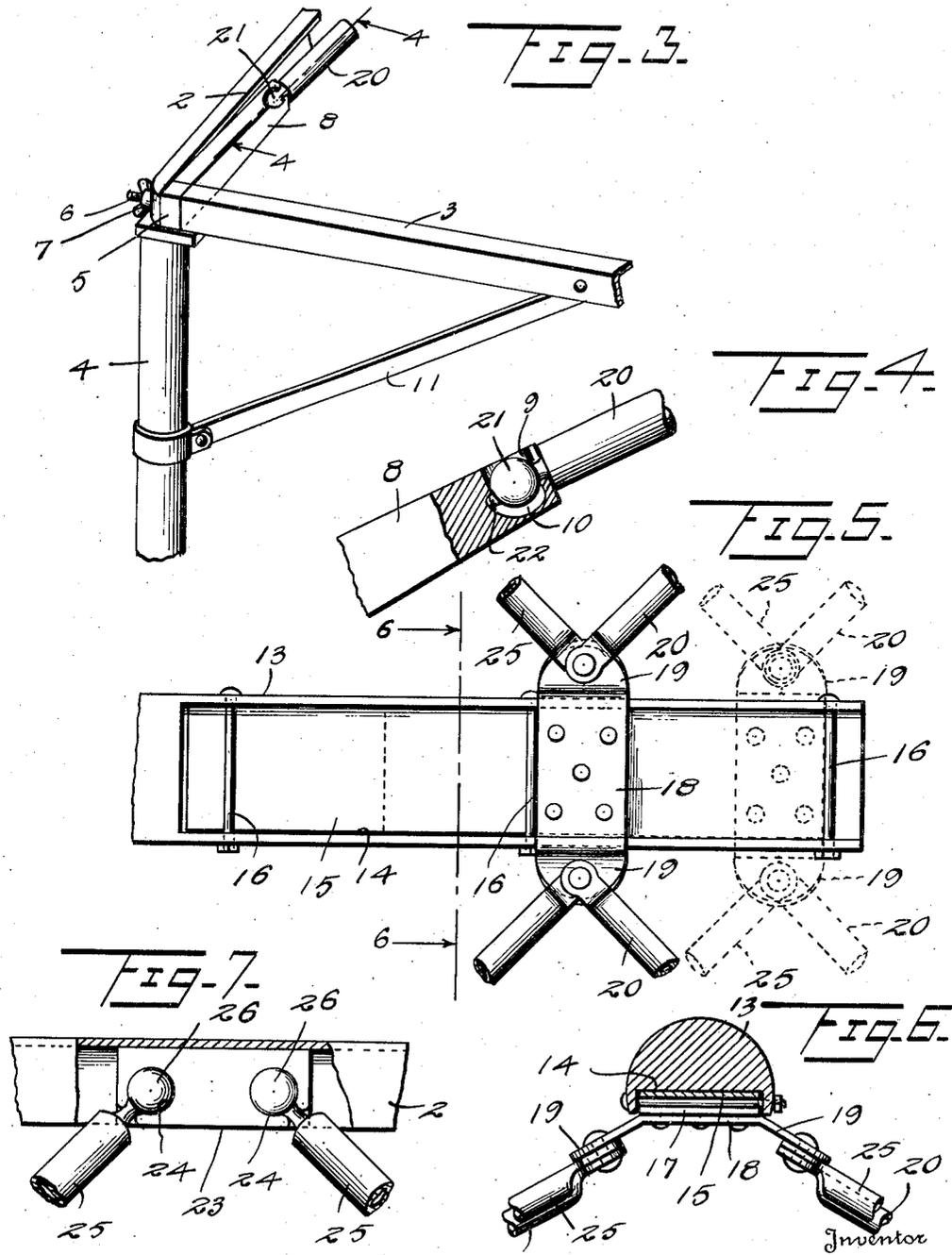
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# UNITED STATES PATENT OFFICE

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## TENT FRAME

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12 Claims. (Cl. 135-3)

This invention relates to the class of tents and pertains particularly to improvements in supporting frames therefor.

The present invention has for its primary object to provide an improved tent supporting frame which is adapted to be partially collapsed to facilitate the application of the tent canvas thereto and to then be raised beneath the canvas and at the same time become automatically adjusted under the canvas to draw the same tightly into position.

Another object of the invention is to provide a supporting frame for a tent canvas having a sloping top in which supporting legs for the frame are pivotally attached thereto and a top supporting superstructure is provided associated with the legs whereby when the latter are oscillated the superstructure will be lowered or raised to a slight degree so as to tighten the raised portion of the canvas or slacken the same as desired.

A still further object of the invention is to provide a tent canvas supporting frame having a ridge pole, hip poles connecting the ridge pole with the body portion of the frame, and legs pivotally attached to the body portion and coupled with the ridge pole in such a manner that the body may be readily dropped by oscillating the supporting legs outwardly and the ridge pole will at the same time be shifted relative to the body so as to release the top or roof portion of the tent canvas to facilitate its easy removal.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a view in perspective of the frame structure embodying the present invention in set-up condition.

Fig. 2 is a perspective view of one end of the frame showing the supporting legs swung outwardly to allow the body and superstructure to be lowered.

Fig. 3 is a detailed perspective view of a corner of the frame.

Fig. 4 is a section on the line 4-4 of Fig. 3.

Fig. 5 is an underside view of one end of the

ridge pole showing the connection of the hip poles and braces thereto.

Fig. 6 is a section on the line 6-6 of Fig. 5.

Fig. 7 is a view in detail of the connecting means between the brace poles and a side of the frame.

Referring now more particularly to the drawings the numeral 1 generally designates the body frame of the entire tent supporting frame structure. This body is here shown as being of rectangular outline but the same may be of any polygonal contour desired. The numeral 2 designates the side rails of the body 1 while the transverse end rails are indicated by the numeral 3. At each corner of the body 1 is a supporting leg 4 and the upper end of each leg is provided with the flat ear 5 which is interposed between an end of an end cross bar 3 and an end of the adjacent side bar or rail 2, as shown in Fig. 3. Each of the end rails 3 is provided with a terminal screw 6 which extends through a suitable aperture in the ear 5 and a corresponding aperture in the adjacent rail 2 to receive a thumb nut 7. By this means the adjacent ends of the rails 2 and 3 and the interposed leg ear 5 are secured together but this connection is made sufficiently loose to permit the ear 5 to oscillate on the screw 6 to facilitate setting up and taking down the structure.

Formed integrally with each ear 5 and extending forwardly and inwardly with respect to the body 1, is an arm 8 and the free upper end of this arm is provided with a ball socket 9 of novel form in that it is provided in its bottom with the substantially semi-circular groove 10. Each of the corner legs is connected by a brace bar 11 with an end rail 3 and by a similar brace bar 12 with the side rail 2. The side brace bars 12 are secured in any suitable manner to the side rails which will facilitate their disconnection therefrom when it is necessary to set up or take down the tent supporting structure.

The numeral 13 designates a ridge pole which as shown in Figs. 5 and 6, may be of the semi-circular cross-sectional contour illustrated. Regardless of the cross-sectional contour, however, the ridge pole at each end is provided with a short longitudinally extending recess or channel 14, and in this channel is mounted an elongated slide plate 15 which is retained in position by the cross pins 16 which connect the sides of the channel as is clearly shown in Fig. 5. The slide plate 15 has secured to its under face a block 17 and to this is attached a cross plate 18 having the downwardly extending ears 19. The block 17, 55

through contact with the two cross pins 16 between which it is mounted, limits the sliding movement of the plate 15.

Pivotaly attached to each ear 19 is an end of a hip pole 20 and the other end of each of these poles terminates in a ball 21 which has a knob or tip 22 formed integral therewith upon the side remote from the pole 20 which fits in the slot 19 in the bottom of the ball socket 9. This tip 22 of each ball serves to prevent the accidental disengagement of the ball from the socket when the pole 20 and an arm 8 are in the aligned relation which they assume in the set-up structure. However, it permits the pole 20 to have a limited motion in the socket when the tent supporting structure is let down, as illustrated in Fig. 2.

Intermediate the ends of the two side rails 2 are block bodies 23, each of which is provided with two ball sockets 24 and each of the ears 19 also has pivotally attached thereto an end of a brace pole 25 and the other end of which terminates in a ball 26 which positions in the socket 24, and these brace poles extend from the ends of the ridge pole in convergent relation toward the blocks 23, as illustrated in Fig. 1, so that they effectively brace the superstructure which the body 1 carries.

As will be seen from Fig. 2, the legs 4 are designed to be swung outwardly from under the body 1, oscillating upon the screws 6 and when they are moved to the position shown in Fig. 2, the short arms 3 at their upper ends will swing downwardly so that the upper ends of the arms will assume the positions below the body 1 instead of above it as in the set-up structure. Since the hip poles 20 are securely coupled with the ends of the arms 3, it will be apparent that as the arms 3 move down to the position shown the hip poles will be drawn down and will lower the ridge pole 13 relative to the body 1. When the legs at the two ends of the frame are moved downwardly in this manner, the entire body will be in close proximity to the ground and the tent canvas can then be placed over the support and secured by any suitable means to the rails 2 and 3.

Upon raising the body 1 by means of the poles 4, the entire superstructure which includes the ridge pole, hip poles, and brace poles, will rise beneath the top of the tent canvas and away from the body 1, and as the tent canvas will be secured to the body 1 it will be apparent that the roof portion thereof will be drawn tight so that after the legs have been secured by the braces 12, as illustrated in Fig. 1, the tent canvas will present a neat appearance and will be properly supported for use.

What is claimed is:

1. A tent frame comprising a body portion, supporting legs pivotally attached to the body, a ridge pole overlying the body, and a supporting connecting means between the ridge pole and said legs whereby upon oscillation of the legs relative to the body the ridge pole will be shifted relative to the body.

2. A frame for a tent canvas having a hipped roof, comprising a body frame, a superstructure carried by the body, supporting legs pivotally attached to the body, and means forming a part of said superstructure whereby said legs when oscillated will shift the said superstructure relative to the frame to facilitate application or removal of the canvas.

3. A tent frame, comprising a body portion adapted to position within the upper part of a

tent, a tent roof supporting means carried by the body and including a ridge pole and connecting bars extending therefrom toward the frame, supporting legs pivotally coupled to the frame, and a jointed connection between the upper ends of the legs and said bars whereby oscillation of the legs in one direction will effect the movement of said ridge pole toward the body.

4. A tent frame comprising a body portion adapted to position within the upper part of a tent, a ridge pole lying in a plane above said body, legs pivotally attached to the body, an arm extending rigidly from the upper end of each leg inwardly and upwardly with respect to said body, and hip poles each movably joined at one end to said ridge pole and pivotally attached at its other end to an arm.

5. A tent frame, comprising a body portion adapted to position within the upper part of a tent, a ridge pole lying in a plane above said body, legs pivotally attached to the body, an arm extending rigidly from the upper end of each leg inwardly and upwardly with respect to said body, hip poles extending, in the set-up frame, from and in alinement with said arms, a pivotal connection between each arm and the adjacent end of a hip pole, and coupling means between the other end of each hip pole and the ridge pole which permits rocking movement of the hip pole and movement of the hip poles longitudinally of the ridge pole.

6. A tent frame, comprising a polygonal body frame, a supporting leg pivotally attached at each angle of said body frame, an arm extending rigidly inwardly and upwardly from the upper end of each leg relatively to the body, a ridge pole lying in a plane above the body, a hip pole pivotally connected at one end to an end of an arm and extending upwardly toward the ridge pole, a body at each end of the ridge pole having limited sliding movement thereon, and a pivotal connection between said last body and the other ends of the hip poles.

7. A tent frame, comprising a polygonal body frame, a supporting leg pivotally attached at each angle of said body frame, an arm extending rigidly inwardly and upwardly from the upper end of each leg relatively to the body, a ridge pole lying in a plane above the body, hip poles each pivotally connected at one end to an end of an arm and extending upwardly toward the ridge pole, a body at each end of the ridge pole having limited sliding movement thereon, pivotal connections between said last bodies and the other ends of the hip poles, and brace poles each pivotally joined to one of said last bodies and having pivotal connection with the body frame.

8. A tent canvas support, comprising a frame body having side and end rails, leg members each having an ear at its top which is interposed between an end of an end rail and the adjacent end of a side rail, means coupling each two adjacent rail ends and the interposed ear permitting oscillation of the adjacent post, a ridge pole lying in a plane above said body, a bar unit coupling an end of the ridge pole with the top end of a leg, each of said units having a downwardly breaking joint, and a movable connection between the bar unit and ridge pole.

9. A tent frame, comprising a rectangular frame body, a supporting leg at each corner of and pivotally attached to the body, an arm extending rigidly inwardly and upwardly from the top end of each leg, a ridge pole, a body slidably

attached to the underside of the ridge pole at each end, a hip pole extending from the free end of each arm and having pivotal connection at one end with the same, and a pivotal connection between the other end of each hip pole and said slidably mounted body.

10. A tent canvas support, comprising a flat frame, supporting legs therefor, pivotal coupling means between each leg and the frame permitting the legs to be shifted from a position perpendicular to the frame to a coplanar relation therewith, an arm extending rigidly and obliquely from the free end of each leg to be directed upwardly and inwardly with respect to the frame when the legs are in perpendicular position relative to the frame, a tent top supporting superstructure above the frame, and coupling means forming a part of the superstructure which are pivotally joined with said arms whereby the said superstructure will move vertically when the legs are shifted relative to the frame.

11. A tent canvas support, comprising a body frame lying in one plane, legs pivotally joined with the frame for oscillation from a set-up perpendicular relation to a lowered coplanar rela-

tion therewith, a tent top supporting superstructure, and means connecting the superstructure with the legs which is so constructed and arranged that upon oscillation of the legs relative to the frame the superstructure will move relative to and in a path transversely of the frame.

12. A tent canvas support, comprising a frame lying in one plane, supporting legs therefor, pivotal coupling means between each leg and the frame permitting the legs to be shifted from a position perpendicular to the frame to a coplanar relation with the frame, an arm extending rigidly and obliquely from the upper end of each leg to be directed upwardly and inwardly with respect to the frame when the legs are in said perpendicular position relative thereto, a tent top supporting ridge pole, hip poles extending over each end of the ridge pole, a sliding pivotal coupling between an end of each hip pole and the adjacent end of the ridge pole, and a ball and socket coupling between the other end of each hip pole and one of said arms.

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