

Mar. 27, 1923.

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E. H. BATTY

COLLAPSIBLE AUTOMOBILE TENT, GARAGE, OR HOUSE FRAME

Filed May 3, 1921

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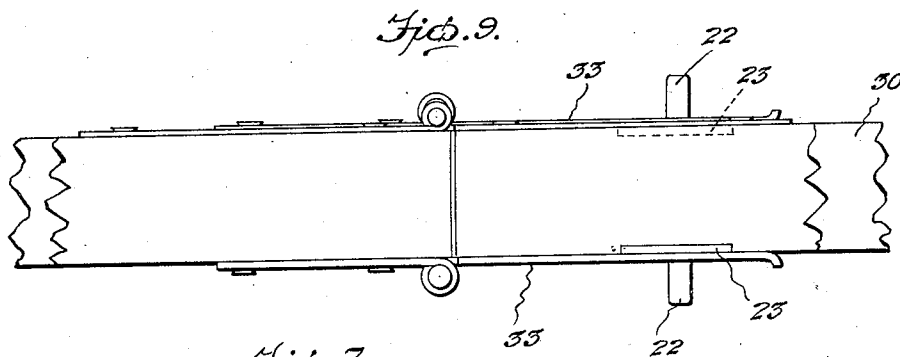
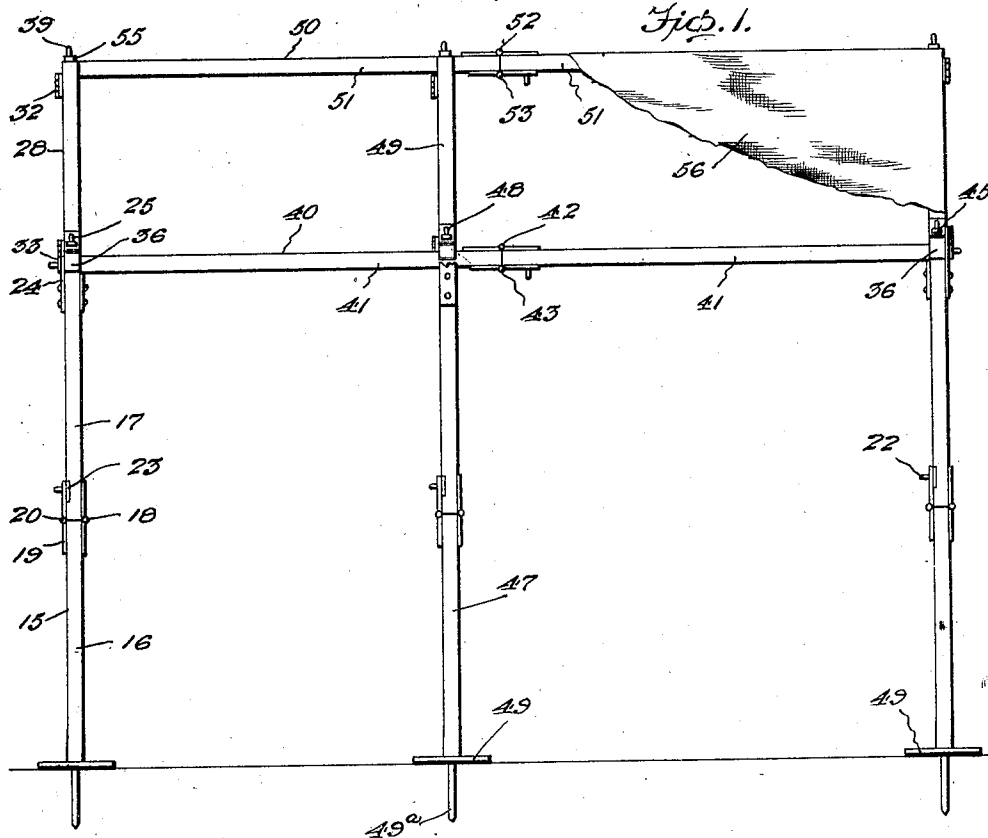
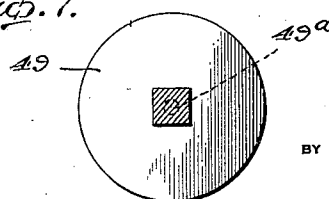


Fig. 7.



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WITNESS:

E. H. Batty INVENTOR

BY *Victor J. Evans*

ATTORNEY

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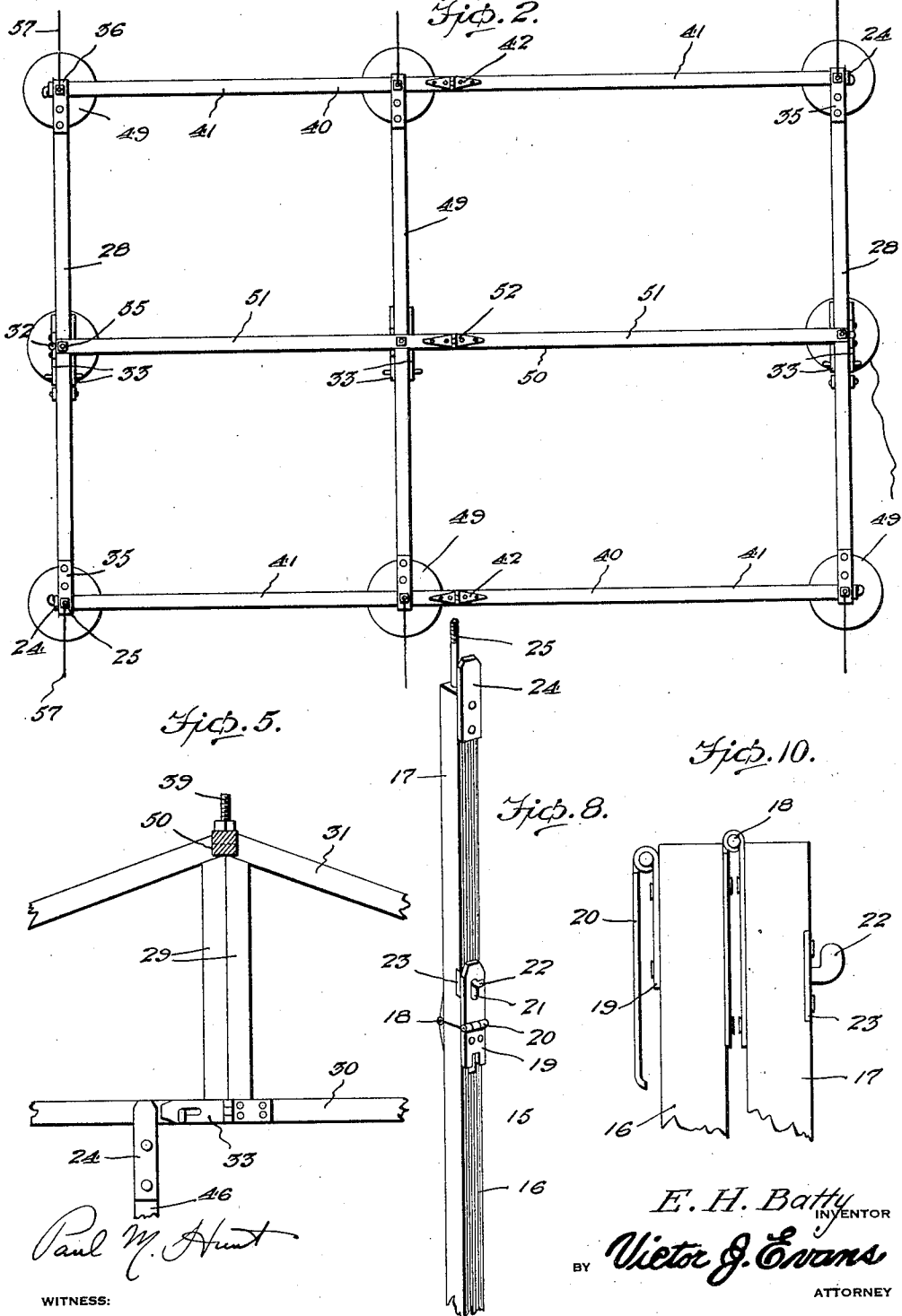
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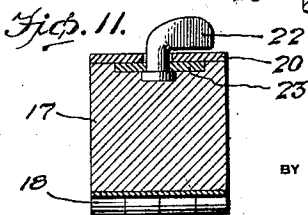
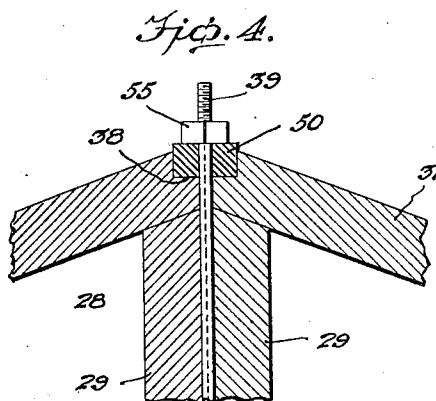
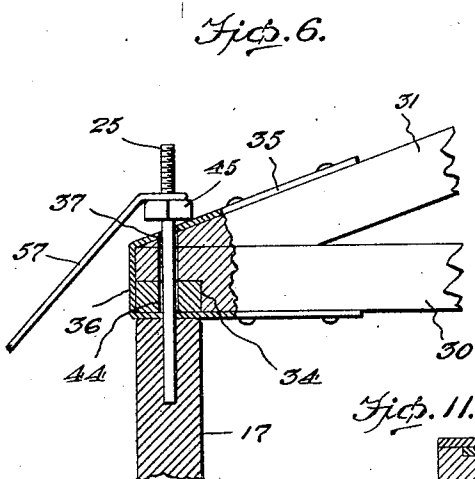
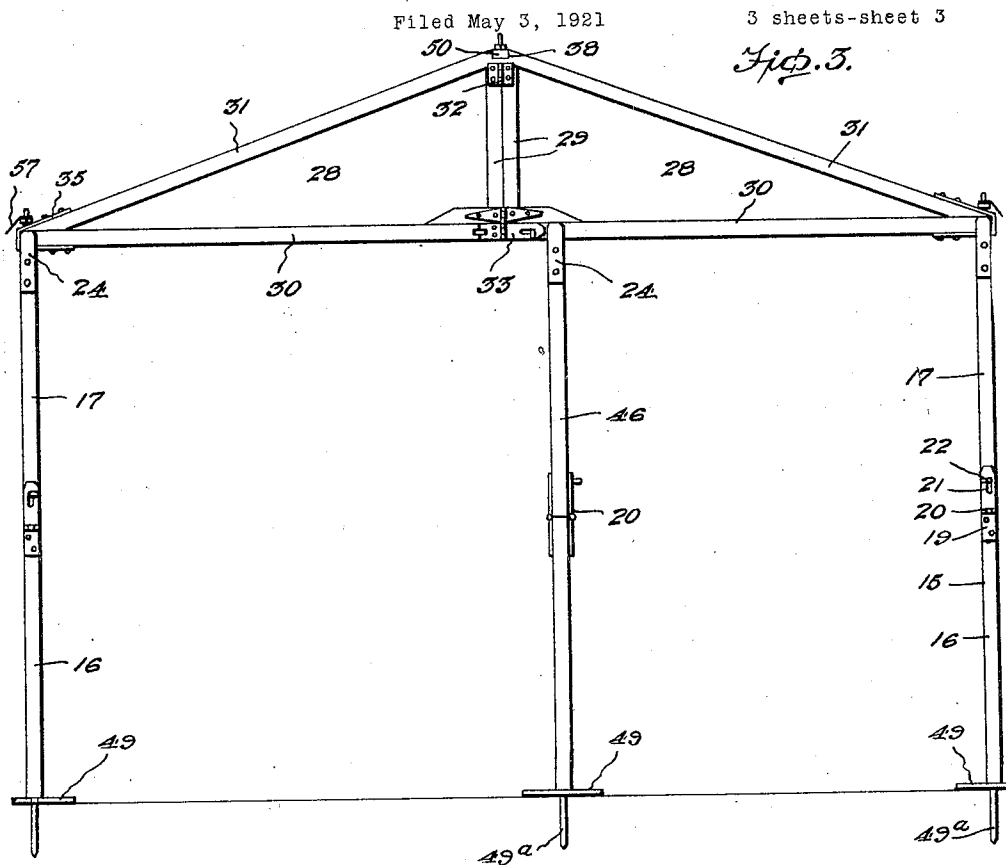
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3 sheets-sheet 3



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UNITED STATES PATENT OFFICE.

ELIJAH H. BATTY, OF LINCOLN, NEBRASKA.

COLLAPSIBLE AUTOMOBILE TENT, GARAGE, OR HOUSE FRAME.

Application filed May 3, 1921. Serial No. 466,463.

To all whom it may concern:

Be it known that I, ELIJAH H. BATTY, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented new and useful Improvements in Collapsible Automobile Tent, Garage, or House Frames, of which the following is a specification.

This invention relates to building structures, particularly to those of the collapsible type, and has for its object the provision of a collapsible frame for an automobile tent or other similar portable structures such as might be effectually used in the construction of sheds, small houses of various types and other purposes.

An important object is the provision of a collapsible frame which may be shipped in knock-down condition and which is so constructed that it may be quickly and easily assembled and set up in position ready to be covered with canvas, in case it is desired to construct a tent, or to be covered with sheathing of any kind in case it is desired to construct a shed or other similar building.

A further object is the provision of a frame of this character in which the various parts are hingedly connected and in which certain parts are detachably connected so that the different portions may be easily assembled and yet held firmly in position, the invention further contemplating the provision of a novel locking means for holding the sections in rigid position so that displacement will be impossible.

An additional object is the provision of a device of this character which will be inexpensive to manufacture very light in weight, easy to assemble or disassemble as the case may be, highly efficient in use, durable in service and a general improvement in the art.

With the above and other objects in view, the invention consists in the details of construction, to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which,

Figure 1 is a side elevation of my frame in set-up position.

Figure 2 is a top plan view,

Figure 3 is an end elevation

Figure 4 is a central cross-sectional view,

Figure 5 is a cross-sectional view looking at the inside of one end.

Figure 6 is a detail section taken through one corner.

Figure 7 is a cross-sectional view taken through one of the uprights.

Figure 8 is a perspective view of one of the upright or supporting posts.

Figures 9, 10 and 11 are detail views of the locking means employed.

In carrying out my invention I provide a frame which includes a plurality of uprights designated by the numeral 15 and all of which are similar in construction. Each of these uprights includes a lower section 16 and an upper section 17 which are formed of suitable material such as wood or steel of any desired cross-sectional configuration and of any proper dimension to have the necessary strength.

The sections 16 and 17 are hingedly connected as shown at 18. Secured upon one of the sections of each upright is the stationary leaf 19 of a lock structure 20 which includes a hinged leaf having an elongated slot 21 adapted to be passed over a staple 22 rotatably mounted upon a plate 23 secured upon the other section. The purpose of this hasp and staple 22 is to lock the sections of the uprights against pivotal movement and in order to effect this it is of course necessary that this hasp structure which constitutes the locking device be disposed on the side of the upright opposite the hinge 18. Secured upon the upper end of each upper section 17 is a plate 24 which extends considerably beyond the upper end of the upright. Embedded within the upper end of each upper section 17 is an upwardly extending bolt 25 for a purpose to be described.

The uprights 15 just described constitute the corner post of my frame and may of course be of any desired length depending upon the height of the wall of the tent or other building to be constructed.

Disposed upon the upper end of each pair of upright corner posts 15 are the hinged members each of which is formed of a pair of triangular frames 28 including vertical bars 29, horizontal bars 30 and inclined bars 31. The vertical bars 29 of the associated frames 28 are hingedly connected as shown

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at 32. The frames 28 are also connected by means of locking devices 33 disposed upon opposite sides thereof and of exactly the same construction as the locking devices used at the hinged connections of the corner post sections. The outer ends of the horizontal bars 30 are recessed as indicated at 34 for a purpose to be described. Secured upon the outer ends of the frames 28 are metal strips or straps 35 which cooperate with the recesses 34 to define sockets 36. The outer ends of the frames 28 are likewise formed with vertically extending holes 37 which pass through the straps 35 and which are for the purpose of receiving the bolts 25. The meeting ends of the bars 31 are recessed as indicated at 38. Disposed between and recessed into each pair of bars 29 is a vertically extending bolt 39.

The numeral 40 designates the side bars which are preferably formed of similar sections 41 hingedly connected as indicated at 42 and provided with locking devices 43 identical with the locking devices 33. The ends of the side bars 40 are engaged within the sockets 36 and are formed with holes 44 for the passage of the bolts 25. After the frames 28 are in position upon the corner posts with the ends of the bars 40 engaged within the sockets 36 with the bolts 25 passing through the holes in the end members and the side bars, nuts 45 are screwed upon the upper ends of the bolts 25 for preventing separation of the parts.

The end members formed by the frames 28 are supported at their hinged connections by means of vertical posts 46 which are identical with the parts 15 except that they are each provided with two of the plates 24 for engaging against opposite sides of the end frames 28 as clearly shown.

In order to support the central portion, that is the hinged connection of the sections of the side bars 40, I provide posts 47 which are identical with the posts 15 and which carry at their upper ends upwardly extending bolts, 48, corresponding to the bolts 25. I also make use of an intermediate cross member 49 identical in construction with the end frame 28 and held in association with the side bars 40 and posts 47 in exactly the same manner. The lower ends of the posts 15, 46 and 47 are provided with pins 49^a engaging through holes in disks 49 adapted to rest upon the ground and which are for the purpose of preventing the posts from sinking into soft ground or sand.

The numeral 50 designates the ridge bar which is likewise formed of hingedly connected sections 51 hinged as at 52 and provided with locking devices 53 identical with the locking devices 33. The ends of the ridge bar 50 seat within the recesses 38 in the end frames 28 and the intermediate portion seats within the corresponding re-

cess in the intermediate upper cross member. This ridge bar is formed with holes for the passage of the bolts 39, and nuts 55 are threaded onto these bolts for holding the ridge bar against displacement.

After the frame has been constructed and assembled as above described, it is of course apparent that it may be covered with any desirable material such as sheathing of any kind, although in actual practice I have designed the frame primarily for use in the setting up of tents and in this event it is of course apparent that a canvas cover would be stretched upon the frame. This canvas cover is indicated by the numeral 56. In case it should be found necessary or advisable it is of course understood that I may provide any suitable number of guy ropes 57 connected with any suitable point at the upper portion of the frame for holding it firmly in position and anchoring it down to the ground so as to prevent it from being blown over in case of a wind storm.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed and consequently inexpensive knock-down tent frame which may be quickly and easily assembled without any necessity for the employment of special tools, which is so light in construction and free from complications that it may be readily assembled by a single person, which will be highly efficient and durable in use and which will efficiently perform all the functions for which it is intended.

While I have shown and described the preferred embodiment of the invention, it is of course to be readily understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

What I claim is:

1. A collapsible frame of the character described comprising a plurality of upright posts formed of hingedly connected sections, means for holding said sections against pivotal movement, end members carried by each pair of upright posts and each formed of a pair of hingedly connected triangular frames, socket members at the outer ends of said frames, side bars formed of hingedly connected sections having their outer ends engaged within said sockets, bolts extending upwardly from the ends of said posts and passing through the ends of said side bars and the outer ends of said frames, nuts upon said bolts, and a ridge bar having its end portions detachably connected with said end members above the meeting edges of the frames.

2. A frame of the character described comprising a plurality of upright corner

posts formed of hingedly connected sections, means for securing the sections against pivotal movement, plates secured upon the outer sides of said posts and extending beyond the upper ends thereof, a pair of end members associated with the pairs of posts and each formed of a pair of triangular frames hingedly connected, means for holding said frames respectively rigid, the outer ends of the frames being recessed and carrying straps defining sockets, said straps and the outer ends of the frames being formed with

holes, bolts extending upwardly from the ends of the posts and passing through said holes, side bars having their ends engaged within said sockets and formed with holes for the passage of said bolts, the upper inner ends of said frames being formed with recesses, and a ridge bar having its ends seating within said recesses and detachably connected with the end members.

In testimony whereof I affix my signature.

ELIJAH H. BATTY.