April 1, 1924. 1,488,772

H. J. ALTNOW

TENT

Filed July 3, 1922 3 Sheets Sheet 1

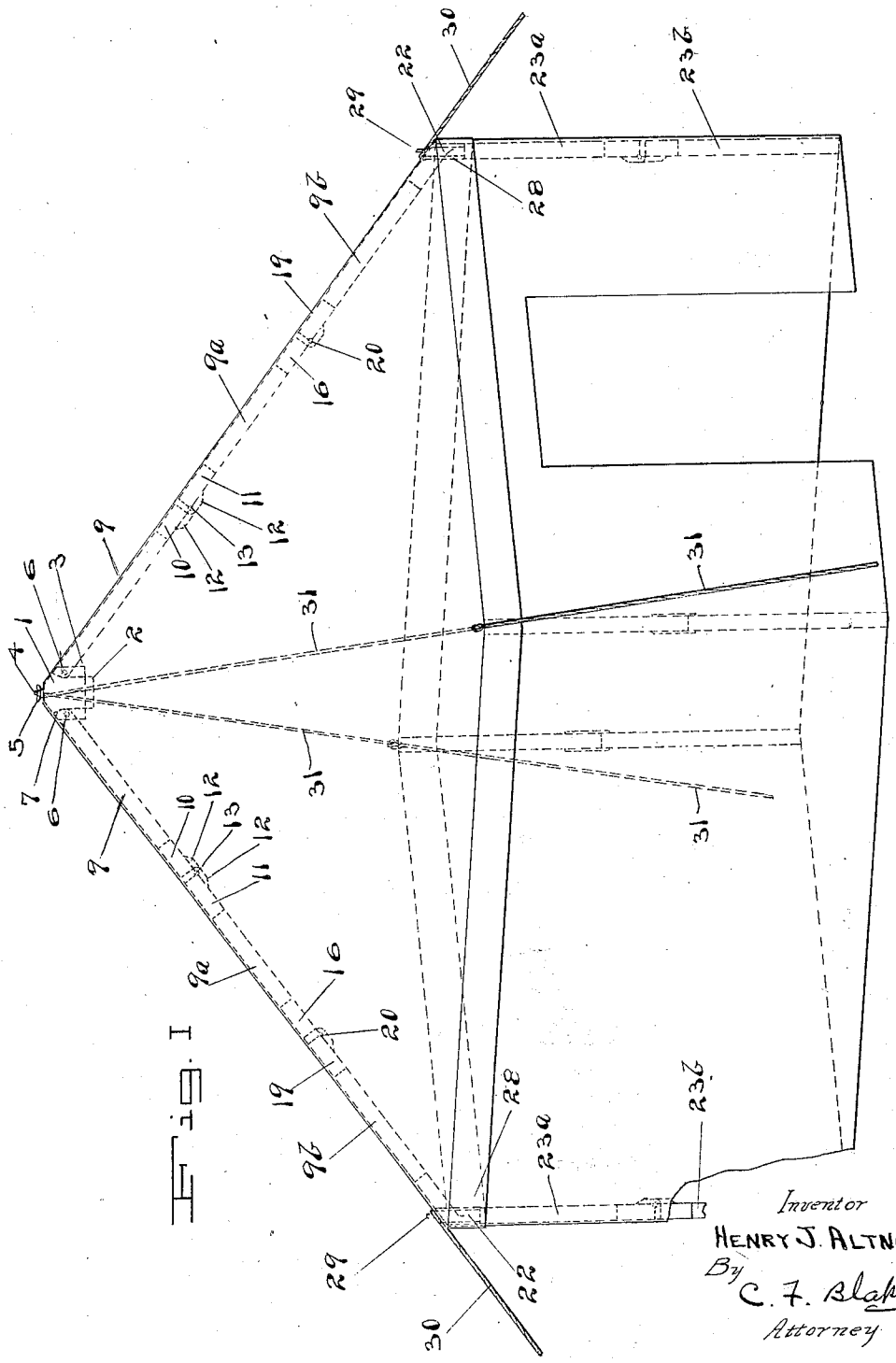


Fig. 1.

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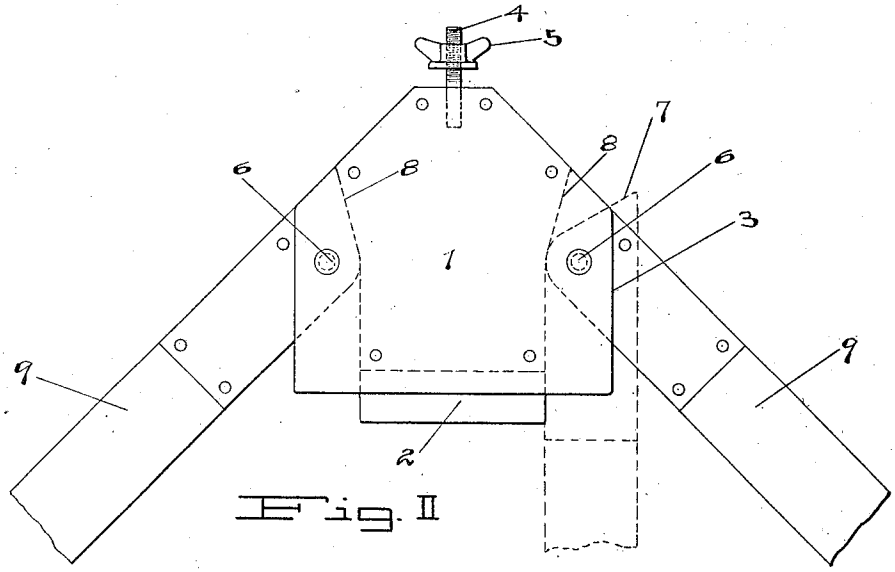


Fig. II

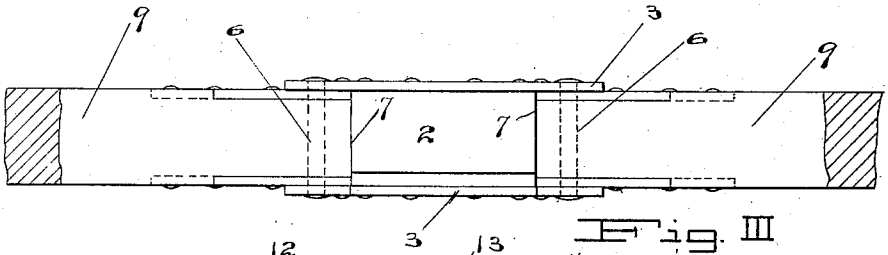


Fig. III

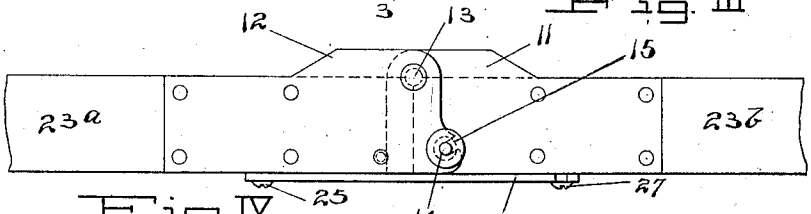


Fig. IV

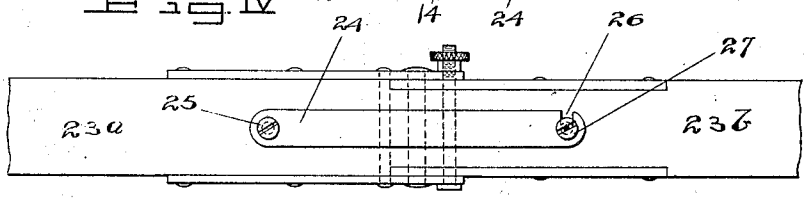


Fig. V

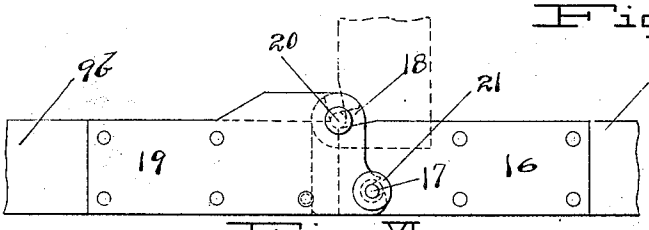


Fig. VI

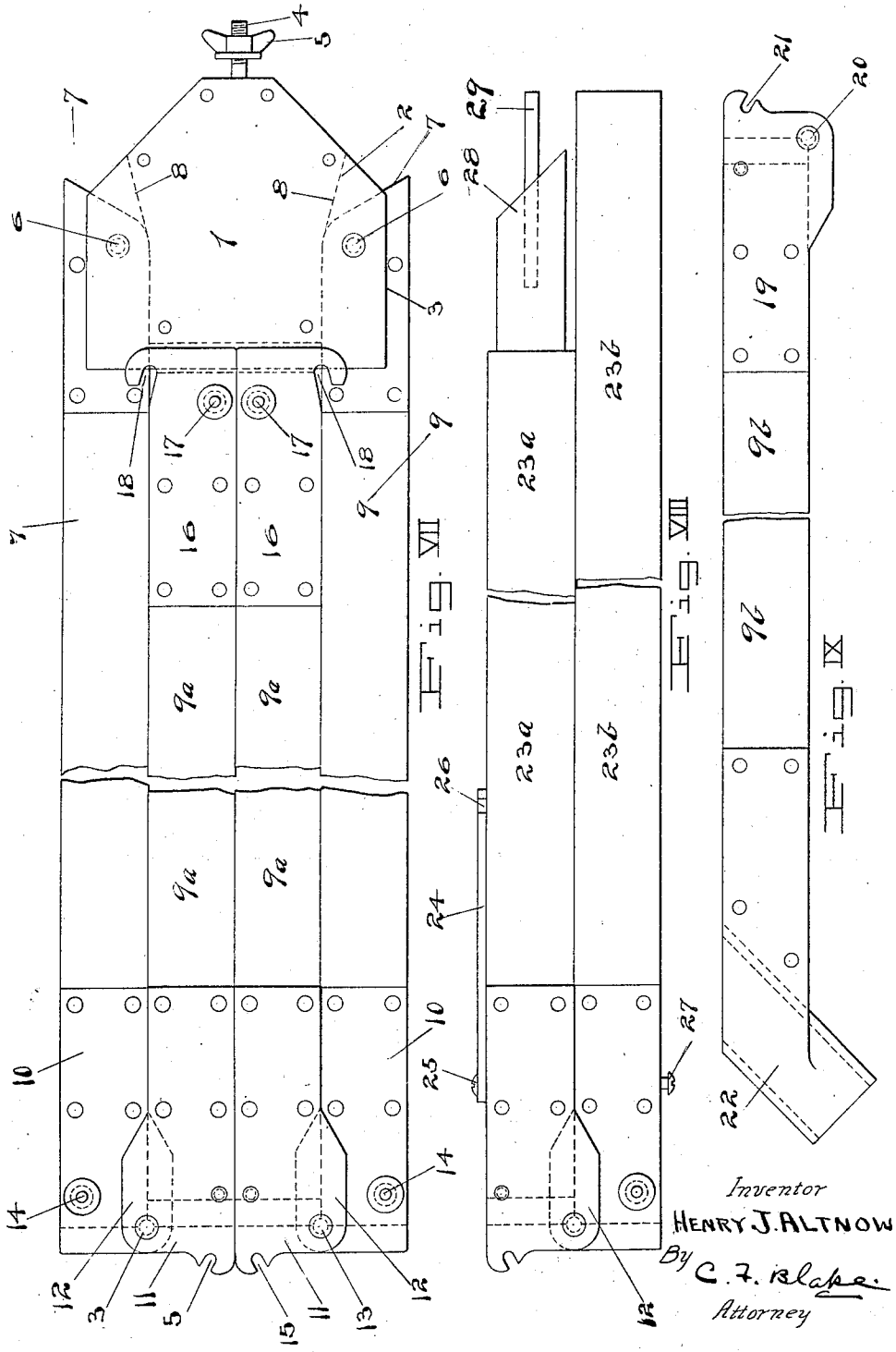
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TENT

Filed July 3, 1922 3 Sheets-Sheet 3



Patented Apr. 1, 1924. 1,488,772

UNITED STATES PATENT OFFICE.

HENRY J. ALTNOW, OF PORTLAND, OREGON.

TENT.

Application filed July 3, 1922. Serial No. 572,539.

To all whom it may concern:

Be it known that I, HENRY J. ALTNOW, a citizen of the United States, residing at Portland, county of Multnomah, State of Oregon, have invented certain new and useful Improvements in Tents, of which the following is a specification.

My invention relates to tents in general, and particularly to folding or portable tents, the object being to provide a tent that may be folded into a convenient and compact form of light weight for transportation, and that is easily set up, and strong when so set up.

I accomplish the above object by means of the construction illustrated in the accompanying drawings, which are a part of this application for Letters Patent, like characters of reference indicating like parts throughout the several views thereof, and in which:

Fig. I is a perspective view of my tent set up.

Fig. II is a detail elevation of the rafter peak.

Fig. III is a plan of the subject matter of Fig. II.

Fig. IV is an elevation of one of the supporting pole joints.

Fig. V is an elevation of the adjoining side of the subject matter of Fig. IV.

Fig. VI is an elevation of one of the rafters joints.

Fig. VII is an elevation of the rafter peak and its attached rods, in folded position.

Fig. VIII is an elevation of one of the supporting poles, in folded position.

Fig. IX is an elevation of the terminal portion of the rafters.

In general my device consists of a pair of novel jointed and foldable rafters, each pivotally attached to a novel peak member, and supported by a pair of similarly jointed and foldable supporting poles, with means at the juncture of said poles and said rafters for attaching a guy line; a pair of supporting poles similar to those previously mentioned, and adapted to receive thereupon guy lines, and to be thereby connected to said peak member; and a fabric tent adapted to be spread over and supported by said arrangement of rafters and guy lines. The peak member 1 is formed of a filler piece 2 with side plates 3 riveted thereupon, and a bolt 4 with a thumb nut 5 thereupon projecting above said member. The plates 3 project beyond the outline of the filler piece 2 at each opposite vertical edge thereof, thus forming sockets outlined by the filler piece and the parallel plates, in which sockets the respective rafters are pivoted by pivots 6. When said rafters are in folded position they are disposed parallel one to the other as shown in Fig. VII, and when they are unfolded for use the beveled ends 7 thereof abut against a suitably disposed portion 8 of the filler piece 2, thus holding said rafters in a rigid angular relationship one to the other, as shown in Fig. II. That portion of the rafters attached to said peak member are designated by 9.

A second portion 9^a of said rafters is pivotally attached to said portion 9 by a novel hinge arrangement as follows. Upon the free end of the rafters 9 are riveted a pair of parallel plates 10, and upon the adjacent ends of the rods 9^a are riveted a pair of parallel plates 11, each of said plates having projections 12 which overlap, and through which projections are passed suitable pins 13 for pivotally connecting the rafter portions 9 and 9^a together. One of the rivets 14 which connect the plates 10 to the rods 9 is allowed to project at each end beyond the surface of the plates 10, and a notch 15 is provided in the plates 11. which notch is adapted to engage with the projecting ends of the rivet 14 when the truss rods are in unfolded position.

Upon the opposite ends of the rods 9^a from the plates 11 are riveted a pair of parallel plates 16, with one of the rivets 17 thereof projecting similarly to the rivet 14 of the plates 10. A notch 18 is provided in a projecting portion of the plates 16. The terminating portion of the rafters is designated 9^b, and upon one end thereof are riveted a pair of parallel plates 19 with projecting portions connected by a pin 20, and notches 21 in said projecting portions. To connect the rafter 9^b to the rafter 9^a the pin 20 is inserted in its respective slot 18 and the rafter 9^b rotated upon said pin until the slot 21 engages the end of the rivet 17, in which position the rafters 9^a and 9^b will be in line one with the other. By reference to Fig. I it will be clear that the several members constituting the truss rods and the peak member are positively secured in unfolded or open position by the force of gravity alone.

The lower end of the member 9^b is pro-

vided with a socket 22 adapted to receive a suitable coacting device upon the upper ends of the supporting poles, hereinafter described.

The supporting poles are composed of two members 23^a and 23^b which are connected by an arrangement of plates exactly duplicates of those above described as connecting the portions 9 and 9^a of the rafters. Since the supporting poles when unfolded and in use are in vertical position the force of gravity cannot act to secure them in such position, and a further device is required for this purpose. A simple form of such device is a bar 24 pivotally attached to member 23^a at 25, and provided with a slot 26 adapted to engage a headed pin 27 upon member 23^b when the said members are unfolded. The free end of member 23^b is adapted to rest upon the ground, and the free end of member 23^a is provided with a tenon 28 adapted to enter the socket 22 upon the end of the respective rafters, and also with a pin 29 adaptd to engage the end of a guy rope 30.

Similar pairs of supporting rafters are provided for other corners of the tent, and such supporting members are engaged by guy ropes 31, said guy ropes also being connected to the peak member 1 by means of the nut 4 and thumb screw 5.

Only one set of truss rods with their supporting poles and peak member are used for a tent, but as many pairs of other supporting rods and their guy ropes as desired may be used, thus making the tent with as many corners as desired. A square tent is shown in the drawings.

It is obvious, from the description and the drawings, that when the various members of my device are unassembled and folded they may be packed into a very compact and convenient form, and the tent fabric folded around them, and that in this condition the whole tent will be very easy and convenient of transportation.

My device may be made of any size, and constructed of any materials deemed convenient and suitable for a device of this character, and while I have illustrated and described a form of construction and arrangement of parts found desirable in materializing my invention, I wish to include in this application all mechanical equivalents and substitutes that may fairly be considered to come within the scope and purview of my invention as defined in the appended claims.

Having disclosed my invention so that others may be enabled to construct and to use the same, what I claim as new, and desire to secure by Letters Patent is:

1. In a tent: foldable supporting members at each corner of said tent; a member at the peak of said tent; foldable rafter members connecting said peak member with two diagonally opposite supporting members; and a guy line connecting said peak member with two other diagonally opposite supporting members.

2. In a tent: a pair of jointed and foldable rafters; a peak member pivotally connecting said rafters; a pair of jointed and foldable poles supporting said rafters; means at the juncture of said poles and said rafters for attaching a guy line; a pair of jointed and foldable poles adapted to receive guy lines thereupon, and to be connected by said guy lines to said peak member; a plurality of guy lines connecting and supporting said various members; and a tent fabric covering said various members.

In witness whereof I claim the foregoing as my own I hereunto affix my signature in the presence of two witnesses at Portland, county of Multnomah, State of Oregon, this first day of June 1922.

HENRY J. ALTNOW.

Witnesses:
BEN B. THOMAS,
EDWARD H. ZIMMERMAN.