

A. BAHAN.
TENT CONSTRUCTION.

APPLICATION FILED APR. 22, 1909.

985,243.

Patented Feb. 28, 1911.

4 SHEETS—SHEET 1.

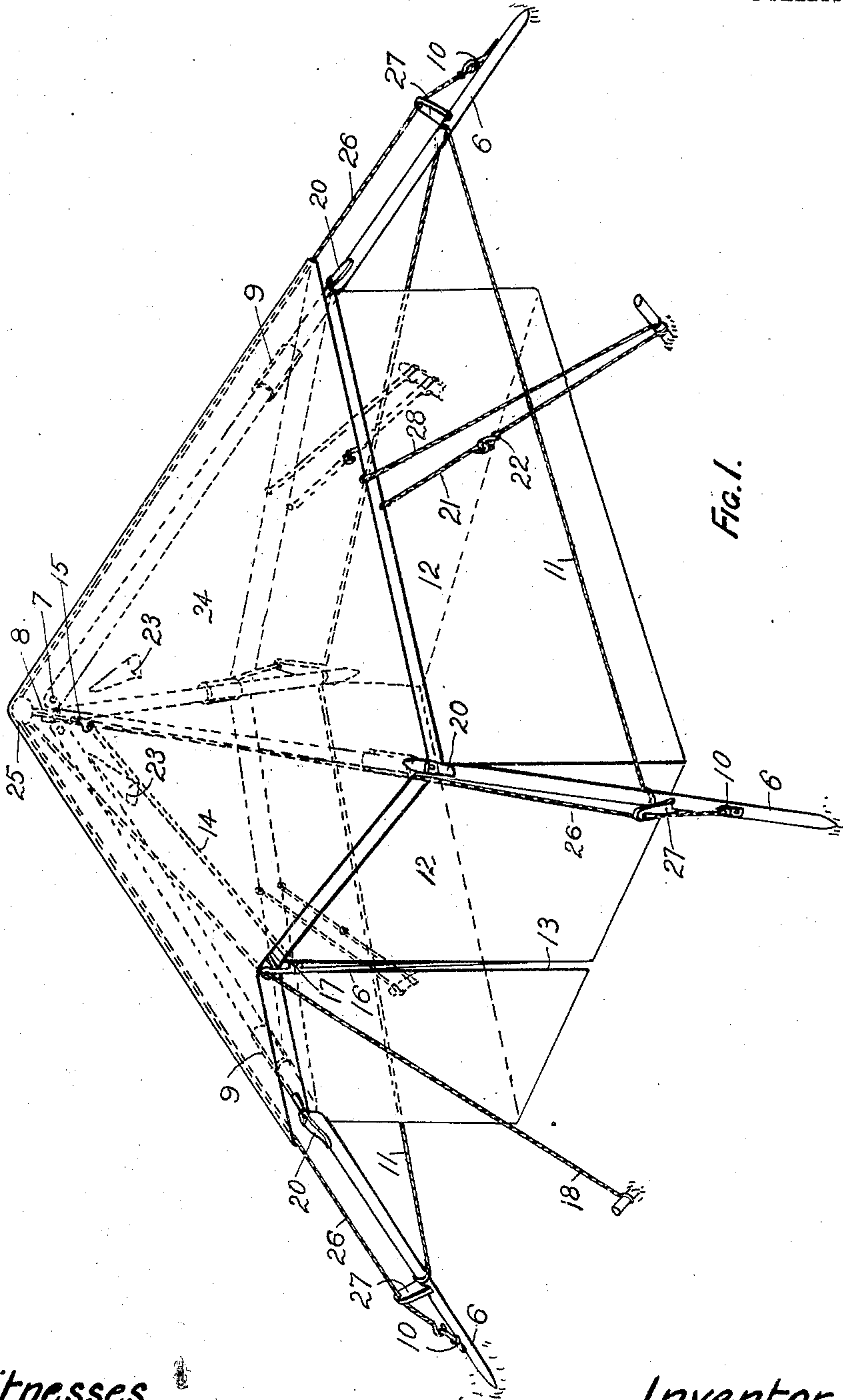


Fig. 1.

Witnesses

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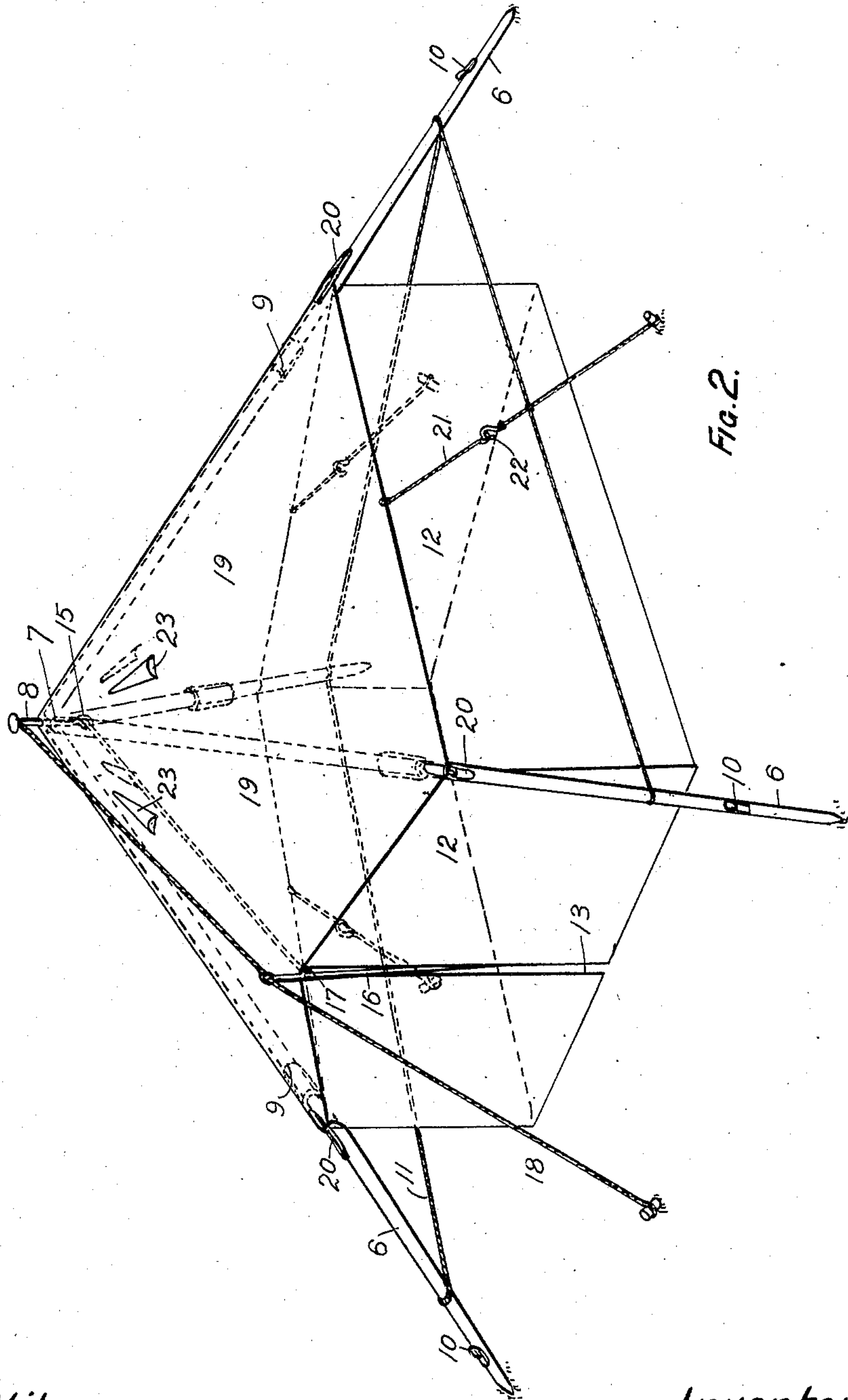


Fig. 2.

Witnesses
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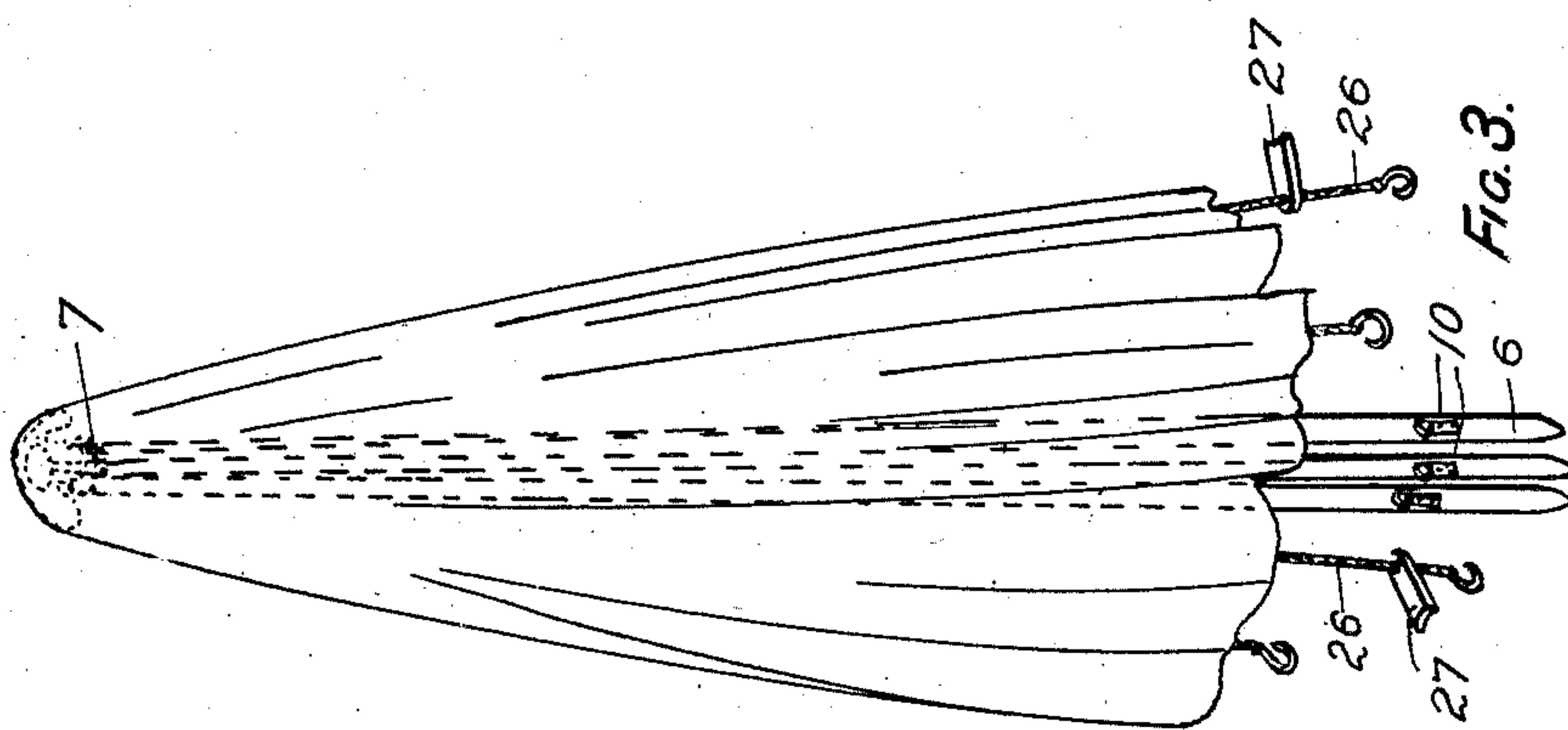
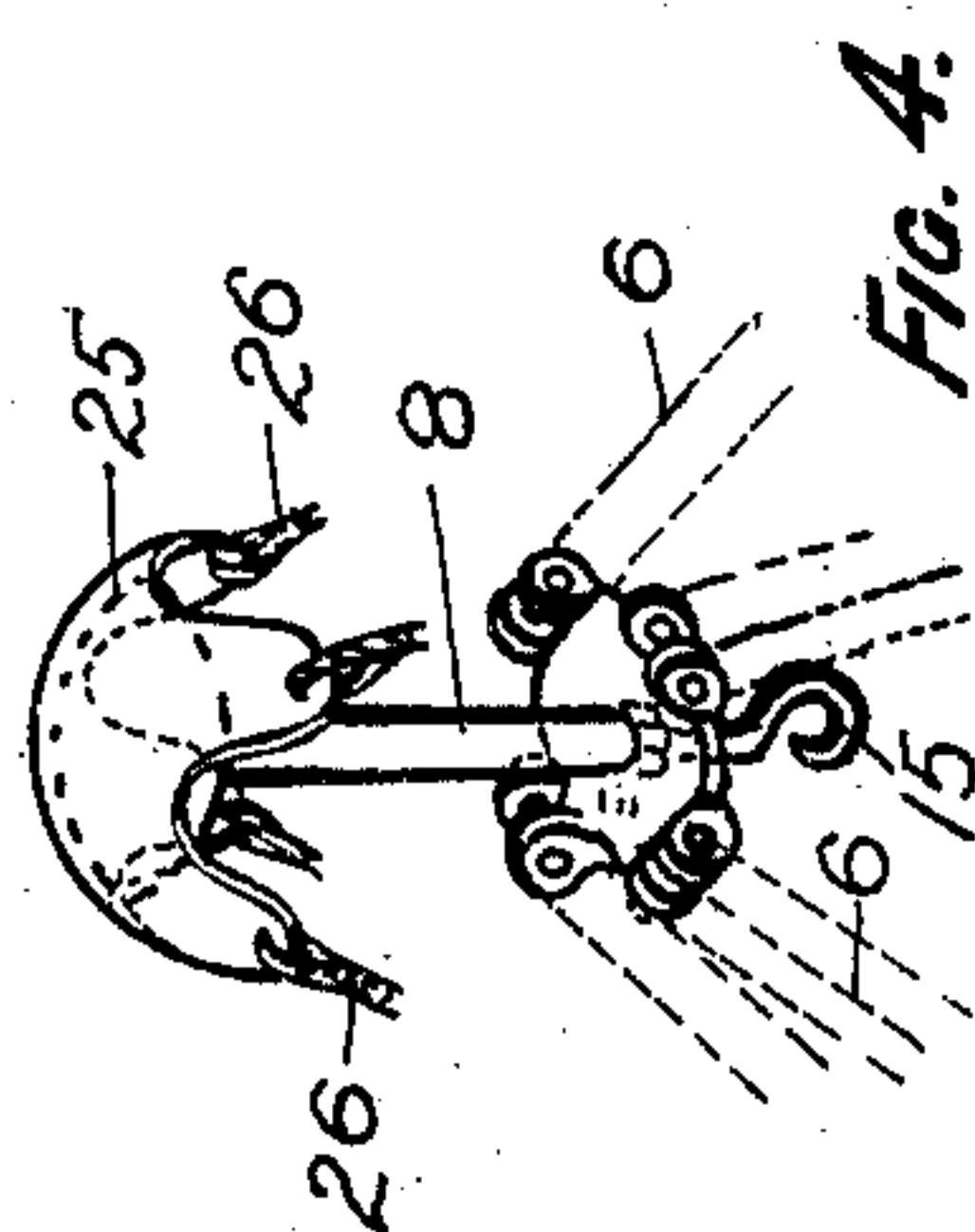
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4 SHEETS—SHEET 3.



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4 SHEETS—SHEET 4.

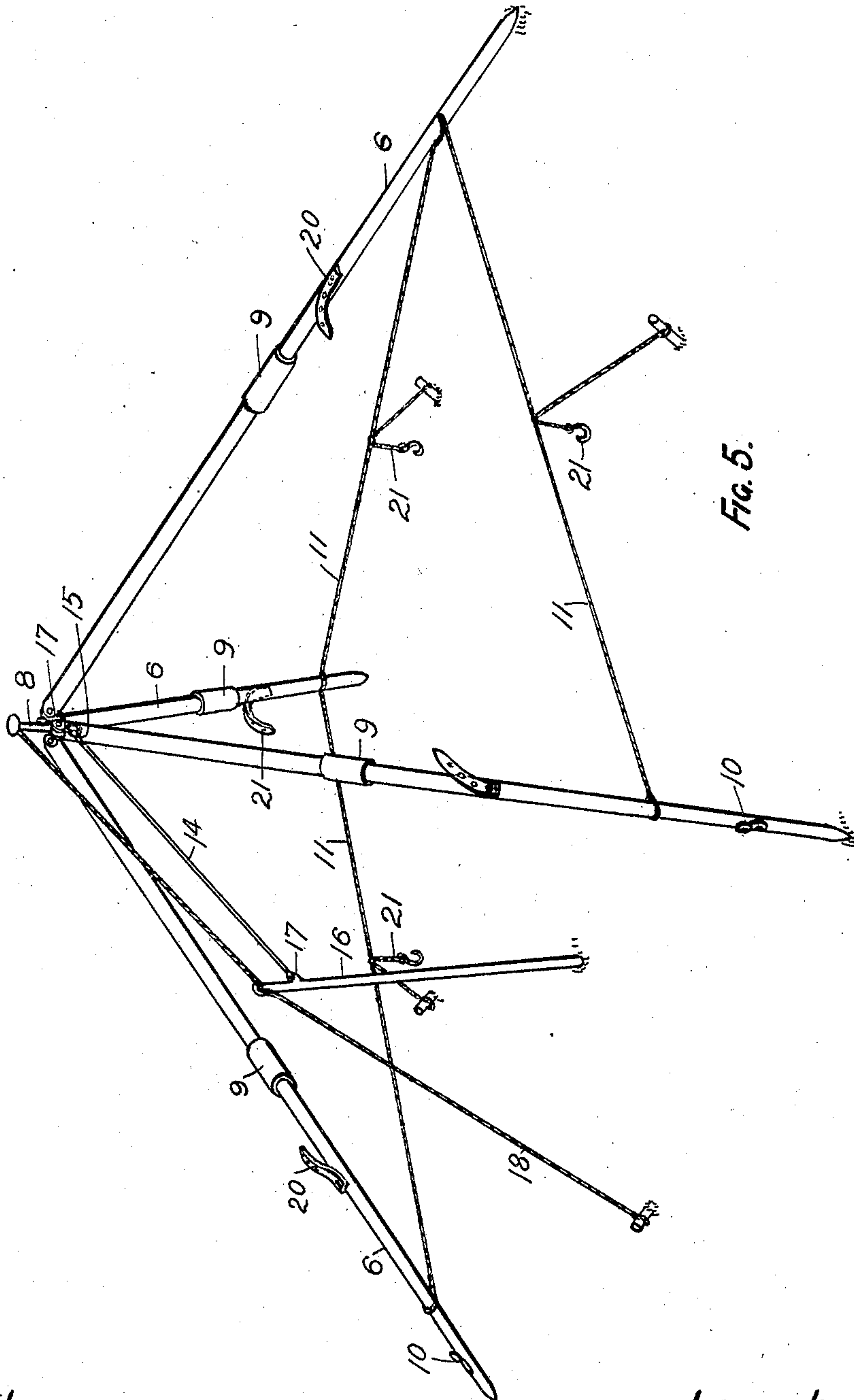


Fig. 5.

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UNITED STATES PATENT OFFICE.

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TENT CONSTRUCTION.

985,243.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed April 22, 1909. Serial No. 491,607.

To all whom it may concern:

Be it known that I, ANDREW BAHAN, a subject of the King of Great Britain and Ireland, residing at 163 King street, Sydney, New South Wales, Australia, have invented certain new and useful Improvements in Tent Construction, of which the following is a specification.

In canvas tents as usually constructed the time occupied in their erection is often a serious drawback in cases where a camp is pitched and struck with frequency. The liability of tents as hitherto constructed, to be blown over by the wind unless secured by a great number of pegs and guy ropes, is a source of discomfort and sometimes danger. Furthermore the search for the necessary poles, etc., in places where such timber is scarce, is often the cause of serious delay, while the frequent loss of such small articles as the pegs adds materially to the discomforts of camping.

To overcome the foregoing defects I have devised a tent of such a construction that the necessary poles form part of a pyramidal collapsible frame-work, (over which the canvas cover is fitted) capable of being easily and quickly pitched and struck, and when pitched capable of resisting the force of the strongest wind to overturn it.

The sides of the tent form a square, surmounted by a pyramidal shaped top, the angles of which are formed by the four poles of the frame each pivotally connected to a common head piece, supporting the apex of the tent, and from which extends vertically a short rod surmounted by a mushroom cap for the purpose of supporting the apex of the "fly" of the tent, when such is used. The four poles of the frame pass through the upper corners of the sides of the tent and are pointed in order to penetrate slightly the surface of the ground. To each of these poles is attached a buckle or suitable device capable of engaging with a strap or rope attached to the corresponding corner of the tent in order to properly strain it.

Owing to the large base area of the frame and its form it is found to be capable of resisting without deformation or capsizing extreme wind storms though in very exposed positions it may be advisable to at-

tach one guy rope to the center of the top edge of each side, except the front or entrance, capable of being fixed at its outer end to a peg in the ground, or to a rope extending between each pair of legs of the frame.

When a "fly" is used on the tent it is supported on the center rod (as before explained) and strained by means of four ropes each attached to the underside of the fly and sewn thereto and extending from a cap of leather or other suitable material fitted in the apex, to the corner where it is firmly secured. Each rope extends beyond the corner of the fly and is capable of being easily and quickly attached to the foot of the corresponding pole by means of a hook and eyelet fastening, buckle and strap, or other suitable device.

Between each corner of the fly and the corresponding fastening device on the pole a straining strut is threaded on the rope, bearing against the pole, for the purpose of tightening the rope after erection of the fly and retaining the fly at its proper height above the tent.

The vertical corners of the sides of the tent may be permanently joined together or may be laced so that the sides may be raised if desired for ventilation purposes. One side of the tent is divided in the center and forms the entrance thereto, and for this reason is formed as shown in the accompanying drawings, the corresponding side of the pyramidal top being shaped to suit and supported on a rod hooked at one end to the main head piece and carried at its outer end by a pole or strut from the ground, the top of which is held in position by a guy rope extending from a peg in the ground to the extension pole; the fly when used being supported at one side by this rope. But in order that my invention may be clearly understood I will now refer to the accompanying drawings in which:—

Figure 1 is a perspective view of the tent with the fly erected. Fig. 2 is a perspective view of the tent erected. Fig. 3 is a view of the tent when struck and ready for transport. Fig. 4 is a view of the head piece of the frame showing attached thereto the extension rod for supporting the fly and show-

ing the cap (attached to the apex of the fly) in position on the rod. Fig. 5 is a perspective view of the frame.

The four poles 6, 6, of the frame are each pivotally connected to the head piece 7 at their upper ends, and to said head piece is attached the rod 8 for the purpose hereinafter described. The poles 6, 6, are if desired constructed in segments jointed as shown at 9, 9, by any suitable means, so that for purposes of transport the total length of the collapsed tent may be shortened, though hereafter in this specification it is understood that the poles are referred to as being in one length.

Near the foot of each pole 6, 6, and securely fixed thereto is a hook or other suitable fastening 10 for the purpose hereinafter explained. A rope 11 extends from pole to pole (except on the side in which the entrance to the tent is formed) of sufficient length to permit of their requisite spread and for the purpose of attaching guy ropes to when necessary.

One of the tent sides 12, 12, is formed as shown in Figs. 1 and 2 and an opening as 13 is formed therein to afford means of ingress to and egress from the tent, a convenient height being obtained by cutting the particular side referred to with its upper edge of angular form, the apex of which is supported by the rod 14 secured at one end to the hook 15 under the head piece 7 and supported at its other end by the rod 16 to which it is pivotally attached at 17. The said rod 16 is stayed by the guy rope 18 attached to the extension rod 8 at one end and to a peg in the ground at the other.

The pyramidal top of the tent is formed of the four triangular pieces 19, 19, having a cap piece of leather or other suitable material attached at the apex through which is a hole adapted to permit of the mushroom head of rod 8 passing through.

A hole is provided at each corner of the sides of the tent through each of which passes one of the poles 6, 6, the tent being detachably secured to the poles by a buckle or hook attached to each corner and adapted to engage with a suitable corresponding fastening such as a strap or rope 20 on each pole.

For the purpose of increasing the resistance of the tent to wind pressure a guy rope 21 attached to the center of the junction of the sides and top on each side (except at the entrance) may, if so desired, be connected to the transverse rope 11 and extended to engage with a peg driven in the ground. In order to enable increased rapidity to be attained in striking the tent this guy rope is provided at some point in its length with a hook and eye or other suitable fastening 22. Ventilators 23, 23, of any suitable form may

be constructed in the top of the tent as shown.

The fly 24 is constructed of pyramid form similar to the top of the tent and has, inside the apex, a cap 25 (as shown in Fig. 4) to which is attached one of each of four ropes 26, 26, sewn to the inside of one of the corner seams and extended beyond the corner, ending in an eyelet or hook adapted to engage with the corresponding hook or eyelet 10 on the corresponding pole. On each of these guy or straining ropes 26 is threaded a strut 27 adapted to bear with its lower end on the pole 6 when perpendicular thereto, thereby straining the rope and fly as required. To increase the resistance to wind a guy rope 28 attached to each edge of the fly (except over the entrance) may be secured to the rope 11 or to a peg in the ground.

I will assume that the tent is as shown in Fig. 3 that is, as collapsed ready for transport, with fly and all fittings complete, the rods 14 and 16 and the various ropes being folded inside. The operation of pitching the tent is as follows:—The tent as a whole is erected vertically, two adjacent poles are spread sufficiently to retain it in that position; all straps and fastenings are then connected in their relative positions, the four poles extended as far as is allowed by the length of the ropes 11 and the length of the intersection of the sides and top; the struts 27 inserted, the rods 14 and 16 secured in position and the erection is complete. If considered necessary owing to weather conditions the guy ropes as before described may be used, though it is only in extreme cases that this is found necessary as the form of the tent is such that from whatever direction the wind may blow two poles are acting as struts. It is found however that the pressure of the wind instead of tending to lift the tent has a tendency to press it more firmly to the ground.

In striking the tent a reversal of the operations before described may be accomplished with great celerity and the tent again packed ready for transport.

What I claim and desire to secure by Letters Patent is:—

1. In a tent, a plurality of converging poles extending upwardly from the ground, a headpiece connecting the upper extremities of said poles, a covering having vertical sides and a pyramidal top, an upwardly extending rod secured to said headpiece, a mushroom head at the top of said rod, a guy rope connecting the mushroom head and one corner of the tent top to the foot of each pole, and adjustable means for tightening said guy ropes.

2. In a tent a plurality of converging poles extending upwardly from the ground,

a headpiece pivotally connecting the upper
extremities of said poles, a covering com-
prising vertical sides having pole apertures
in the upper corners thereof and a pyramidal
5 top, an upwardly extending rod secured to
said headpiece, a mushroom head at the top
of said rod, a guy rope connecting the mush-
room head and one corner of the pyramidal
top to the foot of the adjacent pole, and
struts threaded on the guy ropes and bear- 10
ing against the poles to tighten said guy
ropes.

ANDREW BAHAN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
