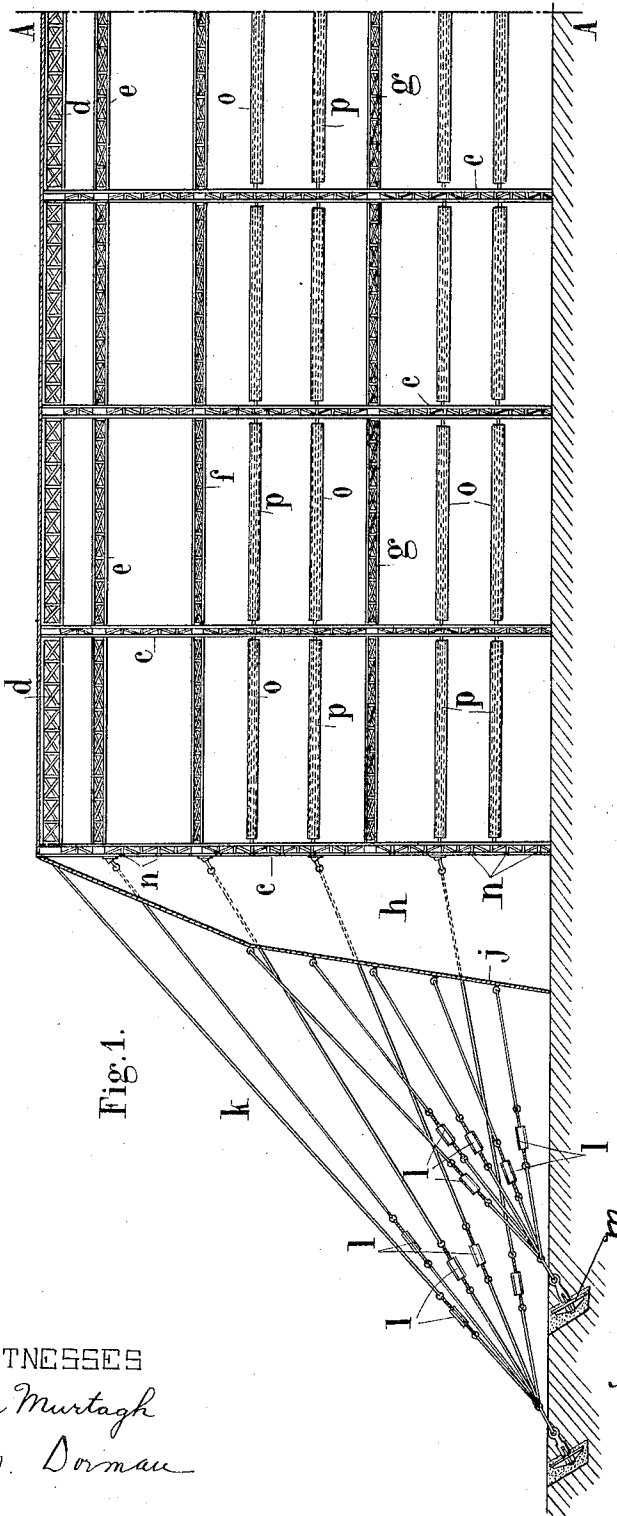


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 SHELTER FOR HOUSING DIRIGIBLE BALLOONS.
 APPLICATION FILED FEB. 3, 1909.

1,057,366.

Patented Mar. 25, 1913.

4 SHEETS-SHEET 1.



WITNESSES
 John Murtagh
 L. M. Dorman

INVENTOR
 Melvin Vaniman
 BY *George G. Gorge*
 ATTORNEYS

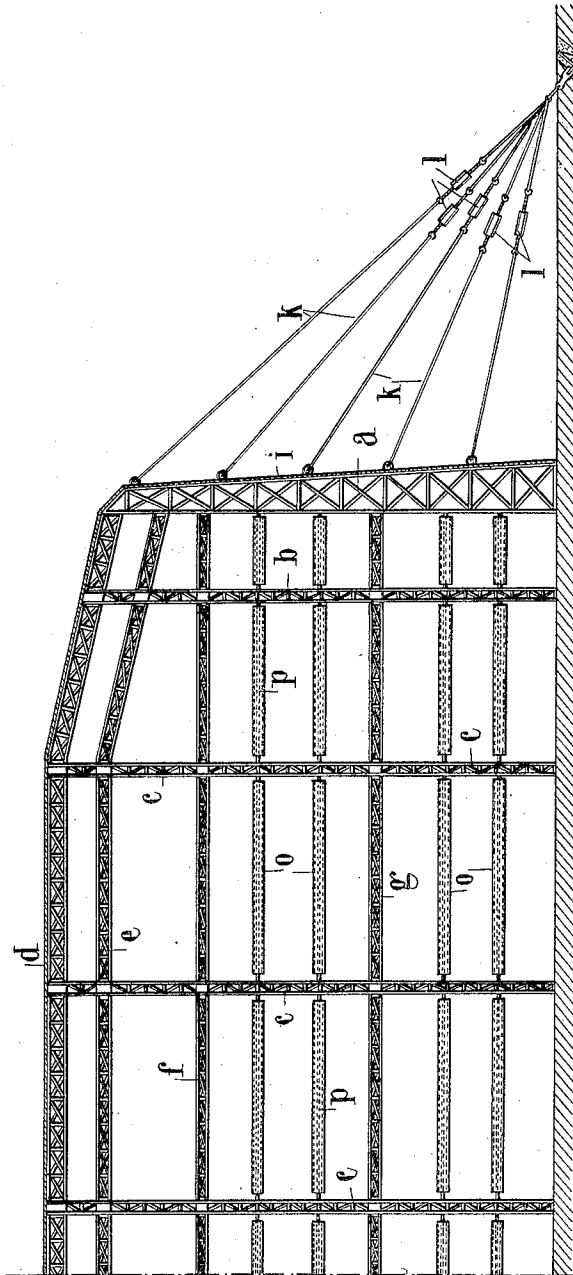
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4 SHEETS-SHEET 2.

Fig. 1a



WITNESSES

John Murtagh
 L. M. Dorman

INVENTOR

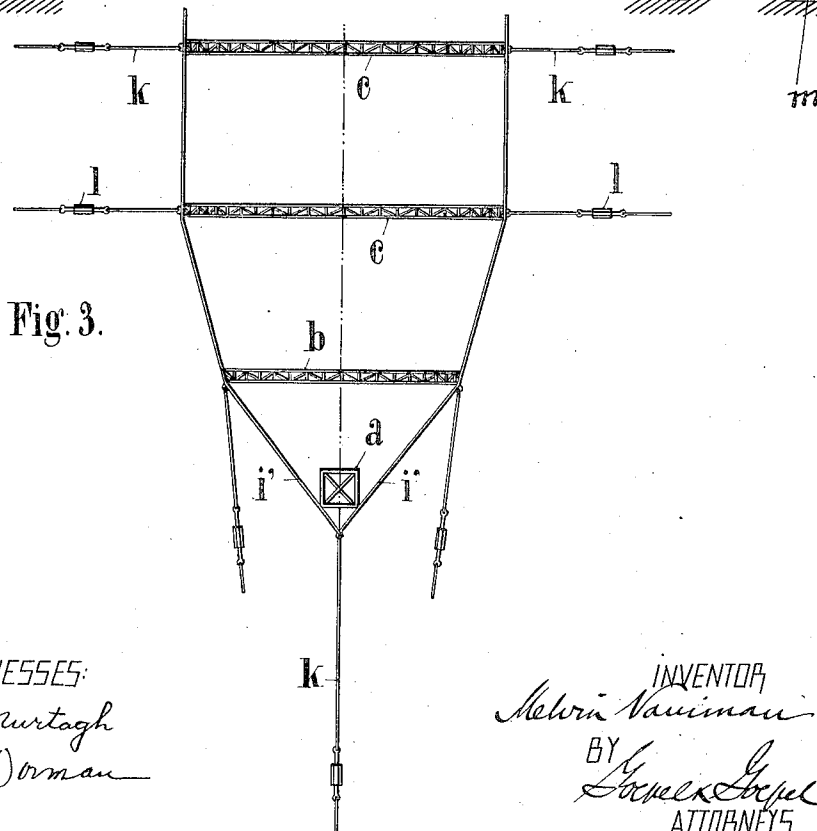
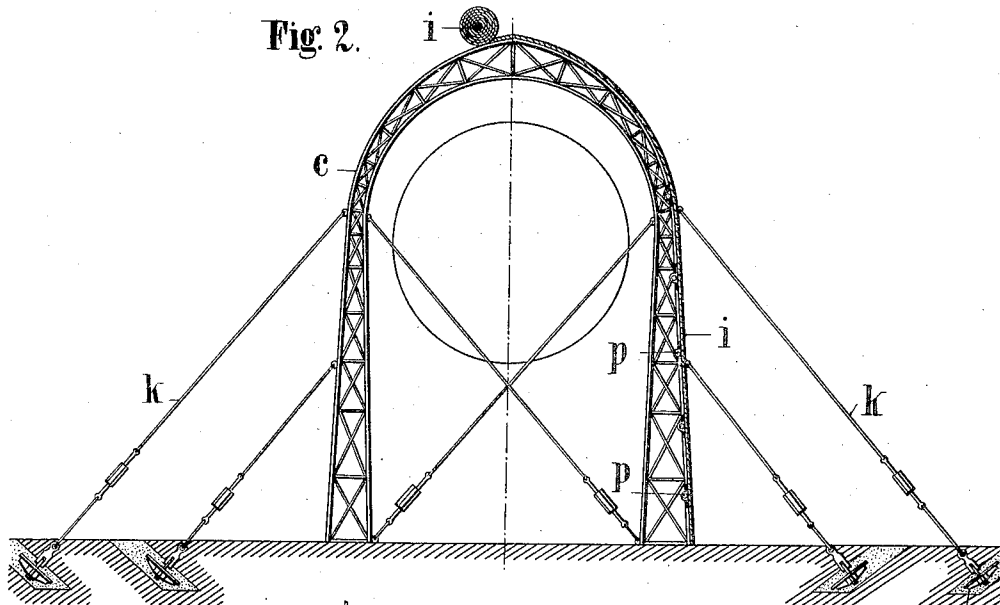
Melvin Vaniman
 BY Guyer & Guyer
 ATTORNEYS

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 Melvin Vaniman
 BY
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 ATTORNEYS.

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4 SHEETS—SHEET 4.

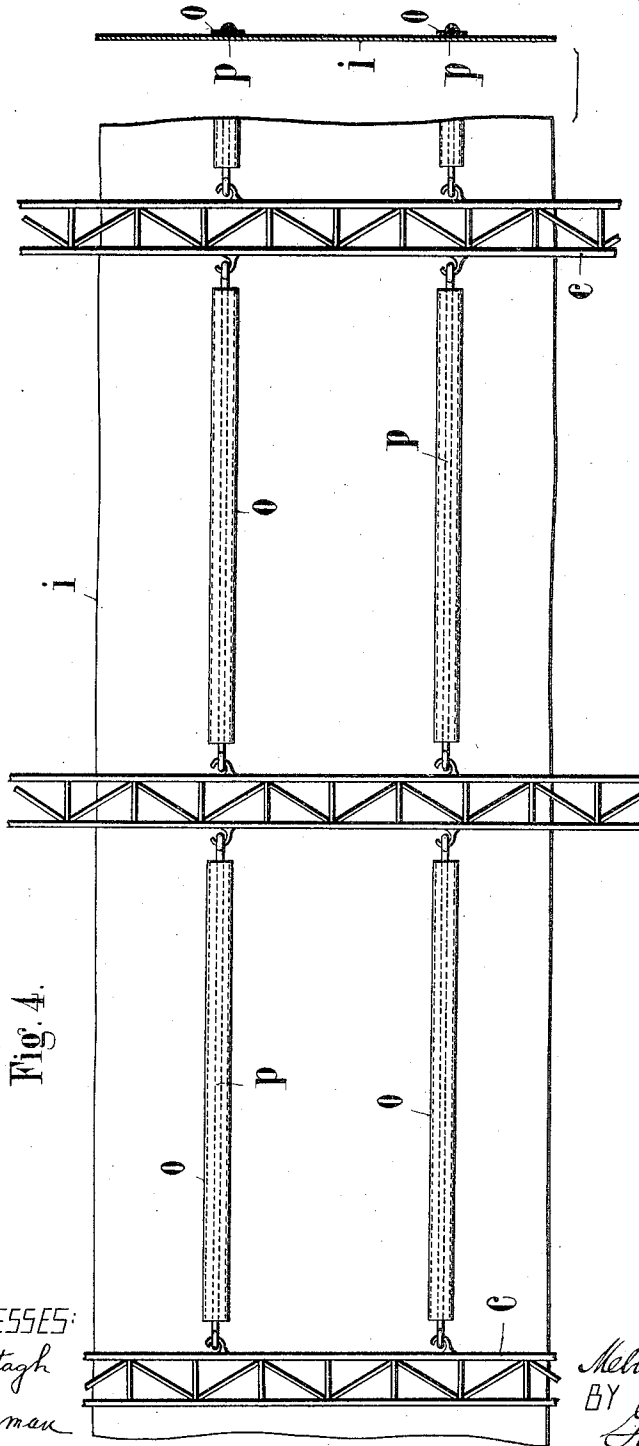


Fig. 4.

WITNESSES:

John Murtagh
L. M. Dorman

INVENTOR

Melvin Vaniman
 BY *Forster & Forster*
 ATTORNEYS.

UNITED STATES PATENT OFFICE.

MELVIN VANIMAN, OF GENNEVILLIERS, FRANCE; IDA L. VANIMAN ADMINISTRATRIX OF SAID MELVIN VANIMAN, DECEASED.

SHELTER FOR HOUSING DIRIGIBLE BALLOONS.

1,057,366.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed February 3, 1909. Serial No. 475,798.

To all whom it may concern:

Be it known that I, MELVIN VANIMAN, a citizen of the United States of America, and resident of Gennevilliers, France, have
5 invented new and useful Improvements in Shelters for Housing Dirigible Balloons, which improvements are fully set forth in the following specification.

The present invention has for its object
10 a shed which may be taken apart and transported from place to place and which owing to the rapidity with which it can be erected is adapted for sheltering a dirigible balloon wherever it may come to the ground. The
15 same shed is equally applicable as a permanent shelter. The erected shed is represented by way of example in the accompanying drawings, in which:—

Figures 1 and 1^a are a side-elevation. Fig.
20 2 is a cross-section on the line A—A in Fig. 1. Fig. 3 is a partial plan view. Fig. 4 shows to a larger scale, in partial elevation and in cross section the details of the means for fixing one of the sheets.

This shed is constituted by a light column
25 *a* of square or other section a small truss *b* and a number of other trusses *c*. The column *a* the small truss *b* and the trusses *c* are connected one with the other by the upper
30 bridge *d* and by the bridges *e* and *f* on each side of the trusses. Beams *g* are also used for connecting the trusses laterally. All these parts are of metal. The extremity
35 *h* of the shed opposite to that at which the column *a* is situated serves as the entrance for the balloon. The whole is closed by means of two sheets *i* each of which covers
40 one face of the shed including the rear part *i'* proceeding as far as the column *a*. Another sheet of canvas *j* forming the door closes the entrance to the shed.

The column the trusses the bridges and the beams are all essentially dismountable
45 the connection of these parts one with the other being effected by bolting them together. All the trusses except the small truss *b* are interchangeable with each other, so that they may be placed in any order
50 without changing the construction of the finished hanger, as are also the bridge elements or beam members which serve to unite them. These parts are light and they may be arranged in place without any special
55 tools or the like.

The column *a* and the trusses *b* and *c* are

supported by means of guy ropes firmly anchored to the ground by means of special anchors.

The shed is erected in the following manner:—First of all the site is marked upon
60 the ground and the column *a* is erected and at once strengthened by the guy ropes *k*. In utilizing the column *a* the small truss and the lengths of bridge or beam work
65 serving to connect it with the said column are lifted by means of hoisting tackle. In this manner an exceedingly strong triangular construction is obtained. The second
70 truss is raised in utilizing this construction and fixed by means of the bridge pieces or beams. The same procedure is adapted for all the trusses until the shed has reached the
75 desired length. The trusses and the column *a* are fixed by means of guys *l* provided with tensioning devices *l* and each fixed into
80 the ground separately or several together by means of an anchor *m* formed by a plate driven into the ground obliquely to a certain depth. The rolled sheets *i* are then
85 lifted and engaged with the upper bridge *d* whereupon they are allowed to unroll. They are fixed to the column at the rear and to the truss *c* forming the entrance at the
90 front by means of hooks *n*. The same hooks *n* receive eyelets in the sheets *i* and above those of the sheet *j* forming the door. A
95 cable passed through all the hooks *n* insures the fixing of the sheets. In order to prevent ill effects from the wind acting upon the
100 sheets they are provided with internal sheaths *o* through which cables *p* connected with the trusses are passed. The holes formed in the sheets for the passage of the
105 guy ropes should be as small as possible. In addition the upper part of the sheets *i* or the part above the upper sheaths *o* and which constitute to some extent the roof of
110 the shed is protected against the wind by means of cables proceeding from the foot of each of the trusses passing above the shed and terminating on the other side at the
opposite foot always running along the same truss. These cables pass through a certain number of rings appropriately fixed in the trusses and are fitted to the sheets provided with apertures for the passage of the said rings. The shed is dismounted in the reverse manner. Nevertheless instead of raising the lower part of the sheets in order to roll them they are allowed to fall to the

ground where they may be rolled up with greater facility.

The rolled sheets and the constituent parts of the shed may be arranged and transported in a few vehicles.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

10 1. A shed adapted for being taken apart and transported for dirigible balloons and comprising a column, a small truss, a plurality of larger interchangeable trusses, interchangeable bridges connecting said larger
15 trusses one with the other and with said column, removable fastening-devices connecting said bridges to said trusses and column, guy ropes provided with tensioning devices and fixed at their lower ends to the
20 ground by anchors and secured at their upper ends to said trusses, a pair of lateral sheets on the outside of said trusses, and a front sheet forming a door.

25 2. A transportable shelter for dirigible balloons comprising a trussed end-column,

a small arch-shaped truss and a series of larger interchangeable arch-shaped trusses, an upper bridge-truss extending from end to end along the top of the shelter and connecting said arch-shaped trusses and said column, intermediate bridge-trusses between said upper truss and the lower ends of said arch-trusses and substantially parallel to said bridge-truss, fastening-devices detachably connecting said arch-shaped trusses and said bridge-trusses and said column, guy ropes secured at their upper ends to said arch-shaped trusses, the lower ends thereof being anchored to the ground, a pair of canvas sides secured to the upper truss and extending on the outside of said trusses down to the ground, and a canvas front at the end of the shelter.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MELVIN VANIMAN.

Witnesses:

EMILE LEDRET,
H. C. COXE.