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TRANSLATION

WIND PROTECTION FOR RADIOSONDE BALLOONS

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AIR FORCE SYSTEMS COMMAND

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WIND PROTECTION FOR RADIOSONDE BALLOONS

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FIRST LINE OF TEXT

Wind Protection For Radiosonde Balloons

by

N. G. Durasov

Wind protecting means are known for protecting radiosonde balloons at the moment of their inflation and releasing, designed in the form of walls or gauze covering fastened at the corner.

The distinguishing peculiarity of the described wind-protection consists in its being designed ~~in the form of an ellipsoid with asymmetrical halves~~, assembled from metallic tubes bent in the form of an arc. The tubes of the lower half of the ellipsoid have thick elastic material stretched over them and are fastened immovable on terminal collars with an opening for the outlet of the balloon, and the tubes of the upper half of the ellipsoid have stretched over them a thin material and are fastened movable on the same kind of collars. The wind protection of such a design simplifies the process of filling and exhausting the balloons. Besides the converging arcs of the upper half of the ellipsoidal wind protection are provided with a lock securing them when closed.

FIRST LINE OF TITLE

On the drawing there is schemitically represented the described wind protection in three projections.

The frame of the wind protection which has the form of an ellipsoid is constructed of metallic tubes 1, for example, duraluminum, bent in the form of an arc. The tubes which form the lower part of the wind protection are fastened immovable to the terminal collars 2 and 3, which have in the center a terminal opening, and have stretched over them a thick elastic material of the type of balloon fabric. The upper half of the wind protection consists of two parts formed of arc-shaped tubes, hinged to the same kind of terminal collars as the tubes of the lower half. The hinged upper half of the ellipsoid has stretched over it thin elastic material of the type of percale and is designed

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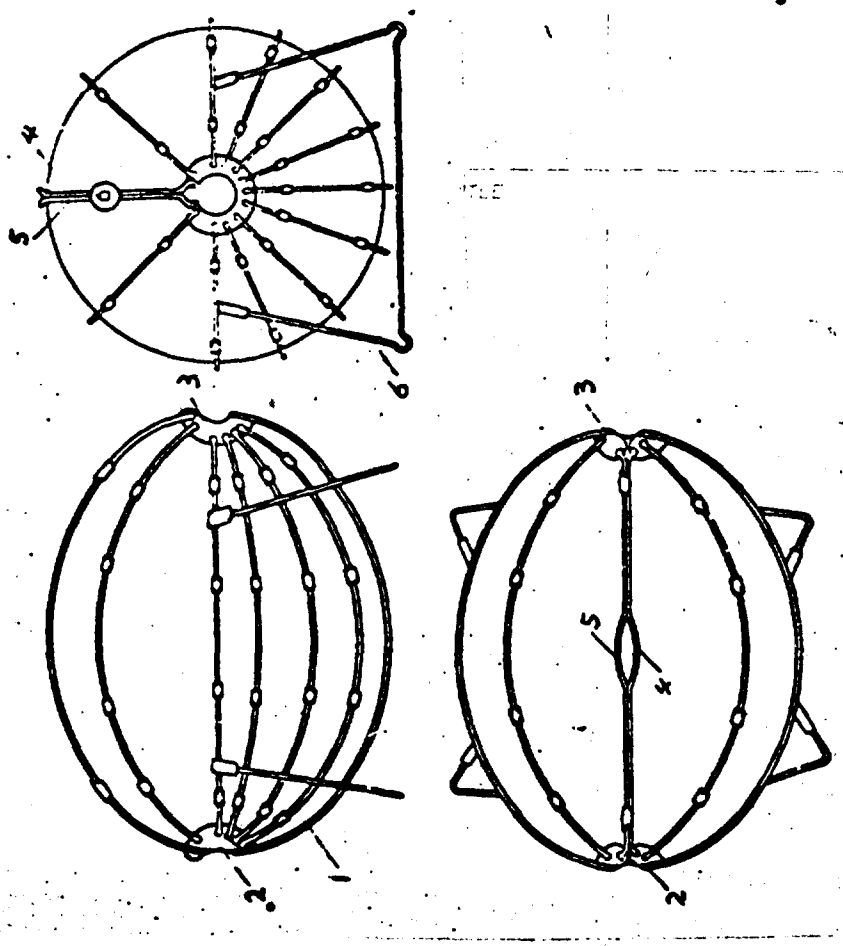
somewhat asymmetrical with relation to the lower half. The asymmetrical quality is assured by the increase in the radius of the tubes of the upper half with an increase in the vertical angle. The maximum radius is given to two converging arcs 4 and 5 (tubes) of the two quarters of the upper half. The converging arcs (tubes) of the upper half are provided with a lock fastening them when closing.



Compiler M. A. Khesin

To the horizontal tubes of the lower half there is rigidly fastened an attachment 6. For releasing the radisonde balloon in a strong wind a thin shroud (not shown on the drawing) is put on it preventing the balloon from tearing on opening the upper half. With the upper half opened up there is inserted into the wind protector in the direction of the great radius, the balloon "rasplavlennuyu" [this word by all dictionaries means "molten" but "raspolozhennuyu" would mean "disposed" or "arranged"] lengthwise. Into the terminal opening there is introduce the extension of the balloon which is fitted onto the tip of the servicing hose

and fastened to the terminal collar. The upper quarters of the half of the wind protection converge and are closed with a lock.

Subject of the Invention

1. A wind protection for radiosonde balloons, which is distinguished by the fact that for the purpose of inflation and exhausting it is designed in the form of an ellipsoid with asymmetrical halves, put together out of metallic, for example, duralumin tubes, bent in the form of an arc, the part of which forming the lower half of the ellipsoid with a thick elastic material stretched over it, is fastened immovable onto terminal collars, which have an opening for the extension of the balloon, and the part forming the upper half, with a thin material stretched over it, is fastened movable on same kind of collars.

2. A device in accordance with No. 1 which is distinguished by the fact that for the purpose of fastening the protection, the arcs which converge when it is closed, are provided with a lock.

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