April 9, 1940. W. C. MARKLE 2,196,704

WINDBREAK FOR OIL DERRICKS

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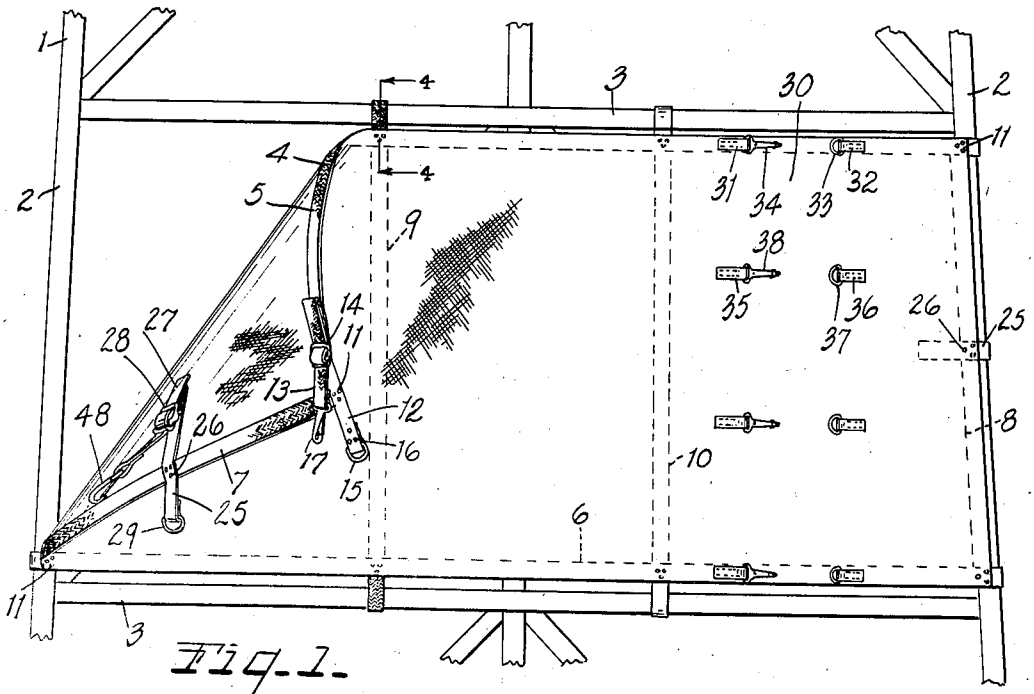


Fig. 1.

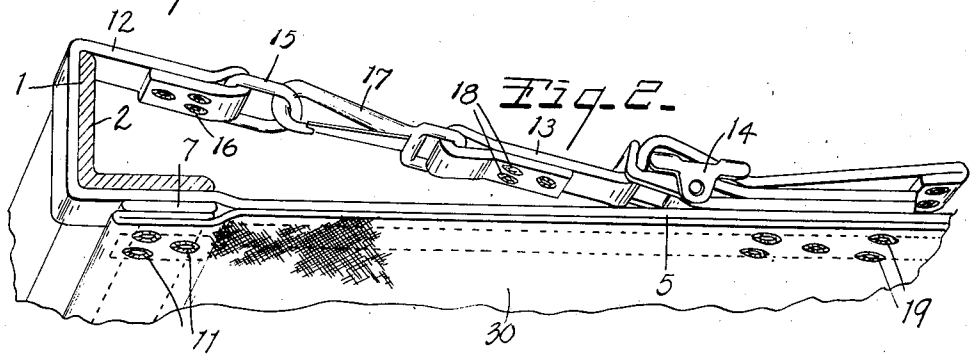


Fig. 2.

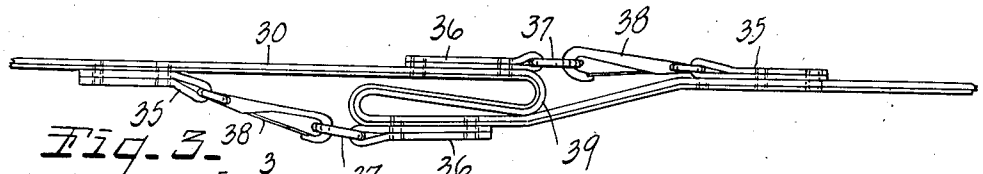


Fig. 3.

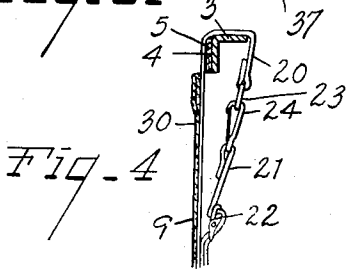


Fig. 4

INVENTOR
William C. Markle
BY Earl & Chappell
ATTORNEYS.

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WINDBREAK FOR OIL DERRICKS

William C. Markle, Hutchinson, Kans.

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2 Claims. (Cl. 135—5)

This invention relates to windbreaks for use in connection with oil well derricks and the like. In drilling for oil, the derrick is provided near its top with a platform on which a workman stands to unfasten blocks or pulleys from the pipe when it is pulled or let down and to connect or disconnect joints. In many instances the man may remain on the platform for several hours at a time and if a wind of any velocity is blowing, it is extremely difficult for the man to stay in place and may be extremely cold. Heretofore protection has been provided for the man by inserting a wood or metal protecting screen in the spaces between the structural members of the derrick. This practice has been quite unsatisfactory because considerable danger attends the use of such windbreaks, due to the possibility of injury either of men or of the windbreak itself when it is taken down.

The objects of this invention are:

First, to produce a new and improved windbreak for use on oil well derricks.

Second, to provide such a windbreak which may be used on several different derricks and which may be simply and quickly installed in place with the consequent saving in time of the workmen.

Third, to provide such a windbreak made of canvas which may be simply and quickly installed and which will stand up under the usage to which it is put.

Other objects and advantages pertaining to details and economies of construction and operation will appear from the description to follow. The invention is defined in the claims. A preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a view of a section of an oil well derrick with my improved windbreak partially installed thereon.

Fig. 2 is a detail view showing the method of fastening my windbreak in place.

Fig. 3 is a detail sectional view through a portion of the windbreak showing my improved means for shortening the dimension of my windbreak in one direction.

Fig. 4 is a detail sectional view taken on line 4—4 of Fig. 1.

Referring to Fig. 1 of the drawing, I show there at 1 a section of oil derrick consisting of upright structural members 2 and horizontal structural members 3. My windbreak consists of a supporting skeleton 4 made up preferably of straps of webbing. Straps of leather or similar material may be employed. Across the upper and lower edges of the skeleton are the straps 5 and 6. Straps 7 and 8 form the vertical edges of the supporting skeleton and straps 9 and 10 form intermediate cross members extending between the straps 5 and 6. It will be seen that the straps 5, 6, 7 and 8 form the marginal edges of the skeleton and of the windbreak. These straps are preferably held together by rivets 11. At each corner of the skeleton the straps 5 and 6 extend beyond the lateral edges of the skeleton to form extensions such as that shown at 12. A strap 13 is fastened to the webbing 5 or 6, as shown in Fig. 2, at a point spaced from the marginal edge of the skeleton. The strap 13 is provided with a suitable take-up buckle 14 for adjusting the length thereof. The strap 13 and the extension 12 form a pair of fasteners for embracing structural members of the derrick and are provided at their ends with suitable fastening means for fastening the ends together.

As shown in Fig. 2, the extension 12 has a ring 15 fastened thereto by turning back the end of the strap and fastening with rivets 16. A suitable snap fastener 17 is fastened to the end of the strap 13 by turning back the end of the strap and fastening with rivets 18. Rivets 19 hold the end of the strap 13 in place. The straps 9 and 10 have their ends extending beyond the marginal edges of the skeleton and of the windbreak forming extensions 20 similar to the extensions 12. Strap 21, similar to the strap 13, is fastened to the webbing 9 or 10 as shown in Fig. 4 and is provided with a buckle 22 similar to the buckle 14. A ring 23 is fastened on the end of the extension 20 similar to ring 15 and a snap fastener 24 similar to snap fastener 17 is provided at the end of the strap 21. These members embrace the structural members 3 of the derrick. Along the side edges are provided strap extensions 25 which are fastened by rivets 26 to the webs 7 and 8. These straps extend back onto the windbreak and straps 27 with buckles 28 are provided to form with the straps 25 fasteners for embracing the structural members of the derrick. Strap 27 has a snap fastener 48 and the strap 25 has a ring 29.

A piece of heavy canvas 30 is sewed to the supporting skeleton 4 and serves as a windbreak. It will be apparent that the skeleton 4 takes up all of the strains imposed on the windbreak in use and that the canvas serves merely to protect the workman from the wind and is not called upon to resist the strains imposed in use. By using a canvas mounted upon the skeleton which takes all of the strains, it is possible to eliminate

tearing of the canvas in high winds and to prevent undue stretching of the windbreak.

It will be apparent that the fastening of the windbreak in place on the derrick can be accomplished in a very short time and if for any reason the windbreak is dropped, no damage can be done to the windbreak and no harm can be done to workmen who happen to be at the lower portion of the derrick.

In order to provide some adjustment of the length of the windbreak, I provide the arrangement which is shown in detail in Fig. 3. On each face of the straps 5 and 6 at points substantially opposite one another, I provide straps 31 and 32 fastened to the straps 5 and 6. A ring 33 is provided on the strap 32 and a snap fastener 34 on the strap 31. A similar arrangement is provided on the bottom web 6 and if desired straps 35 and 36 are provided on the opposite faces of the canvas 30. These are provided with rings 37 and snap fasteners 38. It will be apparent that the length of the windbreak may be shortened by forming a fold such as is shown at 39 in Fig. 3 and by fastening the snaps 38 in the rings 37. With this arrangement the strains on the windbreak are still taken by the skeleton through the straps 5 and 6 and the straps 35 and 36 serve to hold the fold in position.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A windbreak for oil well derricks or the like adapted to fit between structural members of said derrick or the like, comprising a supporting skeleton formed of a pair of flexible straps defining top and bottom margins of said skeleton, and a pair of flexible straps connecting said first mentioned straps at points spaced from the ends thereof to form the side margins of said skeleton whereby the ends of said first mentioned flexible straps extend beyond said side margins to form means for embracing the aforesaid structural members, and a plurality of flexible straps extending between said top and bottom marginal straps in the confines of said skeleton and fastened thereto and having their ends extending beyond the top and bottom margins of said skeleton to form means to embrace the aforesaid structural members, and a canvas body portion fastened to and supported by said skeleton, and means for fastening the free ends of the straps when they are embracing the aforesaid structural members.

2. A windbreak for oil well derricks or the like adapted to fit between structural members of said derrick or the like, comprising a supporting skeleton formed of flexible straps defining the margins of said windbreak, and flexible straps extending between said margins, flexible straps extending from the margins of said skeleton and having fastening means at their free ends, cooperating fastening means on said skeleton, and a canvas fastened to and supported by said skeleton in such manner that when the windbreak is in place on a derrick or the like the skeleton and fastening straps take the strains incident to use of the windbreak and the canvas breaks the wind.

WILLIAM C. MARKLE.