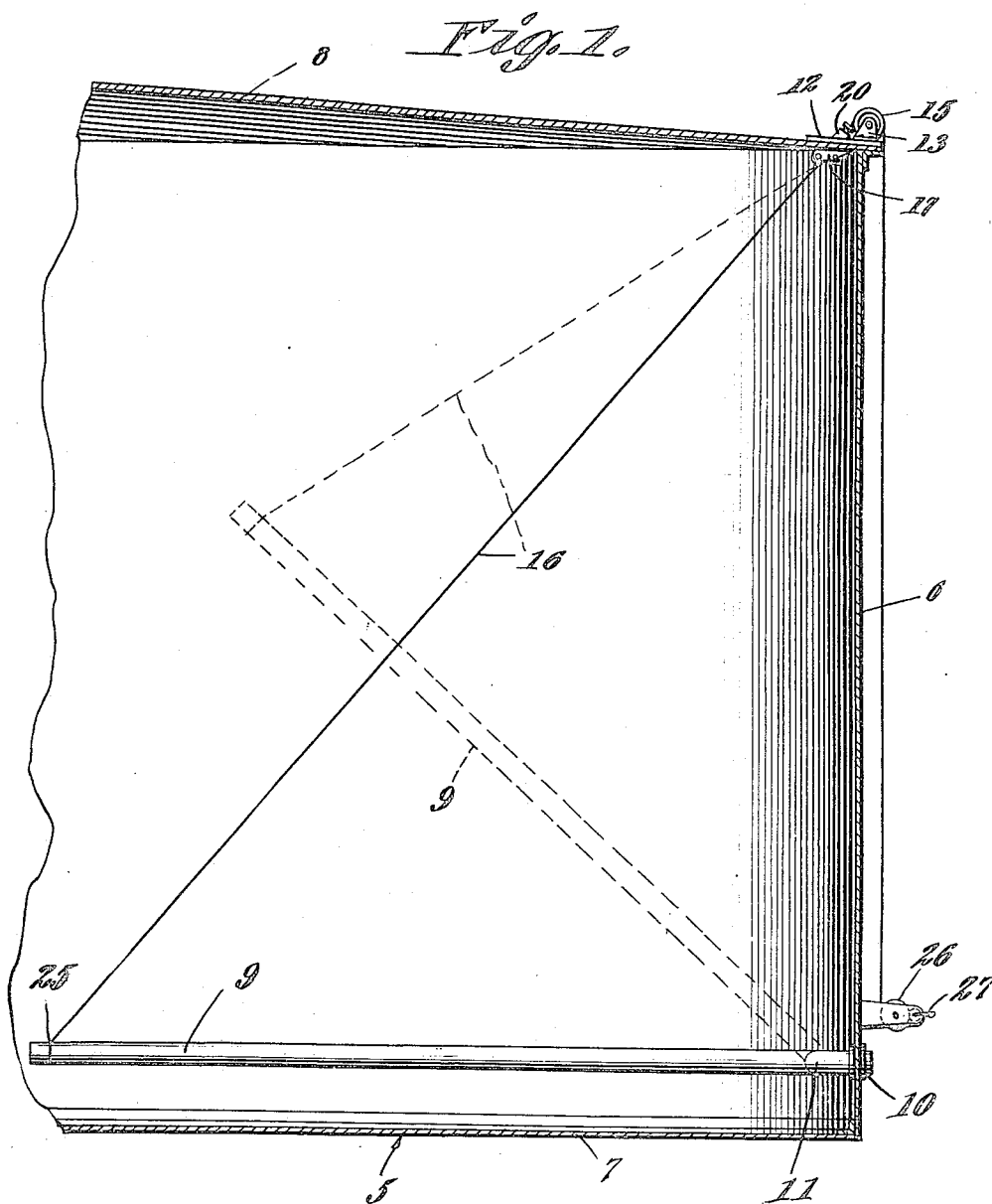


1,435,154.

2 SHEETS--SHEET 1.



Inventor,
W. F. Edwards.

53 y *Cashworth.*
Attorneys

W. F. EDWARDS.
 SWING PIPE CABLE GUIDE AND STUFFING BOX.
 APPLICATION FILED OCT. 17, 1921.

1,435,154.

Patented Nov. 14, 1922.

2 SHEETS—SHEET 2.

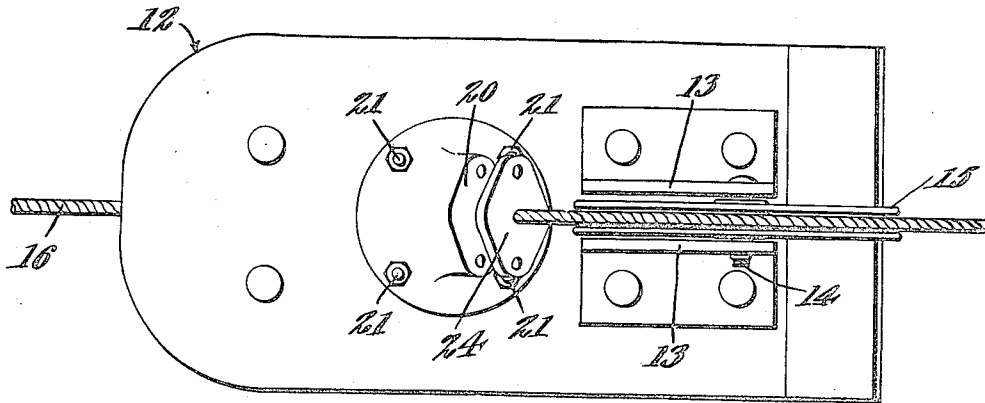


Fig. 2.

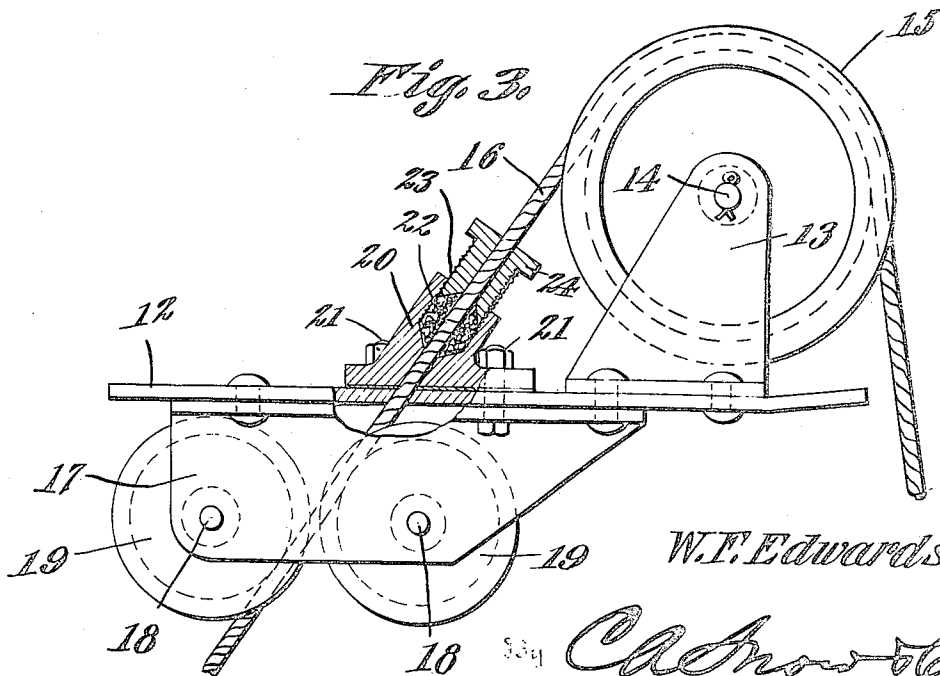


Fig. 3.

W.F. Edwards.

Chas. E. Edwards.

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM F. EDWARDS, OF WARREN, OHIO.

SWING-PIPE CABLE GUIDE AND STUFFING BOX.

Application filed October 17, 1921. Serial No. 508,267.

To all whom it may concern:

Be it known that I, WILLIAM F. EDWARDS, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented a new and useful Swing-Pipe Cable Guide and Stuffing Box, of which the following is a specification.

This invention relates to storage tanks, and more particularly tanks especially designed for storing oil or the like.

The primary object of the invention is to provide means to permit the swing pipe, forming a part of an oil storage tank, to be raised and lowered and at the same time maintain a gas-tight roof.

Another object of the invention is to support the usual pulleys over which the swing pipe cable moves, in a position to relieve the shell and roof of the strain usually directed thereto by the weight of the swing pipe.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:—

Figure 1 is a fragmental sectional view through a tank constructed in accordance with the present invention.

Figure 2 is a plan view of the pulley support.

Figure 3 is an elevational view partly broken away to disclose the stuffing box through which the swing pipe cable moves.

Referring to the drawings in detail, the reference character 5 designates an oil storage tank embodying a metallic shell 6, a bottom section 7 and a roof section 8, the roof section being slightly inclined as clearly shown by Figure 1 of the drawings.

A swing pipe indicated at 9 has connection with the shell at a point in spaced relation with the bottom 7 of the tank, as by means of the securing rings 10 which embrace portions of the pipe, and contact with the shell 6.

The pipe 9 includes an elbow 11, whereby the pipe may be swung within the tank

proper as clearly shown by Figure 1 of the drawings. The pulleys and bracket, which form an important feature of the invention, embody a plate 12 to which are secured the upstanding spaced ears 13 which provide bearings for the shaft 14 that supports the pulleys 15, over which the swing pipe cable 16 moves.

Secured to the plate 12 are the bracket members 17 which have bearing members accommodating the shafts 18 of the pulleys 19, which pulleys operate in close proximity to each other, the cable 16 passing therebetween. The plate 12 is provided with a suitable opening communicating with an opening formed in the stuffing box 20 which is bolted to the plate 12 as by means of the bolts 21 and disposed at an angle with respect to the upper surface of the plate to feed the cable directly through the pulley 15.

The stuffing box 20 is formed with a hollow portion to accommodate the packing material 22, the inner surface of the stuffing box being threaded to accommodate the threaded portion 23 of the movable section 24 of the stuffing box, which movable section is also provided with an opening to accommodate the cable 16.

This cable 16 has one of its ends connected to the swing pipe 9 as at 25, the opposite end thereof having connection with the windlass 26 which is operated by the crank handle 27, so that the cable 16 may be wound on the windlass to move the swing pipe 9 so that the free end thereof may assume positions within the tank at various levels.

From the foregoing it will be seen that as the cable 16 is wound on the drum, and moves through the stuffing box, an air-tight connection between the cable and stuffing box is provided. If it is desired to prevent leakage of gas between the cable and stuffing box, should the stuffing material 22 become worn, it is only necessary to rotate the movable section 24 of the stuffing box to cause the stuffing material 23 to again closely engage the cable 16.

As clearly shown by Figure 1 of the drawings, an angle iron indicated at 28 has connection with the shell 6 and braces the overhanging portion of the roof 8. The plate 12 is positioned on the roof at a point adjacent to the angle iron 28 and as shown, the pulley 15 is supported directly over the an-

gle iron 29 to relieve the shell 6 and roof 8, of the strain directed thereto, when the swing pipe is being moved.

Having thus described the invention, what is claimed as new is:—

1. In combination with an oil storage tank and the swing pipe supported therein, a plate supported on the roof of the tank, pulleys supported by the plate, a stuffing box forming a part of the plate, a cable adapted to pass through the stuffing box and adapted to move over the pulleys, said cable having connection with the swing pipe, and a windlass for moving the cable over the pulleys to adjust the swing pipe.

2. In combination with an oil storage tank and the swing pipe supported therein, a

plate supported on the roof of the tank, pulleys mounted on the plate, a stuffing box carried by the plate, said stuffing box including a stationary section and a movable section, a cable adapted to pass through the stuffing box and over the pulleys, said cable having connection with the swing pipe, and means for moving the cable through the stuffing box.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. EDWARDS.

Witnesses:

WESLEY H. OTT,
H. A. MACKEY.