Aug. 3, 1943. D. R. MOORE 2,326,052

PIPE HANDLING AND RACKING PLATFORM

Filed April 13, 1942 2 Sheets-Sheet 1

Fig. 1.

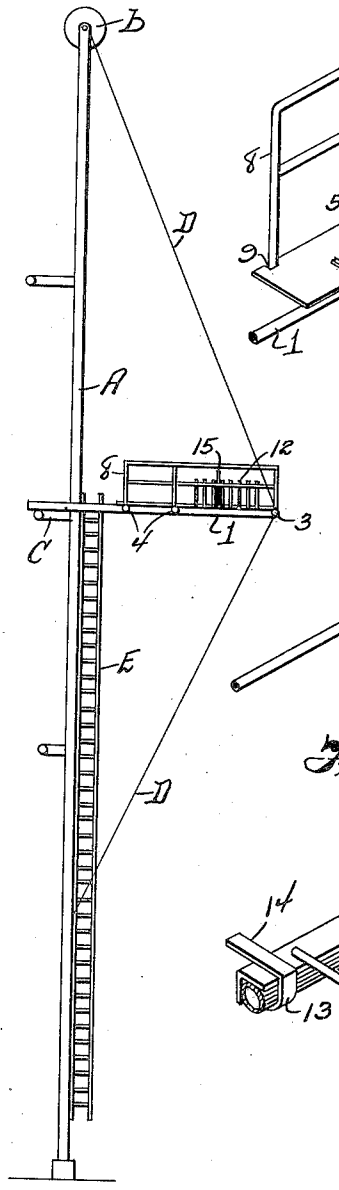


Fig. 2.

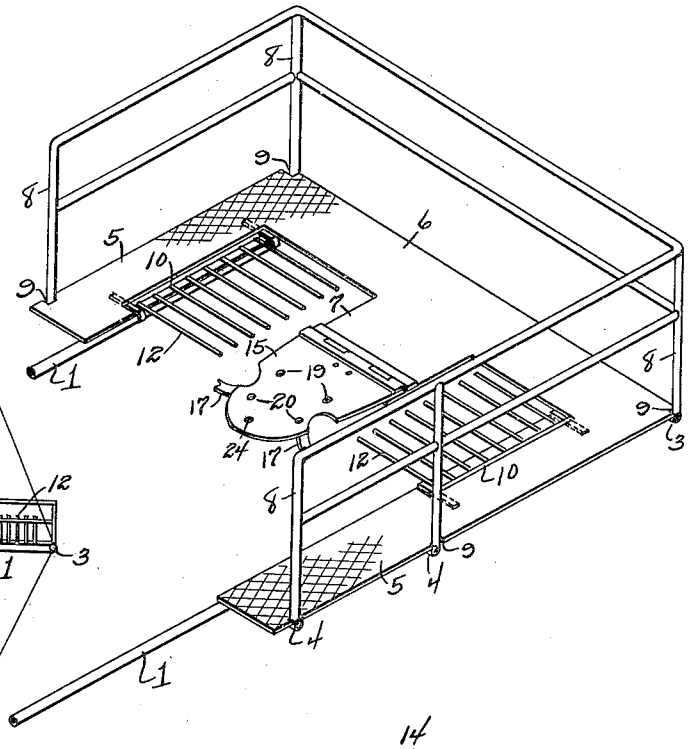
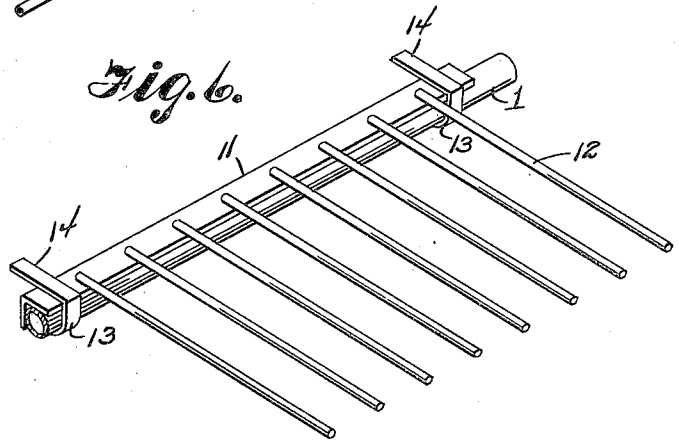


Fig. 6.



Dewey R. Moore
INVENTOR.

BY
Victor J. Evans & Co.
ATTORNEYS

Aug. 3, 1943. D. R. MOORE 2,326,052

PIPE HANDLING AND RACKING PLATFORM

Filed April 13, 1942 2 Sheets-Sheet 2

Fig. 3

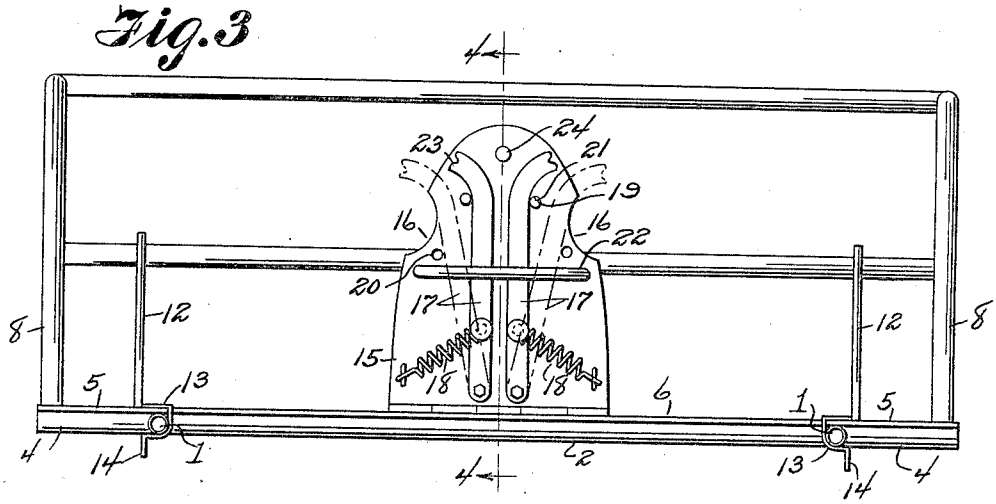


Fig. 4.

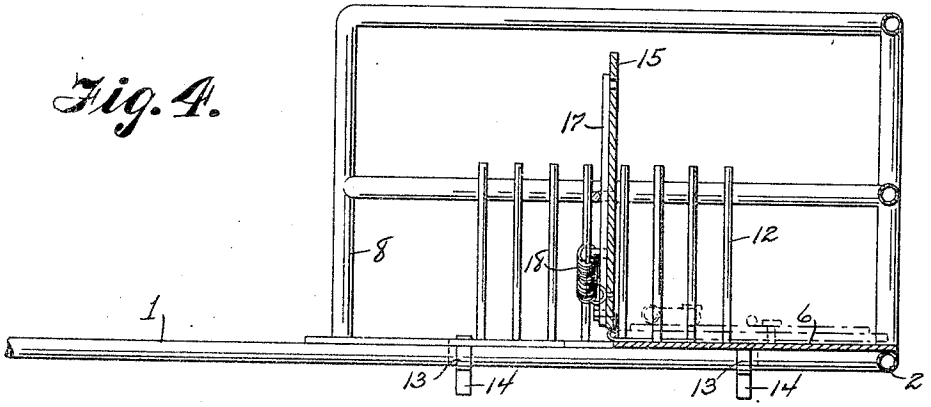


Fig. 5.

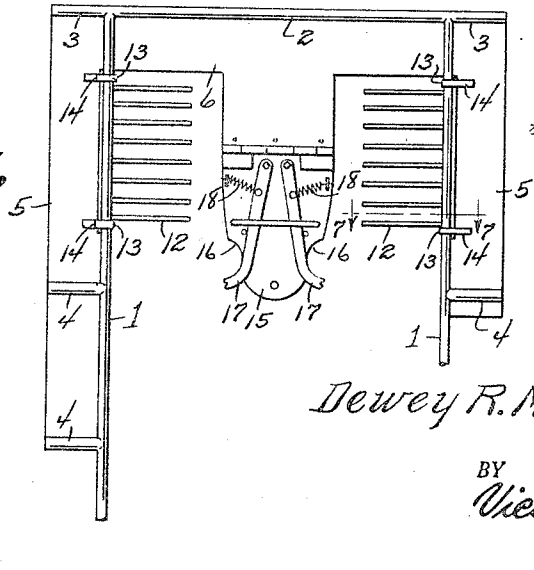
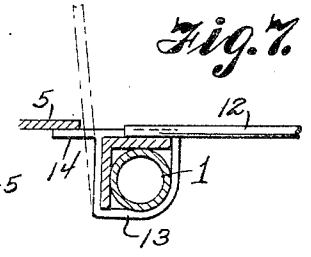


Fig. 7.



Dewey R. Moore INVENTOR.

BY

Victor J. Evans & Co.

ATTORNEYS

Patented Aug. 3, 1943

2,326,052

UNITED STATES PATENT OFFICE

2,326,052

PIPE HANDLING AND RACKING PLATFORM

Dewey R. Moore, Holdenville, Okla.

Application April 13, 1942, Serial No. 438,807

7 Claims. (Cl. 211—60)

This invention relates to pipe handling and racking platforms for oil well masts, derricks and the like, and its general object is to provide a platform on which the derrick operator can safely stand for handling the pipe and tubing sections, as they are run into or pulled from the well, the platform including a pair of finger boards and a stabbing board which are movably mounted for disposal into and out of use, and when in the latter position, they will in no way interfere with the drilling operations.

A further object is to provide a pipe handling and racking platform that makes it possible for all operations to be clearly observed by the driller and platform operator, thus avoiding accidents, as the floor of the platform is open, and the finger boards are arranged upon opposite sides of the platform for racking the pipe sections accordingly, and such arrangement allows the racking of a greater number of sections than is possible by the equipment now in general use, as well as equalizes the strain on the mast.

Another object is to provide a pipe handling and racking platform that can be installed and removed in an easy and expeditious manner, and is simple in construction, inexpensive to manufacture, and extremely efficient in use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation illustrating my platform installed on a mast.

Figure 2 is a fragmentary perspective view of the platform per se with the stabbing and finger boards in operative position.

Figure 3 is a rear view with the finger boards moved to an inoperative position and the stabbing board in a raised position to clearly illustrate the respective positions of the stabbing arms.

Figure 4 is a sectional view taken approximately on line 4—4 of Figure 3.

Figure 5 is a bottom plan view with the parts in operative position.

Figure 6 is a perspective view of one of the finger boards.

Figure 7 is a sectional view taken approximately on line 7—7 of Figure 5, looking in the direction of the arrows.

Referring to the drawings in detail, it will be noted from Figure 1 that I have illustrated my platform as being mounted on a conventional mast type derrick, used in piping, drilling and servicing wells, but it will be understood that the platform can be installed on derricks, towers or aerial scaffolds of any type. The derrick shown includes a pair of converging legs A having a pulley B at the top thereof for the elevator cables, and frames C are fixed to the legs at intervals of the height thereof to provide supports for my platform which is shown as being fixed to the intermediate frame for disposal laterally therefrom and is braced by cable stays D.

The platform includes a supporting or base frame made up of a pair of parallel tubular side members 1 and parallel tubular end members 2. The end member shown projects outwardly beyond the ends of the side members as at 3. Extending laterally and outwardly from the side members are studs 4 which cooperate with the side members and the end member shown, to support a substantially E-shaped floor. The floor includes spaced side portions 5, a rear portion 6 bridging the side portions, and an intermediate portion 7, the latter extending centrally and inwardly from the rear portion. A guard railing is provided for the platform and includes uprights 8 fixed to the ends of the projections 3 and the studs 4, and the floor portions 5 and 6 have recesses 9 therein, which provide seats for the uprights, for detachably securing the floor to the frame, as will be apparent from Figure 2. One side floor portion 5 is longer than the other, for receiving the upper end of a ladder E, whereby access can be had to the platform, and the upper face of the floor is ribbed for safety, as will be apparent.

Each side portion 5 of the floor is formed with an elongated recess 10 along the inner edge thereof, the recesses being arranged opposite each other and provide spaces for receiving angle bar supports 11 for the fingers 12 of the finger boards, the supports being secured to the side members 1 for swinging movement of the boards, by strip like bearing collars 13 surrounding the side members. The collars are formed with stop lugs 14 engageable with the under face of the side portions 5, to support the finger boards in horizontal or operative position as shown in Figure 2, and the boards are movable to an inoperative position, as shown in Figure 3. Suitable means

may be provided for holding the fingers in the upright position of the latter figure, but the fingers may rest upon the side rails of the guard railing.

The fingers are welded or otherwise secured to the supports 11 in spaced parallel relation to each other for receiving the pipe sections between the same, so that the sections can be neatly racked upon opposite sides of the platform. It will be obvious that by providing a pair of oppositely disposed finger boards, that the pipe sections are not only racked to allow the platform operator and the driller to readily observe all operations, but the double racking equalizes the strain on the mast.

The stabbing board includes a body plate 15 that is reduced toward its outer end, the latter being rounded, and the inner end of the plate is hinged to the intermediate floor portion 7, as well as is disposed in overlapped relation therewith, so that the stabbing board will be supported in a horizontal or operative position, as shown in Figures 2 and 5. The side edges of the plate are each formed with an arcuate recess 16 and pivotally secured to the underside of the plate adjacent the hinged end thereof are the inner ends of a pair of stabbing arms 17 for movement toward and away from each other, and the outer end portions of the arms are outwardly flared in arcuate formation to cooperate with the recesses 16 to provide rests for the pipe sections when running the same into the well hole.

Connected to the arms adjacent to the pivoted ends thereof are coil springs 18 which are connected to the underside of the plate, the springs urging the arms in pipe section receiving position, as shown in dotted lines in Figure 3, and the outward movement of the arms is limited to that position by pins 19 receivable in holes 20 in the plate. Holes 21 are also provided in the plate for receiving the pins 19 to hold the arms in a retracted or normal position wholly disposed on the under face of the plate, as shown in full lines in Figure 3. A bracket 22 is secured to the underside of the plate to support the arms, as will be apparent. The outer ends of the arms are notched as at 23 for receiving a hook like tool to move the arms to their retracted position against the action of the springs, and a hole 24 is provided in the plate adjacent the outer end thereof for receiving the tool to lift the stabbing board from its operative position to its normal position in resting engagement on the floor, as shown in dotted lines in Figure 4. It will be obvious that when the stabbing board is in its latter position, and the finger boards are in their normal position, that the platform is free from all obstructions that may interfere with the drilling operations.

When using the platform for running pipe into the well hole, it being understood that the pipe sections are of a length to extend from the finger boards to the rotary table on the rig floor, the platform operator takes a section from one of the finger boards and rests the same against the adjacent stabbing arm. The elevator is then latched to the section for lifting the same, so that it will be swung over the hole in the rig floor. When the section is lifted it moves the arm against the action of its spring and the section is guided by the curved edge of the plate 15 for disposal over the hole. The spring of course returns the arm to its original section for receiving the next section. When pulling the pipe from the well hole, the stabbing board is used for holding and guiding the sections, but the arms 17 are retained in their inoperative position, so as to not interfere with the movement of the sections to the finger boards.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A pipe handling and racking platform for oil well derricks, comprising a base frame for attachment to the derrick, a floor secured at its inner side edges to the frame and including spaced side portions and a rear portion bridging the side portions, finger boards secured to the frame and arranged at the inner side edges of said side portions, and a stabbing board having connection with the rear portion for disposal between the finger boards.

2. A pipe handling and racking platform as in claim 1, said finger boards being movably mounted for disposal into and out of the space between said side portions, means for holding the finger boards in a horizontal position in said space, said stabbing board being hingedly mounted for disposal into and out of said space, and means for holding the stabbing board in horizontal position in said space.

3. A pipe handling and racking platform as in claim 1, said frame including side members, said finger boards each including an angle bar support, spaced parallel fingers fixed to the supports, said supports being movably mounted on the side members along the length thereof for swinging movement of the finger boards to dispose the fingers into and out of the space between said side portions, and means for holding the finger boards with the fingers in a horizontal position in said space.

4. A pipe handling and racking platform as in claim 1, said stabbing board including a plate having a rounded free end and pipe section receiving recesses in the sides thereof, a pair of stabbing arms pivotally mounted in the under face of the plate and having arcuate forward end portions cooperating with the recesses to provide rests for the pipe sections, springs secured to the plate and arms respectively for urging the arms to dispose the arcuate portions in pipe section receiving position, means removably mounted in the plate for holding the arms with the arcuate portions in said position or wholly disposed below said plate, and supporting means for said arms.

5. A pipe handling and racking platform for oil well derricks, comprising a base frame for attachment to the derrick, said frame including a pair of spaced parallel side members and an end member secured to and projecting outwardly from the side members, studs formed on and extending laterally and outwardly from the side members, a floor including spaced side portions and a rear portion bridging the side portions, said portions being supported on said members and the studs and having recesses therein, a guard railing including uprights secured to and rising from the studs and the ends of the end member, said recesses having the uprights mounted therein for detachably securing the floor to the frame, finger boards secured to the side members for disposal in the space between said side portions, an intermediate portion included in

the floor and extending forwardly and centrally from said rear portion, and a stabbing board hingedly secured to the outer end of said intermediate portion for disposal between the finger board.

6. A pipe handling and racking platform for oil well derricks, comprising a base frame including side members for attachment to the derrick, a floor secured to the frame and including spaced side portions and a rear portion bridging the side portions, finger boards movably mounted on the side members of the base frame, and a movable stabbing board mounted on the rear portion for disposal between the finger boards.

7. A pipe handling and racking platform for oil well derricks, comprising a base frame including side members for attachment to the derrick, a floor supported by the base frame and including spaced side portions and a rear portion bridging the side portions, finger boards pivotally secured to the side members of the frame, and a stabbing board pivotally supported by the rear portion for disposal between the finger boards.

DEWEY R. MOORE.