R. A. SMITH.

FARM DERRICK.

APPLICATION FILED MAR. 10, 1920.

1,352,035. Patented Sept. 7, 1920.

FIG. 1.

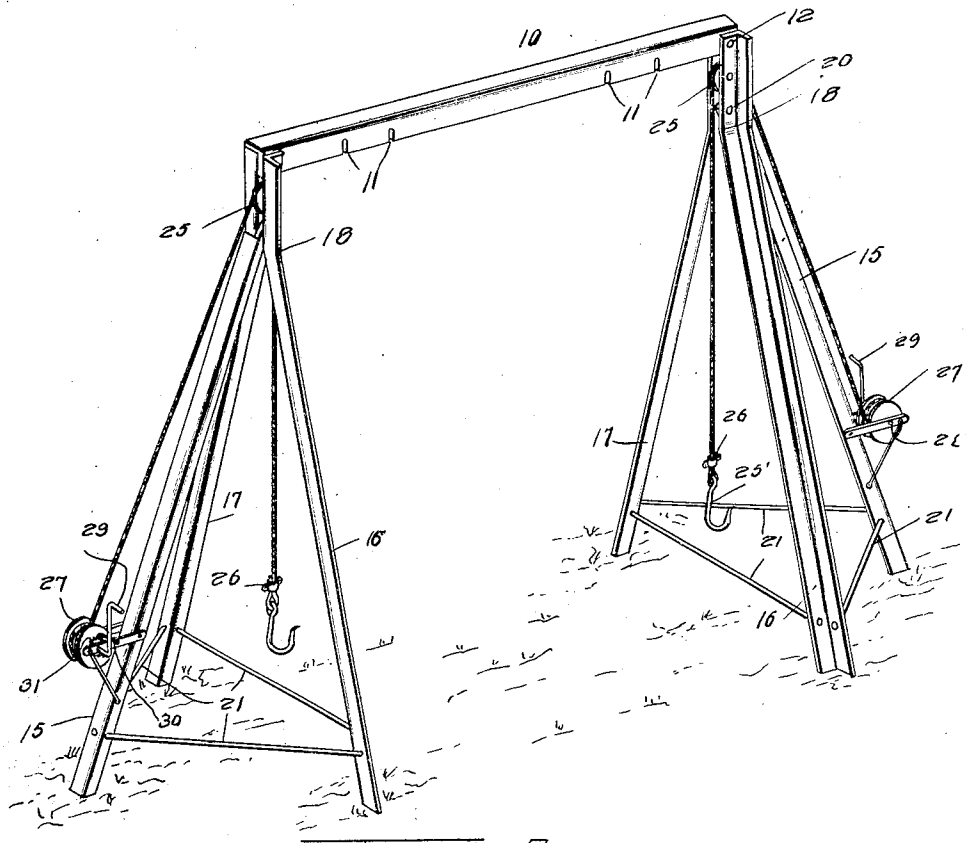


FIG. 2.

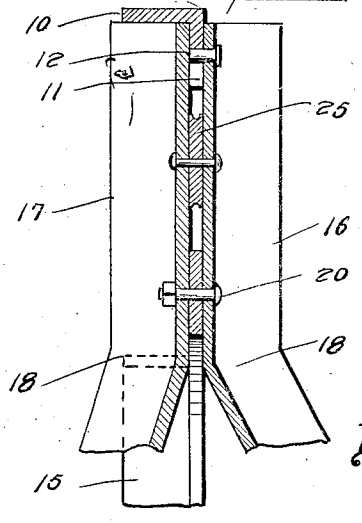
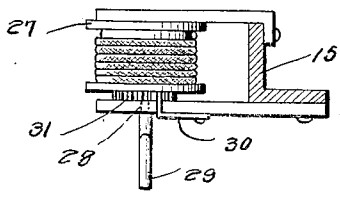


FIG. 3.



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FARM-DERRICK.

1,352,035. Specification of Letters Patent. Patented Sept. 7, 1920.

Application filed March 10, 1920. Serial No. 364,808.

To all whom it may concern:

Be it known that I, RAYMOND A. SMITH, a citizen of the United States, residing at Kinsley, in the county of Edwards and State of Kansas, have invented certain new and useful Improvements in Farm-Derricks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to farm derricks, and one object is to provide a device by the use of which one individual may remove or replace the body of an automobile, wagon, or other vehicle, or may lift a barge, hayracks, or other structures or articles, without the necessity of calling for assistance.

A further object is to provide a device which shall include a plurality of supporting elements and an upper transverse connecting element, adjustable with reference to the supporting elements, permitting the device to be conveniently employed for raising articles of various dimensions, and weighing several tons each.

A still further object is to provide in connection with a pair of tripods, and means for adjustably connecting the tripods at their upper portions, a plurality of cables and winding devices, which may be operated independently by a single individual, who by rotating the aforesaid winding devices alternately may raise the article to be lifted to the required height.

With the foregoing and other objects in view, the invention consists in the novel construction, combination, and arrangement of elements hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the apparatus.

Fig. 2 is a detail view showing the structure at the upper portion of one of the tripods and

Fig. 3 is a detail view showing the winding mechanism and manner of mounting the latter.

The general objects of the invention have been stated more or less fully, and reference may also be made to the fact that the apparatus comprises three independent sections which are detachably connected, so that they may readily be moved from place to place by one individual, each element being however sufficiently substantial to serve the purpose intended, the apparatus as a whole being designed to support an article weighing several tons. The tripods are of angle bar construction and the upper transverse element may also be formed of an angle bar. This element last named is designated 10 and is provided with slots 11 engaged by pins 12 carried by the upper portions of the respective tripods, thereby permitting of adjustment, and making it possible to space the tripods at the required distance apart, depending upon the dimensions of the article to be lifted.

The tripods each include a plurality of angle bars designated 15, 16 and 17, the bars 16 and 17 being deflected and about the point 18, in order that the upper portion of these bars may be in parallel relation and spaced apart, and the remaining portions of said bars 16 and 17 may diverge for forming leg portions. The other bar or leg 15 or the upper end of the latter, extends between the parallel portions of the angle bars 16 and 17 and is secured by bolts 20. Tie rods 21 connect the lower portions of the legs of the tripods.

It will be understood that the two tripods are similarly constructed, so that for purposes of manufacture only one supporting structure is required, the structure being used in pairs, as indicated.

A pulley 25 is mounted between the angle bars 16 and 17 near their upper ends, and a cable passes around the pulley, one end of this cable being provided with a hook 25 secured by a clamp 26. The opposite end of the cable passed around the drum 27 mounted on a shaft 28, the latter being operated by a crank 29. The pawl 30 and the ratchet wheel 31 serve an obvious purpose.

In the operation of the device, it is only necessary for one individual to make the hooks fast to the article being lifted, and to rotate the drums independently, so that the vehicle body, hayrack, or other article being elevated may maintain an approximately horizontal position during the operation. The operation is of course reversed in restoring the article lifted to normal position.

What is claimed is:—

1. In a device of the class described, a plurality of supporting structures, a winding device carried by each of said structures, a cable connected with each winding device, a transverse element mounted on the upper

end of each structure, a bar extending between the upper ends of the respective structures, said bar being provided with a plurality of slots for engaging the transverse elements and permitting said structures to be spaced apart at variable distances and to be braced at their upper ends against lateral movement.

2. In a device of the class described, a plurality of supporting structures, a winding device mounted on said structures, a cable connected with each winding device, two of the elements of each structure being spaced apart near their upper ends, a transverse element extending between the two structures and passing between the spaced elements of each structure, said bar being provided with a plurality of slots, and means carried by each of said structures for engaging certain of the slots and permitting the structures to be spaced adjustably and to be braced against lateral movement.

In testimony whereof I affix my signature in presence of two witnesses.

RAYMOND A. SMITH.

Witnesses:
W. E. BRODIE,
J. B. DONNELL.