

No. 672,576.

F. W. TANNETT-WALKER.
TRAVELING CRANE.

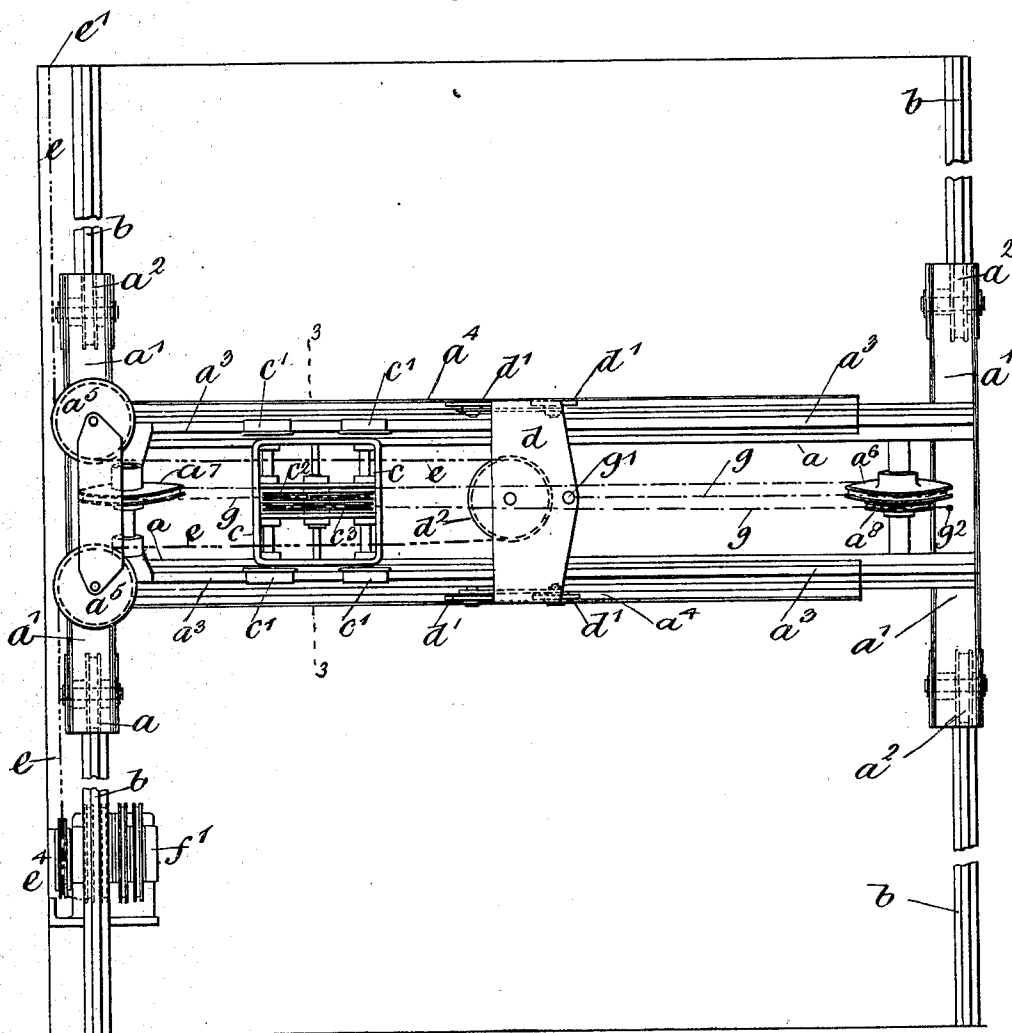
Patented Apr. 23, 1901.

(No Model.)

(Application filed Nov. 22, 1900.)

2 Sheets—Sheet 2.

Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM TANNETT-WALKER, OF LEEDS, ENGLAND.

TRAVELING CRANE.

SPECIFICATION forming part of Letters Patent No. 672,576, dated April 23, 1901.

Application filed November 22, 1900. Serial No. 37,347. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK WILLIAM TANNETT-WALKER, engineer, a subject of the Queen of Great Britain, residing at Hunslet, Leeds, in the county of York, England, have invented certain new and useful Improvements in Traveling Cranes, of which the following is a specification.

According to this invention the power for lifting is communicated to the crab on the traveler by a rope running from end to end of the shop. Preferably one end of this rope is fixed, while the other passes around pulleys on a hydraulic cylinder and ram; but other arrangements may be adopted. The rope passes around pulleys on the traveler and on a carriage free to move on the traveler across the shop independently of the crab, and by pulling on the rope this carriage can be drawn from one side of the shop to the other, whatever be the position of the traveler, for the movement of the traveler along the shop does not affect the position of the carriage relatively to it. The hoisting-rope has one end fixed to the carriage and the other end to the traveler and passes around pulleys on the traveler and on the crab, so that the movement of the carriage raises or lowers the weight.

Figure 1 is a side elevation of the traveler, crab, and carriage. Fig. 2 is a plan; and Fig. 3, a section on the line 3 3, Figs. 1 and 2, to a larger scale.

The traveler shown consists of a pair of girders a , fixed to side pieces a' , mounted on wheels a^2 , running on rails b , which extend from end to end of the shop. The crab c consists of a carriage mounted on wheels c' , running on rails a^3 , fixed to the girders a . The carriage d is mounted on wheels d' , running on rails or guides a^4 , fixed to the girders a . It will be observed that the carriage d bridges clear over the crab c , so that the two can pass each other.

Any ordinary means may be employed for moving the traveler to and fro along the shop and for traversing the crab along it, and as such means form no part of the present invention they are not shown in the drawings.

e is a rope having one end fixed at e' and the other end at e^2 . This rope passes around pulleys on a hydraulic cylinder and ram ff'

in the usual way up over a pulley e^4 , and it also passes around pulleys a^5 a^5 on the traveler and a pulley d^3 on the carriage d . The effect, therefore, of admitting water to the cylinder f is to pull the carriage d from right to left of Figs. 1 and 2.

g is a rope having one end fixed at g' to the carriage d and the other at g^2 to the traveler. This rope passes from g' around the pulleys a^6 a^7 on the traveler, then around the pulley c^2 on the crab, around the pulley h' of the hook h , around the pulley c^3 on the crab, and around the pulley a^8 on the traveler down to g^2 , where it is fixed. The effect, therefore, of pulling the carriage d from right to left, as above described, is to raise the hook h . Similarly, when water is allowed to escape from the cylinder f the weight on the hook h draws down the hook and pulls the carriage d back from left to right. Owing to the way in which the ropes are led the height of the hook h depends only on the position of the carriage d and is entirely independent of the position of the traveler in the shop or of the crab on the traveler.

What I claim is—

1. The combination of a track, a traveler on the track, a crab and a carriage on the traveler, a pair of pulleys on the traveler, a pulley on the carriage, means actuated by the carriage for operating the crab, a rope running from end to end of the track and passing around the pulleys on the traveler and carriage and means for hauling on the rope.

2. The combination of a track, a traveler on the track, a crab and a carriage on the traveler, a pair of pulleys on the traveler, a pulley on the carriage, a pair of pulleys on the crab, a hook, a pulley on the hook, a second pair of pulleys on the traveler, a rope having its ends fixed to the carriage and the traveler and passing around the pulleys on the crab and the hook and around the second pair of pulleys on the traveler, a rope running from end to end of the track and passing around the first pair of pulleys on the traveler and the pulley on the carriage and means for hauling on the rope.

3. The combination of a track, a traveler on the track, a crab and a carriage on the traveler, a pair of pulleys on the traveler, a pulley on the carriage, means actuated by the carriage for operating the crab, a hydraulic

cylinder and ram, pulleys on the cylinder and
ram and a rope running from end to end of
the track and passing around the pulleys on
the traveler and carriage and the pulleys on
5 the cylinder and ram.

4. The combination of a track, a traveler
on the track, a crab and a carriage on the
traveler, a pair of pulleys on the traveler, a
pulley on the carriage, a pair of pulleys on
10 the crab, a hook, a pulley on the hook, a sec-
ond pair of pulleys on the traveler, a rope
having its ends fixed to the carriage and the
traveler and passing around the pulleys on

the crab and the hook and around the second
pair of pulleys on the traveler, a hydraulic 15
cylinder and ram, pulleys on the cylinder and
ram and a rope running from end to end of
the track and passing around the first pair
of pulleys on the traveler, the pulley on the
carriage and the pulleys on the cylinder and 20
ram.

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Witnesses:

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