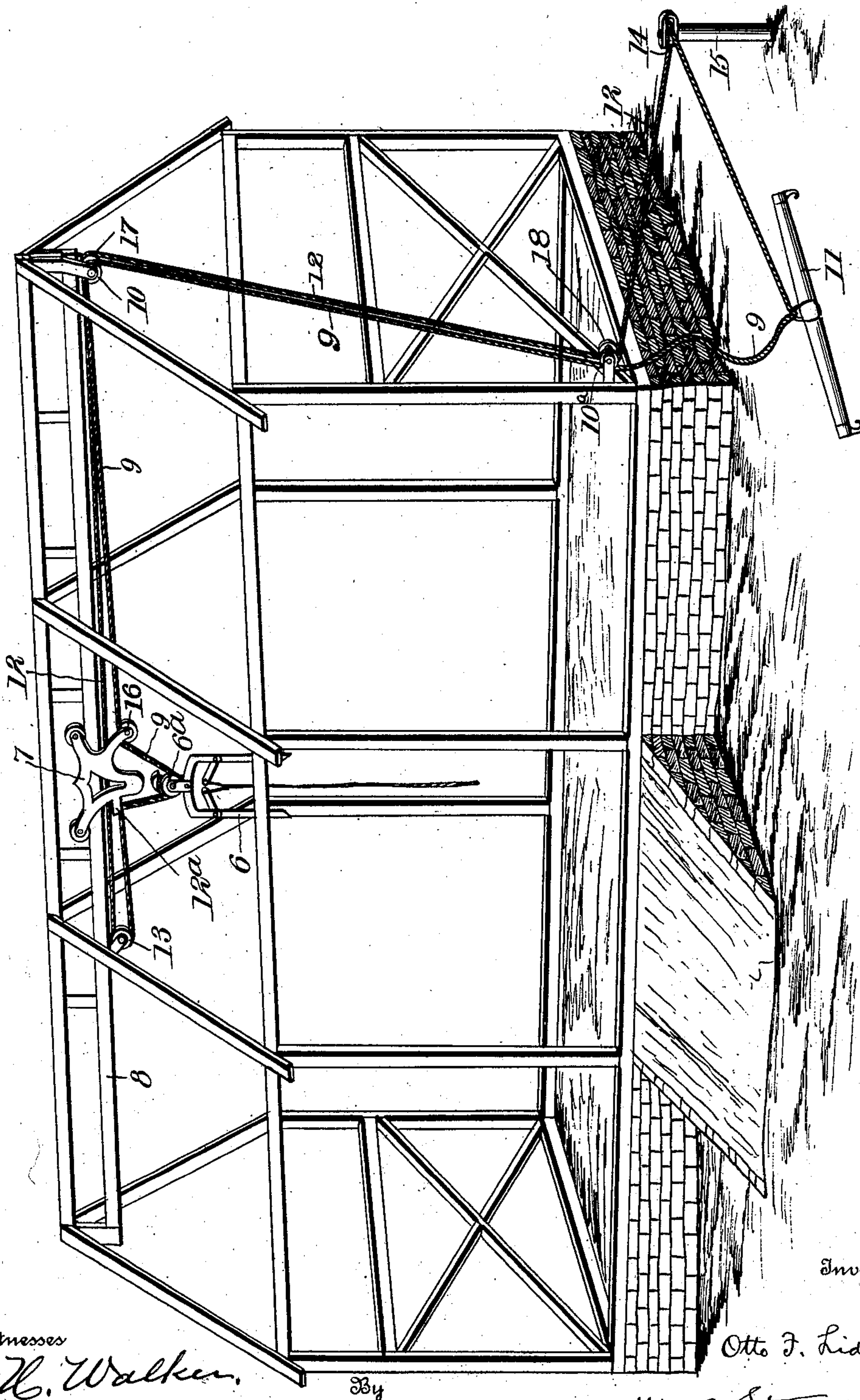


No. 747,737.

PATENTED DEC. 22, 1903.

O. F. LIDKE.
HOISTING APPARATUS.
APPLICATION FILED FEB. 16, 1903.

NO MODEL.



Inventor

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Witnesses

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Fig.

UNITED STATES PATENT OFFICE.

OTTO F. LIDKE, OF YPSILANTI, MICHIGAN.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 747,737, dated December 22, 1903.

Application filed February 16, 1903. Serial No. 143,515. (No model.)

To all whom it may concern:

Be it known that I, OTTO F. LIDKE, a citizen of the United States, residing at Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Hoisting Apparatus; 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, reference being had to the accompanying drawing, and to the figures of reference marked thereon, which forms a part of this specification.

This invention relates to an attachment for power hay-forks used in mowing hay in a barn; and the object of the invention is to provide a construction whereby the team will do the work of pulling the carriage back to the load after dropping the hay in the mow. It will be found particularly useful in long barns by relieving the workmen of the labor of pulling back the carriage and the hoisting-rope, the weight of which is often considerable.

The invention is illustrated in the accompanying drawing, which is a perspective view of the device as applied to a barn-frame.

The carriage 7 has supporting-rollers at its upper side which bear and travel on a track 8, which is horizontally disposed and is hung from the peak of the barn. On its under side at its front end the carriage has a pulley 16. The hoisting and draft rope 9 is attached at one end to the carriage, as at 12^a, is engaged by the full block 6^a of the fork 6, passes over the pulley 16 of the carriage, thence outwardly and over a direction-sheave 10 at the outer end and on the under side of the track, and thence passes downwardly on the outer side of the barn and around a direction-sheave 10^a. The return-rope 12 has one end attached directly to the carriage at the point 12^a, passes rearwardly to and around a direction-sheave 13 on the under side of the track, thence forwardly close to and substantially parallel with the hoisting-rope over a direction-sheave 17 next the sheave 10 and at the outer end and the under side of the track, thence downwardly on the outer side of the barn, still parallel with the hoisting-rope, and around a direction-sheave 18 next to the sheave 10^a,

thence outwardly around a direction-sheave 14, shown at the upper end of a post 15 at a suitable distance from the barn, and is then attached to the hoisting-rope, a whiffletree 11, to which the horse or team is attached, being secured to the ropes 9 12 where they connect.

The purpose of the sheave 14 and the post 15, which are at some distance from the barn, is to give a length of the return-rope sufficient to permit the required travel of the carriage and to prevent slack by changing the direction of the rope to substantially opposite that of the hoisting-rope 9.

In operation the travel of the team is out from the barn and toward the post, which has the effect of slacking the return-rope, hoisting the fork, and drawing the carriage along the track to the place where the hay is to be dumped. When dumped, the team is swung out and around away from the post to slack on the hoisting-rope and pull on the return-rope. This pulls the carriage back to the place it started from and relieves the workmen of that labor.

By my construction and arrangement of the track with the direction-sheaves for the draft and return ropes on its under side and at the limits of the path of the carriage and by attaching the return rope directly to the carriage the hoisting and return ropes are confined to the immediate vicinity of the track located in the peak of the barn, where they are entirely out of the way and cannot become fouled by contact with the hay either on the load or in the barn.

What I claim as new, and desire to secure by Letters Patent, is—

In hoisting apparatus of the class described, the combination of an elevated track, a carriage arranged to travel thereon and having a pulley on its under side, a direction-sheave at one end of the track on the under side, a hoisting and draft rope, attached to the carriage, passing over the pulley with which the carriage is provided and engaging the direction-sheave at the end of the track, a fall-block suspended from said hoisting and draft rope at a point between its connection to the carriage and where it engages the pulley of the carriage, direction-sheaves on the under side of the track at the limits of the path of the carriage, a return-rope attached directly

to the carriage, extending rearwardly there-
from, passing around one of the last-men-
tioned direction-sheaves and thence passing
forwardly to and around the other of said
5 sheaves, direction-sheaves for those portions
of the draft and return ropes extending from
the track, the outer portion of the return-
rope being disposed in a bight and connected
to the draft-rope, and a direction-sheave en-

gaged by the said bight of the draft-rope, so
substantially as described.

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

OTTO F. LIDKE.

Witnesses:

W. DODGE,
WM. CONNOR.