No. 754,187. PATENTED MAR. 8, 1904.

H. AUMUND.

HOISTING MECHANISM.

APPLICATION FILED SEPT. 3, 1903.

NO MODEL.

Fig. 1.

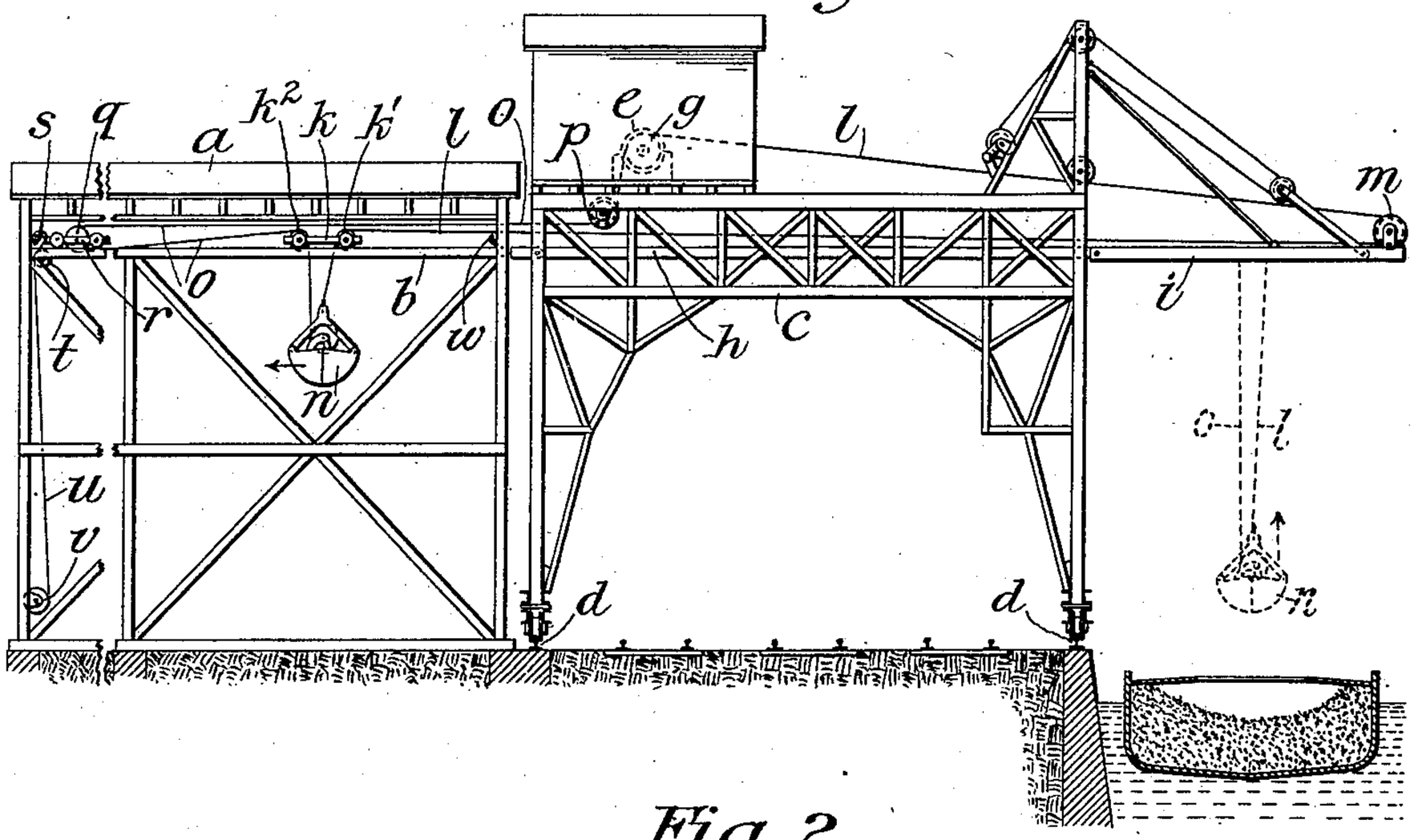
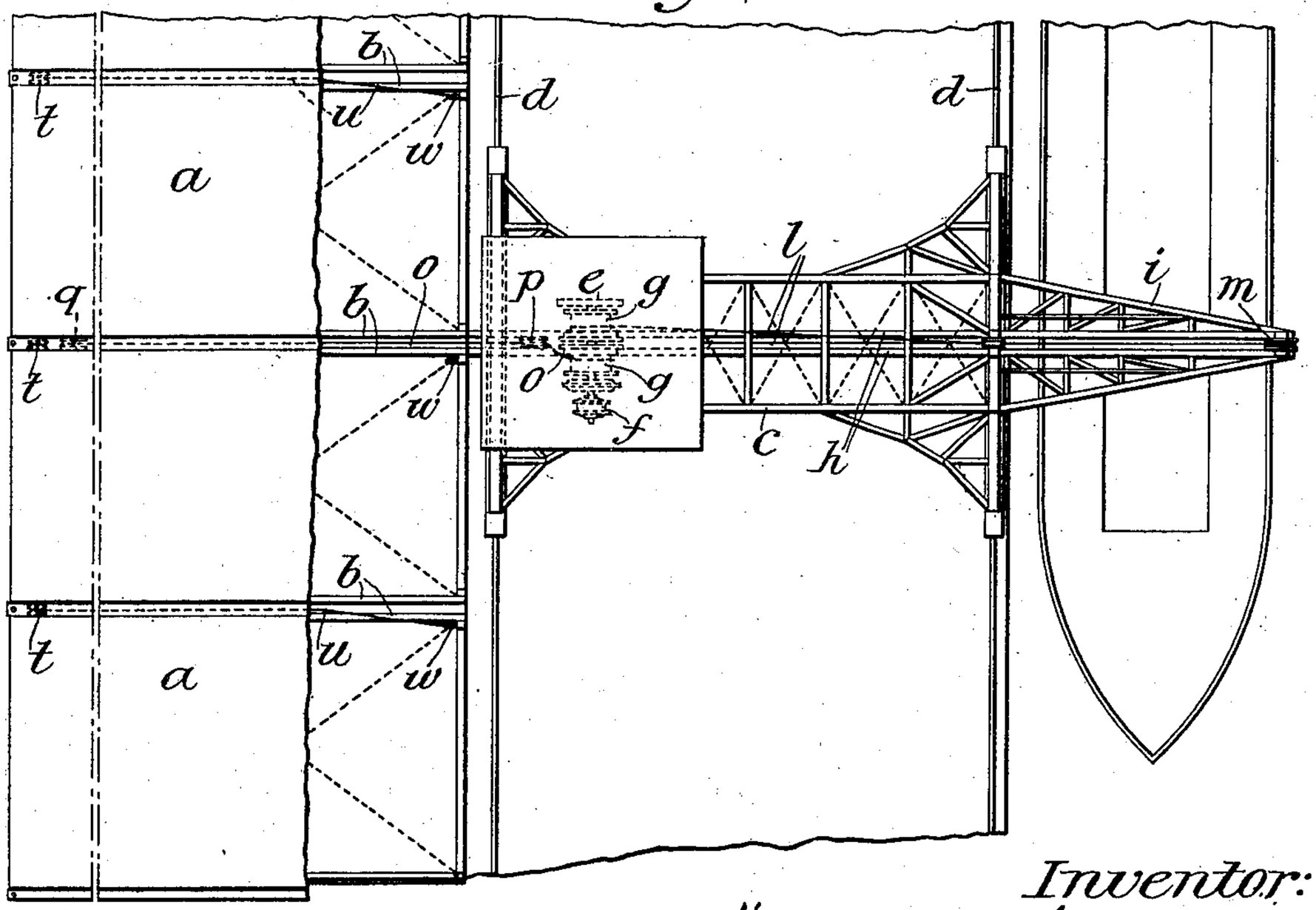


Fig. 2.



Attest:
A. L. Jesberg
M. A. Brayley

Inventor:
Heinrich Aumund
by Reddie & Riddell & Greeley
Attys.

No. 754,187. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

HEINRICH AUMUND, OF COLOGNE, GERMANY, ASSIGNOR TO C. W. HUNT COMPANY, OF WEST NEW BRIGHTON, NEW YORK, A CORPORATION OF NEW YORK.

HOISTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 754,187, dated March 8, 1904.

Application filed September 3, 1903. Serial No. 171,734. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH AUMUND, engineer, a subject of the German Emperor, residing at Cologne, Germany, have invented certain new and useful Improvements in Hoisting Mechanism, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to hoisting mechanism adapted for the elevation of the load, as from a steamboat, barge, or other vessel, its translation horizontally, and its delivery at a more or less remote point, as within a storage-shed. The invention is more particularly concerned with hoisting mechanism of this class in which the storage-shed is of large capacity and is provided with a plurality of parallel tracks for the delivery of loads at different points within the shed, the hoisting tower and boom being movable into alinement with the several tracks in succession to permit the proper delivery of the load.

The purpose of the invention is to facilitate the delivery of loads upon the several tracks as may be required, so that the material unloaded from the barge or other vessel can be easily and quickly distributed within the storage-shed.

In accordance with the invention provision is made whereby the hauling-rope of the hoisting mechanism can be transferred readily and quickly from one track to another.

The invention will be more fully described hereinafter with reference to the accompanying drawings, in which it is illustrated in order that its nature may be understood, and in which—

Figure 1 is a view in elevation, partly broken out, showing the storage-shed and the loading-platform with its hoisting devices and boom, the shovel or bucket being represented by full and dotted lines in different positions, while a barge is shown in section beneath the boom. Fig. 2 is a plan view of the parts shown in Fig. 1, a portion of the roof of the storage-shed being represented as removed in order to show the tracks beneath the same.

The storage-shed *a* is represented as provided with a plurality of substantially parallel distributing-tracks *b*, while in front of the shed is placed the loading-platform *c*, which is movable upon suitable tracks *d* along the front of the shed. The loading-platform is provided with hoisting devices *e* of ordinary construction, such devices comprising, if desired, an engine or motor *f* and two drums *g*. The loading-platform is also equipped, as usual, with a track *h* and a boom *i* for the translation of the carriage or trolley *k*. As is usual with hoisting devices of this character, a rope *l* is extended from one of the drums *g* of the hoisting devices about a guide-pulley *m* at the outer end of the boom *i* and thence to the shovel or bucket *n* over a guide-pulley *k'* on the trolley or carriage *k*. A second rope *o* leads from the other drum *g* about a guide-pulley *p* on the loading-platform and thence around an inner guide-pulley *q* to the shovel or bucket *n* over a second guide-pulley k^2 on the carriage or trolley *k*. The two ropes *l* and *o* are suitably connected to the shovel or bucket to control the opening and closing of the same, as is usual in devices of this character, and it will be understood that when drums *g* are rotated in a direction to wind the ropes *l* and *o* thereon the shovel or bucket will be hoisted, as indicated by the dotted lines at the right in Fig. 1, while the paying out of the rope *l* at the same speed that the rope *o* is wound on its drum when the load has been raised to the proper height will bring about the translation of the load toward the guide-pulley *q*. When the trolley has reached the desired point, the load is discharged from the shovel or bucket, as is well understood, and the trolley, with the shovel and bucket, is again moved outward upon the boom and the shovel or bucket then lowered to be refilled. The manipulation of the load, as thus briefly described, is carried on in the manner usual with hoisting or unloading mechanism of the character referred to. In the present instance, however, the guide-pulley *q* instead of being fixed in position is mounted in a movable frame *r*, preferably a trolley-frame in general similar to the trolley-frame *k*, and adapted to travel on the tracks *b* and *h* when required. This frame or trolley *r* is not only

movable as described, but is arranged to be detachably secured at the remote inner end of each track *b*, as by means of a hook, (indicated at *s*,) whereby when it is desired to shift the trolley *k* from one track *b* to another track *b* the movable frame is disengaged, allowed to move upon the loading-platform *c*, and then such platform is traversed until the track *h* is in line with another track *b*, when the frame *r* is again secured at the remote inner end of the new track *b*. For convenience in the manipulation of the frame *r* there may be provided for each track *b* a fixed guide-pulley *t* and a rope *u*, which may be connected to a winch *v*, placed in convenient position near the floor of the shed. The rope *u* is connected to the trolley *r*, either taking the place of the hook *s* or being employed in addition thereto, as may be required. When it is desired to shift the frame or trolley *r* from one track *b* to another, as described, the rope *u* is paid out from the winch *v* until the frame *r* is drawn by the winding of the rope *o* upon its drum upon the track *h* of the loading-platform *c*, when the rope *u* is disengaged from the frame *r* and temporarily and for convenience may be secured to a hook *w*, placed near the outer end of the track *b*. The loading-platform being then moved along the front of the shed, as already described, until its track *h* is brought into line with another track *b*, the rope *u* of such new track *b* is disengaged from its fixed hook *w* and is secured to the movable frame *r*. The corresponding winch *v* is then operated or by other means the rope *u* is drawn in until the movable frame *r* is at the outer end of the new track *b* or at such point as may be desired, when the rope is made fast or the frame is secured in position by engagement of the hook *s* or otherwise, as may be most convenient. The provision of a separate rope *u* for each track *b* makes the adjustment of the frame *r* easy, saving much time which would otherwise be required for hauling by hand the movable frame *r* to the inner end of the track *b*.

It will be obvious that by the use of the movable frame for the inner guide-pulley *q* it is possible to shift the trolley or carriage *k* readily from one track *b* to another as the loading-platform *c* is moved along the front of the shed, and the expenditure of time and labor necessary to the readjustment of the hauling-rope *o* from one guide-pulley to another is obviated.

I claim as my invention—

1. The combination of a storage-shed having a plurality of tracks, a loading-platform having a track and movable along the front of the storage-shed to bring its track in line with the several tracks of the storage-shed, hoisting devices mounted on the loading-platform, hoisting-ropes, a trolley movable on said tracks and having guides for said ropes, an outer stationary guide-pulley, an inner guide-pulley, a movable frame to support the last-named pulley, and means to secure said frame detachably in operative position with relation to each of the tracks of the storage-shed, substantially as described.

2. The combination of a storage-shed having a plurality of tracks, a loading-platform having a track and movable along the front of the storage-shed to bring its track in line with the several tracks of the storage-shed, hoisting devices mounted on the loading-platform, hoisting-ropes, a trolley movable on said tracks and having guides for said ropes, an outer stationary guide-pulley, an inner guide-pulley, a movable frame to support the last-named pulley, a stationary guide at the inner end of each of the tracks of the storage-shed, and a rope passed over said guide and detachably secured to said movable frame, whereby said frame can be pulled in upon the corresponding track and secured in position, substantially as described.

3. The combination of a storage-shed having a plurality of tracks, a loading-platform having a track and movable along the front of the storage-shed to bring its track in line with the several tracks of the storage-shed, hoisting devices mounted on the loading-platform, hoisting-ropes, a trolley movable on said tracks and having guides for said ropes, an outer stationary guide-pulley, an inner guide-pulley, a movable frame to support the last-named pulley, a stationary guide at the inner end of each of the tracks of the storage-shed, a rope passed over said guide and detachably secured to said movable frame, and a winch for said rope, whereby said frame can be pulled in upon the corresponding track and secured in position, substantially as described.

This specification signed and witnessed this 20th day of August, A. D. 1903.

HEINRICH AUMUND.

In presence of—
CARL W. SCHMITT,
G. ELSNER.