

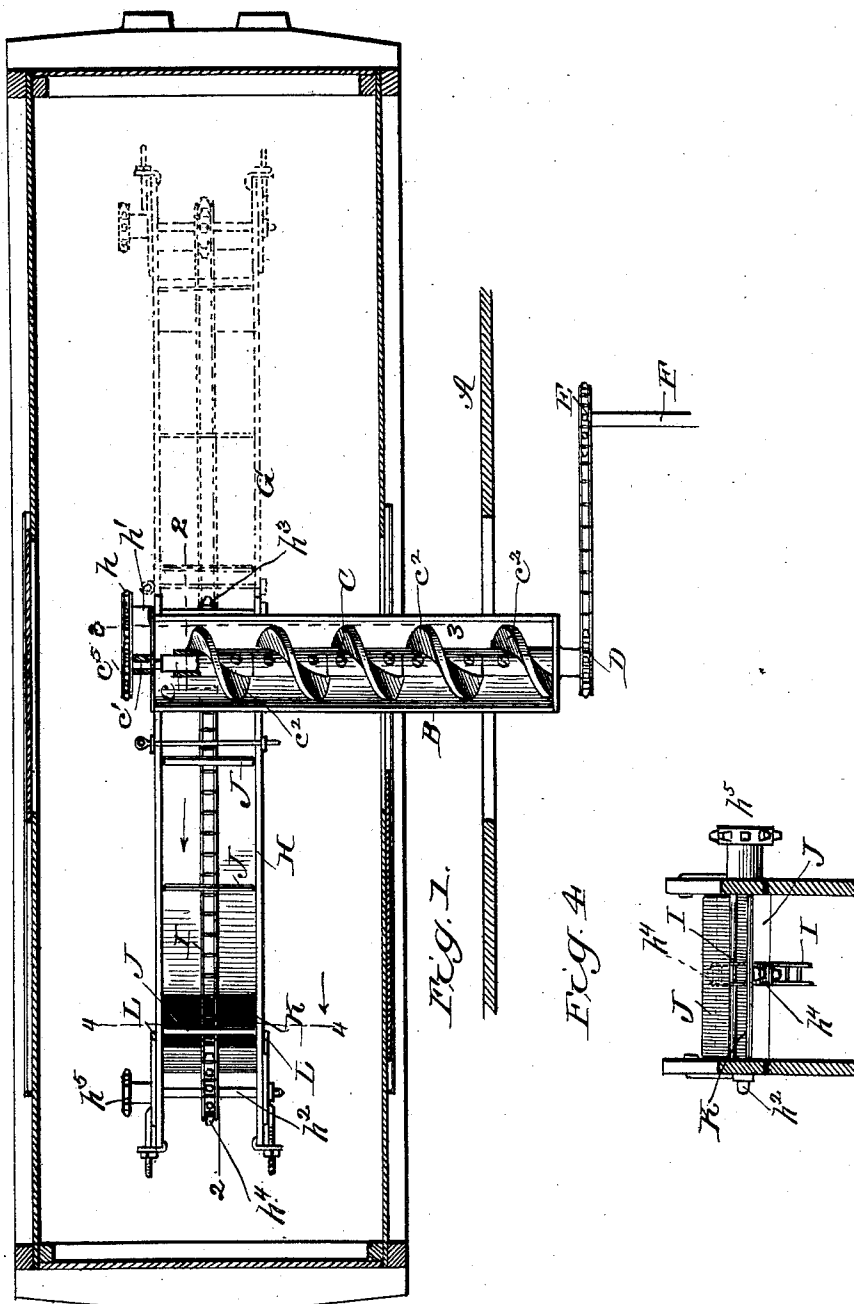
(No Model.)

2 Sheets—Sheet 1.

H. M. HASTINGS.
GRAIN CONVEYER.

No. 472,454.

Patented Apr. 5, 1892.



WITNESSES:
Fred J. Dutcher
Jos. A. Ryan

INVENTOR:
Henry M. Hastings
BY *Mann & Co.*
ATTORNEYS

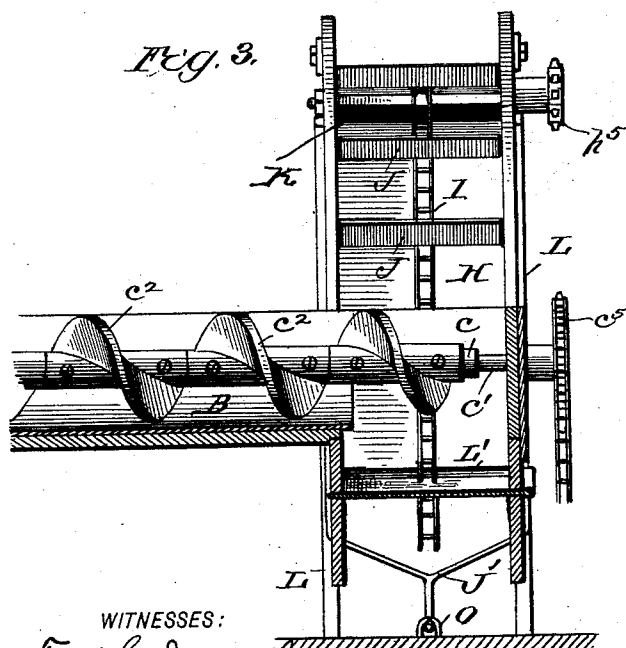
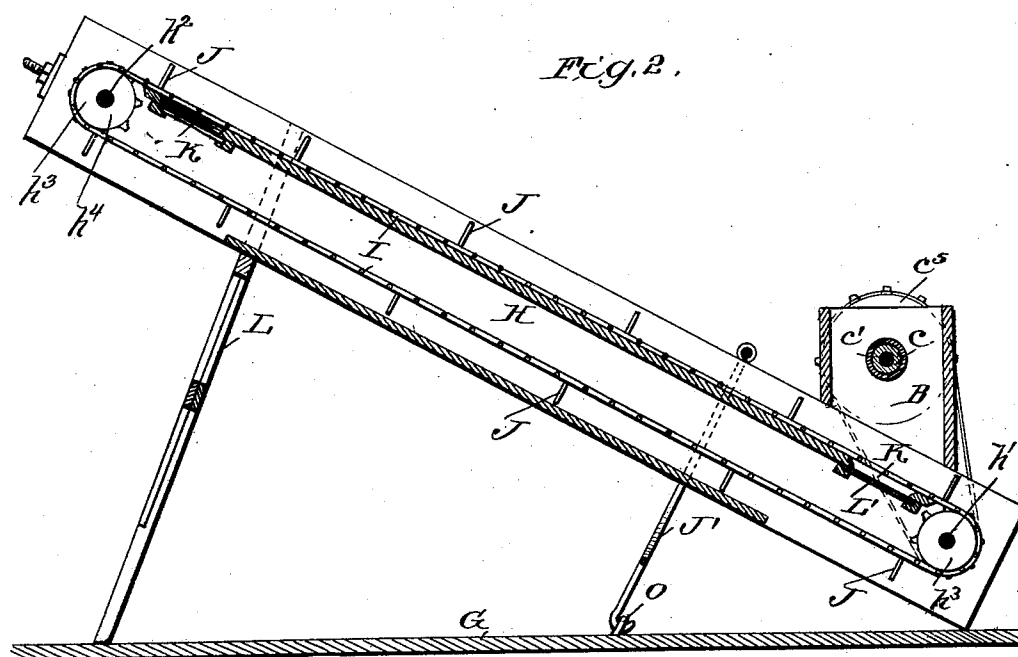
(No Model.)

2 Sheets—Sheet 2.

H. M. HASTINGS.
GRAIN CONVEYER.

No. 472,454.

Patented Apr. 5, 1892.



WITNESSES:

Fred G. Deterick
Jos. A. Ryan

INVENTOR:

Henry M. Hastings

BY

Mum & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY MILLIER HASTINGS, OF COOKSVILLE, ILLINOIS.

GRAIN-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 472,454, dated April 5, 1892.

Application filed September 9, 1891. Serial No. 405,230. (No model.)

To all whom it may concern:

Be it known that I, HENRY MILLIER HASTINGS, residing at Cooksville, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Grain-Conveyers, of which the following is a specification.

My invention relates more particularly to means for loading grain-cars; and it has for its object to provide for conveying the grain from the warehouse to the interior of the car by mechanical means, and thereby avoiding the necessity of any one entering the car during the operation of loading.

With other minor objects in view, which will hereinafter appear, my invention consists in the certain details of mechanism and peculiar combination of parts, all of which will hereinafter be fully described in the specification, and pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of my invention as applied for use, the car and warehouse-wall being in section. Fig. 2 is a vertical longitudinal section thereof, taken on the line 2 2, Fig. 1. Fig. 3 is a cross-section thereof on the line 3 3, Fig. 1; and Fig. 4 is a similar view taken on the line 4 4, Fig. 1.

In the accompanying drawings, A indicates the side of the warehouse, through which projects the conveyer-trough B, in which is journaled a spiral conveyer C, formed of a wooden shaft *c*, having iron gudgeons *c'* and metal flights *c²*, which are secured to the shaft, as shown. One end of the trough B projects into the grain-house and one end of the shaft *c* is projected into the warehouse and provided with a sprocket-wheel D, which is chain-connected with a sprocket E on a main or drive shaft F, driven by steam or any other power. The outer end of the trough B is projected into the car-body G, preferably centrally thereof, and connects with an inclined chute or dump H, which is arranged to be reversibly adjusted within the car-body—*i. e.*, it is adapted to first fill one end of the car and then to be detached from the conveyer B and be again connected therewith and projected in the opposite direction, as shown in dotted lines in Fig. 1, whereby to carry and dump the grain to fill the other end of the car.

By reference to Figs. 1 and 3, it will be noticed that the end of the trough B is connected with the lower end of the elevator-chute H to feed the grain thereto, the shaft *c* of said chute B being extended and provided with a sprocket *c²*, which has a chain connection with a sprocket *h* mounted upon the end of a transverse shaft *h'*, journaled in the lower end of such chute, and over sprockets *h³ h⁴* on said shaft and a similar shaft *h²* in the upper end of the chute is passed an endless carrier-belt I, which is provided with a series of wooden transverse flights J, which carry the grain up the elevator-chute H and discharge it through an opening K in the upper end, which end is braced and supported in a portable frame or jack L, as shown. It will be noticed that the shaft *h²* is also provided with a sprocket *h⁵*, and an opening K is formed in the lower end of the chute H, which opening is, however, held closed by a slide or gate L'. This construction admits of the chute H being reversibly adjusted for the purpose before stated, it being only necessary to disconnect the sprocket-chain from the lower sprocket *h* and close the opening K in the upper end of the chute, open the lower opening K, move the said upper end under the chute B, connect the sprocket *h⁵* in such end with the shaft *c*, and support the said chute H to discharge the grain to the other end of the car.

As a convenient means for detachably connecting the lower end to the car-frame I employ the bracket J', (shown in Fig. 2,) which is in the nature of a bail which embraces the lower end of the chute H and has a hooked connection with a fixed loop O on the car-bottom, as shown.

From the foregoing description, taken in connection with the drawings, the advantages of my invention will be apparent. It will be seen that the loading operation is entirely mechanical, the necessity of any person entering the car during the loading operation being entirely avoided.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a grain-conveying device of the kind described, the combination, with the conveyer-trough B, the spiral conveyer C, having its shaft extended beyond the delivery end of the

trough B and provided with a gear c^5 , of the
reversible elevator-chute H, having shafts h^1
and h^2 mounted in its opposite ends, provided
with sprockets h^3 and h^4 , the endless carrier
5 I, having flights J operated thereby, said chute
having openings K in its opposite ends, a slide
L for alternately closing one of such openings,

the portable jack L' , and the bracket J, all
arranged substantially in the manner and for
the purpose described.

HENRY MILLER HASTINGS.

Witnesses:

WILLIAM H. ARNOLD,

H. W. WARNER.