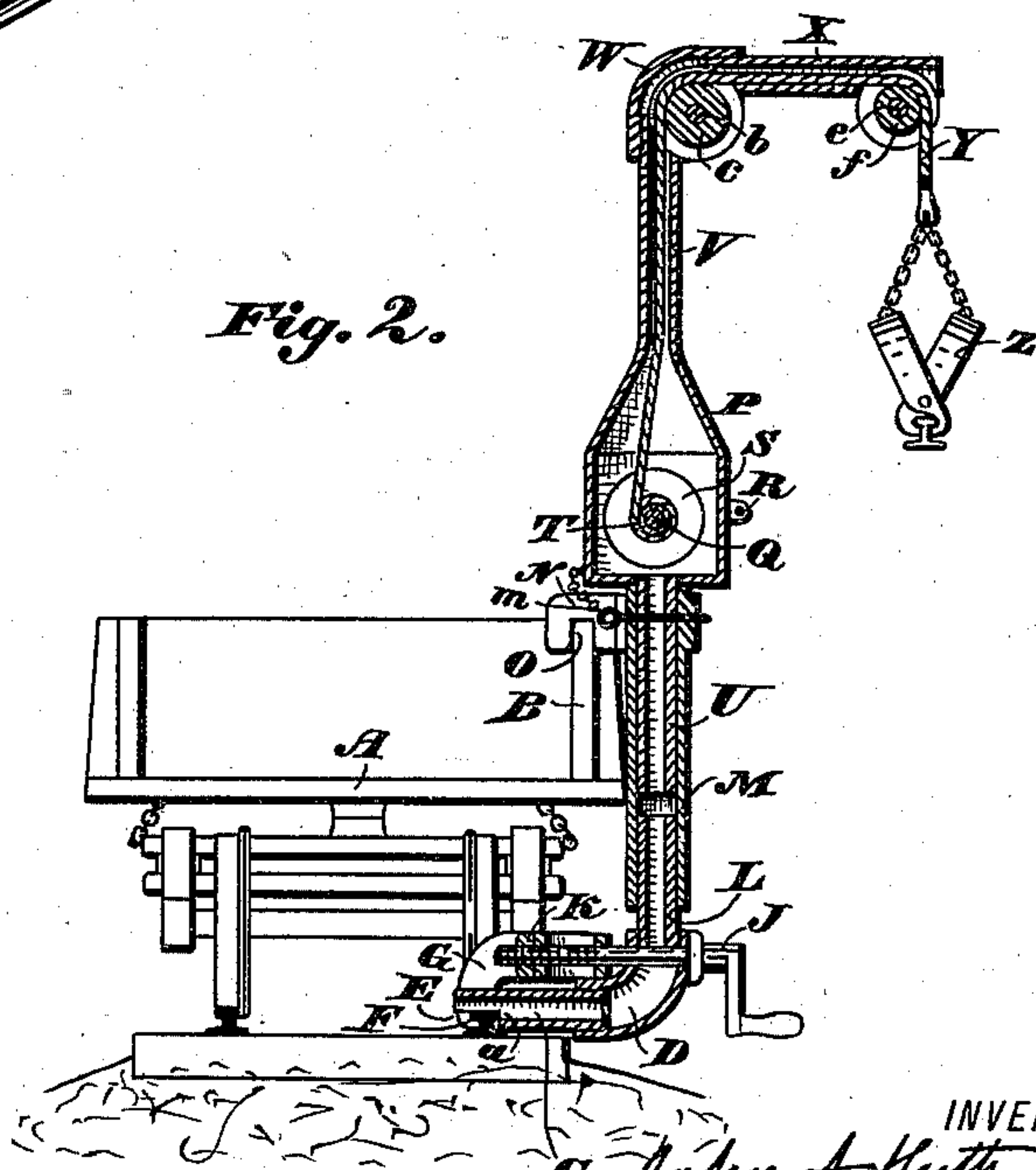
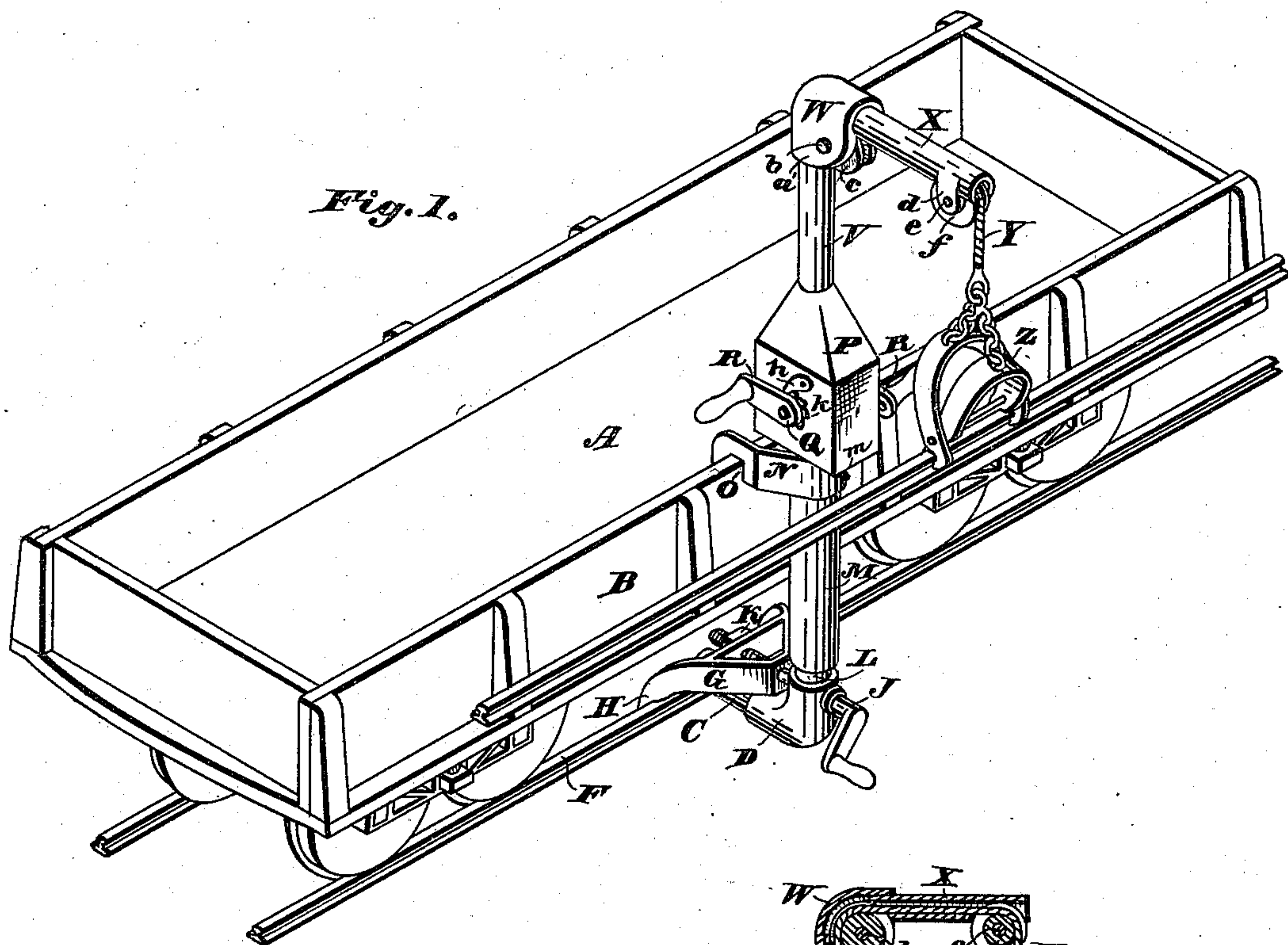


(No Model.)

J. A. HUTH.  
PORTABLE CRANE.

No. 382,307.

Patented May 8, 1888.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN A. HUTH, OF BAYARD, OHIO.

## PORTABLE CRANE.

SPECIFICATION forming part of Letters Patent No. 332,307, dated May 8, 1888.

Application filed October 27, 1887. Serial No. 253,515. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. HUTH, a citizen of the United States, and a resident of Bayard, county of Columbiana, State of Ohio, have invented a new and useful Improvement in Portable Cranes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in portable cranes; and it consists in certain features of construction and combination of parts, as will be hereinafter described, and set forth in the claims.

Figure 1 is an isometrical view of a railway-car and a crane, illustrating my invention. Fig. 2 is a vertical sectional view of car and crane.

The object of this invention is to provide a crane that may be attached to any of the ordinary forms of Gondola car, (such as may be used either by the construction or repair departments of railway companies,) that is easily and quickly erected or removed, and may be used to load or unload rails or other heavy articles, and when removed may be reduced to a small compass, as a part of the outfit of labor-saving tools.

Letter A represents the body of the car, and B the side-board. The crane is constructed of metal pipe, preferably of steel. The base of the crane is formed of a horizontal portion, C, secured in the elbow D, and is cut away, as shown at E, to form the shoulder *d*, so that the end of the base may rest on and against the rail F. A clamp, G, is provided of the form substantially as shown, resting on the base C, the claws H overreaching and clutching the rail F. A crank-bolt, J, is passed through the elbow D and centrally through the clamp-frame, as shown, and through a threaded nut, K. By turning the cranked bolt J the rail will be grasped and held by the base C and the clamp. A vertical section of pipe, L, is secured in the upper end of the elbow D, over which is passed the pipe M, from the upper end of which there project arms N from each side, that have notches O on their under sides, that may be slightly tapered, so as to rest tightly on the edge of the side-board B, and by which a grip is formed between the top

of the side-board and the rail, the extensible feature formed by the pipe M passing down over the pipe L providing for any variation in the height of cars. Thus the parts C G J and arms N serve in connection with one another to form an adjustable clamp for securing the crane to the rail and side of the car.

The upper and swinging portion of the crane is constructed as follows: A metal housing, P, is provided of the form substantially as shown in Fig. 1, through which a shaft, Q, is passed, having cranks R mounted on the ends thereof, and on the inside of the housing flanges S forming a winding-spool, T. A section of the pipe, as U, of proper length, is secured centrally or thereabout to the bottom of the housing that slides into the pipe M, the bottom of the housing resting on the upper end of said pipe, and to the top of the housing is secured a vertical section of pipe, as V. To the upper end of said pipe there is secured an elbow, W, having depending lugs *a'*, through which is passed a pin, *b*, as a support, and about which the sheave-wheel *c* may rotate. A section of pipe, as X, is secured to the elbow W, at the outer end of which there is provided suitable depending lugs, *d*, and pin *e*, as a support for the sheave-wheel *f*, the pipe X to be of such length as to allow the rope or chain Y to drop clear of the side of the car. A grapple, Z, is provided in this case, adapted to grasp rails, as shown, but may be of other forms.

The crane is operated by men standing on the car and turning the cranks R, winding the rope Y about the spool or shaft Q, raising the load above the side-boards, when it is swung around over the car and lowered by a reverse movement of the cranks.

To retain the load at any point above the car or ground, a pawl, *h*, is provided, as shown in Fig. 1, that engages a ratchet-wheel, *k*. To fix the parts in right position, a pin, *m*, is provided, that is passed into perforations in the pipes M and U, that coincide, as shown in Fig. 2, thus preventing a swinging of the crane when the load is being raised.

Having thus fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination, the base C, elbow D, clamp G, vertical portion L, pipe M, and arms

N, said base and clamp adapted to grasp the rail, and said arms the top of the car, substantially as set forth.

2. The herein-described support for the  
5 swinging crane, consisting, essentially, of the lower portion, D, provided with a clamp to engage the rail and with an upwardly-extending pipe-section, L, and an upper portion, M, having a free vertical movement on the lower  
10 portion and provided with arms to engage the car, substantially as set forth.

3. The crane consisting, essentially, of the housing P, downwardly-projected pipe U, upwardly-projected pipe, V, elbow W, having  
15 depending lugs *a'*, sheave *c*, supported in said lugs, outwardly-projected pipe-bar X, a sheave mounted thereon, a winding-shaft, Q, means

for rotating the shaft, and rope Y, passed over the sheave and around the shaft, substantially  
20 as set forth.

4. In combination, the hollow crane forming a housing for the lifting-rope, a downwardly-projected pipe-section, U, and an extensible support on which the pipe-section U  
25 is mounted, the said support being provided with a clamp to engage the rail and with arms to engage the car, substantially as set forth.

In testimony whereof I have hereunto set my hand this 24th day of October, A. D. 1887.

JOHN A. HUTH.

Witnesses:

CHAS. R. MILLER,  
W. K. MILLER.