

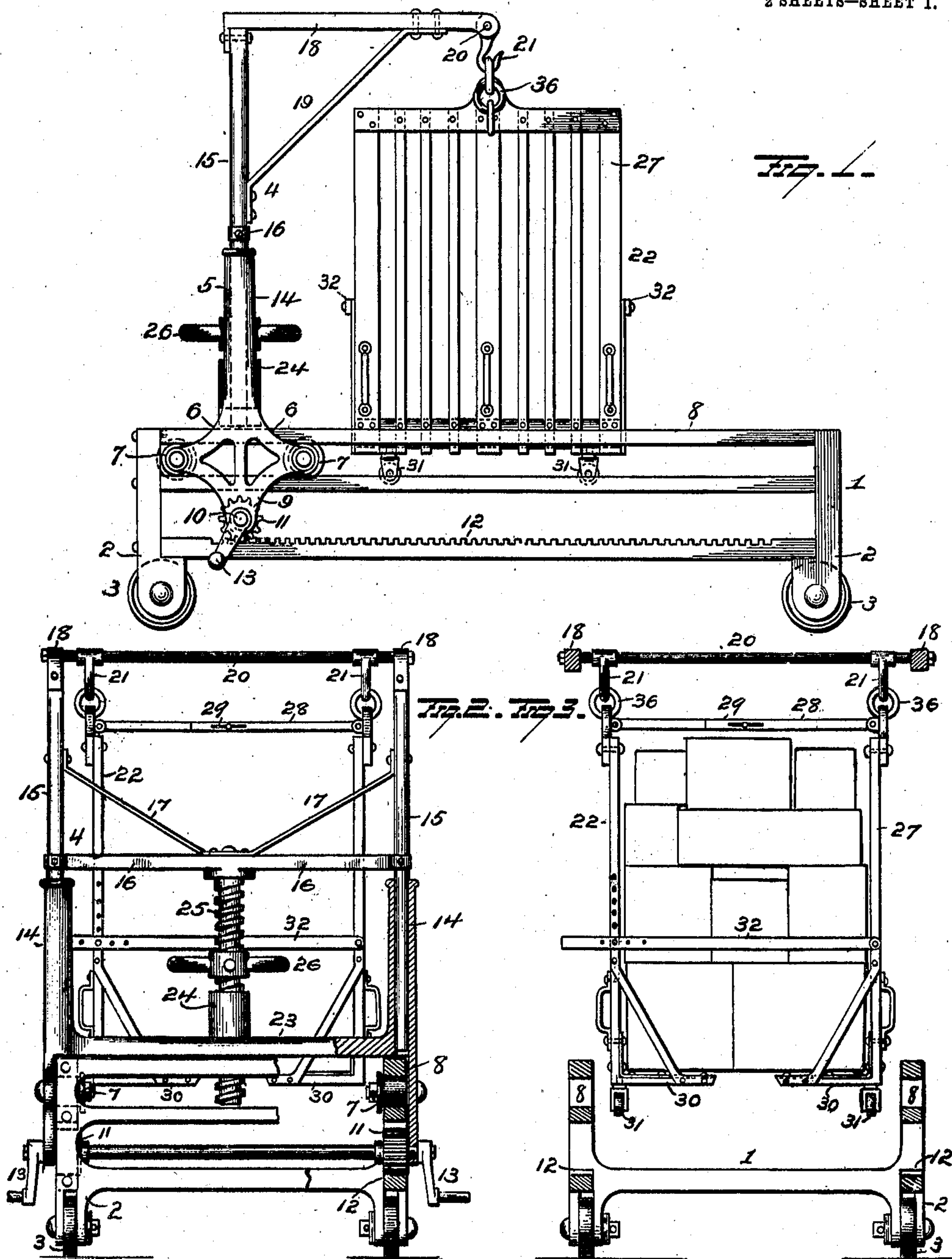
No. 894,452.

PATENTED JULY 28, 1908.

C. M. MEDAIRY.
APPARATUS FOR HANDLING EXPRESS MATTER, &c.

APPLICATION FILED JAN. 22, 1908.

2 SHEETS—SHEET 1.



WITNESSES
E. Nottingham
G. J. Downing

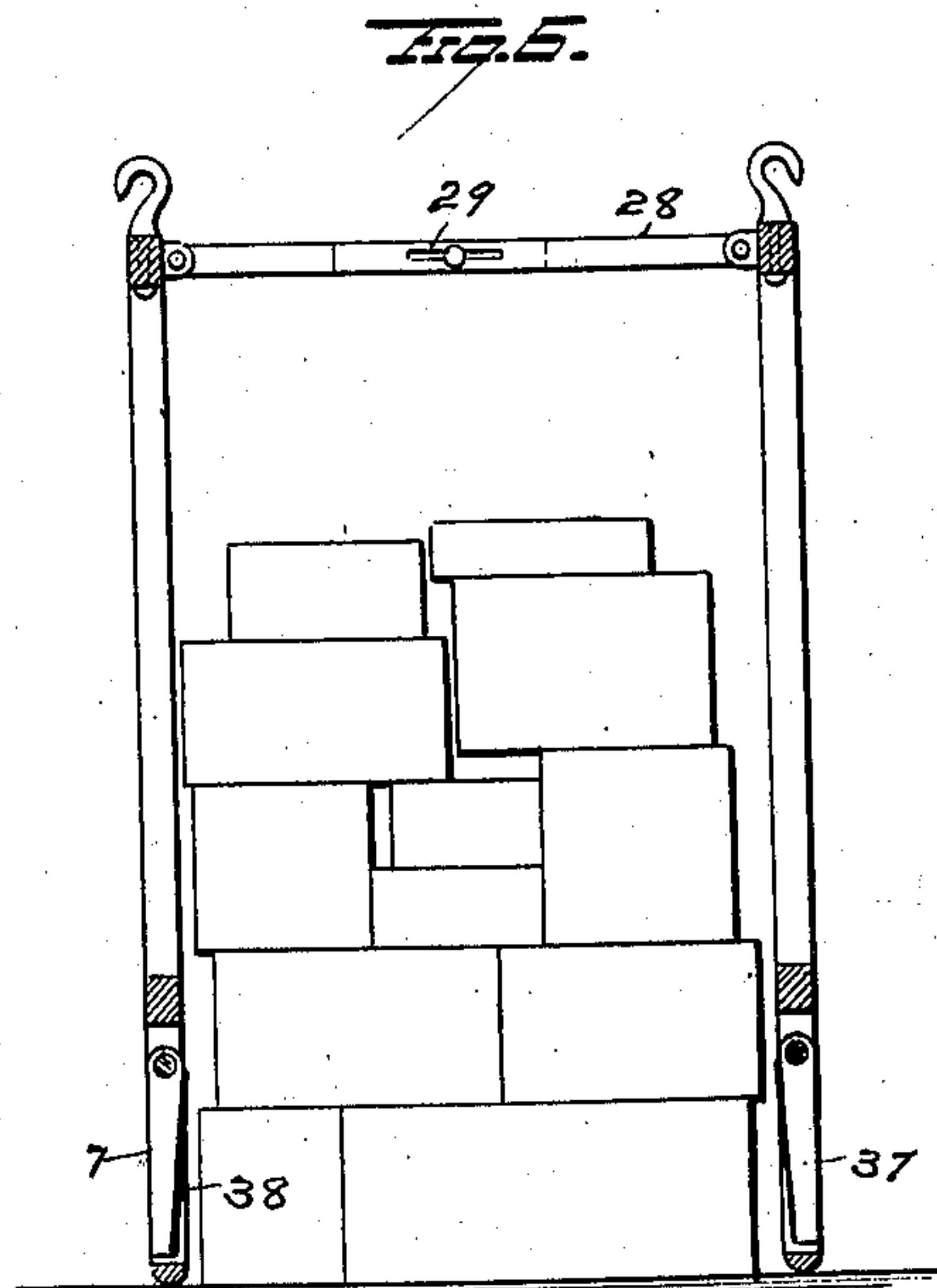
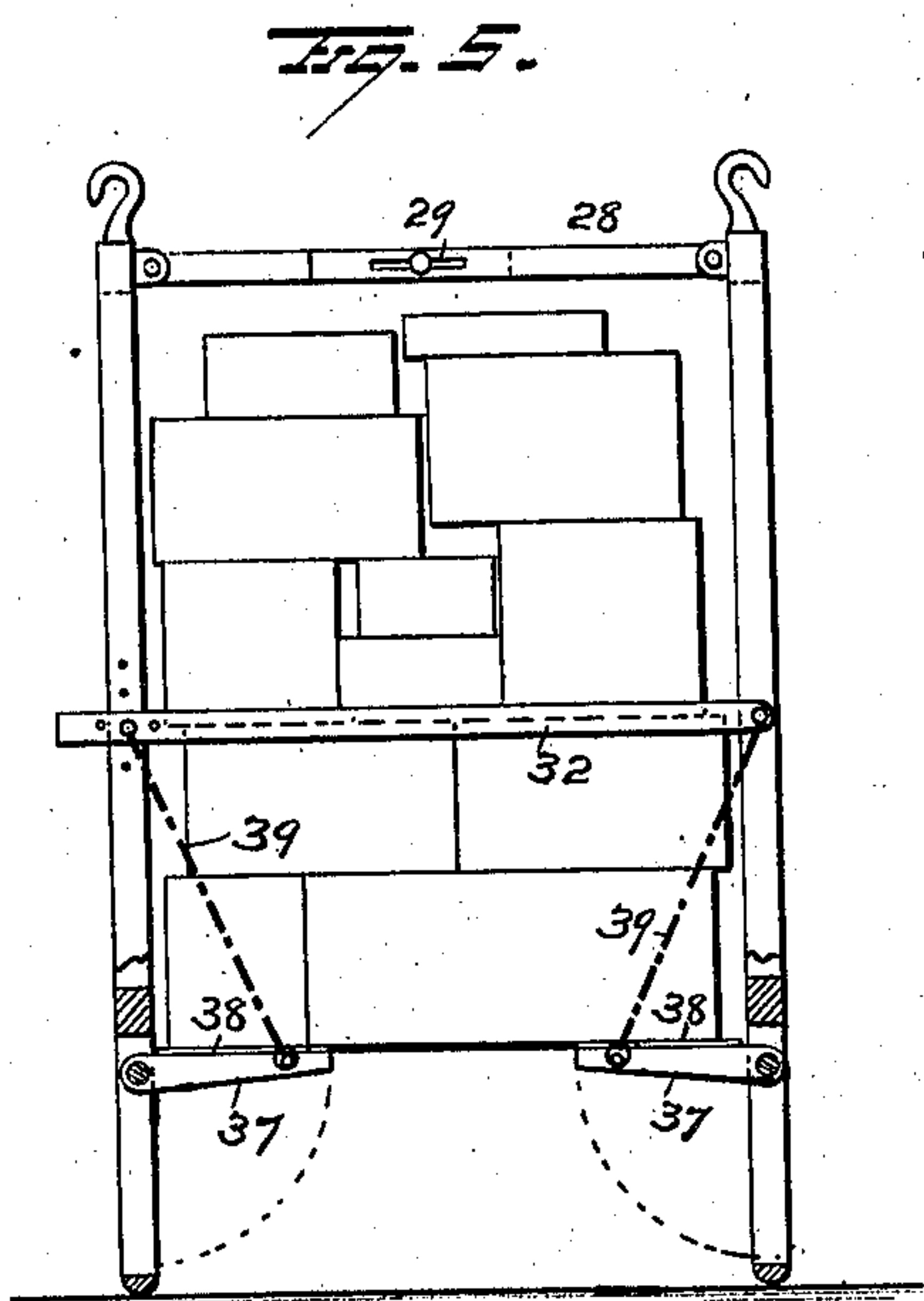
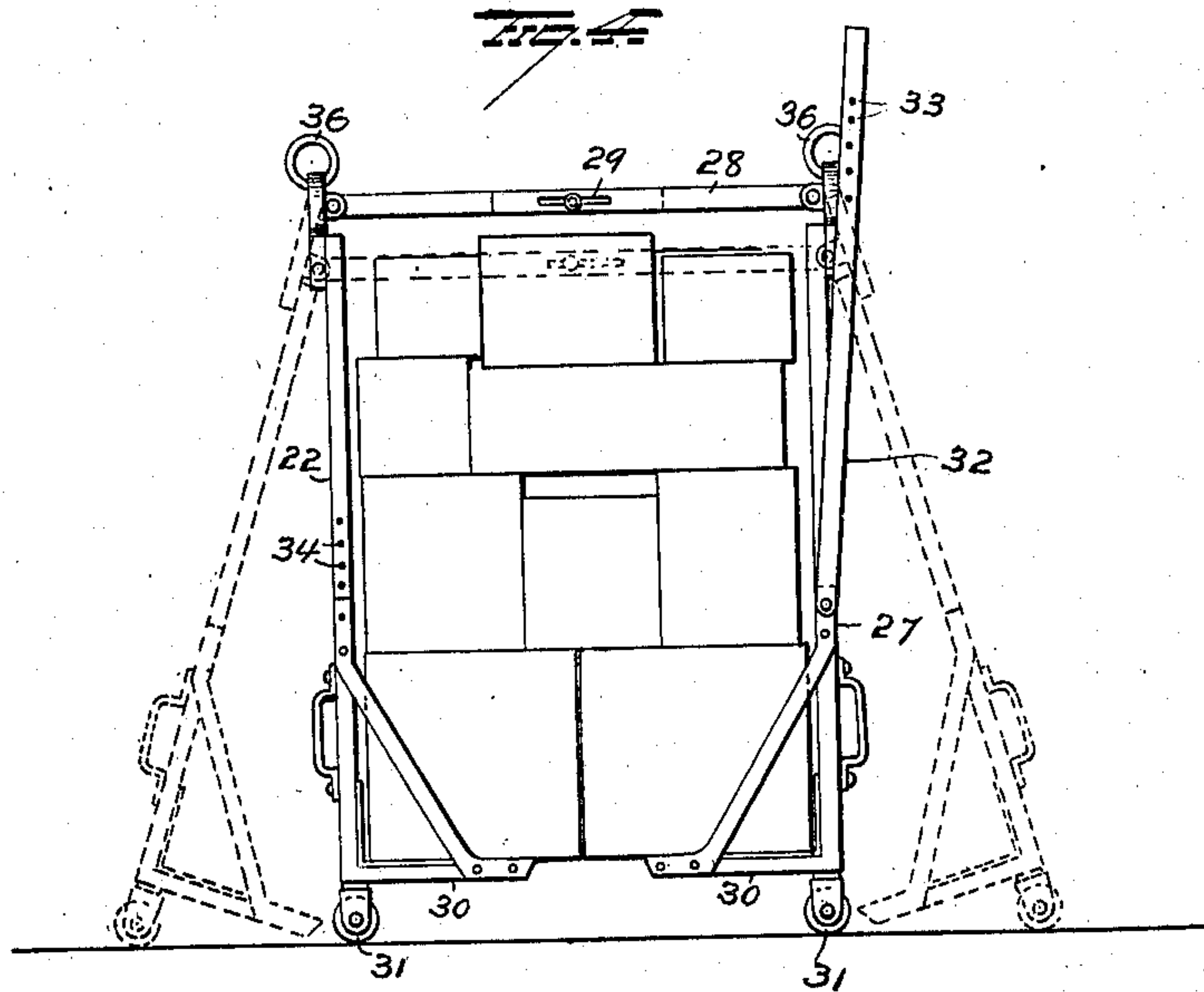
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UNITED STATES PATENT OFFICE.

CHARLES M. MEDAIRY, OF NEW YORK, N. Y.

APPARATUS FOR HANDLING EXPRESS MATTER, &c.

No. 894,452.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed January 22, 1908. Serial No. 412,188.

To all whom it may concern:

Be it known that I, CHARLES M. MEDAIRY, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Apparatus for Handling Express Matter, &c.; 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.

My invention relates to apparatus for handling express-matter, freight, etc.,—the object of the invention being to provide improved means for facilitating the handling of freight etc., in transferring the same to and from railway cars.

A further object is to construct the apparatus in such manner that a number of boxes or packages can be quickly transferred from a truck, such as commonly used in depots and warehouses, to a railway car and then quickly deposited therein.

A further object is to provide apparatus of the character described which can be quickly loaded with boxes or packages to be transferred and from which the entire load can be discharged at a single operation.

A further object is to improve apparatus for handling express-matter, freight and mail-matter, in various matters of detail to render the same efficient in the performance of all the functions which may be required of it and to effectually withstand such rough usage to which it may be subjected.

With these objects in view the invention consists in various novel features of construction and combinations of cooperating parts as hereinafter described and particularly specified in the claims.

In the accompanying drawings, Figure 1 is an elevation of a freight handling apparatus embodying my improvements. Fig. 2 is an end view, partly in section. Fig. 3 is a transverse sectional view. Fig. 4 is a detail view of the transfer-carrier, and Figs. 5 and 6 are views illustrating modifications of said carrier.

1 represents a rectangular frame provided at its corners with brackets 2 in which the journals of wheels 3 are mounted,—the whole thus constituting a truck frame.

A traveling crane 4 is supported by the truck 1 and comprises a lower frame 5 constructed with arms 6 having the journals of

wheels 7 mounted therein and these wheels are intended to travel between rails 8, 8, of the truck-frame. The lower frame 5 of the crane is also provided with depending arms 9 in which a shaft 10 is mounted. This shaft carries a pinion 11 which meshes with a rack-bar 12 constituting a part of the truck-frame 1. A handle or other suitable operating device 13 is secured to the shaft 11 for rotating the same and thus causing crane to be moved, through the medium of the rack and pinion above described. The side members of the frame 5 consists of tubular posts 14 into which the lower portions of standards 15 telescope. These standards constitute parts of the upper frame of the crane and are connected by a cross-bar 16 and suitable braces 17 extend from the central portion of the cross-bar 16 to the respective standards 15. To the upper ends of the standards 15, the horizontal arms 18 of the crane are secured and these arms are maintained rigid by means of braces 19 secured thereto and to the standards 15. A cross-bar 20 connects the arms 18, at their outer ends, and to this cross-bar hooks 21 are movably connected and adapted to receive and support a transfer-carrier 22,—the details of construction of which will be hereinafter fully described.

The cross-bar 23 of the lower crane frame 5 is provided with an internally threaded boss 24 through which a vertically disposed screw 25 passes. The upper end of this screw has a swivel connection with the cross-bar 16 of the upper crane frame and between its ends said screw is provided with a fixed wheel 26 or other suitable means for turning it. From this construction, it is apparent that the upper crane frame can be raised or lowered by turning the screw 26.

When a transfer-carrier 22 has been loaded and suspended from the crane the truck 1 can be moved in front of a car door and the screw 25 turned to elevate the upper crane-frame until the base of the transfer-carrier is approximately in alinement with the car-floor. The transfer-carrier can now be detached from the crane and run through the car door to a position in the car where it may be desired to deposit the contents of said transfer-carrier. The contents of a car may be transferred from the latter to a platform or to trucks thereon. In such case the transfer-carrier 22 will be loaded while in the car and then run to the car door and attached to the

crane. The crane may now be run back on the truck-frame 1 until the transfer-carrier shall have cleared the doorway of the car and then the upper crane-frame may be lowered.

5 The apparatus may now be brought into alinement with a truck of ordinary construction, such as used in depots and warehouses, and the crane run forward until the transfer-carrier is disposed over said ordinary truck,
10 upon which latter its contents can be deposited.

It now remains to describe the details of construction of the transfer-carrier. This carrier comprises two openwork or slatted
15 sides 27, 27, connected at their upper ends by cross-bars 28. These cross-bars each comprises two members movably connected together,—one member of each cross-bar being provided with an elongated slot 29 through
20 which a pin from the other cross-bar member projects. The two sides of the transfer-carrier are thus adjustably as well as pivotally connected together, the outer ends of the members of the cross-bars 28 being pivotally
25 attached to the sides 27 of said carrier. Each side member of the transfer-carrier is provided at its lower end with an inwardly projecting bracket 30 and the brackets 30 of the two members of the carrier constitute a bot-
30 tom for the latter on which the boxes or packages will be supported. The transfer-carrier is also provided with wheels 31 to facilitate its movements when detached from the crane. A bar 32 is pivotally at-
35 tached at one end to one of the side members of the carrier and is detachably connected with the other member when the carrier is loaded, by means of a suitable pin passed through a hole in the bar and socket in the
40 carrier frame. It will be observed that by connecting the members of the carrier adjustably, said members can be moved relatively to each other to accommodate loads of different transverse dimensions. The bar 32
45 is therefore made of sufficient length to project some distance beyond the side of the carrier with which it is removably connected. In some cases the projecting end of the bar 32 may interfere with the passage of the car-
50 rier through the doorway of a car and I therefore provide the bar 32 with a number of perforations 33 and a side member of the carrier with a similar number of perforations 34 so that said bar can be disposed in an in-
55 clined position and connected by a suitable pin passing through one of each series of perforations and the portion of the bar which projects from the side of the carrier reduced to a minimum.

60 When it is desired to unload a carrier the operator will first release the bar 32 and then (by means of handles 35 attached to the carrier members) pull said carrier members apart so that they will turn on their pivotal
65 connections with the upper cross-bar 28 and

assume the positions shown in dotted lines in Fig. 4, when, as will be readily understood the load will be deposited.

To form a suitable means for connecting the transfer-carrier with the hooks 21 of the crane, each side member of the carrier will be provided with a series of connected rings or links 36, any of which can be connected with the hooks 21. The provision of several con-
70 nected rings or links 36 facilitate the con-
75 nection of the transfer-carrier with the crane when the platform on which said carrier may be loaded is lower than will enable the hooks 21 of the crane to reach a single ring on the carrier when the crane is in its lowest posi-
80 tion.

In the construction illustrated in Figs. 5 and 6 the brackets 30 are [displaced by series of pivoted arms 37. One series of such arms have pivotal connection with each side mem-
85 ber of the carrier and are connected by plates or platforms 38. The supporting brackets thus formed are maintained in horizontal position to support the load, by means of chains 39 connected at their upper
90 ends with the carrier members and removably attached at their lower ends to the hinged-platforms.

Various other changes might be made in the details of construction of my invention
95 without departing from the spirit thereof or limiting its scope and hence I do not wish to restrict myself to the precise details herein set forth.

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

1. The combination with a traveling frame, of a crane supported thereon and comprising two members, one adjustable vertically with
10 relation to the other, and means for raising and lowering the vertically adjustable member of the crane.

2. The combination with a traveling frame, of a crane mounted to travel on said
11 frame in a direction parallel with the longitudinal axis of the traveling crane, and means for increasing and decreasing the height of said crane.

3. The combination with a traveling
11 frame, of a crane mounted to travel on said frame; means for raising and lowering the upper portion of said crane and retaining the same in different vertical adjustments, and means for removably attaching a carrier
12 to the vertically movable portion of said crane.

4. The combination with a frame, of a crane comprising a lower portion mounted to travel on said frame and an upper portion
12 vertically adjustable relatively to the lower portion, and means for raising or lowering the upper portion of the crane and retaining the same at any desired vertical adjustment.

5. The combination with a frame and a

rack-bar secured thereto, of a crane supported by said frame and longitudinally movable thereon; a pinion carried by said crane and meshing with said rack-bar, and means for operating said pinion to cause the crane to travel lengthwise of the frame.

6. The combination with a frame, of a crane mounted to travel longitudinally on said frame and comprising a lower portion having tubular uprights and an upper vertically adjustable portion having standards movable in said tubular uprights; a screw having threaded connection with one portion of the crane and having swivel connection with the other portion of the crane, means for turning said screw and a transfer-carrier removably supported by the upper vertically adjustable portion of the crane.

7. In an apparatus of the character described, the combination with a traveling frame, a support mounted to travel on said frame and comprising two members, one adjustable relatively to the other, and means for raising and lowering the adjustable member of the support, of a portable transfer-carrier detachably connected with the adjustable member of the support.

8. In an apparatus of the character described, the combination with a traveling frame, and a support mounted to travel longitudinally on said traveling frame, of a transfer-carrier comprising two members pivotally connected together, means for locking said members against movement relatively to each other, and means for detachably connecting said transfer-carrier to the traveling support over the traveling frame.

9. In an apparatus of the character described, the combination with a traveling frame, and a support mounted to travel longitudinally thereon, of a portable transfer-carrier comprising pivoted members movable relatively to each other in opposite di-

rections to release a load from between them, a handle secured to each member of said transfer-carrier, and means for attaching said transfer carrier to the traveling support over the traveling frame.

10. An apparatus of the character described, comprising a traveling support, a transfer-carrier comprising two pivoted members, adjustable means connecting said members, means for locking said members against movement when the carrier is loaded and means for connecting said transfer-carrier with the traveling support.

11. An apparatus of the character described, comprising a traveling support, a portable carrier comprising two members, cross-bars having pivotal connection with the members of the carrier, each cross-bar comprising two members adjustably connected together so as to be movable lengthwise with relation to each other, a locking bar pivotally connected with one of the carrier members, means for adjustably connecting said bar with the other carrier member, and means for attaching said carrier to the traveling support.

12. An apparatus of the character described, comprising a traveling support, a portable carrier comprising two members, means for adjusting said members relatively to each other, means for normally locking said members against relative movement, brackets projecting inwardly from the lower ends of the respective members and cooperating to support a load between said members, and means for connecting the carrier with the traveling support.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

CHARLES M. MEDAIRY.

Witnesses:

H. E. COON,

SAM L. LING, Jr.