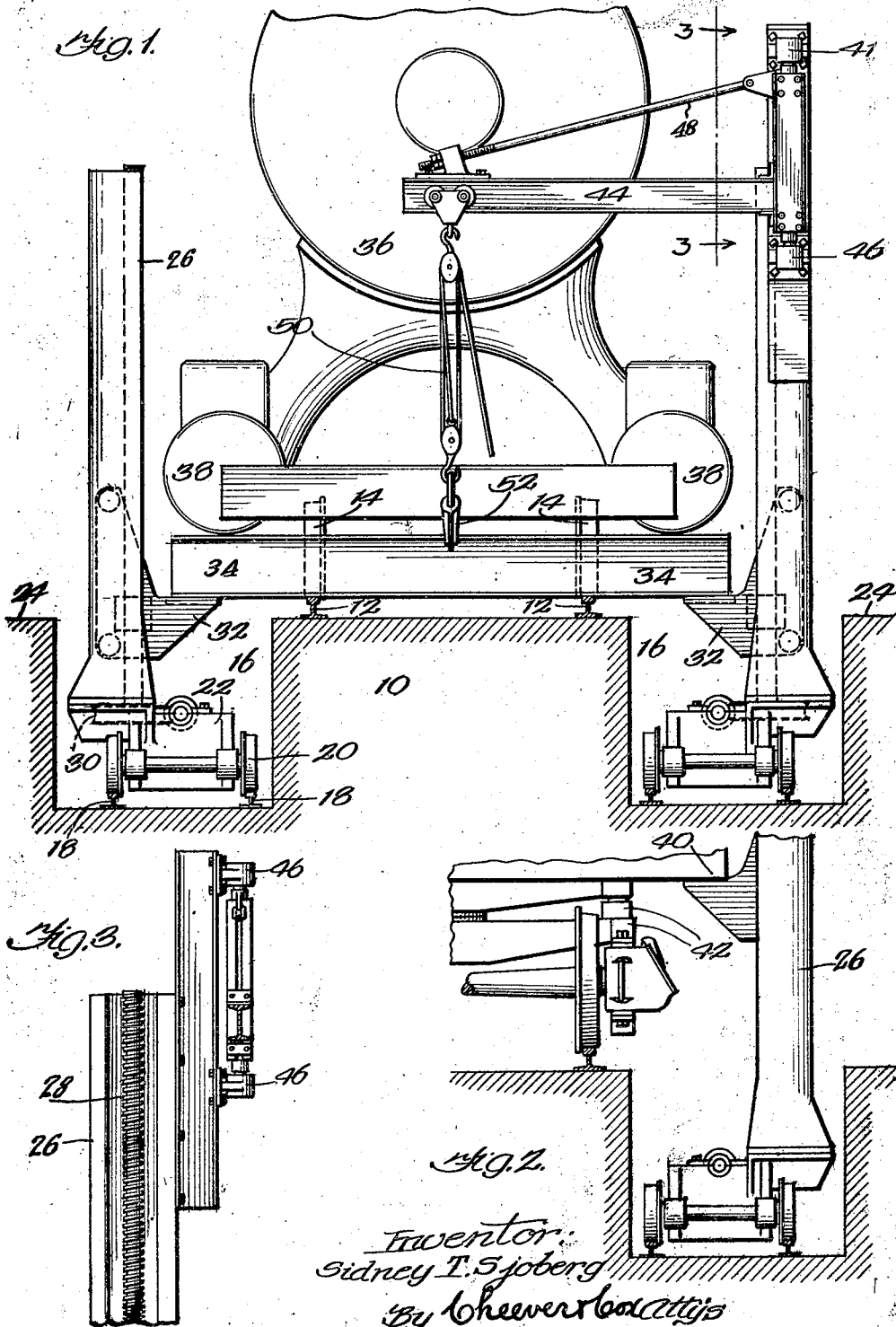


S. T. SJOBERG.
COMBINATION LOCOMOTIVE AND COACH HOIST.
APPLICATION FILED MAY 7, 1921.

1,438,341.

Patented Dec. 12, 1922.



UNITED STATES PATENT OFFICE.

SIDNEY T. SJOBERG, OF CHICAGO, ILLINOIS, ASSIGNOR TO WHITING CORPORATION, OF HARVEY, ILLINOIS, A CORPORATION OF ILLINOIS.

COMBINATION LOCOMOTIVE AND COACH HOIST.

Application filed May 7, 1921. Serial No. 467,734.

To all whom it may concern:

Be it known that I, SIDNEY T. SJOBERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Combination Locomotive and Coach Hoists, of which the following is a specification.

This invention relates to mechanism adapted for installation in car shops, selectively usable for lifting car bodies, which ordinarily neither require nor permit the use of a cross beam or girder under the car body, off from the car truck or for lifting a locomotive which because of its weight necessarily requires a cross girder extending over the rails and under the locomotive body.

Devices have heretofore been constructed, such for instance as shown in Patent No. 1,349,324 to A. H. McDougall issued July 13, 1920, adapted to travel along a supplemental track on the side of a track, and when properly actuated hook under the edge of the car to lift it off from its truck. The object of this invention is to provide a construction of general application with reference to a railroad track on which the car or locomotive to be lifted travels and to equip it with mechanism of the class just referred to, so modified that with or without the presence of other mechanism entering into this invention the combined mechanism may be selectively used for lifting a car or a locomotive.

The invention consists in means for carrying out the foregoing objects which can be easily and cheaply made, which is satisfactory in use, and is not readily liable to get out of order. More particularly the invention consists in features and details of construction hereafter more fully set forth in the specification and claims.

Referring to the drawings in which similar numerals represent similar parts throughout the several views,

Figure 1 is a face view of one form of mechanism illustrating this invention having a beam lying across the railroad track for the purpose of lifting the locomotive.

Figure 2 illustrates the right hand half of

the mechanism of Figure 1 applied to the lifting of a car which has been substituted for a locomotive of Figure 1.

Figure 3 is a side detailed view taken on the line 3—3 of Figure 1, showing a jib crane mounting.

In carrying out this invention the designer of the repair shop or other locality where the device is to be used, provides a concrete or other suitable base structure having a central portion 10 suitably supporting track rails 12 on which car or locomotive wheels 14 are adapted to travel and having on each side, outside the rails 12, suitably shaped and proportioned pits 16 carrying at their bottoms track rails 18 on which truck wheels 20 of the load lifting trucks 22 are adapted to travel parallel to the railroad rails 12. Outside of the pit 16 the constructor usually forms a working floor 24 in general on a level with the rails 12.

At least four trucks 22 should be ordinarily provided, two on the rails 18 on each side of the rails 12, one at each end of the car or locomotive. Conventionally rising from these trucks 22 are vertical masts 26 within which are lifting screws 28 suitably driven by any suitable means as for instance worm wheel mechanism 30, all as more fully suggested in said prior patent. Furthermore, as there suggested each mast 26 is provided with a lifting screw 28 adapted to elevate and depress laterally projecting load carrying hooks 32. Each hook is adapted to selectively hook under the ends of a cross beam 34 insertable over the rails 12, under the locomotive 36 to directly engage some part of the locomotive, as for instance the cylinders 38, and is also selectively useable to engage the lower corner 40 of a car body, as shown in Figure 2, and lift it off from the mechanism 42 which is ordinarily of such a structure that the beam 34 can not be used under a car body.

In the use of this particular form of the invention the pit 16 should be made so low that hooks 32 may descend low enough into them to allow the beam 34 to be inserted under the locomotive practically in contact with the rail 12. If this is not done it may be impossible to get a beam of sufficient

strength for lifting a locomotive in the relatively narrow space below the contactable parts, say the cylinders 38.

For convenience in handling cross beam 34 it is desirable that the masts 26 on at least one side of track 12 be equipped with a swinging jib crane 44 suitably pivoted at say 46, and braced by a rod 48 in the conventional manner so that a tackle mechanism 50 may be suspended from the crane and readily applied to the beam 34 as for instance by hooks 52. One method of operating the device is to assemble in front of or behind the locomotive a pair of jack mechanisms as shown in Figure 1 with beam 34 across their hooks 32 and then by means not entering into this invention move the truck bodies 22, carrying the beam to proper position under the locomotive, and then by mechanism not entering into this invention manipulate the screws 28 to elevate the beam 34 and consequently the locomotive.

In the case of a car to be lifted, each truck 22 is manipulated independently to position it under the car edge 40 and then to raise the adjacent portion.

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

1. In mechanism of the class described, a base having on opposite sides thereof parallel pits, railroad car tracks on the base, truck carrying tracks in the pits, parallel to the railroad rails, a jack carrying truck on each of the last mentioned tracks, a jack mechanism on each truck, a hook on each jack mechanism movable vertically, and adapted to hook under the edge of a car body of a car traveling on the railroad tracks, a beam insertable across the railroad tracks and supported by said hooks, the whole being so arranged and proportioned

that the load carrying hooks can descend far enough into the pits so that the beam practically contacts the railroad track rails.

2. In mechanism of the class described, a base having on opposite sides thereof parallel pits, railroad car tracks on the base, truck carrying tracks in the pits, parallel to the railroad rails, a jack carrying truck on each of the last mentioned tracks, a jack mechanism on each truck, a hook on each jack mechanism movable vertically, and adapted to hook under the edge of a car body of a car traveling on the railroad tracks, a beam insertable across the railroad tracks and supported by said hooks, the whole being so arranged and proportioned that the load carrying hooks can descend far enough into the pits so that the beam practically contacts the railroad track rails, and a crane mechanism transportable by one of the trucks adapted to lift said beam off from and on to the hooks, for the purposes set forth.

3. In mechanism of the class described, a supporting base for railroad track rails intermediate between parallel pits provided with rails of supporting load lifting truck mechanism, load lifting hooks reciprocable vertically by the load lifting truck mechanism, and adapted for depression into the pits to a point where a beam laid across the railroad track rails over said hooks is substantially on a level with the tops of the railroad track rails.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

SIDNEY T. SJOBERG.

Witnesses:

JOHN S. TOWNSEND,
ANTHONY D. E. YOUNG.