

No. 857,655.

PATENTED JUNE 25, 1907.

J. R. McGIFFERT.

FRAME FOR LOG LOADERS.

APPLICATION FILED DEC. 30, 1904. RENEWED OCT. 4, 1906.

2 SHEETS—SHEET 1.

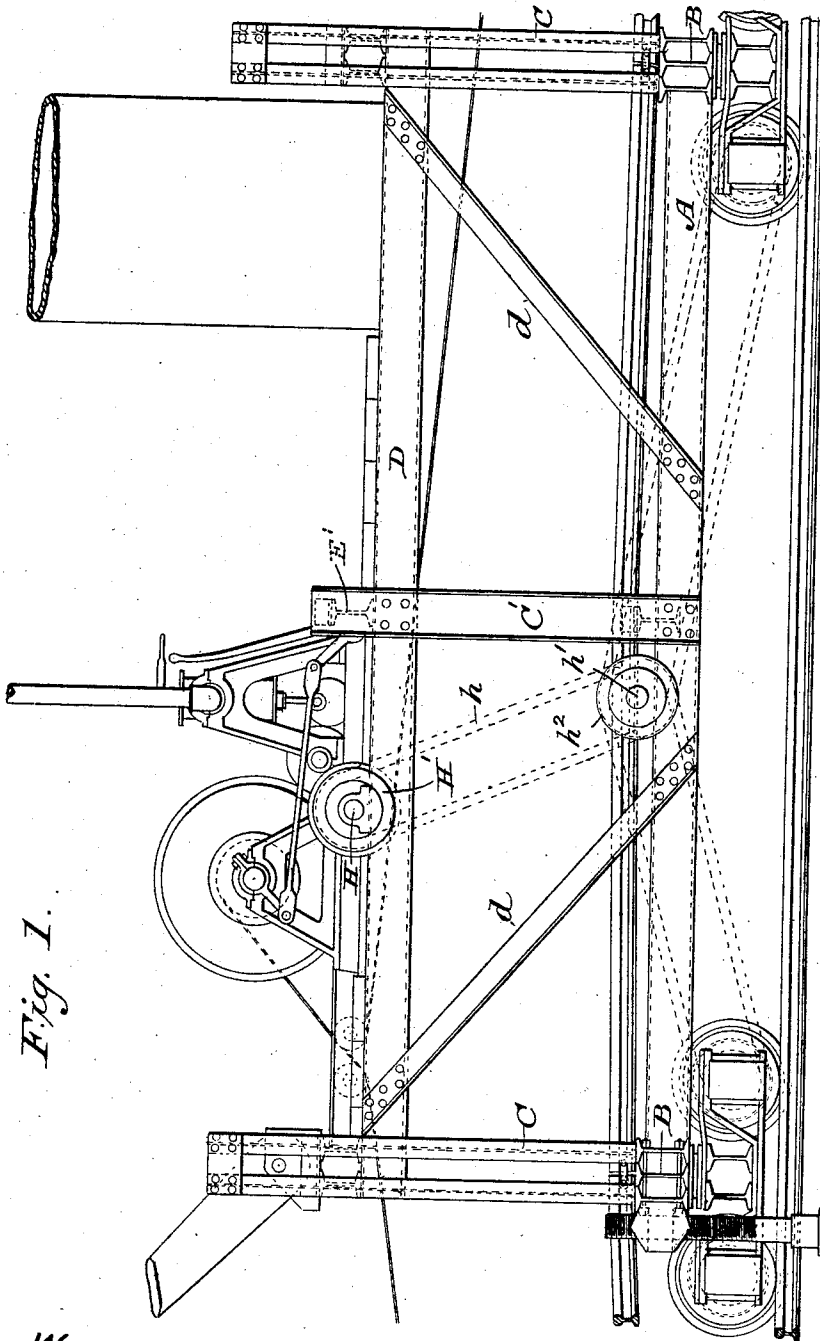


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

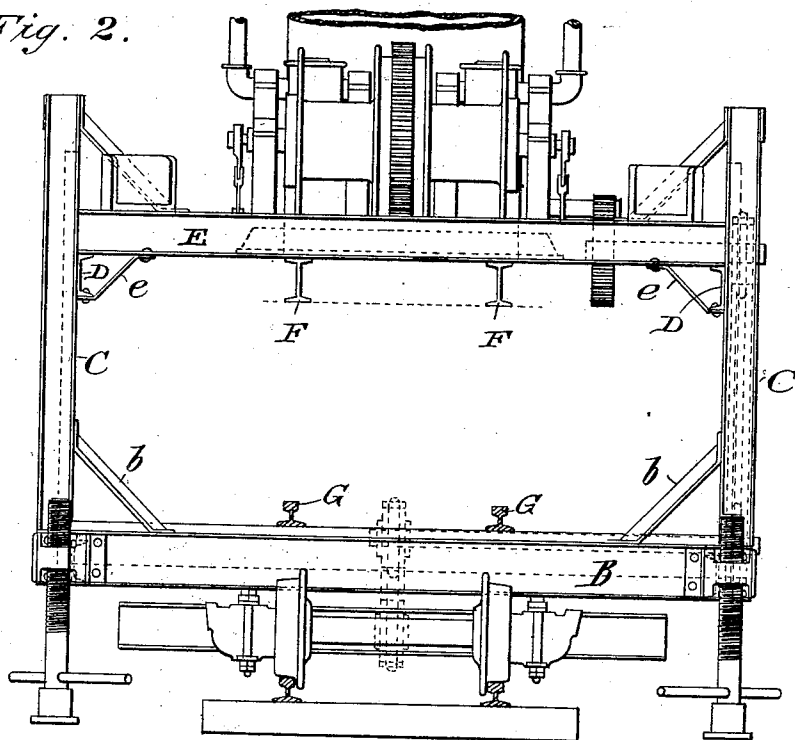
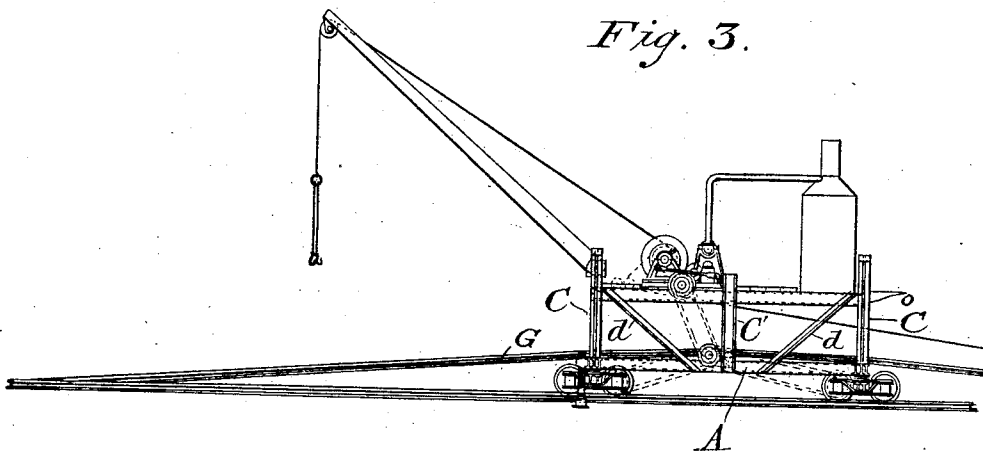


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN R. MCGIFFERT, OF DULUTH, MINNESOTA, ASSIGNOR TO CLYDE IRON WORKS, OF DULUTH, MINNESOTA, A CORPORATION OF MINNESOTA.

FRAME FOR LOG-LOADERS.

No. 857,655.

Specification of Letters Patent.

Patented June 25, 1907.

Application filed December 30, 1904. Renewed October 4, 1906. Serial No. 337,458.

To all whom it may concern:

Be it known that I, JOHN R. MCGIFFERT, a citizen of the United States, resident of Duluth, county of St. Louis, State of Minnesota, have invented a new and useful Improvement in Frames for Log-Loaders, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

My invention relates to frames for log-loaders and particularly to frames adapted for use in connection with a type of log-loader shown and described in Patent No. 621,043 issued to George W. Decker, March 14, 1899.

The object of the invention is to produce a construction which will be economical and efficient.

The said invention consists of means hereinafter fully described and particularly set forth in the claims.

The annexed drawings and the following description set forth in detail certain means embodying the invention, such disclosed means constituting but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings:—Figure 1 represents a side elevation of a log-loader frame embodying my invention showing the same mounted upon trucks and also showing a portion of the hoisting and loading mechanism. Fig. 2 represents an end elevation of same. Fig. 3 represents, upon a reduced scale, a side elevation of a loader complete and embodying my improved frame.

The two lower longitudinal sills A of the said improved frame have their respective ends joined transversely by bolsters B, B, each of which consists preferably, of three I-beams, as shown in Fig. 1. From the four corners of the lower rectangular frame so formed extend four upright posts C, C each consisting of two I-beams, such posts being directly supported by the bolsters and suitably secured thereto. Connecting the front and rear posts and secured upon the inner surfaces of the latter are two parallel channel bars D forming upper sills. Having their ends resting upon the bars D and extending between the front and rear posts respectively are two transverse members E each consisting preferably, as shown,

of two I-beams. Secured to the bottom of these members E are two longitudinal I-beams F, F disposed upon opposite sides of the vertical central longitudinal plane of the machine and at equal distances therefrom, as shown in Fig. 2. Secured to the middle and outer surface of each sill A is an upright post C' consisting preferably of two channel bars suitably tied together, the upper ends of these posts being secured to the outer surfaces of the longitudinal upper sills D. Extending between these posts is a transverse I-beam E' having its ends secured to the inner surfaces of the posts C'. This I-beam E' has its lower surface secured to the upper surfaces of the longitudinal beams F, F. These beams F, F form the deck for the hoisting and conveying mechanism which is carried thereby, as shown in Fig. 2. Further rigidity is secured by bracing the frame against transverse strains by means of bars b b and e e as shown in Fig. 2; while longer diagonally disposed bars d, joining the outer ends of the upper sills D with approximately the center of lower sills A, serve to sustain the latter under the weight of a car as it passes through the frame on track G.

By virtue of the above-described disposition of beams F, the hoisting and conveying mechanism is carried upon a plane lower than that provided in any frame heretofore constructed, thus lowering the center of gravity of the entire structure which is an obviously desirable feature. Such lowering is effected while still preserving the necessary height between the upper and lower portions of the structure so as to allow a car when drawn up upon the auxiliary track G to properly pass through the frame in the manner which is fully described and set forth in the said above-named patent. The two beams F, F being placed upon opposite sides of the central plane before mentioned, it will be seen that the projecting draw bar of the car will pass into the space included between said two beams. The height of the lower surface of beam E above the track G, G of the frame, Fig. 2, is made just sufficient to allow this draw bar to pass beneath same when the end of the car is passing up the inclined portion of the track and about to enter the frame.

As described in said patent the loading machine is provided with mechanism for self-propulsion consisting of suitable connection

with the hoisting engine in the form of chains, sprockets, shafts etc. In the constructions heretofore utilized, the driving shaft for propelling the device has, of necessity, been caused to project beyond the vertical plane coinciding with one extreme side of the frame, and a sprocket-wheel has been attached thereto. In a similar manner a countershaft and sprocket-wheel has been secured in such projecting manner, to the lower portion of the frame, so that when the machine was passing through an obstructive country the said sprockets and chains were constantly in danger of becoming damaged or the chain torn from its sprockets by reason of contact with obstructions. It will be noted however, that in my above described construction the driving shaft H, sprocket-wheel H' and sprocket chain h (shown in dotted lines) as well as the countershaft h' and sprocket-wheel h' secured thereto may lie as shown, beyond the longitudinal sills A and D and yet not lie beyond the lateral vertical plane of the frame, the upright corner posts C, C forming a guard for protecting these parts, as will be readily seen from the inspection of Fig. 2.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the means herein disclosed, provided the means stated by any one of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a frame for a log-loader, the combination with a base, of a deck comprising transverse beams supported above said base, and longitudinal beams lying beneath said transverse beams and secured to the same.

2. In a frame for a log-loader, the combination with a base, of posts mounted on each side thereof; a longitudinal beam secured to the posts along each side respectively of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying beneath said transverse beams and secured to the same.

3. In a frame for a log-loader, the combination with a base, of upright corner posts; a longitudinal beam secured to the posts on each side respectively of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying beneath said transverse beams and secured thereto.

4. In a frame for a log-loader, the combination with a base, of upright corner posts; a post on each side of said base intermediate of the corresponding corner posts; a longitudinal beam secured to the posts along each side respectively of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying

beneath said transverse beams and secured thereto.

5. In a frame for a log-loader, the combination with a base, of upright corner posts; a longitudinal beam secured to the posts on each side respectively of said base; diagonally disposed braces extending from the ends of each of said longitudinal beams to the corresponding side of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying beneath said transverse beams and secured thereto.

6. In a frame for a log-loader, the combination with a base, of upright corner posts; a post on each side of the base intermediate of the corresponding corner posts; a longitudinal beam secured to the posts along each side respectively of said base; diagonally disposed braces extending from the ends of each of said longitudinal beams to the corresponding side of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying beneath said transverse beams and secured thereto.

7. In a frame for a log-loader, the combination of a base embodying two longitudinal sills, and a bolster at each end of said sills joining the same; corner posts mounted upon said base; a longitudinal beam secured to the posts on each side respectively of said base; transverse beams secured to opposite posts respectively; and intermediate longitudinal beams lying beneath said transverse beams and secured thereto.

8. In a frame for a log-loader, the combination of a base embodying two longitudinal sills, and a bolster at each end of said sills joining the same; upright corner posts mounted upon said base; a post on each side of the base intermediate of the corresponding corner posts; a longitudinal beam secured to the posts along each side respectively of said base; diagonally disposed braces extending from the ends of each of said longitudinal beams to the corresponding sill; transverse beams secured to the opposite posts respectively; and intermediate longitudinal beams lying below said transverse beams and secured thereto.

9. In a log-loader, the combination with a frame comprising a base, posts mounted on each side thereof, two longitudinal beams respectively secured to the inside of said posts and a deck supported upon said longitudinal beams; of propelling mechanism for said log-loader including a driving shaft transversely mounted on said deck, a countershaft similarly mounted in said base, and operative connections between corresponding ends of said shafts, the ends of said shafts and such connections all lying without the line of said longitudinal beams and within that of said posts.

10. In a log-loader, the combination with
a frame comprising a base, posts mounted
along each side thereof, two longitudinal
beams respectively secured to the inside of
5 said posts above said base, and a deck sup-
ported upon said longitudinal beams; of
propelling mechanism for said log-loader in-
cluding a driving shaft transversely mounted
on said deck, a counter-shaft similarly
10 mounted in said base, sprocket wheels
mounted on corresponding ends of said shafts
and a sprocket chain connecting said wheels,
the ends of said shafts, said wheels and chain
all lying without the line of said longitudinal
15 beams and within that of said posts.

11. In a log-loader, the combination with
a frame comprising two lower longitudinal
sills, two bolsters connecting the front and
rear ends of said sills transversely, four cor-
ner posts mounted upon said bolsters, two
20 upper lateral longitudinal beams parallel
with said sills and respectively secured to the
inside of a front and rear corner post, trans-
verse beams resting upon said upper longi-
tudinal beams, and other intermediate upper
25 longitudinal beams secured to said transverse
beams; of propelling mechanism for said log-
loader including a driving shaft transversely
mounted on said upper beams, a counter-
30 shaft similarly mounted on said sills, and

operative connections between correspond-
ing ends of said shafts, the ends of such shafts
and such connections all lying without the
line of said longitudinal beams and within
that of said posts.

12. In a frame for a log-loader, the combi-
nation of two lower lateral longitudinal sills;
two bolsters connecting the front and rear
ends of said sills transversely; four corner
posts supported upon said bolsters; two
40 upper lateral bars parallel with said sills and
secured to the inside of a front and rear cor-
ner post; transverse beams resting upon said
bars and located between said corner posts;
two oppositely located upright posts secured
45 respectively to an upper beam and lower sill
intermediate of the corresponding corner
posts; a transverse beam connecting such
intermediate upright posts; and longitudinal
beams secured to the lower surfaces of the
50 transverse beams and located upon opposite
sides of the central vertical longitudinal
plane of the frame.

Signed by me this 10th day of December
1904.

JOHN R. MCGIFFERT.

Witnesses

ARTHUR W. HUNTER,
N. M. NELSON.