

(No Model.)

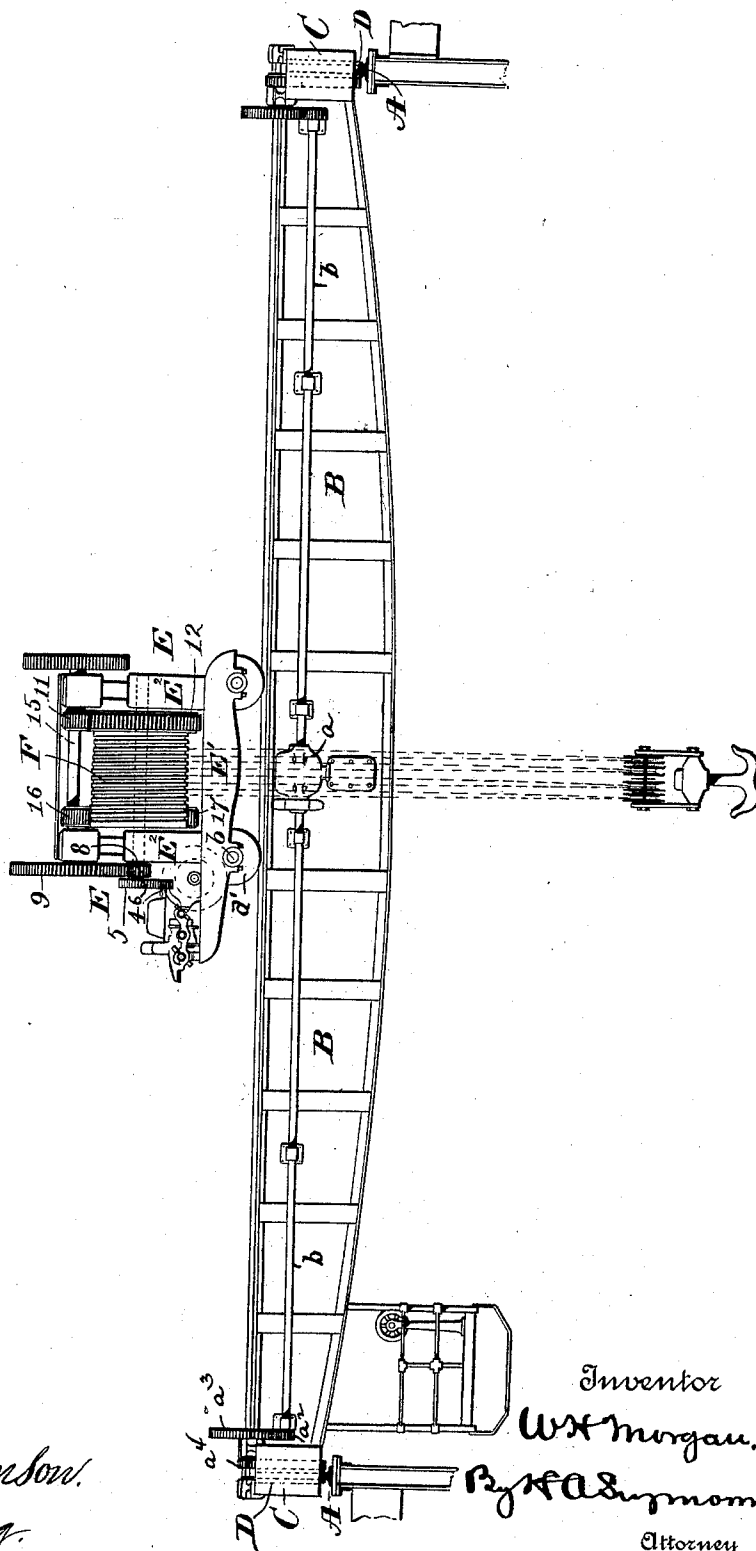
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W. H. MORGAN.
OVERHEAD TRAVELING CRANE.

No. 509,756.

Patented Nov. 28, 1893.

Fig. 1.



Witnesses
Jas. C. Hutchinson.
G. F. Downing.

Inventor
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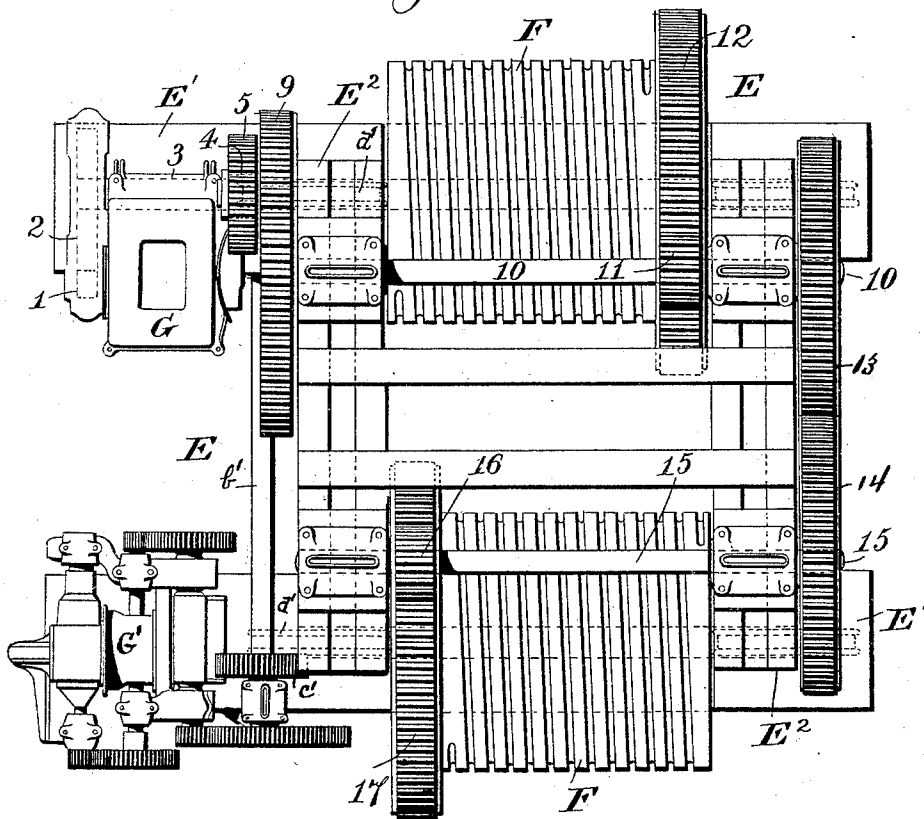
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Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY MORGAN, OF ALLIANCE, OHIO, ASSIGNOR OF THREE-
FOURTHS TO THOMAS R. MORGAN, SR., THOMAS R. MORGAN, JR., AND
JOHN R. MORGAN, OF SAME PLACE.

OVERHEAD TRAVELING CRANE.

SPECIFICATION forming part of Letters Patent No. 509,756, dated November 28, 1893.

Application filed January 11, 1893. Serial No. 458,072. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY MORGAN, of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Overhead Traveling Cranes; 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 an improvement in overhead traveling cranes and in parts and combinations of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of a crane embodying my invention and Fig. 2 is a plan view of the trolley.

A represents the trackway on which the bridge B travels. This bridge is composed of two girders located parallel and comparatively close together, and attached at their ends to the end carriages or trucks C which latter are mounted on flanged wheels D designed to run on the tracks A. The bridge is provided on its upper face with rails or a trackway running lengthwise thereof on which the trolley E travels. The bridge can be propelled by an electric motor *a* acting on the shaft *b* through the intervention of the pinions *a*², *a*³ and *a*⁴ the latter being fast to the driving wheels D of the bridge.

The trolley E consists essentially of a frame E' mounted on flanged wheels D adapted to travel on the trackway on the bridge. This frame is provided at its ends with standards E² provided with bearings for the drums F and for the several shafts for actuating the drums, to be hereinafter described. By locating the bearings at the ends of the trolley instead of at the sides thereof it will be seen that the axes of the drums run in the direction of the length of the bridge, and hence the width of the bridge need not be greater than the width between the trunnions or axes of the drums. The trolley is propelled by motor G', and suitable gearing which actuates shaft *b*', the latter being provided with pinions *c*' (one of which is shown in Fig. 2) adapt-

ed to engage pinions carried by the flanged track wheels *d*' of the trolley. The drums are arranged parallel, and each is provided on one end with a toothed wheel geared up to a single motor and gearing to be hereinafter described so as to move in unison. The motor G for actuating the drum is provided with a small pinion 1—which meshes with a larger pinion 2 fast on shaft 3. This shaft is provided with a toothed wheel 4 which meshes with wheel 5 on shaft 6. Shaft 6 carries a toothed wheel 8 which latter meshes with the large wheel 9 on shaft 10. Shaft 10 carries the pinion 11—which engages and actuates the toothed wheel 12 fast to its drum F, and also carries the larger pinion 13 which engages pinion 14 on shaft 15. This shaft carries a toothed wheel 16 which in turn meshes with toothed wheel 17 fast to its drum F. By arranging the drums lengthwise the bridge, the width of the latter can be very materially decreased without decreasing the length of the drums, thus enabling the cranes to be run well up to the ends of the shop and thus practically bring the entire floor space of the shop within the range of the crane.

In addition to the advantages above set forth, I am enabled to convert the ordinary crane having a trolley carrying a single sprocket wheel over which the hoisting chain passes into a crane having drums on which the chain is wound.

It is evident that many slight changes might be resorted to in the several parts of my device without departing from the spirit and scope of my invention. Hence I would have it understood that I do not confine myself to the exact construction and arrangement of parts herein shown, but,

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

1. In an overhead traveling crane, the combination with a traveling bridge, of a traveling trolley thereon, a motor, gearing connecting said motor and the driving wheels of the trolley, a drum arranged with its axis in the direction of the length of the bridge, a second motor on the bridge and gearing connect-

ing said second motor and a drum for actuating the latter, substantially as set forth.

2. In an overhead traveling crane, the combination of a traveling bridge, trolley thereon, a motor, gearing connecting said motor and the driving wheels of the trolley, a pair of hoisting drums arranged with their axes in the direction of the length of the bridge, a second motor and gearing connecting said
5 second motor and the two drums for actuat-

ing the latter simultaneously, substantially as set forth.

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

WILLIAM HENRY MORGAN.

Witnesses:

HEATON W. HARRIS,
F. E. DUSSEL.