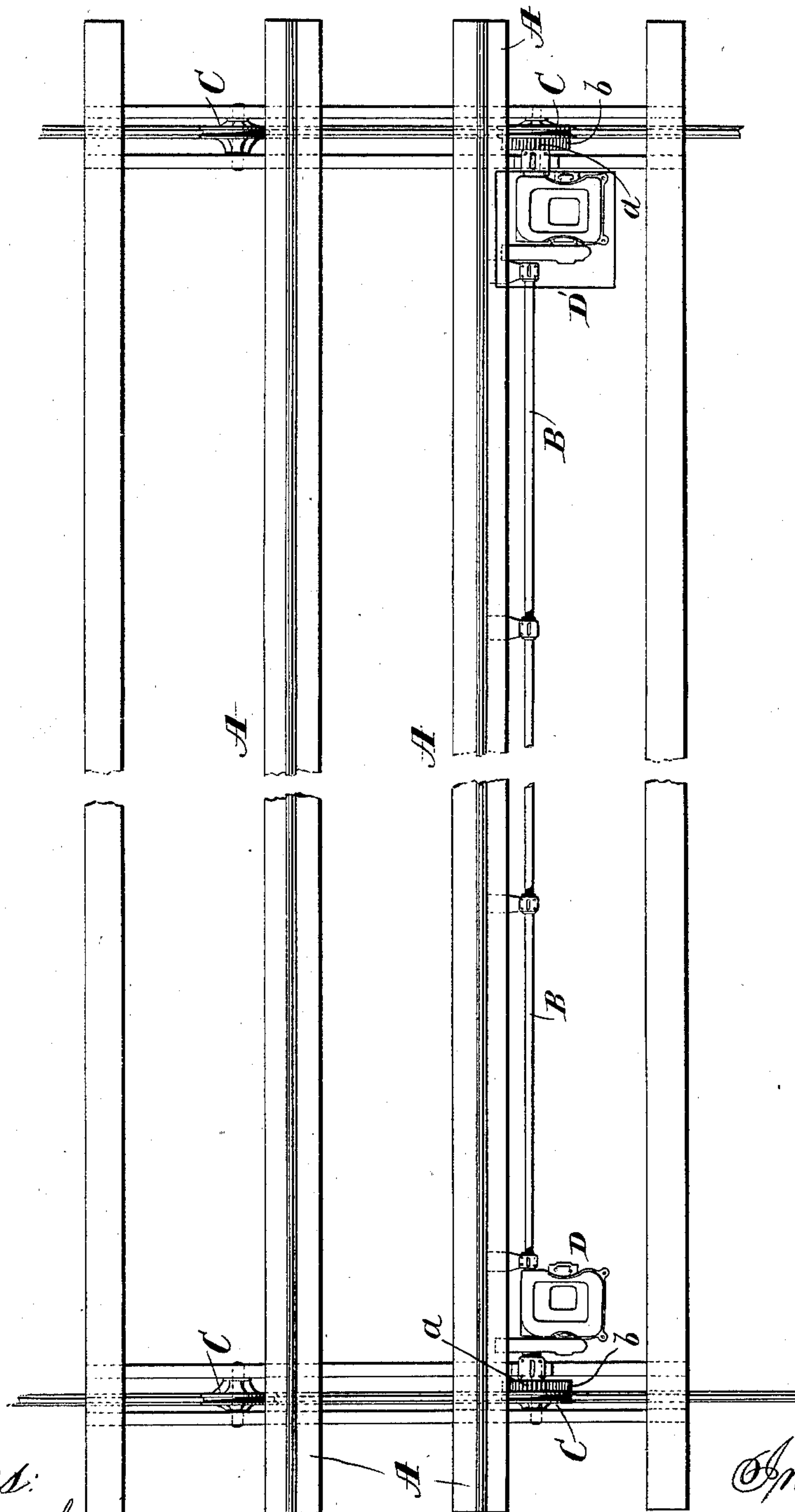


(No Model.)

W. H. MORGAN.  
OVERHEAD TRAVELING CRANE.

No. 509,757.

Patented Nov. 28, 1893.



Witnesses:  
Jas. E. Hutchinson.  
G. F. Downing.

Inventor.  
William H. Morgan.  
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Attorney.

# 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. 509,757, dated November 28, 1893.

Application filed January 14, 1893. Serial No. 458,407. (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  
5 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  
10 the same.

My invention relates to an improvement in overhead traveling cranes and it consists in the parts and combinations of parts as will be more fully described and pointed out in the  
15 claim.

The accompanying drawing is a view in plan of a traveling crane embodying my invention.

In the overhead traveling cranes now in  
20 common use, a main shaft for actuating the driving wheels of the bridge extends from one end truck of the bridge to the other. This shaft is actuated by a single electric motor or other power transmitting devices  
25 located generally near one end truck of the bridge. Where the bridges are of long span, the torsional strain on the driving shaft is sufficient to throw the shaft out of line and thus cause one end of the bridge to travel  
30 slightly in advance of the other. This not only strains the bridge, but it tends to cause the wheels to leave the rails. To overcome this rack bars have been secured alongside of the rails, and the driving wheels of the  
35 bridge provided with toothed wheels adapted to engage the rack bars. Such an arrangement is not wholly reliable and is expensive, and the object of my invention is to provide means for positively actuating both ends of  
40 the shaft whereby uniform travel of both ends of the bridge is assured and all torsion on the bridge or shaft avoided.

The bridge A is provided at one side with bearings for the shaft B, and the latter car-

ries at its opposite ends toothed wheels *a* 45 which latter mesh with the toothed wheels *b* fast to the driving wheels C of the bridge. Supported by the bridge near the opposite ends thereof are two motors D, D', both of which are geared up to the shaft B, and con- 50 nected so that they are operated in unison. The motors are located near the opposite ends of the shaft and as they are coupled up to move in unison, it follows that all torsional strain on the shaft is avoided. As equal 55 power is applied to both ends of the shaft the central portion of the shaft might be dispensed with, and two short shafts employed in lieu thereof. I prefer however to employ the single shaft and couple up the motors as 60 described, as the portion of the shaft between the two motors acts as a governor for the motors and prevents the slightest variation in the speed of either.

It is evident that numerous changes and al- 65 terations of the several parts of my device might be resorted to 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 ar- 70 rangement of parts herein shown, but,

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

In an overhead traveling crane, the combi- 75 nation with a traveling bridge of a driving shaft geared up to the driving wheels of the bridge and an electric motor located near each end of the shaft for actuating same, the two motors being coupled up electrically so as 80 to move in unison, 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.