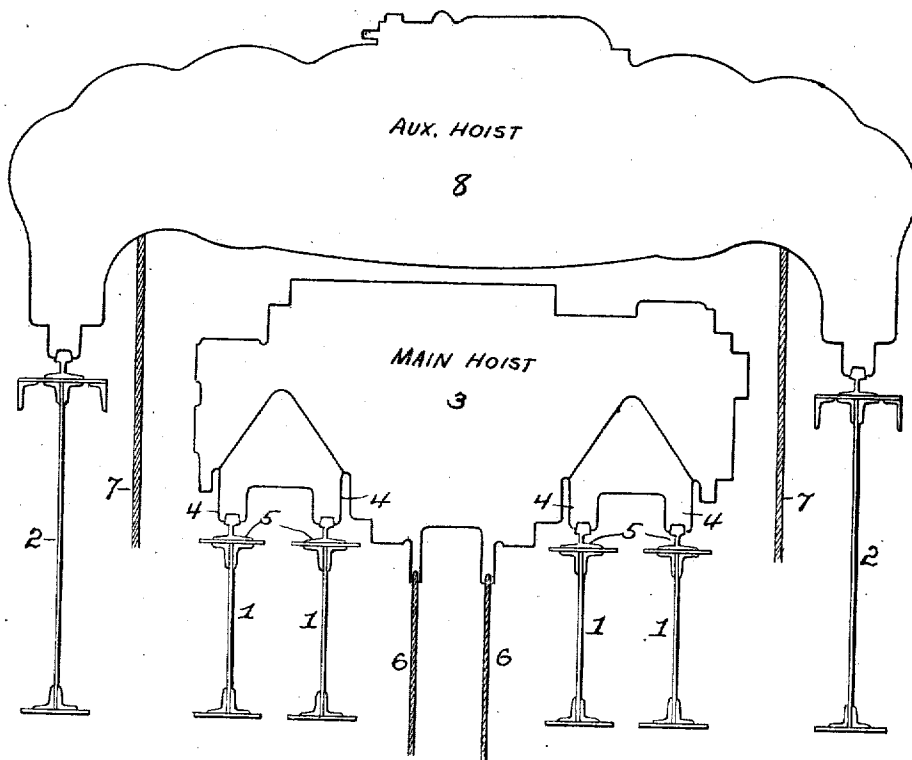


No. 844,423.

PATENTED FEB. 19, 1907.

C. L. TAYLOR.
OVERHEAD TRAVELING CRANE.
APPLICATION FILED JUNE 6, 1906.



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OVERHEAD TRAVELING CRANE.

No. 844,423.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed June 5, 1906. Serial No. 320,300.

To all whom it may concern:

Be it known that I, CLARENCE L. TAYLOR, 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.

In many overhead cranes as now constructed two trolleys are employed; but in every instance the main trolley, which is designed to do the heavy lifting, is located in a plane above the auxiliary trolley and is supported in vertical planes outside the tracks carrying the auxiliary trolley.

The object of the present invention is to so locate the lighter auxiliary trolley in a position where it can be employed for lifting and assembling the parts of the heavier trolley, which by reason of the character of work imposed upon it is more liable to injury than the lighter auxiliary trolley.

A further object is to so construct the parts that the span or width of the main trolley will be considerably lessened, thus permitting the employment of a lighter frame without impairing its efficiency than could with safety be employed on a trolley the full width of the bridge.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully explained, and pointed out in the claims.

The accompanying drawing is a view in transverse vertical section of the bridge of a traveling crane, showing diagrammatically in outline the main and auxiliary trolleys thereon.

1 represents a traveling bridge consisting of four inner parallel girders constructed to sustain the heavier loads to which the crane is subjected, and 2 are outer parallel girders adapted to support the auxiliary trolley, which is employed primarily for lifting the lighter loads and for assisting the main trolley.

The four inner girders are arranged in pairs, with each end of the main trolley 3 resting on a pair. This trolley is provided, preferably, with pivoted trucks carried on flanged wheels 4, which travel on the rails 5, secured to the upper faces of the girders 1, and these girders 1 may be connected or braced in any suitable manner, so as to afford a firm and solid support for the trolley, and are located relatively close to each other, so as to shorten up and compact as much as possible the main hoist-trolley, thus permitting it to be made proportionately lighter than it could be safely made on a larger span or if it were supported on the outer girders, as heretofore done. The hoist ropes or chains 6 from this main trolley pass downwardly between the two pairs of main girders, while the chains 7 from the auxiliary trolley 8 pass downwardly between the outer girders 2 and the outer girders of each pair of main girders. This auxiliary trolley can be made comparatively light, and as it is not intended for use with heavy loads the outer and more widely separated girders are not subjected to any dangerous strains. In assembling the crane this auxiliary trolley can be first placed in position and then used for lifting and assembling the main trolley and parts thereof.

The inner girders, as shown, are of less depth than the outer girders or may be in a lower plane than the outer girders, so as to leave ample space below the auxiliary trolley for the travel of the main trolley. By dividing the main girders into sections or by making them wider than the usual girders and having the trolley bear on both sections of the girders or near the opposite sides of the wider girders the tendency for the long girders to spread under a heavy load is to a large extent obviated.

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

1. In a traveling crane, the combination with a bridge composed of two outer girders, and inner girders, of an auxiliary trolley mounted to travel on the outer girders, and a main hoist-trolley mounted to travel on the inner girders.

2. In a traveling crane, the combination
with a pair of outer girders and two pairs of
girders intermediate said outer girders of an
auxiliary trolley mounted to travel on the
5 outer girders, and a main trolley mounted
to travel on the two pairs of inner girders in
a plane below the auxiliary trolley.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

CLARENCE L. TAYLOR.

Witnesses:

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E. E. BROSIUS.