

No. 850,407.

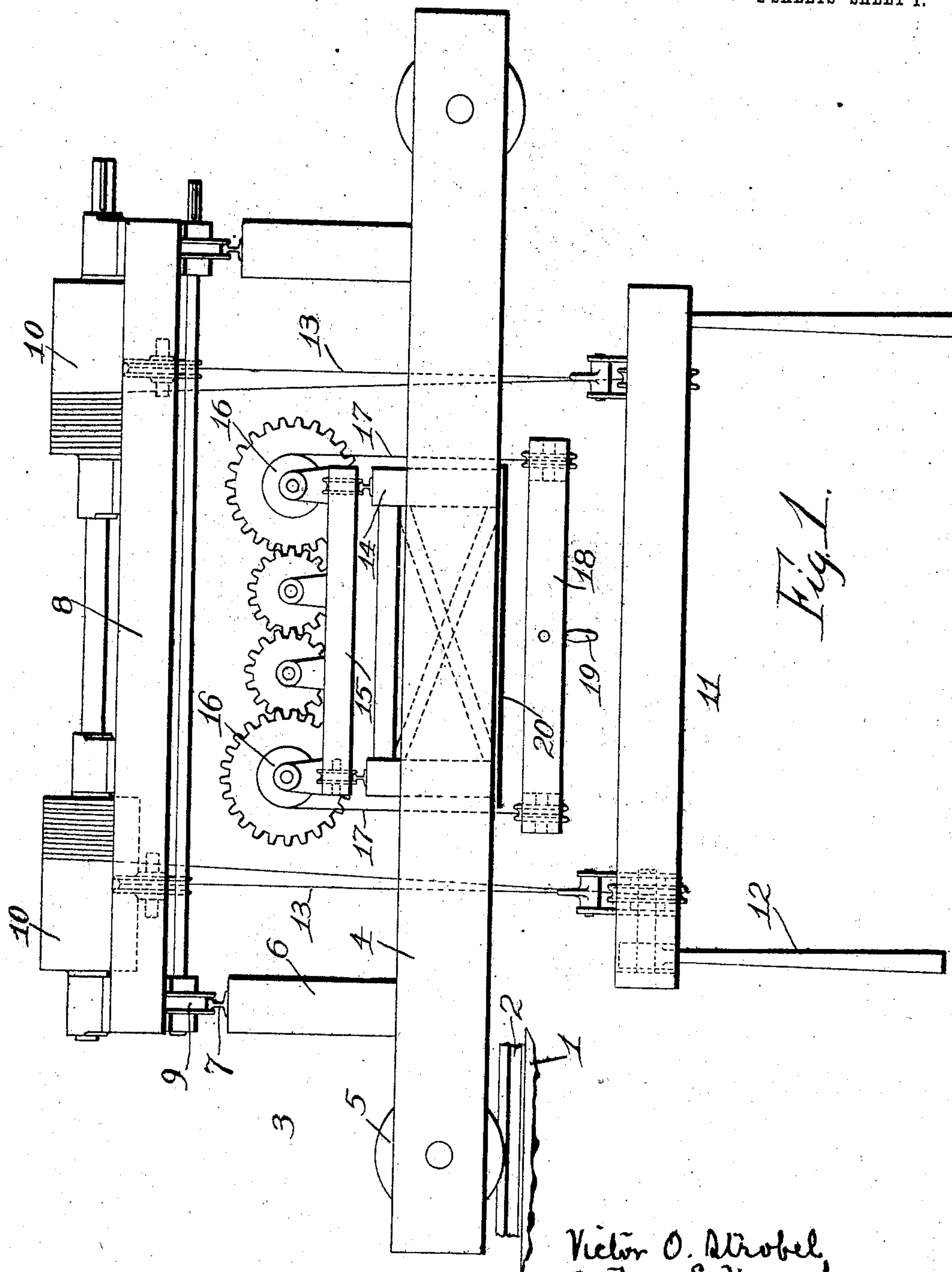
PATENTED APR. 16, 1907.

V. O. STROBEL & A. E. HOGREBE.

## TRAVELING CRANE.

APPLICATION FILED JAN. 23, 1907,

2 SHEETS--SHEET 1.



Witnesses:  
Elmer R. Shipley.  
M. S. Belden.

Victor O. Strobel  
Arthur E. Wagnere  
Inventors  
by James W. See  
Attorney

No. 850,407.

PATENTED APR. 16, 1907,  
V. O. STROBEL & A. E. HOGREBE.  
TRAVELING CRANE.  
APPLICATION FILED JAN. 23, 1907.

2 SHEETS—SHEET 2.

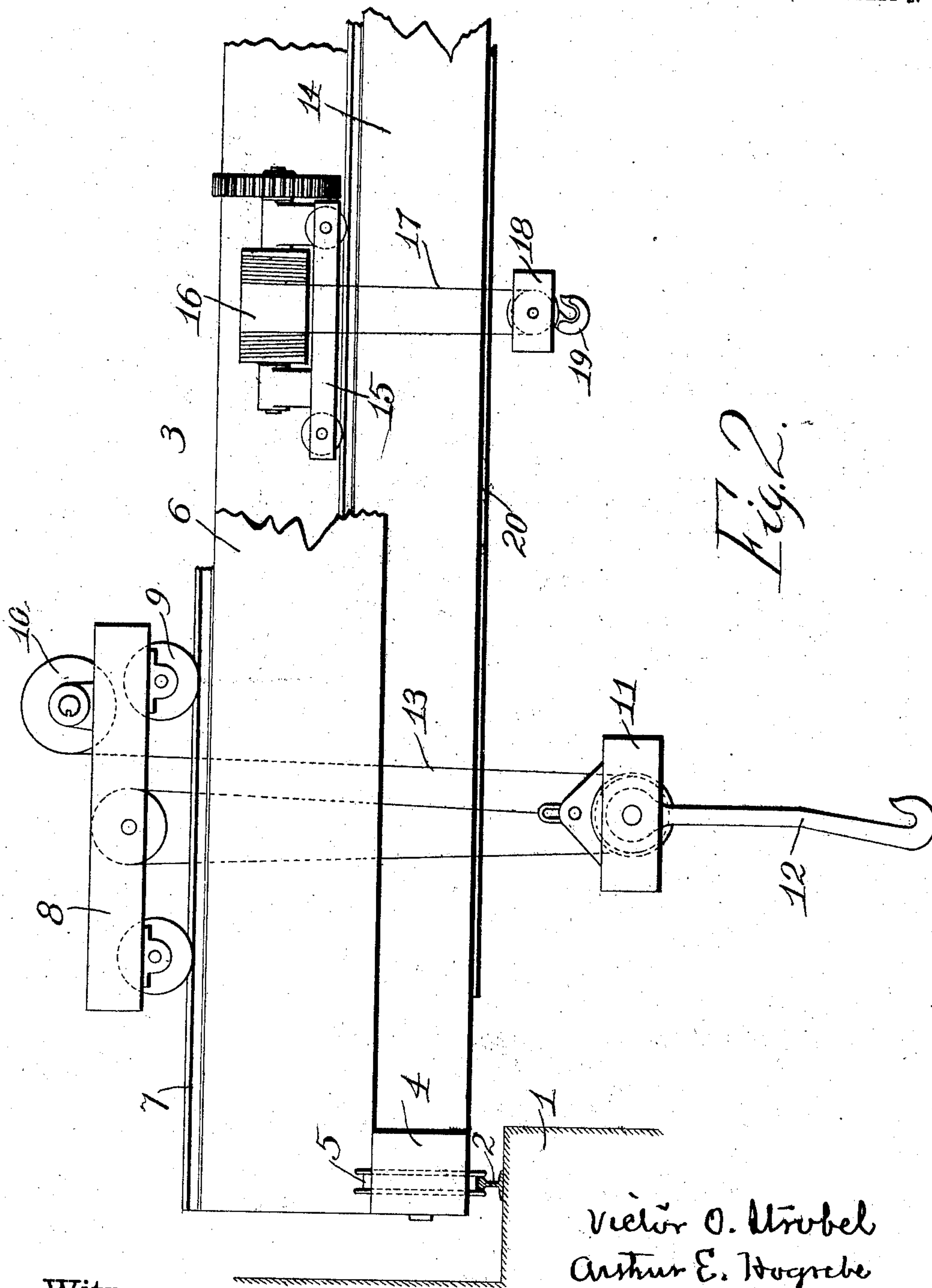


Fig. 2.

Witnesses:  
*Elmer R. Shipley,*  
*W. S. Belden.*

*Victor O. Strobel*  
*Arthur E. Hogrebe*  
Inventors  
by *James W. S&E*  
Attorney



# UNITED STATES PATENT OFFICE.

VICTOR O. STROBEL AND ARTHUR E. HOGREBE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO NILES-BEMENT-POND COMPANY, OF JERSEY CITY, NEW JERSEY.

## TRAVELING CRANE.

No. 850,407.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed January 23, 1907. Serial No. 353,727.

*To all whom it may concern:*

Be it known that we, VICTOR O. STROBEL and ARTHUR E. HOGREBE, citizens of the United States, and residents of Philadelphia, Philadelphia county, Pennsylvania, have invented certain new and useful Improvements in Traveling Cranes, of which the following is a specification.

This invention, while applicable to traveling cranes generally, has been devised with special reference to traveling cranes employed in the handling of ladles; and the improvements will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is an end elevation of the bridge of a traveling crane embodying our invention, and Fig. 2 a side elevation of a portion of the same.

In the drawings, 1 indicates the usual overhead main-track support for a traveling crane; 2, the rails of the main track; 3, the bridge, considered as a whole; 4, the end girders of the bridge; 5, the main wheels of the bridge, the same running on the main-track rails; 6, the main cross-girders of the bridge, the same being connected to and supported at their ends by the end girders; 7, the main cross-rails of the bridge, supported on the main cross-girders; 8, the main trolley, traveling on the main cross-rails 7; 9, the wheels of the main trolley; 10, the hoisting-drum of the main trolley, the same being double-ended for the reception of two hoisting-ropes, the illustration showing the two ends of the drum as being separated from each other upon their common shaft; 11, the main bridle; 12, a hook at each end of the main bridle, these hooks being adapted to engage the trunnions of a ladle, as usual in ladle-cranes; 13, the main hoisting-ropes, one for each end of the main bridle, one rope being connected with one end of the main bridle and the appropriate end of the main hoisting-drum, while the other rope is connected with the other end of the main bridle and main hoisting-drum; 14, the secondary cross-girders of the bridge, these girders lying parallel with and between the main cross-girders of the bridge and having their ends connected with and supported by the end

girders of the bridge, the tops of these girders being some distance below the tops of the main cross-girders, the secondary cross-girders being preferably connected with each other by intermediate cross-bracing; 15, the secondary trolley, the same running on rails carried by the tops of the secondary cross-girders; 16, the secondary hoisting-drums, the same being carried by the secondary trolley and having portions projecting into the spaces between the main and secondary cross-girders, these secondary hoisting-drums being arranged for rotation in unison; 17, the secondary hoisting-ropes, one falling from each secondary hoisting-drum and through the appropriate space between the main and secondary cross-girders; 18, the secondary bridle, having each of its ends connected with one of the secondary hoisting-ropes; 19, the hook of the secondary bridle, the same being adapted to engage or be connected with the tailpiece of a tipping ladle, and 20 a shield carried by the bridge under the space between the secondary cross-girders.

The motors and accessory mechanism for moving the bridge and the trolleys and for turning the hoisting-drums call for no peculiarities in connection with our invention and are therefore not illustrated. The main trolley is arranged to travel at such height relative to the secondary trolley that the two trolleys may travel across the bridge without interfering with each other. All the hoisting-ropes, main and secondary, fall through the spaces between the main cross-girders and secondary cross-girders, thus permitting the secondary cross-girders to be intermediately braced to any extent desired and also permitting the presence of shield 20, which protects all of the parts on the secondary trolley and many of the parts on the main trolley, from the heat rising from a ladle suspended from the bridge, and at the same time the secondary as well as the main hoisting-ropes are kept in planes outside the specially-hot region directly above the suspended ladle. For ordinary hoisting purposes either trolley may be used independently, and for work with tipping ladles the ladle may be hoisted and held by the main trolley and its accessories and be tipped by the secondary trolley and its accessories.



We claim—

1. A traveling crane comprising a bridge having a pair of main cross-girders parallel with each other and a pair of secondary cross-girders parallel therewith, rails on the tops of said girders, a main trolley traveling on the rails of the main cross-girders, a double main hoisting-drum mounted on the main trolley, main hoisting-ropes connected with the main hoisting-drum and falling through the spaces between the main and secondary cross-girders, a secondary trolley traveling on the rails of the secondary cross-girders, secondary hoisting-drums mounted on the secondary trolley and having portions projecting into the planes of the spaces between the main and secondary cross-girders, and secondary hoisting-ropes connected with the secondary hoisting-drums and falling through the spaces between the main and secondary cross-girders, combined substantially as set forth.

2. A traveling crane comprising a bridge having a pair of main cross-girders parallel with each other and a pair of secondary cross-girders parallel therewith, rails on the tops of said girders, a main trolley traveling on the rails of the main cross-girders, a double main hoisting-drum mounted on the main trolley, main hoisting-ropes connected with the main hoisting-drum and falling through the spaces between the main and secondary cross-girders, a secondary trolley traveling on the rails of the secondary cross-girders, secondary hoisting-drums mounted on the secondary trolley and having portions pro-

jecting into the planes of the spaces between the main and secondary cross-girders, secondary hoisting-ropes connected with the secondary hoisting-drums and falling through the spaces between the main and secondary cross-girders, and cross-bracing extending between the secondary cross-girders, combined substantially as set forth.

3. A traveling crane comprising a bridge having a pair of main cross-girders parallel with each other and a pair of secondary cross-girders parallel therewith, rails on the tops of said girders, a main trolley traveling on the rails of the main cross-girders, a double main hoisting-drum mounted on the main trolley, main hoisting-ropes connected with the main hoisting-drum and falling through the spaces between the main and secondary cross-girders, a secondary trolley traveling on the rails of the secondary cross-girders, secondary hoisting-drums mounted on the secondary trolley and having portions projecting into the planes of the spaces between the main and secondary cross-girders, secondary hoisting-ropes connected with the secondary hoisting-drums and falling through the spaces between the main and secondary cross-girders, and a shield supported by the secondary cross-girders between the secondary hoisting-ropes, combined substantially as set forth.

VICTOR O. STROBEL.  
ARTHUR E. HOGREBE.

Witnesses:

G. C. ALLEN,  
WM. H. KINKAID