

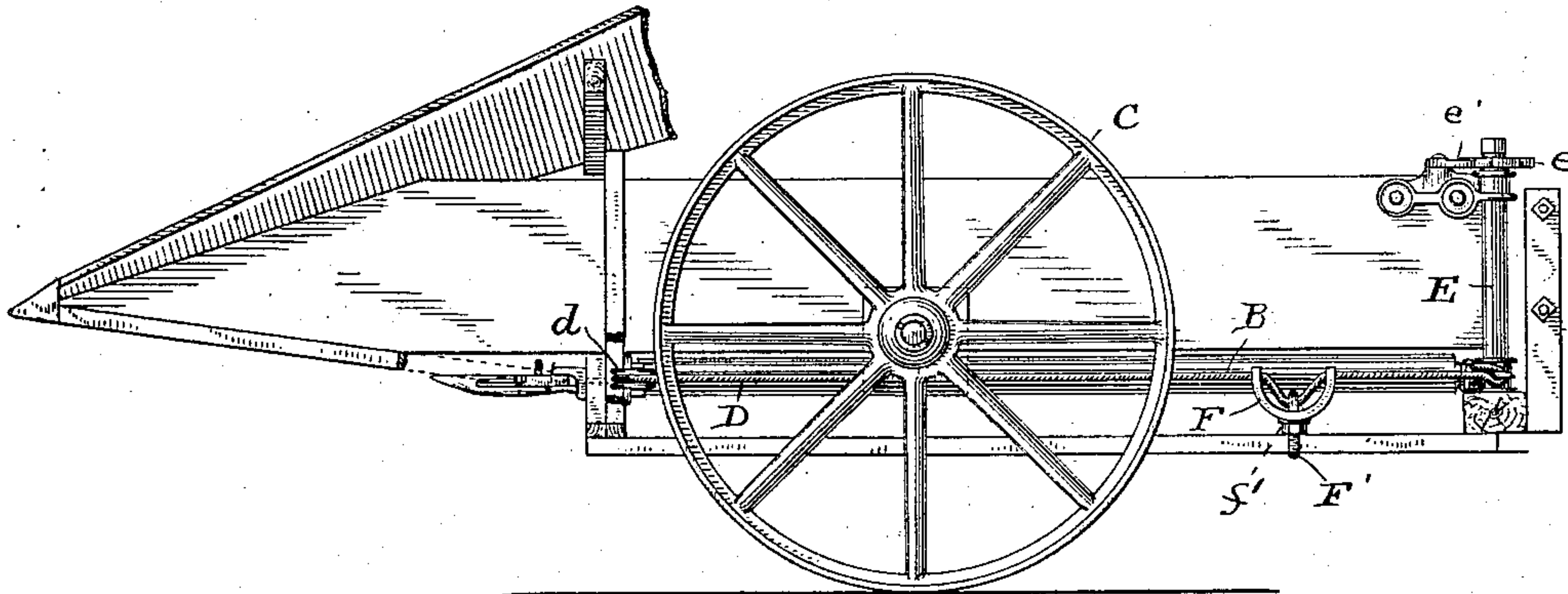
(No Model.)

W. R. BAKER.  
HARVESTING MACHINE.

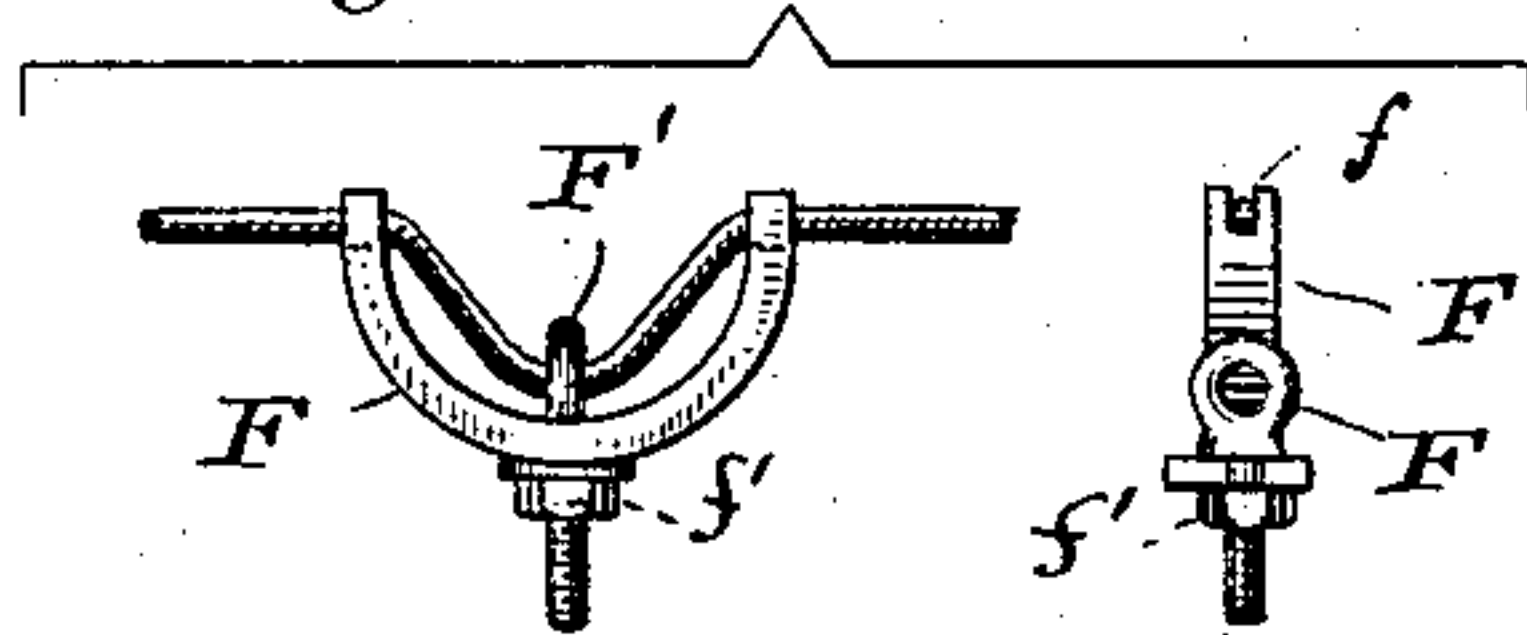
No. 324,354.

Patented Aug. 18, 1885.

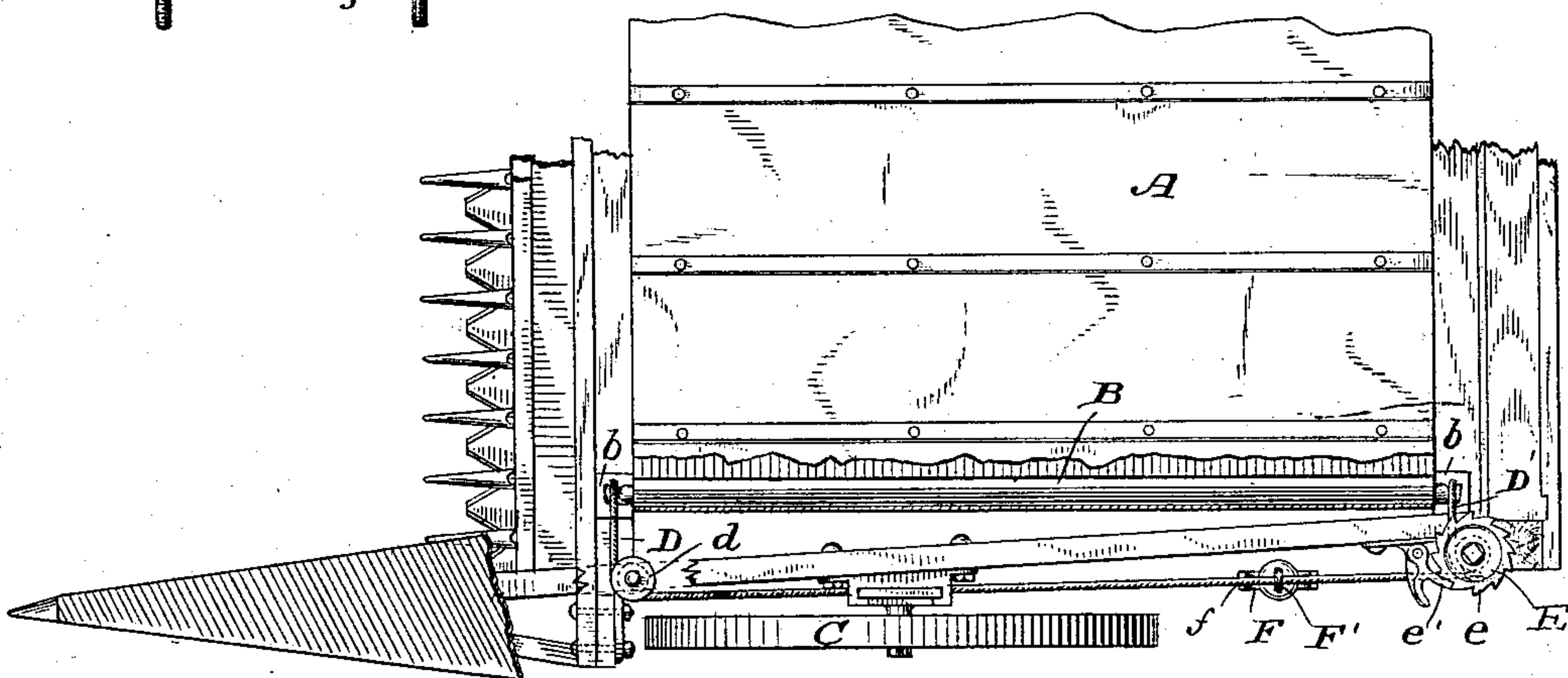
*Fig. 2.*



*Fig. 3.*



*Fig. 1.*



WITNESSES

*Wm A. Skinkie*  
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INVENTOR

*William R. Baker.*

By his Attorneys

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# UNITED STATES PATENT OFFICE.

WILLIAM R. BAKER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE McCORMICK HARVESTING MACHINE COMPANY, OF SAME PLACE.

## HARVESTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 324,354, dated August 18, 1885.

Application filed February 11, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. BAKER, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Harvesting-Machines, of which the following is a specification.

Grain as it is cut by the modern reaper or harvester is, as a rule, deposited upon an endless apron, which travels constantly, impelled by gearing from the main wheel, toward one side or end of the machine, where it is either delivered upon the ground or taken by the elevator to a binding-table or to automatic binding mechanism. This "platform-apron," as it is called, after a time stretches and becomes loose upon the rollers which support it at each end, and one of which drives it. To take up the slack or stretch so that the apron may not slip on the driving roller or drum, it has heretofore either been provided with straps, whereby the ends of the sheet of canvas could be overlapped farther and farther, or else the bearing-boxes of the idle-roller, usually the one next to the grain-wheel, have been made adjustable or seated upon springs.

My present invention relates to means whereby this idle-roller may be simultaneously and co-ordinately adjusted at each end; and it consists in mounting said roller in sliding boxes and connecting with these boxes bands, ropes, or cables of suitable material, preferably wire, which are led over pulleys properly arranged to a common drum or winch, by which they may be wound up or let out, as the conditions of the apron, either from use or atmospheric changes, may require.

It further consists in combining, with one or both of said cables, a slack take-up, whereby it may be equalized with the other.

In the drawings, Figure 1 is a plan view of the outer end of a harvester-platform embodying my invention. Fig. 2 is an end elevation showing the grain-wheel and the winding-drum or winch, and Fig. 3 detail views of the tension device.

A represents the endless apron, which is usually provided with slats, and B the idle-roller for said apron, turning in sliding boxes *b*, suitably mounted in ways on the front and rear sills near to the divider-board.

C is the grain-wheel, which may be supported and adjusted in any usual manner.

To the front box of the idle-roller I secure a rope, band, or cable, D, (advisably a wire cable,) leading it over a pulley, *d*, at the end of the front sill, just outside of the divider-board, so that when taken up or let out it may pull upon or yield to the stress of the sliding box at the end of the drum. To the rear sliding box I affix a similar rope, band, or cable, D', which may also be led over a pulley at the end of the rear sill, and from thence to the winding-drum or winch E, located in any convenient position, either midway of the length of the divider-board or parallel therewith; but, for convenience and compactness of structure, I prefer to make the drum or winch itself the pulley for the rear cable, placing it vertically at the rear outside corner of the platform, in line with the rear sliding box and rear sill, and leading the rope from the front box along the length of the divider-board to this drum and the rope from the rear box directly to it. This vertical winding-drum will be provided with a ratchet-wheel, *e*, into which will catch a pawl or click, *e'*, pivoted upon the grain-board or a suitable part of the frame, so that when it is turned to tighten the apron it may be held in the proper adjustment. At its upper end it will either have a fixed crank, or, preferably, as in the present instance, be squared to receive a wrench or key, whereby it can be turned.

As the rope from the front box under the described arrangement will be much longer than the other, it will naturally stretch more, and some provision must be made to take up the slack in its length, so as to equalize it with the shorter one, and for this purpose I provide a bridge, F, semicircular, or of some other shape, affording two legs, which can be affixed to or set upon the rope, and is to that end made with an eye or recess, *f*, in the end or foot of each leg, through which the rope is led or into which it fits. Through the center of this bridge is passed a hook or eyebolt, F', which, by means of a nut, *f'*, can be adjusted at right angles to the line between the two feet. The rope, being carried from the eyes or recesses in said feet through the hook or eye of the bolt between them, can then be



readily tightened or slackened by turning the nut on the end of the bolt in the proper direction.

While I have described the improvement in connection with a platform-apron only, it is obvious that it may be applied to an elevator-apron without change in the mechanism used, and therefore I will not limit myself to its employment in the exact position shown.

10 I claim as my invention—

1. The combination of the endless apron or carrier, the idle-roller supporting it at one end, the sliding box in which said roller turns, the ropes, bands, or cables affixed individually to each of said boxes, the single vertical winding-drum or winch, to which both cables are led, and its ratchet and check-pawl.

2. The combination, substantially as hereinbefore described, of the endless apron or carrier, the idle drum or roller which supports it at the divider end, the sliding boxes in which said roller turns, the cable attached to the front box and led therefrom over a pul-

ley at the end of the front sill and alongside of the divider-board, the cable attached to the rear box, and the vertical winding-drum or winch located at the rear outer corner of the platform in line with the rear box and receiving both cables. 25

3. The combination, substantially as hereinbefore set forth, with the apron-tightening cable, of the tension-bridge and its eyebolt and nut. 30

4. The tension-bridge constructed substantially as herein set forth—that is to say, formed with eyes or recesses to receive the cable, and having between its legs an eyebolt adapted to grasp the cable midway between said legs, and provided with a nut, whereby it can be moved in and out transversely to a line drawn between said eyes to take up or let out slack. 35 40

WILLIAM R. BAKER.

Witnesses:

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