(No Model.)

E. McLANE

HOISTING MACHINE.

No. 435,239. Patented Aug. 26, 1890.

Fig. 1.

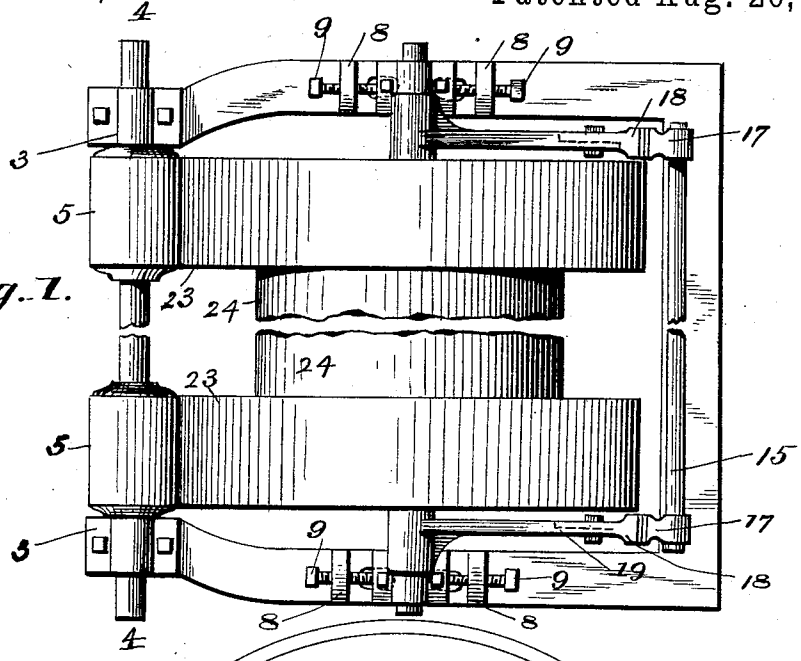
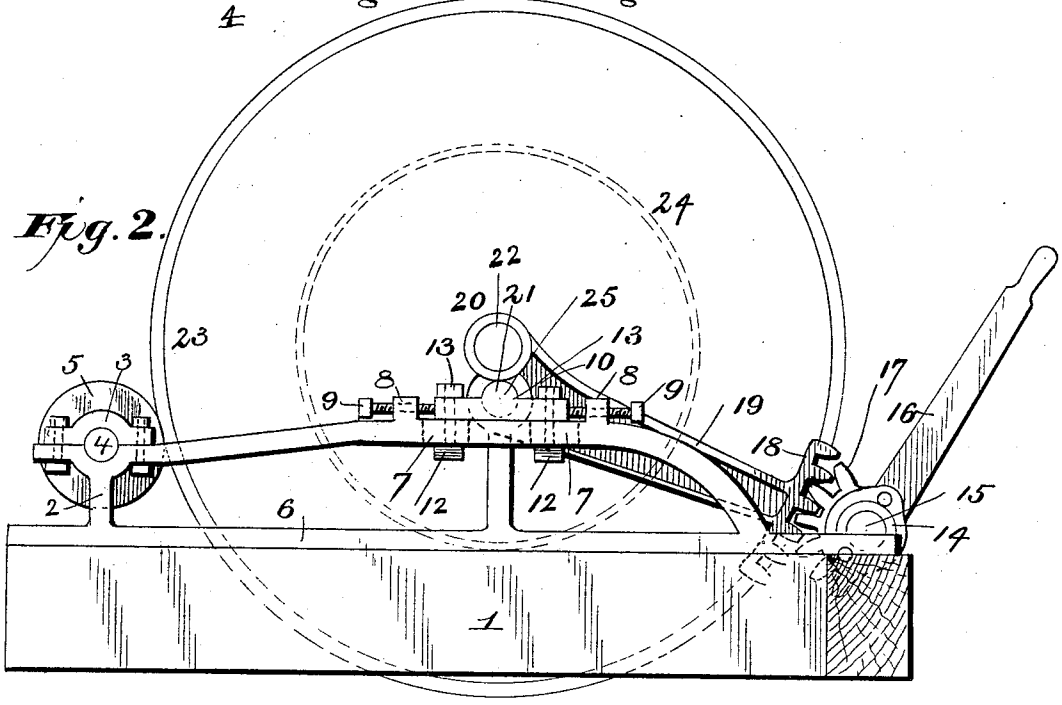


Fig. 2.



WITNESSES:

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HOISTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 435,239, dated August 26, 1890.

Application filed May 26, 1890. Serial No. 353,173. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER McLANE, a citizen of the United States, and a resident of Galena, in the county of Cherokee and State of Kansas, have invented certain new and useful Improvements in Hoisting-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in hoisting-machines of that class wherein the hoisting-arm is driven by means of frictional contact, the object being to provide an improved construction and arrangement of parts whereby the wear between the driving-wheel and the large wheel with which it is in contact is compensated for.

The invention consists in the novel construction and combination of parts hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a machine constructed in accordance with my invention. Fig. 2 is a side elevation of the same.

In the said drawings, the reference-numeral 1 designates the bed of the machine, having secured thereto at one end the uprights 2, carrying the journals 3, which support the transverse shaft 4, upon which are mounted the driving-wheels 5.

The numeral 6 designates a frame, preferably cast integral with the bed 1, and is provided with slots 7 and upwardly-projecting lugs 8. These lugs 8 carry adjusting-screws 9 for limiting the movement of the adjustable bearing-plate 10, which forms the journals of a lever hereinafter described. This plate 10 is provided with apertures, through which pass the bolts 12, having binding-nuts 13 for holding said plate in place.

At the end of the machine, opposite to the driving-wheels, are journal-boxes 14, which support a transverse shaft 15, having secured at each end a lever 16, provided with a segment-pinion or rack-teeth 17. These pinions engage with similar pinions or rack-teeth 18 on the ends of levers 19. These levers extend toward the center of the machine, where they are each provided with two journal boxes or bearings 20 and 21, the bearings 20 receiving the shaft 22, carrying the rope-drum 24, and large wheels 23, driven by wheels 5, and the other bearings 21 carrying the short journals 25, which work in the bearing-plates 10.

The operation of the machine is as follows: Motion is imparted to the driving-wheels 5 from any suitable motive power, which will rotate the large wheels 23 by frictional contact therewith, causing the rope-drum to be rotated, also the shaft 22, carrying wheels 23 and rope-drum 24. When it is desired to compensate for wear between wheels 5 and 23, by bringing said last-mentioned wheels into closer contact with the driving-wheels, the set-screws 9 and bolts 12 are loosened, so as to loosen the plates 10, which form the bearings for the journals 25 of the lever 8, whereby said plate may have a horizontal movement. The said plate and the wheels 23 and drum 24 are now moved forward or toward the driving-wheels by depressing the levers 16, which, by means of teeth 17, engaging with teeth 18 on levers 19, will cause the latter to be elevated and the plate 10, wheels 23, and drum 24 to be moved forward. After having been moved the proper distance, said screws and bolts are tightened, so as to hold the plate 10 in place.

Having thus described my invention, what I claim is—

1. In a hoisting-machine, the combination, with the bed and driving-wheels, of the adjustable bearing-plates, the lever pivoted in bearings in said bed and having rack-teeth, the actuating-levers journaled in said bearing-plates, and having bearings in which are journaled the shaft carrying the rope-drum and operating-wheels, and provided with rack-teeth engaging with the rack-teeth on the actuating-levers, substantially as described.

2. The combination, with the bed 1, the

driving-wheels 5, the wheels 23, rope-drum 24, and shaft 22, of the frame 6, having lugs 8, the set-screws 9, bolts 12, adjustable slotted plates 10, and levers 16 and 19, having rack-teeth 17 18, the levers 19 having bearings 20 21, in which are respectively journaled the shaft 22 and journals 25, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

EBENEZER McLANE.

Witnesses:

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W. H. FERGUSON.