No. 751,237. PATENTED FEB. 2, 1904.

M. C. WOOD.

HOISTING AND CARRYING DEVICE.

APPLICATION FILED JUNE 19, 1903.

NO MODEL.

Fig. 1

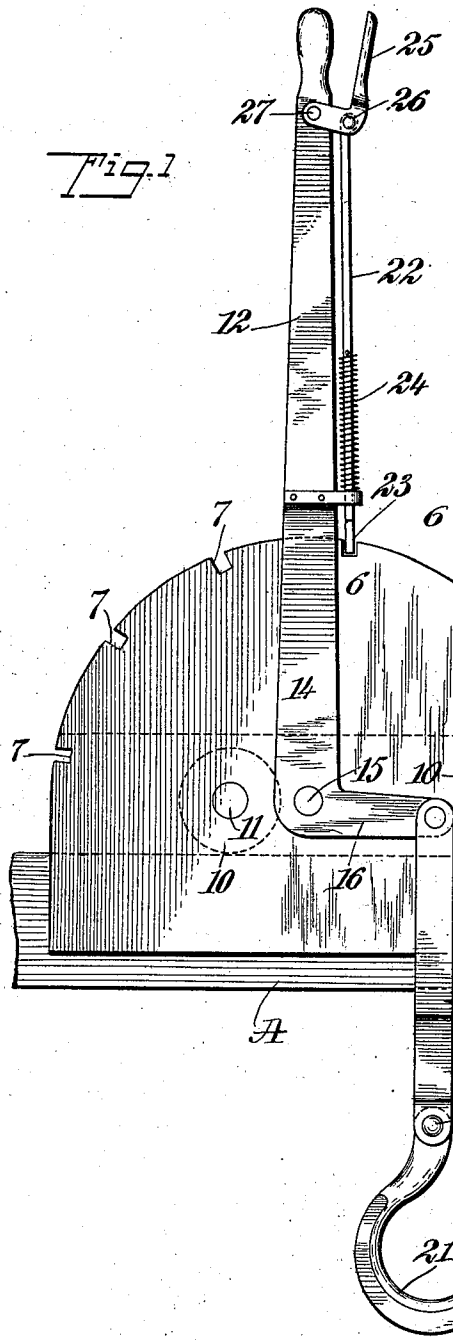
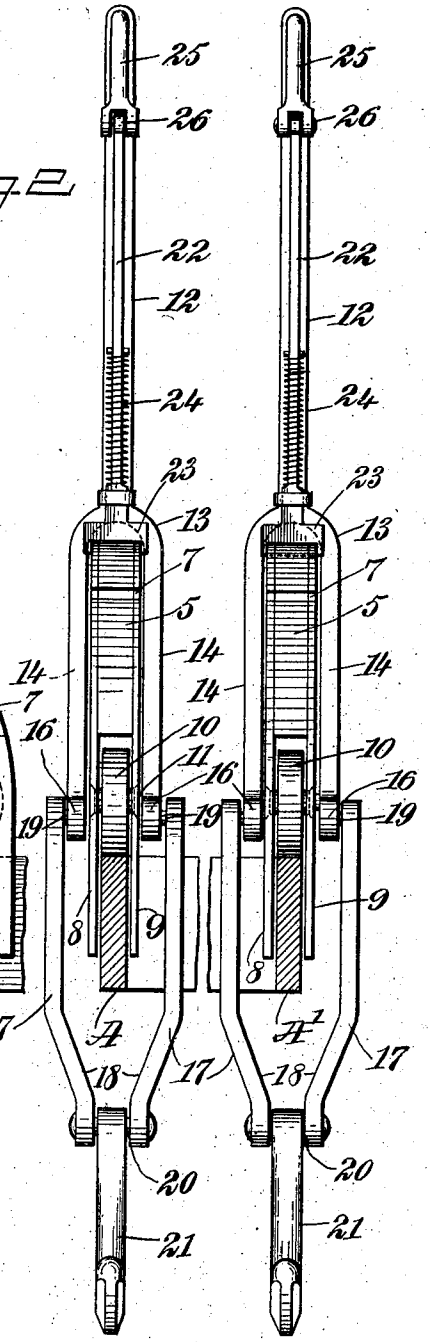


Fig. 2



WITNESSES:

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No. 751,237. Patented February 2, 1904.

UNITED STATES PATENT OFFICE.

MILES COSTIN WOOD, OF ROCKHILL, SOUTH CAROLINA.

HOISTING AND CARRYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 751,237, dated February 2, 1904.

Application filed June 19, 1903. Serial No. 162,250. (No model.)

To all whom it may concern:

Be it known that I, MILES COSTIN WOOD, a citizen of the United States, and a resident of Rockhill, in the county of York and State of South Carolina, have invented new and useful Improvements in Hoisting and Carrying Devices, of which the following is a full, clear, and exact description.

My invention relates to certain novel and useful improvements in devices for hoisting and conveying cylinders, and has particular application to a hoisting device for lifting the cylinders of cotton-seed linters from their bearings and conveying such cylinders to a desired point.

As is well known, linters are provided with large heavy cylinders or rollers, weighing oftentimes five hundred pounds or more, such cylinders being provided with sharp delicate teeth which are easily damaged or broken, and such teeth are frequently injured when the cylinder is being removed from its bearings for the purpose of sharpening such of the teeth as have been dulled by usage.

The principal object of my invention, therefore, is to provide a device for hoisting the dulled cylinder from its bearings and removing the same to a suitable point, after which a sharpened cylinder may be conveyed by the hoisting mechanism to the linter and substituted for the previous cylinder.

To the accomplishment of the above-recited objects and others of a similar nature, my invention consists in the construction, combination, and arrangement of parts, as is described in this specification, delineated in the accompanying drawings, and set forth in the annexed claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a view in side elevation of one of the hoisting members of my improvement, such member being shown in an operative position upon a suitable track; and Fig. 2 is a view in front elevation of the members constituting my improved hoisting-cylinder-conveying device, the tracks upon which said members run being shown in section.

Referring now to the accompanying drawings in detail, A and A′ designate parallel rails or tracks designed to be mounted adjacent to the linter, said tracks being partially supported from the frame of the machine. Mounted to move along each rail of the track is a traveling carriage comprising a block or frame member 5, the upper portion 6 of said frame being preferably curved or partially circular in contour and provided with a number of notches 7, designed for a purpose to be hereinafter set forth. The lower portion of said frame, or the part opposite the curved top portion, is bifurcated—that is to say, is formed with parallel walls 8 and 9, spaced apart a sufficient distance to form a groove or runway for the track or rail, the construction being such that the frame will fit snugly and securely upon the rail, yet may be moved freely along the same. Within the bifurcated portion of the frame—that is to say, between the spaced lower side walls—are mounted rollers or small wheels, as at 10 10, said wheels being revolubly carried by small shafts or axles 11, which axles extend transversely of the frame and are journaled in the side walls thereof.

The mechanism for hoisting or lifting the cylinders from their bearings comprises, essentially, the relatively long lever 12, having a bifurcated lower portion 13, the members 14 14 of the bifurcation being designed to extend parallel with opposite faces of the frame, and said lever is secured near the lower end of its bifurcated portion through the medium of a pivot-pin 15, which passes through the arms or members of the bifurcation and through the aforesaid frame. Each member or arm of the bifurcation is formed with a tongue or extension 16, projecting at an angle to the main portion of the lever, the tongue, in conjunction with the main lever portion, forming a structure approximating a bell-crank lever. The outer free portion of each tongue is formed with an aperture or eye, each tongue being designed to support an arm 17 of the hanger-frame 18, this being accomplished by the pins 19 19 at the upper ends of the arms 17 17 entering the eyes or apertures in the tongue members 16. The lower end portions of the arms 17 17 of the hanger

converge inwardly and are connected through the medium of transverse pintles 20 20, from which pintles are suspended hoisting and carrying hooks 21, the latter being designed to receive one end of the shaft of the cylinder-roller.

In order to lock the main lever 12 and its connected parts at a suitable inclination, any suitable means may be employed; but for most purposes I have found the structure in the drawings to be preferable. This, as will be seen, comprises a rod 22, having at its lower end portion a locking pawl or detent 23, designed to engage with the notches 7 7 in the frame, a coiled tension-spring 24 normally acting to hold the detent within the notch. The upper end of said rod 22 is connected to the main lever 12 through the medium of the supplemental hand-lever 25, to which the rod is pivoted at a point 26, said hand-lever being in turn connected by a pivot 27 to the main lever 12.

From the above description, taken in connection with the accompanying drawings, the construction and operation of my improved device will be readily apparent. The frame is moved along the track to the desired point, and the hooks 21 are caused to engage the shaft of the cylinder. The lever is then moved or swung upon its pivot 15 after the locking-detent has been released from the notches by pressure upon the hand-lever 26, and the main lever may be swung sufficiently to move the hook vertically or upwardly, thereby lifting the cylinder from its bearings. The carriages may then be moved along the tracks to the desired point and the cylinder released and lowered from the hooks.

While the description herein given has related mainly to one traveling carriage or frame and its accompanying parts, it will be readily undertood that two traveling carriages and two hooks are needed for each cylinder; but as one carriage and its connected parts is a duplicate of the other the description above given is applicable to both.

While I have shown and herein described one embodiment of my invention, it is of course to be understood that I do not limit myself to all the precise details of construction, as there may be modifications and variations in some respects without departing from the essential features of the invention or sacrificing any of the advantages thereof.

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

1. The combination with a suitable track, of a carriage adapted to travel thereon, a lever pivotally supported on said carriage, said lever having an extension projecting at right angles to the main portion thereof, and means carried by said extension for engaging with and supporting an article to be moved from one point to another, substantially as set forth.

2. The combination with a suitable track, of a carriage movable along said track, the upper portion of the frame of the carriage being rounded or curved, said curved portion having a plurality of notches formed therein, a hanger member, means carried by the carriage and connected to the hanger for moving the latter, and means designed to engage with the notches in the frame of the carriage for locking the hanger-supporting means against movement, substantially as set forth.

3. The combination with a suitable track, of a carriage movable along said track, an angular lever carried by the carriage, a hanger connected to said angular lever, a hooked member suspended from said hanger, and a locking-detent carried by the lever and designed to engage with notches formed in the carriage, substantially as set forth.

4. The combination with a movable carriage having side frame members, the top edge portions of the frame members being curved and provided with a plurality of notches, of a lever member pivoted to said carriage, suspending and supporting means carried by said lever, and a locking-detent carried by the lever and designed to engage with the notches in the carriage-frame for locking the lever and its connected parts in a desired position, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MILES COSTIN WOOD.

Witnesses:
JAS. S. WHITE,
WARD ALBERTSON.