No. 811,968. PATENTED FEB. 6, 1906.

J. C. STIRLING.

ELEVATING DEVICE.

APPLICATION FILED JULY 25, 1905.

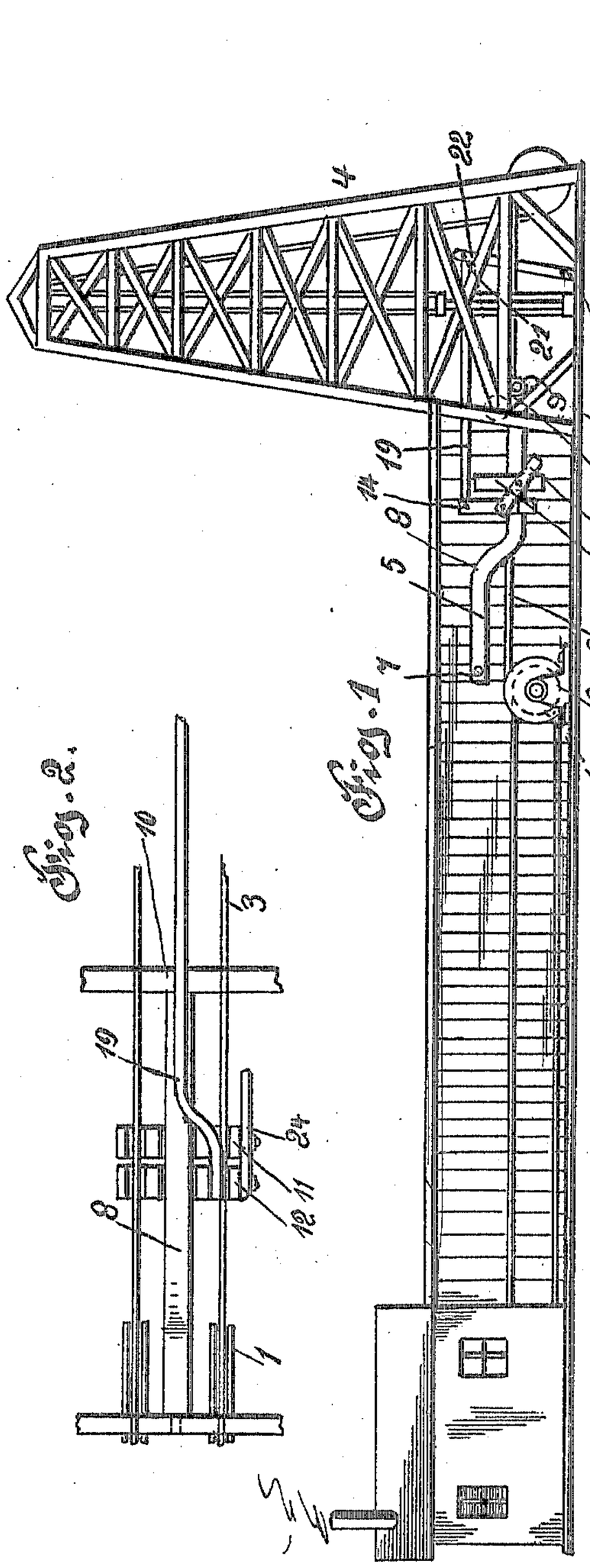

Fig. 1.

Fig. 2.

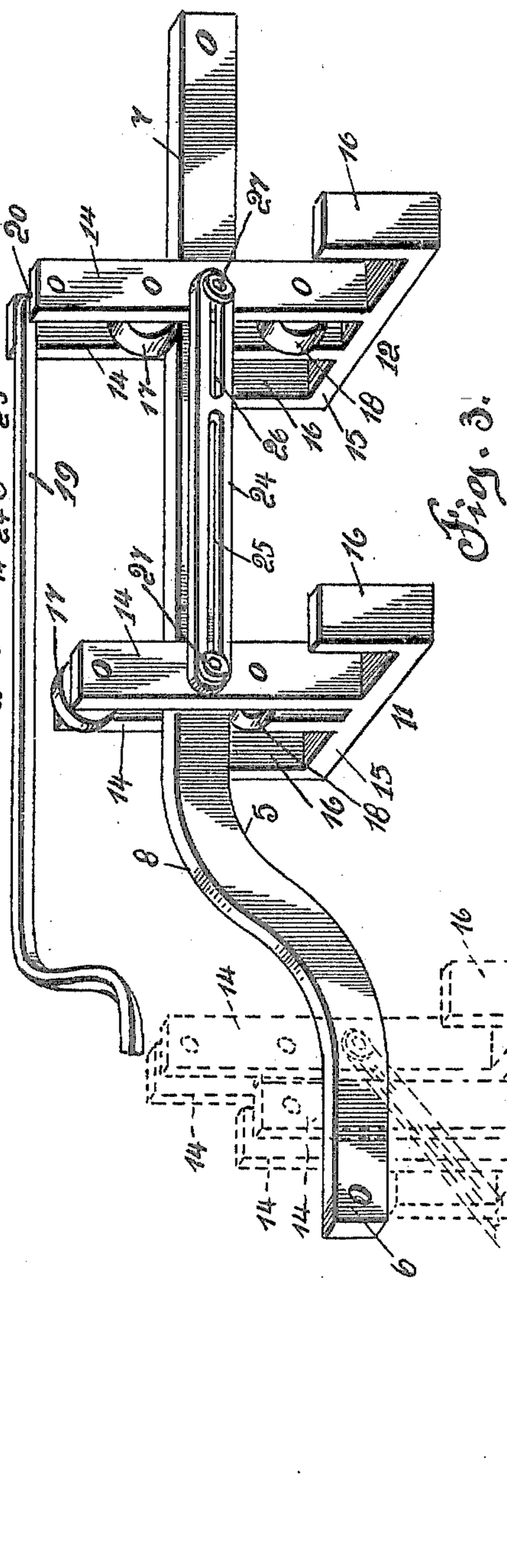

Fig. 3.

Witnesses:
C. Tolsterman.
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UNITED STATES PATENT OFFICE.

JOSEPH C. STIRLING, OF BAKERSTOWN, PENNSYLVANIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF TWO-SIXTHS TO D. W. STIRLING AND TWO-SIXTHS TO J. RITTS, OF GLADE MILLS, PENNSYLVANIA.

ELEVATING DEVICE.

No. 811,968. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed July 25, 1905. Serial No. 271,198.

To all whom it may concern.

Be it known that I, JOSEPH C. STIRLING, a citizen of the United States of America, residing at Bakerstown, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Elevating Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in elevating devices, and relates more particularly to a device adapted to be used in connection with an oil-well rigging.

The invention is primarily intended to be used in connection with the band-wheel and rope of an oil-well rigging, and in this connection the invention aims to provide novel means for elevating or lifting the rope from the band-wheel to prevent the wheel and rope from being worn by the frictional contact of the rope when it is not being used. To this end I have devised a novel form of elevating device which is adapted to be actuated from the derrick of the oil-well rigging, and by the construction of my improved device the rope which passes over the band-wheel can be elevated or lowered as it is desired.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, illustrated, and then claimed.

The preferred embodiments are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of an oil-well rigging equipped with my improved elevating device. Fig. 2 is an enlarged fragmentary plan view of the same, and Fig. 3 is a perspective view of the elevating device upon an enlarged scale.

The invention involved in this application is analogous and has relation to the invention involved in the application of David W. Stirling and Jacob Ritts, for improvements in devices for oil-wells, filed August 3, 1905, Serial No. 272,562, and in which I am the owner by virtue of assignment of a part interest, the said David W. Stirling and Jacob Ritts being the owner by virtue of assignment of a part interest in the present invention.

In the accompanying drawings the reference-numeral 1 designates the band-wheel of an oil-well rigging, which is journaled in suitable framework or bearings 2. Over this band-wheel passes a rope 3, which is employed for elevating the tools or bits employed for drilling a well. The rope 3 is only employed when it is desired to raise and lower the drilling-tools of a well, a conventional form of derrick 4 being employed to accomplish this result in connection with the band-wheel and the rope 3. The band-wheel is revolved by suitable mechanism, such as an engine, and it has been the practice to permit the rope 3 to lie upon the band-wheel during its operation when the rope is not in use. Consequently the frictional engagement of the rope 3 with the band-wheel tended to wear the wheel and the rope. My invention resides in a novel form of elevating device which I employ for raising the rope 3 out of engagement with the band-wheel 1 when it is not to be used. The device consists of a track 5, one end 6 of which lies out of alinement with the opposite end 7 of the track, but in the same plane, thus providing a curved elevating portion 8 in the track. The end 7 of the track 5 is suitably supported by the housing of the band-wheel, a hanger 9, which is carried by the derrick 4, being provided to support the end 6. The track is so arranged that the end 7 of the track will be directly above the band-wheel 1, while the lower end of the track will extend forwardly toward the derrick, as clearly illustrated in Fig. 1 of the drawings.

Upon the track 5 I mount two hangers 11 and 12, each hanger consisting of standards 14 14, the lower ends of which support a cross-head 15, having its ends bent upwardly, as at 16 16. Between the standards 14 14 are journaled rollers 17 and 18, and the rollers 17 are adapted to support the hangers upon the track 5. The standards 14 14 of the hanger 12 are of a greater length than the standards of the hanger 11, whereby a rod 19 can be piv-

otally connected to the upper ends of the standards 14 14, as at 20. The rod 19 is adapted to extend forwardly along the housing of the oil-well rigging and is adapted to be pivotally connected, as at 21, to a lever 22, which is pivotally mounted in a suitable support 23 within the derrick 4 of the oil-well rigging.

The hangers 11 and 12 are adjustably connected together by a bar 24, this bar having slots 25 26 formed therein, through which pass headed pins 27 27, employed for retaining the bar 24 in engagement with the hangers 11 and 12.

The rope 3 of the band-wheel 1 is adapted to lie upon one side of the cross-heads 15 15 of the hangers 11 and 12 and be supported upon the hangers by the upwardly-bent ends of the cross-heads. When the rope 3 is not being used, the lever 22 is manipulated to force the hangers 11 and 12 upon the elevated portion of the track 5, these hangers being adapted to elevate the rope 3 above the band-wheel 1, whereby it will not frictionally contact with the same.

In dotted lines of Fig. 3 of the drawings I have illustrated the position of the hangers 11 and 12 when the rope 3 is being used, while in full lines I have the normal position of the hangers when the rope is elevated above the band-wheel. In operation when the rod 19 is forced forwardly by the lever 22 the hanger 12 is moved up the curved portion 8 of the track 5 toward the end 7 of the track, and as the hanger 11 is connected to the hanger 15 by the bar 24 this hanger will be carried toward the end 7 of the track and be elevated similar to the hanger 12.

The elevating device may be constructed of light and durable metal; but I do not care to confine myself to any specific material from which it may be made.

It is thought from the foregoing that the construction, operation, and advantages of the herein-described elevating device will be apparent without further description.

What I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination with a band-wheel journaled in stationary bearings and a rope carried by said band-wheel, of a track mounted above said band-wheel, said track having one end out of alinement with the other end thereof, hangers suspended upon said track and engaging said rope and means to move the hangers along the track and thereby elevate the rope.

2. In a device of the character described the combination with a band-wheel and a rope carried by said band-wheel, of hangers suspended upon said band-wheel and adapted to engage said rope, a curved track arranged adjacent the band-wheel, said hangers being carried on said track and said track serving to elevate said hangers above said band-wheel, and means to move said hangers.

3. In a device of the character described the combination with a band-wheel journaled in stationary bearings, a rope passing over said band-wheel, a track arranged over the band-wheel, said track having its ends at different levels, a hanger suspended from said track and engaging said rope, a lever arranged at a point removed from said track and connections between said lever and said hanger whereby the movement of the lever will move the hanger to different positions on the track and thereby raise or lower said rope.

4. In a device of the character described the combination of a rigid track having a raised portion, movable hangers suspended upon said track and adapted to engage a rope, means to adjustably connect the hangers together, and means to move said hangers off and on said raised portion.

In testimony whereof I affix my signature in the presence of two witnesses.

JOSEPH C. STIRLING.

Witnesses:

THEODORE HEBERLING,

L. V. SCOTT.