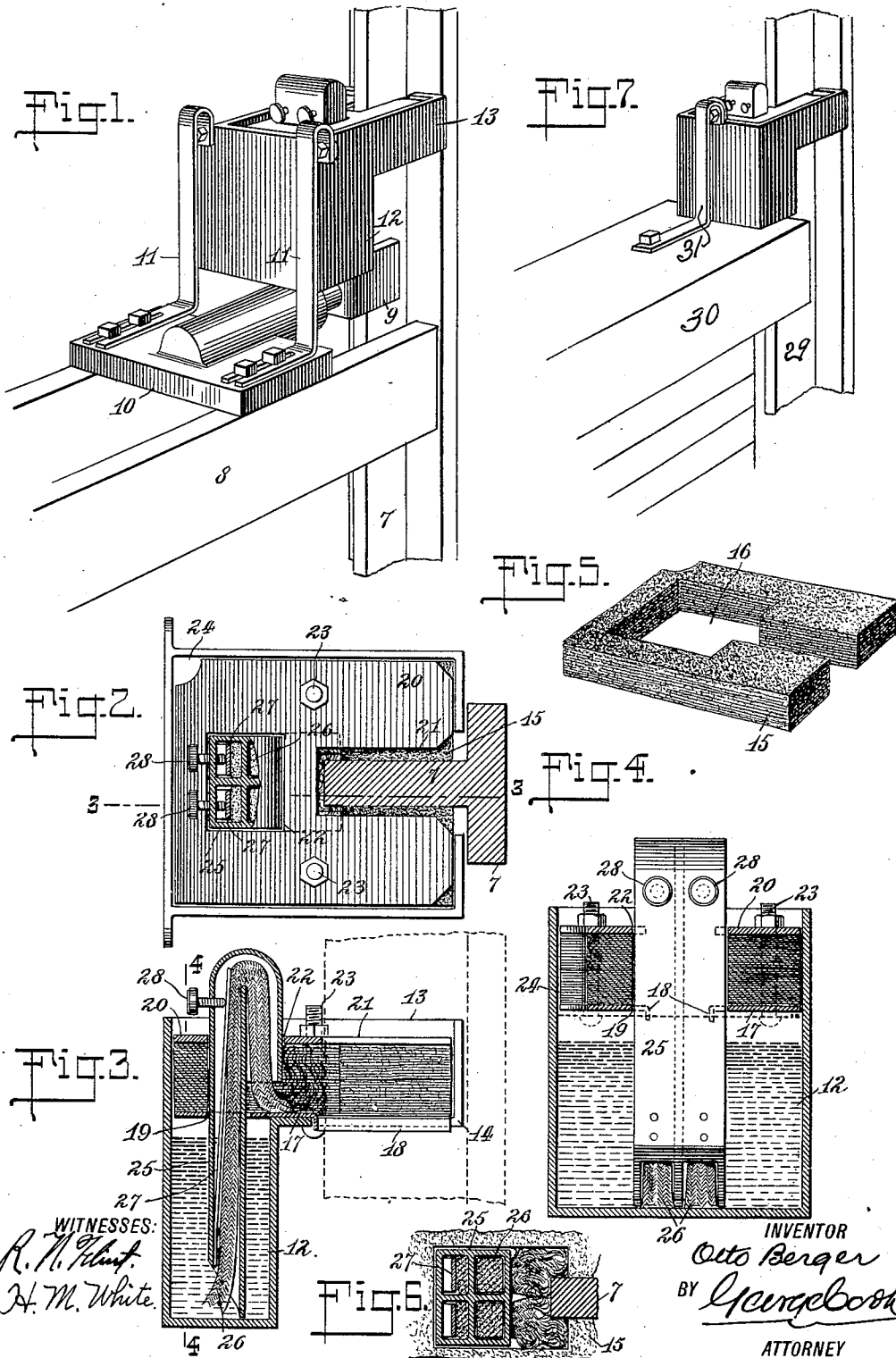


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LUBRICATOR FOR ELEVATOR GUIDES.
APPLICATION FILED FEB. 16, 1911.

1,007,422.

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UNITED STATES PATENT OFFICE.

OTTO BERGER, OF NEW YORK, N. Y.

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Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed February 16, 1911. Serial No. 609,061.

To all whom it may concern:

Be it known that I, OTTO BERGER, a citizen of the United States, and a resident of New York, borough of Manhattan, in the county of New York and State of New York, have made and invented certain new and useful Improvements in Lubricators for Elevator-Guides, of which the following is a specification.

My invention relates to lubricating devices for elevator guides, and the object thereof is to provide a lubricating device which will be simple in form and which may be easily manufactured, and one which may be used to lubricate either the guides for the elevator cage or the guides for the counterbalancing weights, all as hereinafter described and claimed.

In the accompanying drawing wherein the preferred embodiment of my invention is illustrated; Figure 1 is a view illustrating in perspective my improved lubricating device as applied to lubricate one of the guides of an elevator cage; Fig. 2 is a view showing my device in plan; Fig. 3 is a view showing a section upon a vertical plane indicated by the line 3—3, Fig. 2; Fig. 4 is a view showing a section upon a vertical plane at right angles to the plane of Fig. 3 and indicated by the line 4—4, Fig. 3; Fig. 5 is a view showing a felt wiper which forms a part of my device in perspective; Fig. 6 is a fragmentary view illustrating a detail of my device; and, Fig. 7 is a view illustrating in perspective the application of my device to a counterbalancing weight guide.

In the drawing, Fig. 1 shows a vertical guide 7, 8 is a cross piece at the upper end of an elevator cage and 9 is a shoe engaging the guide 7, said shoe being supported by a plate 10 secured to the cross piece 8. These elements are parts of elevator cages at present in use, and my invention is in no way related to them.

My improved lubricating device is supported from the plate 10 by means of two brackets 11, 11, the same being slotted as shown so that the lubricating device may be properly adjusted relative to the guide. The form of these supports is of secondary importance and may be varied within wide limits so long as they perform the function of supporting the lubricating device in proper relation to the guides.

My lubricating device comprises a hollow body portion or casing having a depending well 12 adapted to contain oil and a horizontally extending portion 13 above the well, this extending portion having an opening or slot 14 in its end and bottom wall of a form such that the horizontal portion may receive the guide to be lubricated as will be understood from the drawing.

Located within the extended portion 13 of the upper end of the casing of my device is an absorbent wiper 15 which lies upon each side of the slot 14 and contacts with the sides of the elevator guide, said wiper being preferably extended across the upper end of the well 12 as shown and having an opening 16 over said well. The wiper 15 is preferably formed from two or more layers of comparatively thick felt. A support is provided for the wiper 15, the same being shown as in the form of a plate 17 having a slot with downwardly extending edges 18 adapted to lie within the slot 14, and having also an opening 19 above the oil well 12. The reference character 20 designates a plate for securing the wiper 15 in place within the casing of the lubricating device, said plate having a slot 21 to admit the elevator guide and an opening 22 above the well 12. The plate 20 is secured in place by bolts or screws 23 and one corner thereof and of the wiper 15 and plate 17 is cut away to provide an opening 24 through which oil may be supplied to the oil well 12.

The reference numeral 25 designates a tubular oil feeding member through which oil is fed from the oil well 12 to the guide to be lubricated, said feeding member having a wick 26 the lower end of which is submerged in the oil in the well 12, and the upper end of which extends into the open space 16 in the felt wiper 15, and is preferably frayed so as to secure a good contact with the guide 7 as best shown in Figs. 3 and 6. The oil feeding member extends through the openings 22 and 19 in the plates 20 and 17 and into the oil well 12, the said plates therefore serving as guides to maintain the said member in an upright position. The upper end of the oil feeding member 25 is preferably provided with a return portion as shown so that the tube is in the form of a siphon, or of inverted U form. The oil feeding member is preferably provided with

a plurality of parallel passages, each containing a wick, two such passages being shown in the embodiment of my invention illustrated; and 27 are springs located within the passages of the oil feeding member, the lower ends of which are secured to the wall of said member and the upper ends of which engage the wick 26 near their upper ends. The upper ends of the springs 27 may be forced against the wicks to thereby regulate the flow of oil therethrough by means of screws 28 which engage the springs.

In Fig. 7, 29 is one of two guides for the counterbalancing weights of an elevator cage, 30 is a cross piece at the upper end of the weights, and 31 is a bracket similar to the brackets 11, for supporting my improved lubricating device in proper position.

Such being the construction of my device, it will be understood that the same moves with the elevator cage or weights and that oil is thus supplied along the entire length of the guides, the oil being fed by capillary action through the wicks to the guide. The wiper serves to distribute the oil over the entire area of the guide and to absorb surplus oil.

Having thus described my invention, and explained the operation thereof, I claim and desire to secure by Letters Patent:

1. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil and an extending portion above said well, said extending portion having a slot adapted to receive an elevator guide; a wiper of absorbent material located in the extending portion of said casing adjacent the slot therein; means for securing said wiper in place within said casing; a tubular oil feeding member the lower end of which depends into said well and the upper end of which terminates adjacent the guide to be lubricated; and a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide.

2. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil and an extending portion above said well, said extending portion having a slot adapted to receive an elevator guide; a wiper of absorbent material located in the extending portion of said casing adjacent the slot therein and extending across the upper end of said well and having an opening above said well; a tubular oil feeding member extending through the opening aforesaid in said wiper and the lower end of which depends into said well, and the upper end of which terminates adjacent the guide to be lubricated; a wick of absorbent material within said oil feeding member, the up-

per end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide; and means for securing said wiper in place within said casing.

3. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil and an extending portion above said well, said extending portion having a slot adapted to receive an elevator guide; a wiper of absorbent material located in the extending portion of said casing adjacent the slot therein and extending across the upper end of said well and having an opening above said well; a plate upon which said wiper rests, said plate extending across and having an opening above said well; a tubular oil feeding member extending through the openings aforesaid in said wiper and said plate and the lower end of which depends into said well, and the upper end of which terminates adjacent the guide to be lubricated; a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide; and means for securing said wiper in place within said casing.

4. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil and an extending portion above said well, said extending portion having a slot adapted to receive an elevator guide; a wiper of absorbent material located in the extending portion of said casing adjacent the slot therein and extending across the upper end of said well and having an opening above said well; a plate upon which said wiper rests, said plate extending across and having an opening above said well; a second plate for securing said wiper in place within said casing, said plate extending across and having an opening above said well; a tubular oil feeding member extending through the openings aforesaid in both said plates and the lower end of which depends into said well, and the upper end of which is provided with a return portion which terminates adjacent the guide to be lubricated; and a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide.

5. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil and an extending portion above said well, said extending portion having a slot adapted to receive an elevator guide; a wiper of absorbent material located in the extending portion of said casing adjacent the slot therein; means for securing said wiper in place within said casing; a

tubular oil feeding member the lower end of which depends into said well and the upper end of which is provided with a return portion which terminates adjacent the guide to be lubricated; and a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide.

6. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil; a tubular oil feeding member the lower end of which depends into said well and the upper end of which terminates adjacent the guide to be lubricated; a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide; and means for compressing said wick to thereby control the flow of oil there-through.

7. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil; a tubular oil feeding member the lower end of which depends into said well and the upper end of which terminates adjacent the guide to be lubricated; a wick of absorbent material within said oil feeding member, the upper end of which wick is adapted to be in contact with the elevator guide and through which oil is supplied to the guide; a spring within said oil feeding member, one end of which is secured to the wall of said member and the free end of which contacts with said wick; and a screw for forcing the free end of said spring against said wick to thereby compress the

same and control the flow of oil there-through.

8. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil; a wiper of absorbent material located in the upper portion of said casing and adapted to contact with a guide to be lubricated; means for securing said wiper in place within said casing; a tubular oil feeding member the lower end of which depends into said well and the upper end of which terminates adjacent the guide to be lubricated; and a wick of absorbent material within said oil feeding member and by means of which oil is supplied to said guide.

9. In a lubricating device for elevator guides, a hollow casing having a well adapted to contain oil; a wiper of absorbent material located above said well and adapted to contact with a guide to be lubricated; means for securing said wiper in place; a tubular oil feeding member the lower end of which depends into said well and the upper end of which terminates adjacent the guide to be lubricated; and a wick of absorbent material within said oil feeding member and by means of which oil is supplied to said guide.

Signed at New York, borough of Manhattan, in the county of New York, and State of New York this 14th day of February, A. D. 1911.

OTTO BERGER.

Witnesses:

R. N. FLINT,
A. V. WALSH.