UNITED STATES PATENT OFFICE.

LOUIS WIEBKE, of NEW YORK, N. Y.

ROPE-GUIDE FOR DUMB-WAITER ROPES.

1,152,775.


To all whom it may concern:

Be it known that I, LOUIS WIEBKE, a citizen of the United States of America, residing at the borough of Bronx, city of New York, county of Bronx, and State of New York, have invented certain new and useful Improvements in Rope-Guides for Dumb-Waiter Ropes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in rope-guides and particularly to improvements in rope-guides for the rope by means of which a dumb-waiter is controlled in raising and lowering the same; and one object of the invention is to reduce to a minimum the friction encountered by the dumb-waiter rope and thereby to prevent the chafing of the latter and to prolong the life thereof.

Another object of this invention is to provide a rope-guide of the character referred to, which will permit the ready insertion of the rope therein without the necessity of removing the guide-pulley therefrom.

A third object of this invention is to provide a rope-guide of the type hereinbefore mentioned which will be simple in construction, comparatively cheap in manufacture and efficient and durable in operation and use and susceptible of being readily put in place and speedily repaired.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle, Fig. 1 is a vertical sectional view of so much of a dumb-waiter shaft as is necessary to illustrate the application of this invention thereto; Fig. 2 is an elevation, partly in section, and Fig. 3 is a plan of one form of rope-guide made according to this invention; and Fig. 4 is an elevation, partly in section, and Fig. 5 is a plan of another form of my new rope-guide, in which the pivot pin is inclined to the base plate.

The frame or housing of the rope-guide consists essentially of two plates a, b, one of which (marked a) will be hereinafter designated as the base-plate and the other (marked b) of which will be called the supporting-plate. These two plates a, b, are hingedly connected at c. The supporting-plate b is approximately U-shaped and from one of its arms d there extends outwardly a pair of ears e formed with screw-holes f.

The base-plate a is L-shaped and is formed with screw-holes f' which are arranged to register with the screw-holes f in ears e; and it will be understood that, when the device is placed in position, the ears e lie against and parallel with that portion of the base-plate a which is formed with the screw-holes f'. The supporting-plate b is further formed with an ear g which extends inwardly and lies on the side opposite to the ears e. A headed pivot pin h is passed through holes f' formed in the ear g and the side b' of the U-shaped supporting-plate b. This pin h is formed with a head h' and is held in place by a split key (or cotter pin) h'*, and by removing the latter, the pin h may be readily slipped out of the holes formed in the ear g and the side b'.

A hole a' is formed in the base-plate a for the reception of the head h' of the pin h. A rope-guiding member, such as a grooved pulley i is rotatably mounted on the pin h. By passing screws f'' through the screw-holes f', the rope-guide is fastened to the upper end of the side wall j of the opening k that leads into the dumb-waiter shaft m in which travels up and down the dumb-waiter n controlled by the rope o. The end of the rope-guide frame provided with the hinge c projects inwardly into the dumb-waiter shaft and the rope o lies between the hinge c and the pulley i. Due to the improved construction of this rope-guide, it is wholly unnecessary to remove the pulley i in order to pass the rope o through the rope-guide; for, all that is necessary is, before fastening the rope-guide in place to swing apart the plates a, b on the hinge c, whereby sufficient room is obtained through which to pass the rope o (see dotted lines in Fig. 3); and, after the rope has been thus inserted in the rope-guide, the plates a, b, are closed together again and the rope-guide is then screwed in position, as shown in Fig. 1.

In the form illustrated in Figs. 4 and 5, the walls p, q, of the supporting-plate b'' lie inclined to the base-plate a and, therefore, the pin h is likewise inclined to the base-plate a. This form of rope-guide is used where the rope o passes into the rope-guide at an angle.

By the use of the rope-guide hereinbefore described, there is avoided the chafing of the rope against the sharp edge of the frame of the opening k so that the life of the rope is prolonged. By removing the pin h, the pulley i may be readily removed and re-
placed; and the device may be readily repaired, when any of its parts wear out. And by reason of the hinged construction of the rope-guide, it is the work of only a few seconds to pass the rope therethrough.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only representative and that the invention can be carried out by other means.

I claim:

1. A rope-guide for a dumb-waiter rope, comprising a rope-guiding member; a pivot-pin therefor; a supporting-plate which supports the ends of said pivot-pin; and a base-plate one end of which lies on one side of said pivot-pin and the other end of which extends to the other side of and beyond said pivot-pin and is hingedly fastened to the supporting-plate on the guiding side of said rope-guiding member; the first-named end of said base-plate being arranged to be fastened to a wall of the opening that leads into the dumb-waiter shaft.

2. A rope-guide for a dumb-waiter rope, comprising a rope-guiding member; a pivot-pin therefor; a supporting-plate which supports the ends of said pivot-pin; and a base-plate one end of which lies on one side of said pivot-pin and the other end of which extends to the other side of and beyond said pivot-pin and is hingedly fastened to the supporting-plate on the guiding side of said rope-guiding member; the first-named end of said base-plate being arranged to be fastened to a wall of the opening that leads into the dumb-waiter shaft; and the axis of said pivot-pin being inclined to said base-plate.

In testimony whereof I have hereunto set my hand, at the borough of Manhattan, city, county, and State of New York, this twenty-second day of March, A. D. 1915, in the presence of the two undersigned witnesses.

LOUIS WIEBKE.

Witnesses:

JAMES HAMILTON,
M. E. WOARDELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."