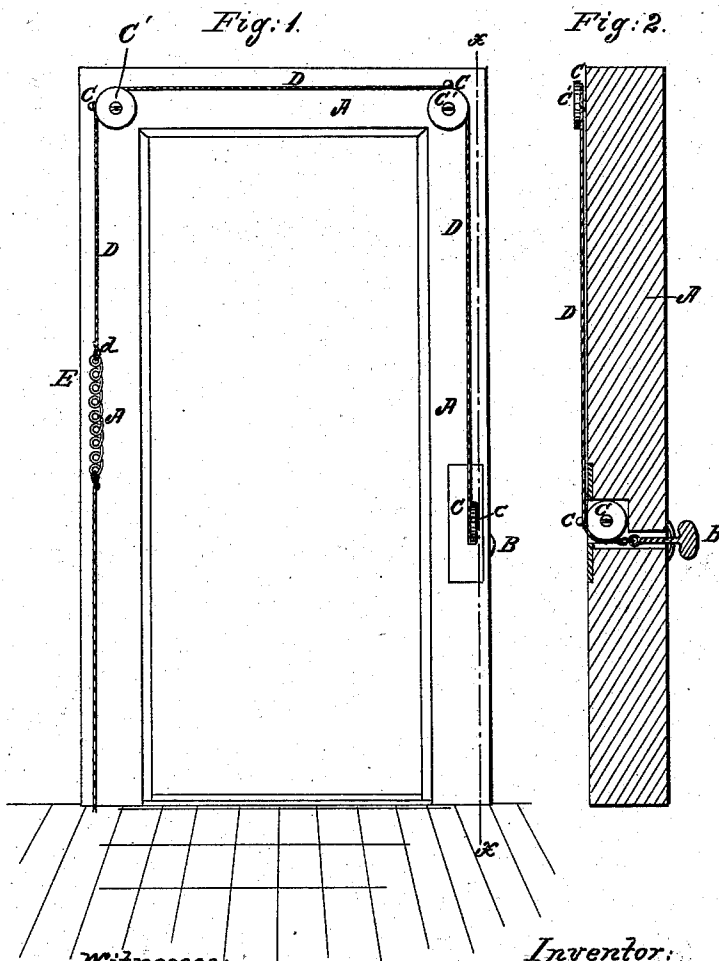


J. O. HARRIS.
Device for Hanging Bells.

No. 43,203.

Patented June 21, 1864.



Witnesses:

E. W. Ford

Inventor:

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UNITED STATES PATENT OFFICE.

J. O. HARRIS, OF OTTAWA, ILLINOIS.

IMPROVED DEVICE FOR HANGING DOOR-BELLS.

Specification forming part of Letters Patent No. 43,203, dated June 21, 1864.

To all whom it may concern:

Be it known that I, J. O. HARRIS, of Ottawa, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Hanging Door-Bells; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

In said drawings, which are hereunto annexed, Figure 1 represents an interior view of a door with my invention attached, and Fig. 2 is a sectional view through the door-casing at the line *x* in Fig. 1.

The nature of my invention consists in the substitution or employment of a peculiarly-grooved pulley or wheel, instead of the angular or bent lever in ordinary use, at those points where the direction of the wire leading from the bell-pull to the bell is changed, and is applicable alike in hanging door-bells and bells appertaining to the different apartments in the house.

To enable those skilled in the art fully to understand how to construct and practice my invention, I will proceed to describe the same with particularity, reference being made to the drawings aforesaid.

In said drawings, A represents the door-casing; B, the bell-pull; D, the wire or cord leading to the bell, and C' C' C'' a series of grooved wheels arranged as shown at those points where the wire D changes its direction.

E represents a looped wire or chain which is introduced at different points, as may be necessary or convenient, in the wire D, for the purpose of regulating the tension of the wire, which is effected by means of the hook *d*, or its equivalent, which may be attached or hooked into any or either of the loops in E, as the case may require. This arrangement or "tightener" also constitutes one feature of my invention.

As represented in the drawings, the wire D passes down through the floor to go and be attached to the bell below. The ordinary coiled wire or other suitable spring is used in connection with the wire D to restore the bell-pull to its place after ringing the bell. It will be observed that the groove upon C

C' C'' is cut upon one side of the face or perimeter of the wheel, and that the headed pin *c* is fixed upon the other side, so that in hanging the wire, when it is wound or looped around said pin, to fasten it to the wheel, the said pin being just beside the groove, the wire, extending in each direction from the pin, fits accurately into the groove, as shown. But the groove may be at the center of the face of said wheel, and said pin *c* be arranged, as shown, upon one side of said groove or in said groove; but I prefer the manner herein shown. It is not necessary that the said groove should extend more than half-way around the same, as the wire can only come in contact therewith one-fourth of the entire distance around, measuring each way from the pin *c* or other device, whereby the wire may be attached to said wheel. By this arrangement, instead of being obliged to cut the wire at each turning and fasten or tie each end thus formed to the arms of the bent lever ordinarily employed, it is only necessary to give the wire a turn around the pin *c*, stretching it to the proper tension and fitting or adjusting it in the groove upon the wheel, when the artisan passes on to the next turning and repeats the operation, and so on until the work is completed. Thus the labor of hanging the bell is greatly facilitated, and the wire remains unbroken throughout its entire length. Moreover, when my invention is employed, the wire D, operating at a fixed point upon the arc of a circle, moving about a central point, is much less liable to warp or twist the device out of place and get it out of order or break it than when the old bent leverage is employed. Besides, my invention is a neater and much more substantial device for the purpose than any other now in use.

Having described my improved mode of hanging bells, I will now specify what I claim as new and desire to secure by Letters Patent—

1. In hanging door-bells, as aforesaid, the employment of the wheel C, when grooved substantially as described, and provided with the pin *c*, or its equivalent, arranged and operating substantially as and for the purposes shown and specified.

2. The employment, as aforesaid, of the grooved wheels C, provided with the pin *c*,

or its equivalent, in combination with the bell-wire D, arranged and operating as herein described and set forth.

3. The combination and arrangement of the wheel C, when provided with a groove upon one side as shown, and the pin *c*, with the bell-wire D, as and for the purposes described.

4. The combination of the grooved wheels

C, the pin *c*, the bell-wire D, the looped wire E, or its equivalent, and the hook *h*, arranged and operating as and for the purposes specified and shown.

J. O. HARRIS.

Witnesses:

JO. STOUT,

A. A. FISHER.