No. 809,696. PATENTED JAN. 9, 1906.

H. F. KEIL.

CASING FOR WHEELS, &c, AND TRACK THEREFOR.

APPLICATION FILED MAY 27, 1904.

Fig. 1.

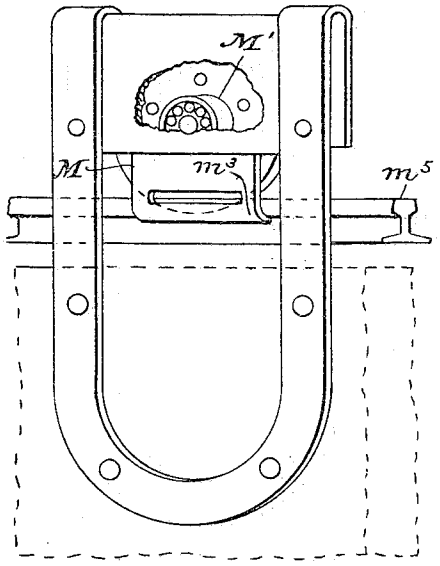
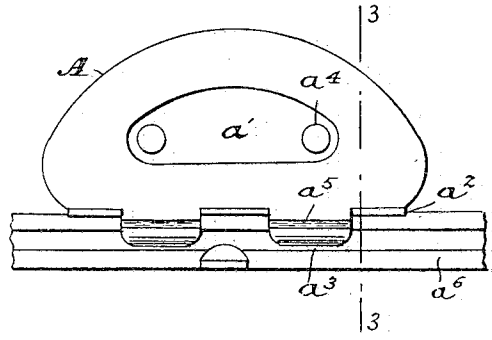


Fig. 2.



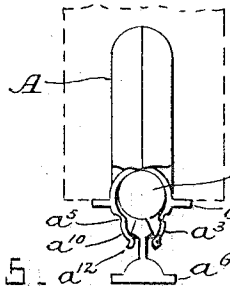


Fig. 3.

Fig. 4.

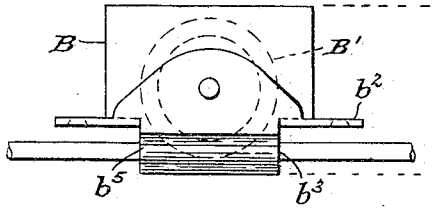


Fig. 5.

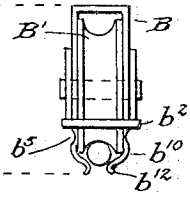


Fig. 6.

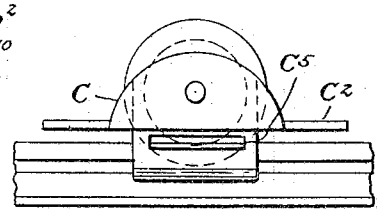


Fig. 9.

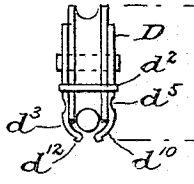


Fig. 8.

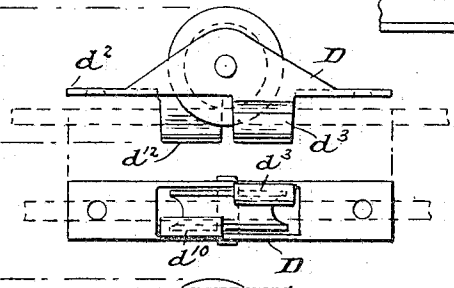


Fig. 7.

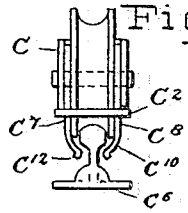
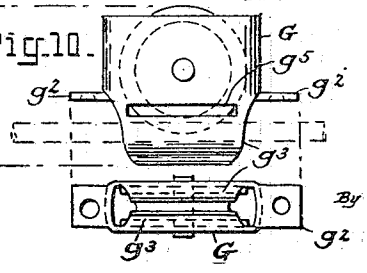


Fig. 11.

Fig. 10.



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J. A. Fowler, Jr.
his Attorney.

UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

CASING FOR WHEELS, &c., AND TRACK THEREFOR.

No. 809,696. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed May 27, 1904. Serial No. 210,143.

To all whom it may concern:

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Casing for Wheels, &c., and a Track or Way Therefor, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to devices, as door-hangers, &c., designed for use primarily for carrying sliding doors, and particularly to casings, as sheave-casings containing wheels or ball-bearings and provided with clamping means constructed and arranged to work on a way, as a cable or track, &c., and to be engaged with the same sidewise by snapping or interlocking the two together, the said casing also having means serving as a gage when driving the same into the wood; and it has for its object the provision of an apparatus of the kind set forth simple in construction, inexpensive to manufacture, and which operates smoothly and efficiently in practical use.

With this object in view the invention consists in certain novel features of construction and combination and arrangement of parts, all of which will be hereinafter described, and specifically pointed out in the drawings which accompany and form a part of this specification, in which—

Figure 1 represents a perspective view of a door-hanger embodying my invention. Fig. 2 is a side view of an elliptical sheave-casing in which my invention is embodied. Fig. 3 is an end view thereof; and Figs. 4, 6, 8, and 10 are side views, and Figs. 5, 7, 9, and 11 are end views, of other articles constructed according to my invention.

Like letters of reference indicate like parts in all the views.

Referring particularly to the drawings, in Figs. 2 and 3, A denotes my sheave-casing, consisting of two similar members, each member being provided with an endless interior groove, track, or way for the balls A′, the lower portion of which groove or way lies in a practically horizontal position, and the part thereof extending upwardly is formed in a curved contour, being practically of a dome or semi-elliptical shape surrounding a web a'. Each member of the body of my casing is provided with self-acting clamping means consisting of depending flanges or lips a^3, which may or may not lie opposite each other, and also with relatively horizontally projecting, bent, or punched-over bearing or gage plates a^2, which serve as guides extending outwardly from the opposite sides of the sheave-casing. The plates or guides a^2 serve to afford a stop in order to prevent the casing from going into the mortise of the door, &c., farther than the distance desired, so that when the body of the sheave-casing is inserted into the door the gage plates or guides a^2 will lie on the edge thereof and will therefore readily serve as a gage for the casing when driving the same into the wood. Suitable means, as rivets a^4, serve to hold the two members of my casing together. The depending flanges a^3, which are concave or turned inwardly or formed in such a manner as to approach each other for a certain distance, as at a^{10}, are then turned outwardly or away from each other or near the edges thereof, as at a^{12}, and the two said preferably spring flanges or lips are constructed and arranged to be yielding in order to pass over the upper part or head of the rail or cable and to become engaged with the sides and also preferably with the under edges or convex portions of the same in order that the said sheave cannot jump the said track or way a^6. In order to afford an engagement and to reduce the yielding power of the clamping means, I form in the faces of the said flanges or lips uneven portions, as grooved indentations a^5. In the present instance the parts I designate as "gage-plates" or "guides" a^2, as well as those I term "depending flanges or lips" a^3, are formed integral with the members of my casing or shell and are bent or punched or stamped up, so as to assume the desired position (shown in the drawings) in order to engage the side faces of the track or rail a^6 and also the under edges of the head thereof.

In the structure disclosed in Figs. 4 and 5 a box-casing B, constructed and arranged to contain a sheave-wheel B′, is provided with horizontally-disposed plates or guides b^2 and two oppositely-disposed depending lips or flanges b^3, which turn inwardly toward each other, as at b^{10}, and then outwardly or away from each other at or near the edge, as at b^{12}, which lips or flanges are formed with grooved indentations b^5 and may be snapped upon or over a cable b^6.

I sometimes construct my casing with non-integral depending lips or flanges, as in Figs.

6 and 7, where the open casing C is formed with horizontal plates or guides C^2 and the same serves to contain two vertically-disposed plates C^7 C^8, the lower parts of which serve to form my clamping depending lips or flanges which are turned inward, as at C^{10}, and then outward, as at C^{12}, in order to be engaged with the sides of the track or rail C^6 and also preferably with the under part of the head thereof, and in order to resist the yielding power of the clamping means I form in the faces of the said clamping flanges or lips uneven portions, as oblong perforations or slots C^5.

In the sheave-casing made according to my invention and shown in Figs. 8 and 9 the open shell or casting D is formed with horizontal plates or guides d^2 and with integral depending lips or flanges d^3, which turn toward each other, as at d^{10}, and then outward, as at d^{12}. In this instance I prefer to construct my sheave-casing so that the depending lips or flanges do not lie opposite each other, and the same are formed with grooves d^5.

In the sheave-casing illustrated in Figs. 10 and 11 the box-casing G, having an open top, has integral horizontal plates or guides g^2 and oppositely-disposed depending lips or flanges g^3, which are formed with slots g^5.

In Fig. 1 I show my sheave-casing M as used as a door-hanger, and the clamp, consisting of the depending lips or flanges m^3, is engaged sidewise with the track m^6, upon which works the sheave-wheel M'.

The construction and form of my self-acting clamping means for sheave-casings may be varied, the essential feature of my invention consisting in one or more flexible or yielding lips or flanges to engage in a locking relation one or both faces of a track or way.

As it is evident that many changes in the construction, form, proportion, and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that such changes and equivalents may be substituted therefor.

What I claim as my invention is—

1. As a new article of manufacture a sheave-casing having one or more integral depending converging or concave resilient lips or flanges to engage and be snapped upon and partly inclose the head of a track or way, and terminating in outwardly-turned edges.

2. As a new article of manufacture a sheave-casing having depending self-acting, interlocking and clamping means consisting of one or more integral converging or concave resilient lips or flanges to engage and be snapped upon and partly inclose the head of a track or way, and terminating in outwardly-turned edges, and also formed with horizontal gage-plates or guides.

3. As a new article of manufacture a sheave-casing having one or more integral depending converging or concave resilient lips or flanges to engage and be snapped upon and partly inclose the head of a track or way, and terminating in outwardly-turned edges, and also formed with an uneven portion in the face thereof for the purpose set forth.

In testimony of the foregoing specification I do hereby sign the same, in the city of New York, county and State of New York, this 3d day of May, 1904.

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,

H. BAMMANN.