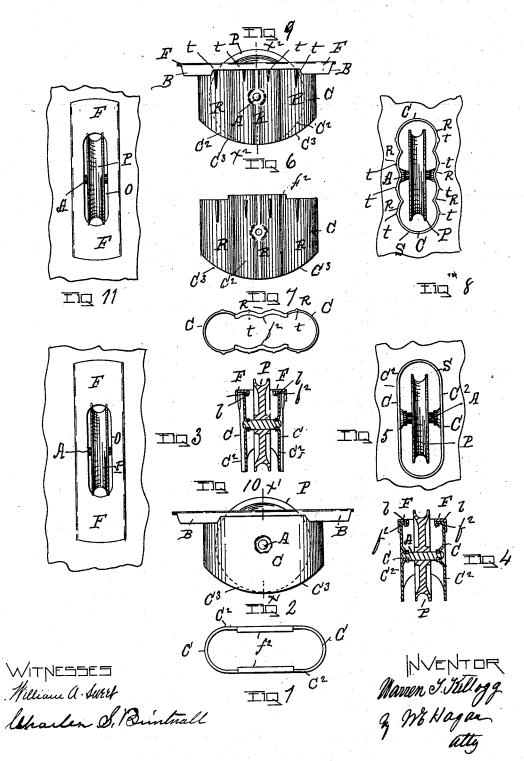
## W. T. KELLOGG.

(Application filed Aug. 4, 1899.)

(No Model.)



## UNITED STATES PATENT OFFICE.

WARREN T. KELLOGG, OF LANSINGBURG, NEW YORK.

## SASH-PULLEY.

SPECIFICATION forming part of Letters Patent No. 647,843, dated April 17, 1900.

Application filed August 4, 1899. Serial No. 726,092. (No model.)

To all whom it may concern:

Be it known that I, WARREN T. KELLOGG, of the village of Lansingburg, county of Rensselaer, and State of New York, have invented new and useful Improvements in Sash Pulleys, of which the following is a specification.

My invention relates to sash-pulleys, and more particularly to the cases or bodies in which the pulleys proper are mounted; and 10 my invention consists, as will be more fully detailed hereinafter in the claims, of a pulley case or body which is formed by a section cut from a piece of drawn or metal tubing of the proper width and length, which after being 15 thus cut has its opposite sides flattened, so that the tube-section so cut and shaped will have interiorly the form of a flattened ellipse, with the case so made to be used with or without a face-plate or with or without projecting 20 convexities at its opposite sides.

Accompanying this specification to form a part of it there is a plate of drawings containing eleven figures, illustrating the application of my invention, with the same designation of parts by letter-reference used in all of

them.

Of the illustrations, Figure 1 shows a top view of a pulley case or body which has been cut from a piece of drawn or metal tubing 30 and which has been flattened at its opposite sides and which has formed upon the inner opposite edges of its top inturned flanges for connection with a face-plate. Fig. 2 is a side elevation of the pulley-case illustrated at Fig. 35 1 and shown as having a face-plate attached thereto. Fig. 3 is a top view of the sash-pulley illustrated at Fig. 1, shown as inserted in a socket formed in a block of wood. Fig. 4 is a section taken on the line x' x' of Fig. 2. 40 Fig. 5 is a top view of a sash-pulley case having the same construction that is shown at Fig. 1, with it illustrated as inserted in a socket formed in a block of wood and shown without the flanges for connection with a 45 face-plate. Fig. 6 is a side elevation of a sash-pulley case which has been formed from a piece of metal tubing after having been cut from the latter and while having its sides flattened has had convexities and spurs stamped 50 therein to project exteriorly therefrom. Fig. 7 is a top view of the case shown at Fig. 6.

trated at Figs. 6 and 7 as having a pulley mounted therein and inserted in a socket formed in a block of wood. Fig. 9 shows the 55 pulley-case illustrated at Figs. 6, 7, and 8 as having a pulley mounted therein and with a face-plate attached. Fig. 10 is a section taken on the line  $x^2$   $x^2$  of Fig. 9. Fig. 11 is a top view of the pulley shown at Fig. 9, illustrated 60 as inserted in a socket formed in a block of wood.

The several parts of the sash-pulley cases and pulleys thus illustrated are designated by letter-reference, and the function of the parts 65

is described as follows:

The letters C designate the pulley cases or bodies, each of which is formed from a piece of drawn or metal tubing cut from the latter at right angles to the tube sides and then 70 having its sides  $C^2$   $C^2$  flattened, so that the case will in transverse section inclose an area having the form of a flattened ellipse, with that part of the severed piece at one of its ends being preferably rounded off at  $C^3$ . 75 When it is desired to use a face-plate in combination with a pulley case or body so formed, an inturned flange  $f^2$  is formed upon each of the opposite side edges at its top, as shown at Figs. 1 and 7, for such connection.

The letter F designates a face-plate having a centrally-located opening O made for the pulley proper P, and the letters l designate a lip that is formed in each of the opposite sides of the opening O, each of which lips is made 85 wide enough to be bent downwardly and laterally, so as to underlap and grasp one of the flanges  $f^2$  on each side of the pulley-case at its top, as shown in section at Figs. 3 and 4.

The letters B designate blades formed at 90 the ends at each of the opposite side edges of the face-plate, which blades are arranged to project from the under side of the face-plate at right angles to the latter. When the case enters the socket in which it is to be inserted, 95 these blades are driven into the wood in which the socket is made. Being connected to the pulley-case by means of the flanges  $f^2$  on the latter and the lips l on the face-plate, the latter by means of this connection with the 100 blades B acts to hold the case within the socket.

7 is a top view of the case shown at Fig. 6. If desired, the usual convexities R and the Fig. 8 shows the case or body which is illus- ribs t may be swaged into the case during the

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process of flattening the sides and as appearing at Figs. 6, 7, 8, and 11, or the cases may be made with the plain sides, as shown at

Figs. 2, 4, and 8.

The letters A designate the pulley-axles, and S the sockets made in the wood, in which the cases are illustrated as having been placed. The axles may be secured in the cases in any well-known manner, but preferably by forming riveting-heads on the axle ends to grasp the case where passing through the latter.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent. is—

15 1. A sash-pulley case or body formed by cutting a section from a length of drawn or sheet-metal tubing and then flattening its sides so that it will have in cross-section the form interiorly of a flattened ellipse, substan20 tially, as and for the purposes set forth.

2. A sash-pulley case or body formed by cutting a section from a length of drawn or sheet-metal tubing, and then flattening its sides so that it will interiorly inclose in cross-

25 section a flattened ellipse, and then rounding off its sides at what is the inner end of the

case when inserted, substantially, as and for

the purposes set forth.

3. The combination with a sash-pulley case or body formed by cutting a section from a 30 length of drawn or metal tubing, and so flattening its sides that it will have in cross-section the form of a flattened ellipse, and having a flange projecting inwardly from each of its top edges; of a face-plate having lips in 35 each of the opposite sides of its top opening, with each adapted to underlap and grasp one of the flanges upon the case; and blades at each of its ends and opposite sides thereat adapted to enter the wood when the connect-40 ed case and face-plate are being driven into a socket, substantially as and for the purposes set forth:

Signed at the city of Troy, New York, this 31st day of July, 1899, and in the presence 45 of the two witnesses whose names are hereto

written.

## WARREN T. KELLOGG.

Witnesses:

W. E. HAGAN, CHARLES S. BRINTNALL.