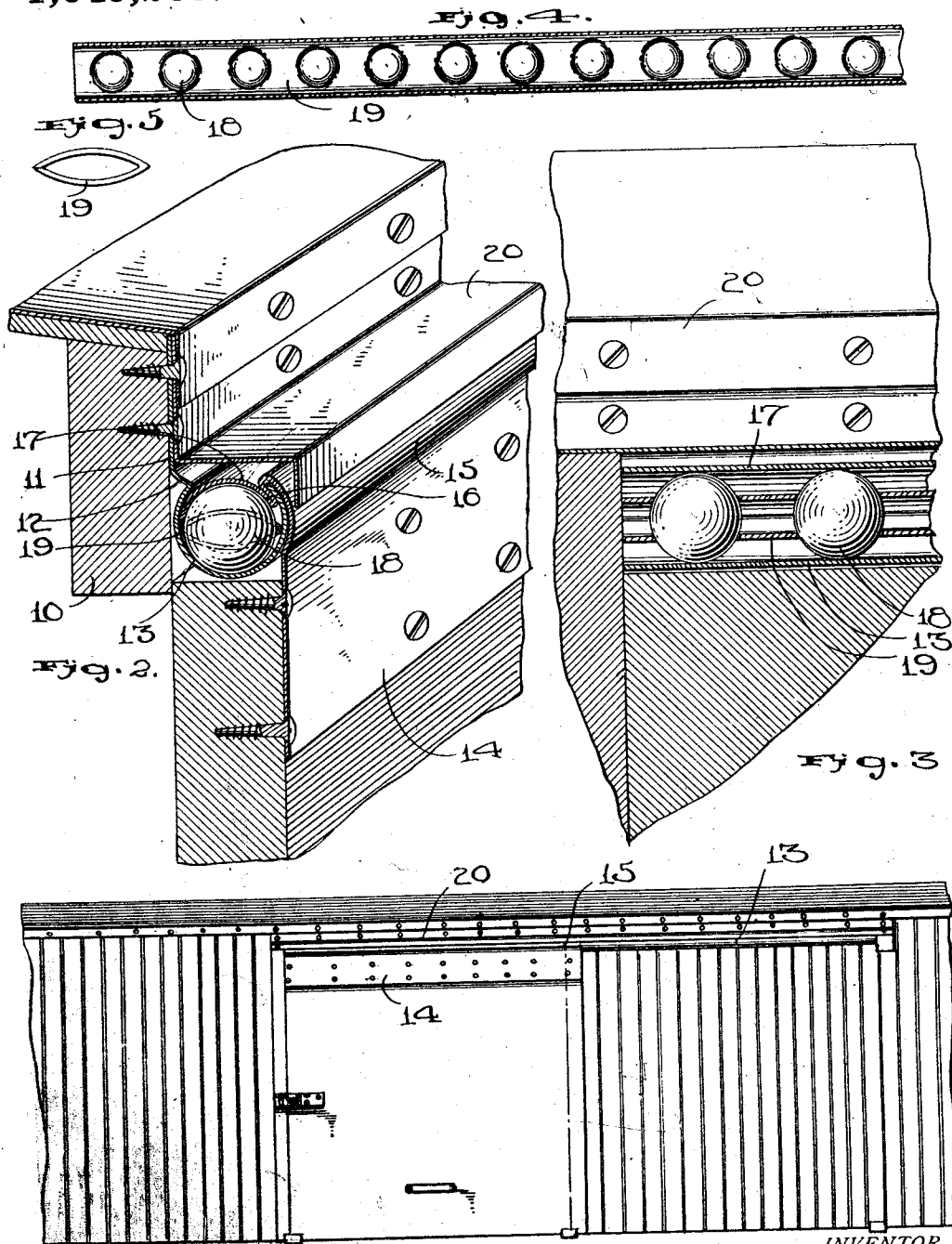


B. F. FIGG.  
HANGER FOR BOX CARS.  
APPLICATION FILED SEPT. 7, 1912.

1,049,263.

Patented Dec. 31, 1912.



WITNESSES

Fig. 1

Benjamin F. Figg

INVENTOR

*Wm. H. Miller*

*By E. C. Swoman, his Attorney.*

# UNITED STATES PATENT OFFICE

BENJAMIN F. PIGG, OF BONNER SPRINGS, KANSAS.

## HANGER FOR BOX-CARS.

1,049,263.

Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed September 7, 1912. Serial No. 719,141.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. PIGG, citizen of the United States, residing at Bonner Springs, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Hangers for Box-Cars, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to door hangers and has special reference to a ball bearing door hanger for box cars.

The principal object of the invention is to improve and simplify the general construction of devices of this character.

Another object of the invention is to provide an improved form of spacer for the bearing balls of such devices.

With the above and other objects in view, this invention consists in general of certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a side elevation of a portion of a box car constructed in accordance with this invention. Fig. 2 is an enlarged detail perspective partly in section showing such a hanger. Fig. 3 is an enlarged vertical section through the hanger. Fig. 4 is a detail view showing the bearing strip. Fig. 5 is a detail section through the bearing strip taken from the end to show the construction thereof.

In carrying out this invention there is secured to the upper member or lintel 10 of a door frame a trough consisting of a plate 40 of metal having a flat portion 11 which is secured to the frame, an outwardly bent portion 12 and a segmental-cylindrical portion 13 which forms a trough proper. Secured to the door is a hanger consisting of a flat plate 14 having an arcuate upper portion 15 which conforms to the outside of the trough 13 adjacent its edge. The plate is then rebent to form an edge engaging por-

tion 16 and again rebent in an arcuate form as at 17, to constitute a portion adapted to rest upon the balls 18 which are held in the trough 13. In order to properly space these balls, a strip of sheet metal is used which is punched to provide openings 19 for the balls 18 and this strip is slightly wider than the double diameter of the trough 13. Furthermore, the openings 19 are arranged in two parallel rows so that there are formed pairs of oppositely disposed openings. The strip is then bent along its middle line and the sides thereof are bent as is clearly shown in Fig. 5, so that the openings are spaced apart. These openings are slightly smaller than the diameter of the balls so that the latter are prevented from falling out of the strip when the free edges thereof are brought together. By the punching of the side portions of the strip the width of the same is reduced slightly less than the diameter of the trough 13 so that the strip can freely move along the trough. Thus in use, the balls rest on the bottom of the trough and are kept in spaced relation by the spacing strip while the door hanger rests on the top of the balls and thus moves easily. A cover plate 20 may also be used to prevent the rusting of the balls through access of rain water or snow to the bearings.

There has thus been provided a simple and efficient device of the character described, and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the character described, the combination with a door frame, of a horizontal segmental-cylindrical trough secured thereto, a door hanger comprising an arcuate portion having a rebent portion adapted to engage one edge of the trough, a flat portion extending below the arcuate portion, a second arcuate portion lying within the upper part of the trough, a series of balls in said trough whereon said second arcuate portion rests, and a spacing element for holding said balls in spaced relation.

2. In a door hanger a ball bearing spacer

consisting of a strip of sheet metal bent  
along its middle line and provided with op-  
posed concave halves, said halves being pro-  
vided with oppositely disposed openings; in  
5 combination with a series of balls of slightly  
longer diameter than the openings and hav-  
ing portions projecting beyond the outer  
sides of the spacer.

In testimony whereof I hereunto affix my  
signature in presence of two witnesses.

BENJAMIN F. PIGG.

Witnesses:

HUGH McDIONELD,  
JNO. M. DORTON.