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GRAB IRON OR LADDER RUNG

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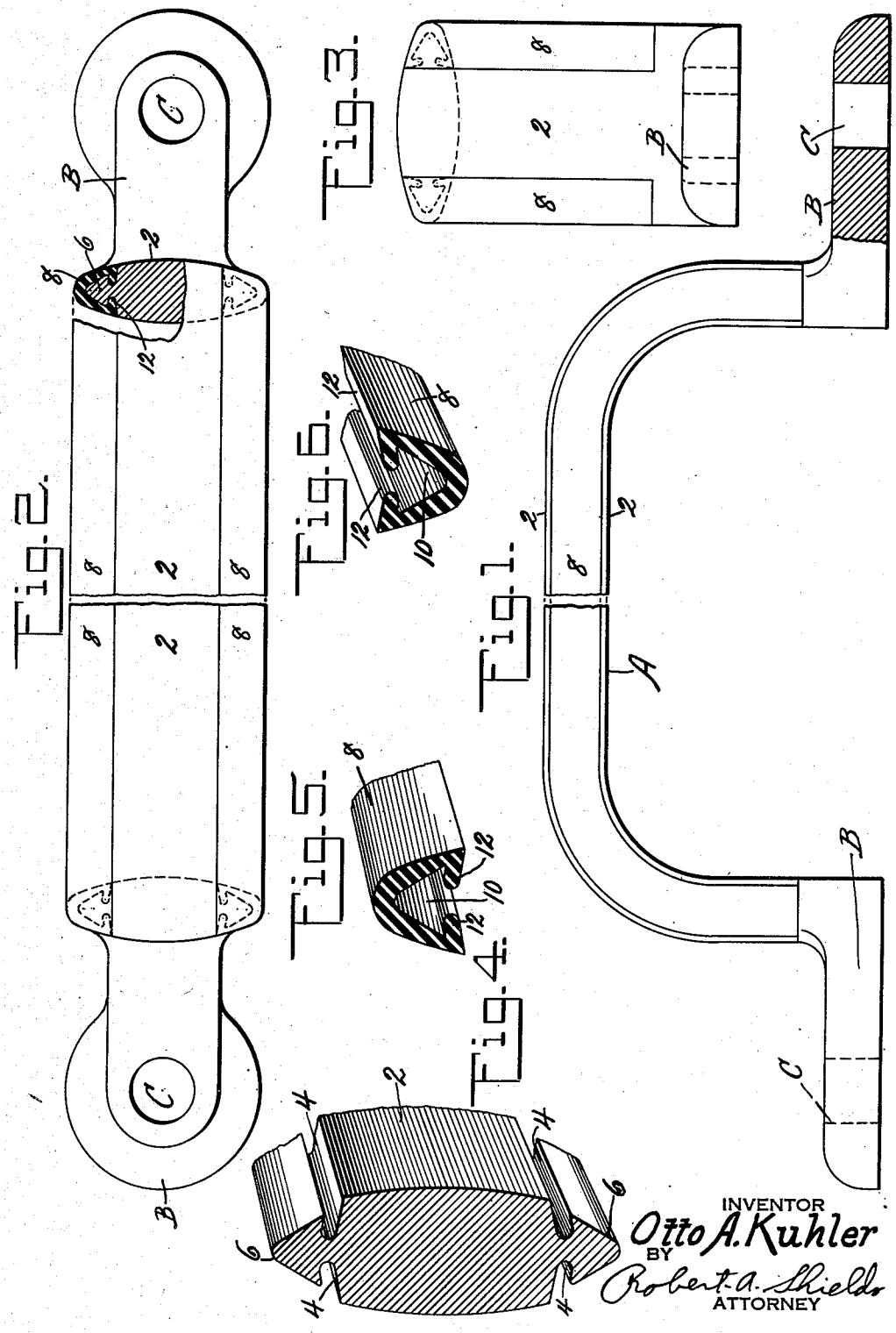

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GRAB IRON OR LADDER RUNG

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This invention relates to grab irons, ladder rungs or the like primarily intended for passenger car service.

Grab irons or ladder rungs have been of generally circular cross section and of rather small diameter making it rather uncomforable to grasp and retain a good grip thereon. Furthermore, these circular grab irons are subject to excessive wear caused by the sand blast effect of dirt, cinders, etc., striking the irons during rapid travel of high speed trains. Also, the normal grab iron as now made entirely of metal transmits heat or cold rapidly to a person's hand, thus making the iron rather uncomfortable to touch. It is an object, therefore, of the present invention to provide a grab iron or ladder rung having at least portions of its surface covered by non-metallic material preventing rapid transmission of heat or cold to a person's hand.

A further object of the invention is the provision of a grab iron or ladder rung made up of metallic and non-metallic parts and of generally elliptical cross section.

A still further object of the invention is the provision of a grab iron or ladder rung of generally elliptical cross section having the pointed edges protected by non-metallic material.

These and other objects of the invention will be apparent to persons skilled in the art from a study of the following description and accompanying drawings, in which:

Fig. 1 is an elevational view of the improved grab iron;

Fig. 2 is a plan view;

Fig. 3 is an end view;

Fig. 4 is a perspective view of the metallic central portion of the grab iron, and

Figs. 5 and 6 are perspective outer and inner views of the non-metallic portion of the grab iron.

Referring now to the drawings in detail, it will be seen that the grab iron is formed with a main central portion A of generally elliptical cross section which is bent inwardly and then merges into outwardly directed flat portions B, pierced as at C to receive bolts, rivets or other means for attaching the grab iron or ladder rung to the car structure. The main central portion, which is elliptical in cross section and formed of any suitable metal, is provided with a curved surface 2 merging into grooves 4. The metal of the central section projects outwardly beyond grooves 4 to provide the arrowhead shaped edges 6. In other words, the metallic central section is of generally elliptical cross section with the edge portions

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modified to give the arrowhead shaped portions 6 more or less separated from the main body by the grooves 4.

In order to produce the more or less true elliptical cross section of the grab iron or ladder rung the non-metallic members, most clearly shown in Figs. 5 and 6, are provided. These members are formed with an exterior surface 8 of elliptical contour and an interior cavity 10 of arrowhead shaped configuration produced by the inturned flanges 12. In other words, the non-metallic members are of generally U-shaped cross section with the inturned flanges 12. These inturned flanges 12 are adapted to engage tightly within grooves 4 with the entire non-metallic member enveloping the edge portions 6 of the main metallic member. In most cases it will be sufficient for the non-metallic members to merely be forced into the grooves 4, but to insure against any possible loss of the non-metallic members, they may be attached by adhesive or by vulcanizing in place to produce the final grab iron or ladder rung of elliptical cross section.

From the preceding it will be seen that the pointed edges of the elliptical ladder rung or grab iron are protected by non-metallic material which will be warmer to a person's hand and will prevent the sand blasting effect caused by sand, cinders, etc., striking the grab iron during travel of the train. In some instances it may be desirable to completely encase the gram iron in non-mettalic material but as shown it is intended that the non-metallic material be of one color in order to contrast with the polished metal surface 2. As shown the elliptical cross section grab iron is proportioned to have a width substantially three times the thickness, thus giving a grab iron which is easy to grasp and retain a grip thereon without danger of slippage since it is desirable that the non-metallic material be of a resilient or yielding nature. While the ladder rung or grab iron has been described more or less in detail with particular reference to the figure, it will be obvious to persons skilled in the art that various modifications may be made without departing from the scope of the appended claims defining my invention.

What is claimed is:

1. A ladder rung, grab iron or the like having a central metallic portion partially elliptical in cross section, grooves running longitudinally of the central portion, and non-metallic members engaged in said grooves and enveloping a portion of the central metallic portion to complete said elliptical cross-section, said non-metallic mem-

bers being of generall U shape with inwardly extending flanges adapted to be engaged in said grooves.

2. A ladder rung, grab iron or the like comprising a central metallic member with arrowhead shaped edges joined by curved surfaces, and non-metallic members enveloping said arrowhead shaped edges to provide with said metallic member a cross section of generally elliptical form.

3. A ladder rung, grab iron or the like comprising a central metallic member having opposed arrowhead portions projecting from opposite edges thereof, and resilient non-metallic members enclosing said opposed arrowhead portions and together with said metallic member forming a rung, grab iron or the like of elliptic form in cross-section.

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