Oct. 30, 1934. C. C. MEANS 1,979,215

CELLAR BOX FOR DRIVING JOURNAL BEARINGS

Original Filed July 29, 1931 2 Sheets-Sheet 1

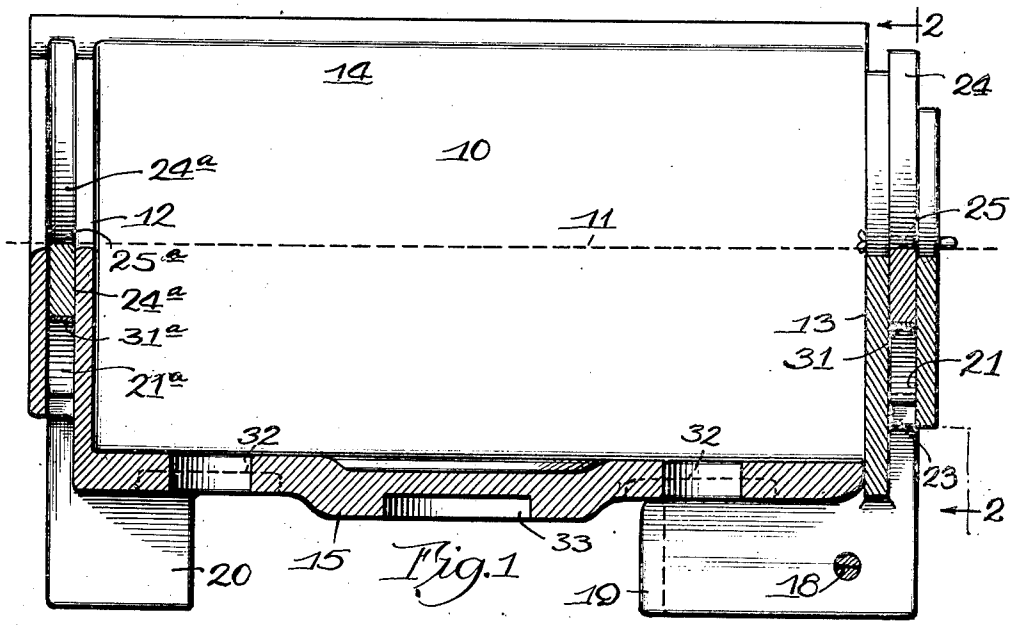
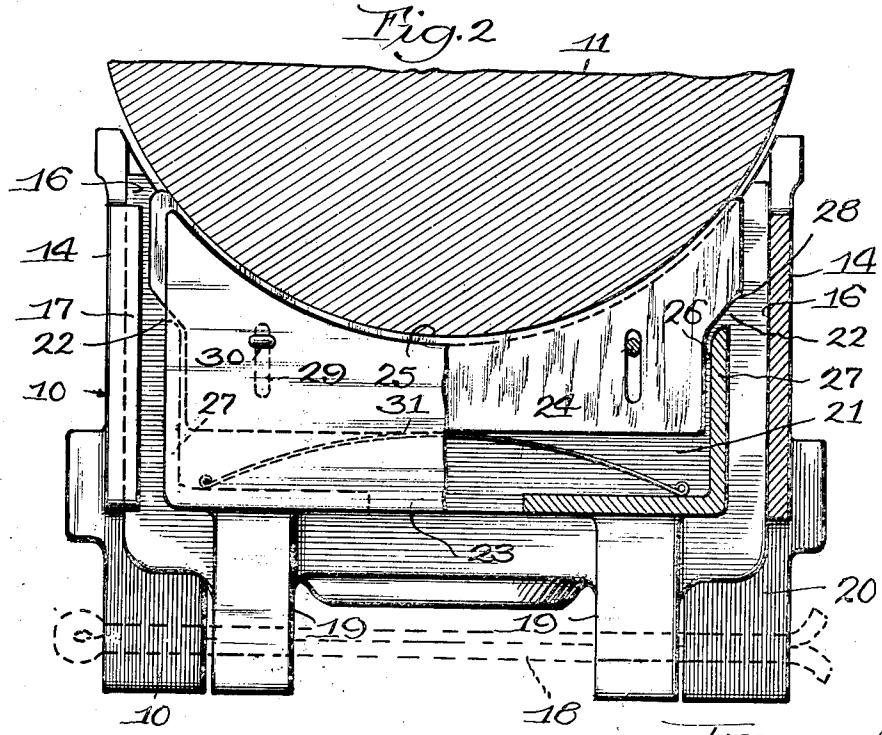


Fig. 1

Fig. 2



Witness:
Chas. L. Fourek.

Inventor
Charles C. Means
Clarence E. Mehlhope Kelly

Oct. 30, 1934. C. C. MEANS 1,979,215

CELLAR BOX FOR DRIVING JOURNAL BEARINGS

Original Filed July 29, 1931 2 Sheets-Sheet 2

Fig. 3

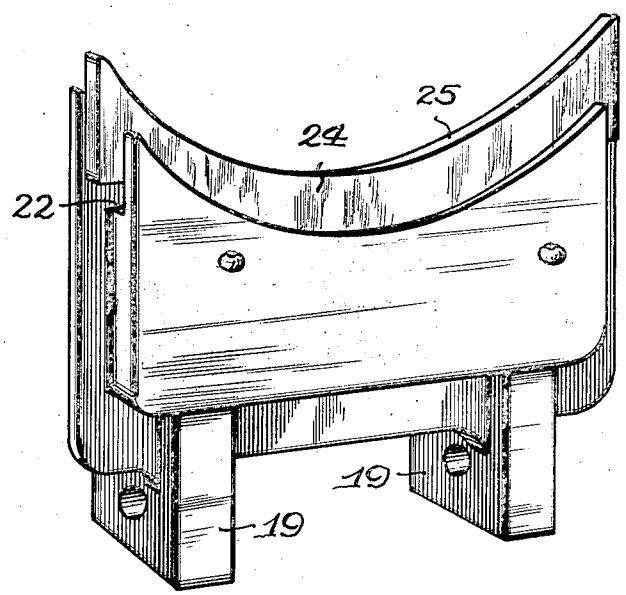


Fig. 4

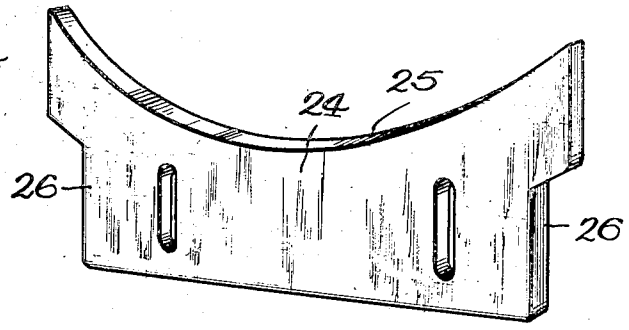
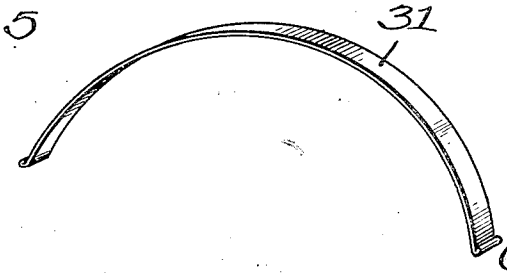


Fig. 5



Witness:
Chas. R. Fourish.

Inventor,
Charles C. Means,
Clarence E. Wehlhope
Atty.

Patented Oct. 30, 1934

1,979,215

UNITED STATES PATENT OFFICE

1,979,215

CELLAR BOX FOR DRIVING JOURNAL BEARINGS

Charles C. Means, Chicago, Ill., assignor to Sivyer Steel Casting Company, Milwaukee, Wis., a corporation of Wisconsin

Application July 29, 1931, Serial No. 553,817
Renewed May 23, 1934

2 Claims. (Cl. 286—6)

This invention relates to novel and to improved dust guards for the cellar boxes of driving journal bearings for railway locomotives and the like and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

The object of the invention is to increase the efficiency of journal lubrication and to decrease consumption of grease by conserving the supply in the cellar box. The advantages of the invention will appear as I proceed with my specification.

In the drawings—

Figure 1 is a view representing a longitudinal central vertical section through a cellar box designed for use in a driving journal bearing and provided with my improved dust guards.

Figure 2 is a view representing an end of the cellar box with part shown in transverse vertical section through Figure 1 in a plane indicated by the line 2, 2 of Figure 1. In this view a segment of the journal with which the cellar box is associated is shown in cross-section.

Figure 3 is a perspective view of the removable end wall or plate of the cellar box with the dust guard mounted therein.

Figure 4 is a perspective view of one of the dust guards.

Figure 5 is a perspective view of a spring used for holding the dust guard engaged with the journal.

Referring now to the embodiment of the invention illustrated in the drawings, 10 indicates the cellar box as a whole and 11 the journal with which it is associated. The cellar box in the main is of familiar construction and has end walls 12, 13, side walls 14, 14 and a bottom wall 15. The one end wall 12 is fixed. The other end wall 13 consists of a removable end plate. Each end plate is formed concave at the top on a curve having its center when in place located in the central axis of the journal, with a radius adapting it to closely approach the cylindrical surface of the journal.

The removable end plate 13 has its lateral vertically extending edges 16, 16 (see Figure 2) engaged with the side walls 14 of the box and is retained against outward endwise movement from the cellar box by vertically extending flanges 17 on said side walls, said flanges overlapping and engaging the vertical margins of said end plate. By this arrangement the end plate 13 may be withdrawn in a vertical plane from the cellar box, when grease is to be supplied or renewed therein. Said end plate is locked in place against such removal by a bolt or pin 18 which takes through ears 19, 19 depending from the plate in positions adjacent to and within the usual depending lugs or posts 20, 20 on the bottom wall of the cellar box.

The end plate 13 is made thicker intermediate the flanges 17 of the side walls and is cored out to provide a vertical well or chamber 21 open at the top concave edge of the plate, with lateral slots or openings 22, 22 which extend down a short distance from the top edge of the plate. Said well also has a centrally disposed opening 23 at the bottom for the escape of any dust, dirt or grease which might otherwise collect and accumulate therein.

24 indicates a movable plate located in said well 21. Said plate is made preferably of hard wood or hard fiber and has a top concave edge 25 formed to fit the contour of the journal. It has straight parallel vertical edges 26 adapted to engage loosely within the end walls 27, 27 of the wall 21. In the neighborhood of the top concave edge 25 the plate 24 projects at each side through the lateral openings 22, 22 of the well so as to extend approximately completely across the width of the cellar box. As a result, inclined shoulders 28, 28 are formed for engagement with the top walls 27 of the well in order to support the plate when assembling. The plate is vertically movable in the well and to guide it in its movement, as well as to retain it in the assembly, it is provided with parallel laterally spaced vertical slots 29, 29 through which take pins 30 which are riveted or otherwise secured in the proximate walls of the well. In the bottom of the well is placed an upwardly bowed spring 31, the ends of which bear upon the bottom wall of the well and the top of which supports the plate 24 and holds it with its concave top edge in close engagement with the journal.

It is obvious that the concave top edge of the plate or guard 24 will always be held yieldingly in close engagement with the bottom surface of the journal. Projecting as it does, slightly above the concave top edge of the end plate, it will retain the grease in the box and, in addition, will prevent the entrance of any dirt, dust or other foreign matter into the grease cellar. In addition, any wear on the brasses will be compensated for since the distance between the cellar box and the journal will be automatically taken up by the adjustability of the plate or guard 24. This represents a great improvement over the ordinary type of cellar box where it is necessary

to weld expensive metal to these parts in order to take up the said distance.

The fixed wall 12 is cored out in like manner to provide a well in which is located a dust guard or plate 24^a, the parts at the fixed portion of the cellar being indicated by the same numerals as those used in connection with the parts at the removable end with the superscript *a*.

In order to lighten the metal in the bottom wall of the casing, said bottom wall is cored out transversely of the casing, as indicated at 32 and 33.

I claim as my invention:

1. A removable end wall for a cellar box provided with a well extending substantially across its entire width, said well being open at the top and at the sides near the top, a guard plate having a concave top edge formed to closely engage a journal and projecting laterally near its top beyond the limits of said well, said guard plate and wall being provided, respectively, with pin and slot connections to lock said guard plate in said well and at the same time permit vertical movement thereof, and a spring member acting upon said guard plate to yieldingly force said guard plate above said end wall.

2. A removable end wall for a cellar box provided with a well extending substantially across its entire width, said well being open at the top and at the sides near the top and having an opening in its bottom, a guard plate having a concave top edge formed to closely engage a journal and projecting laterally near its top beyond the limits of said well, means connecting said guard plate and end wall adapted to permit vertical movement of said guard plate, and a spring member acting between the bottom of said well and the bottom of said guard plate to yieldingly force said guard plate above said end wall.

CHARLES C. MEANS.