

No. 870,953.

PATENTED NOV. 12, 1907.

F. B. HARRISON.
CELLAR FOR AXLE BOXES,
APPLICATION FILED MAR. 22, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

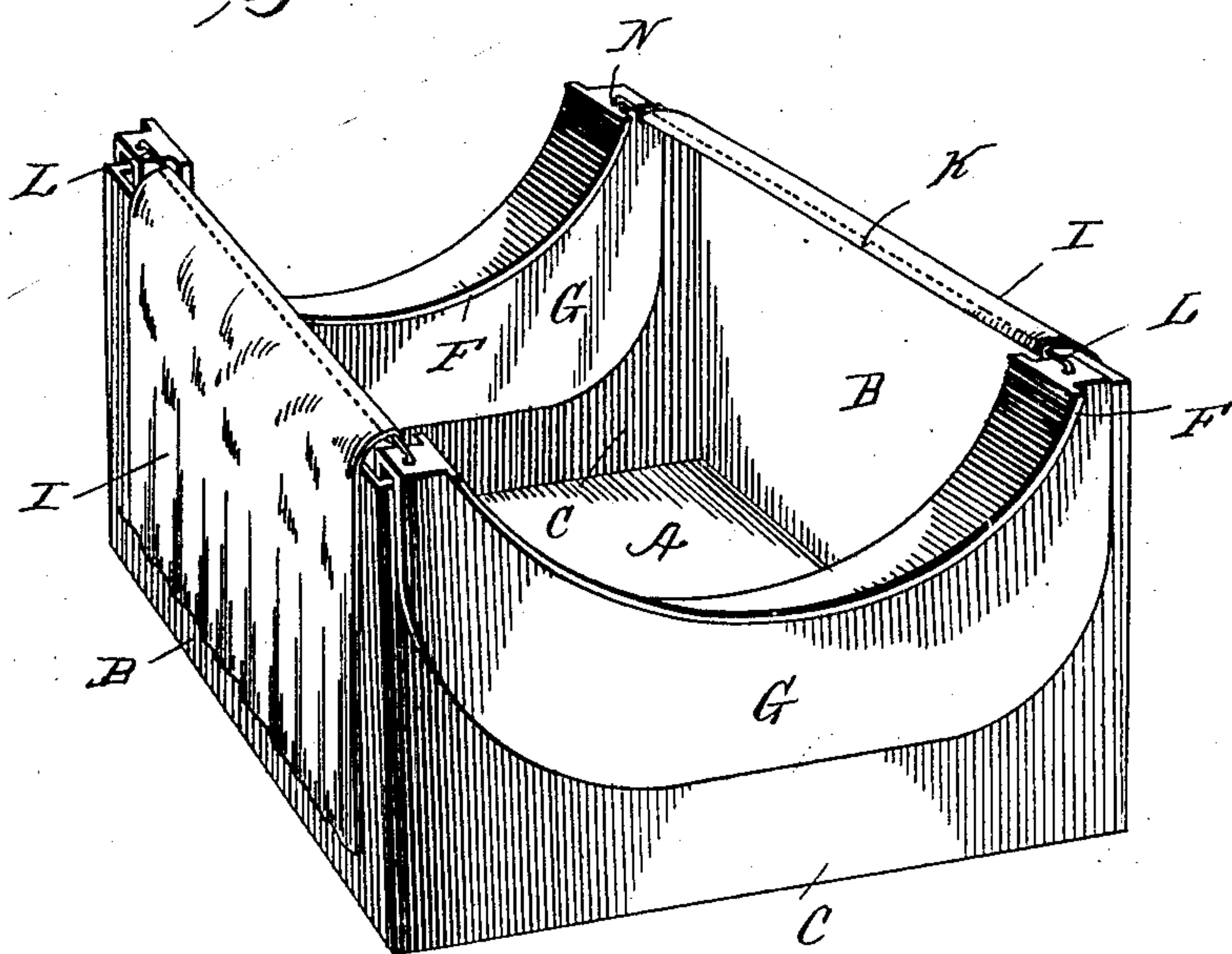
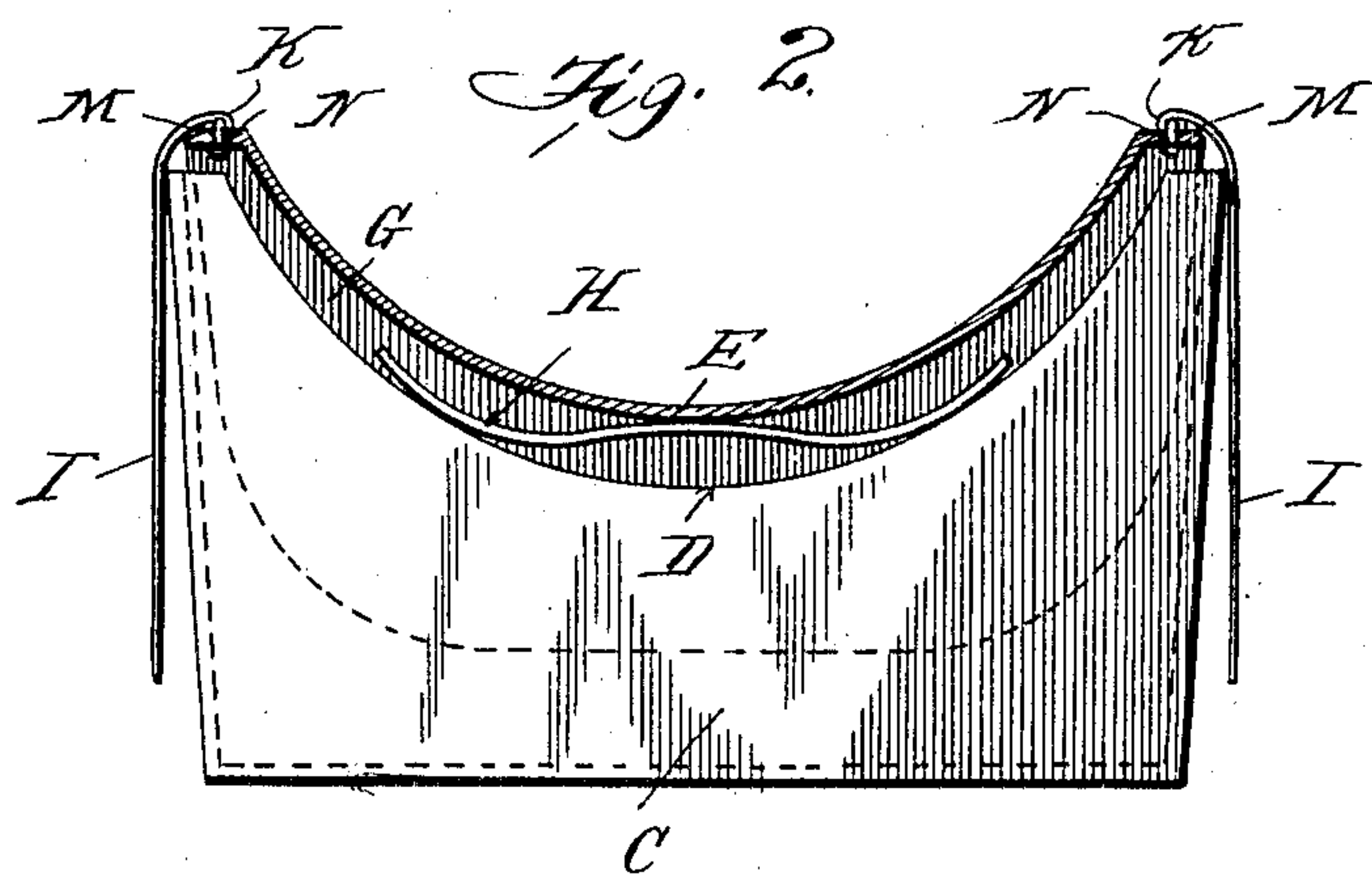


Fig. 2.



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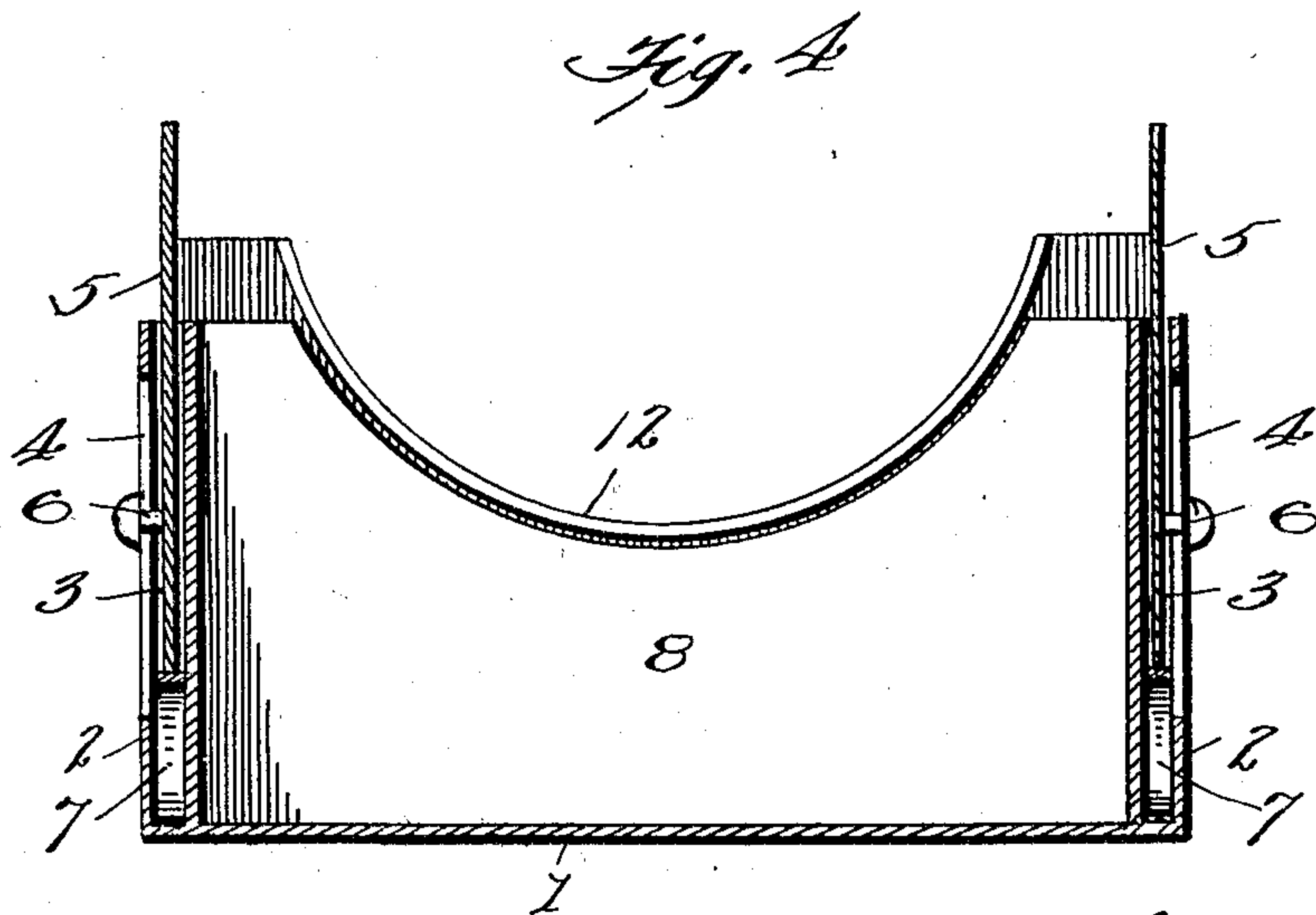
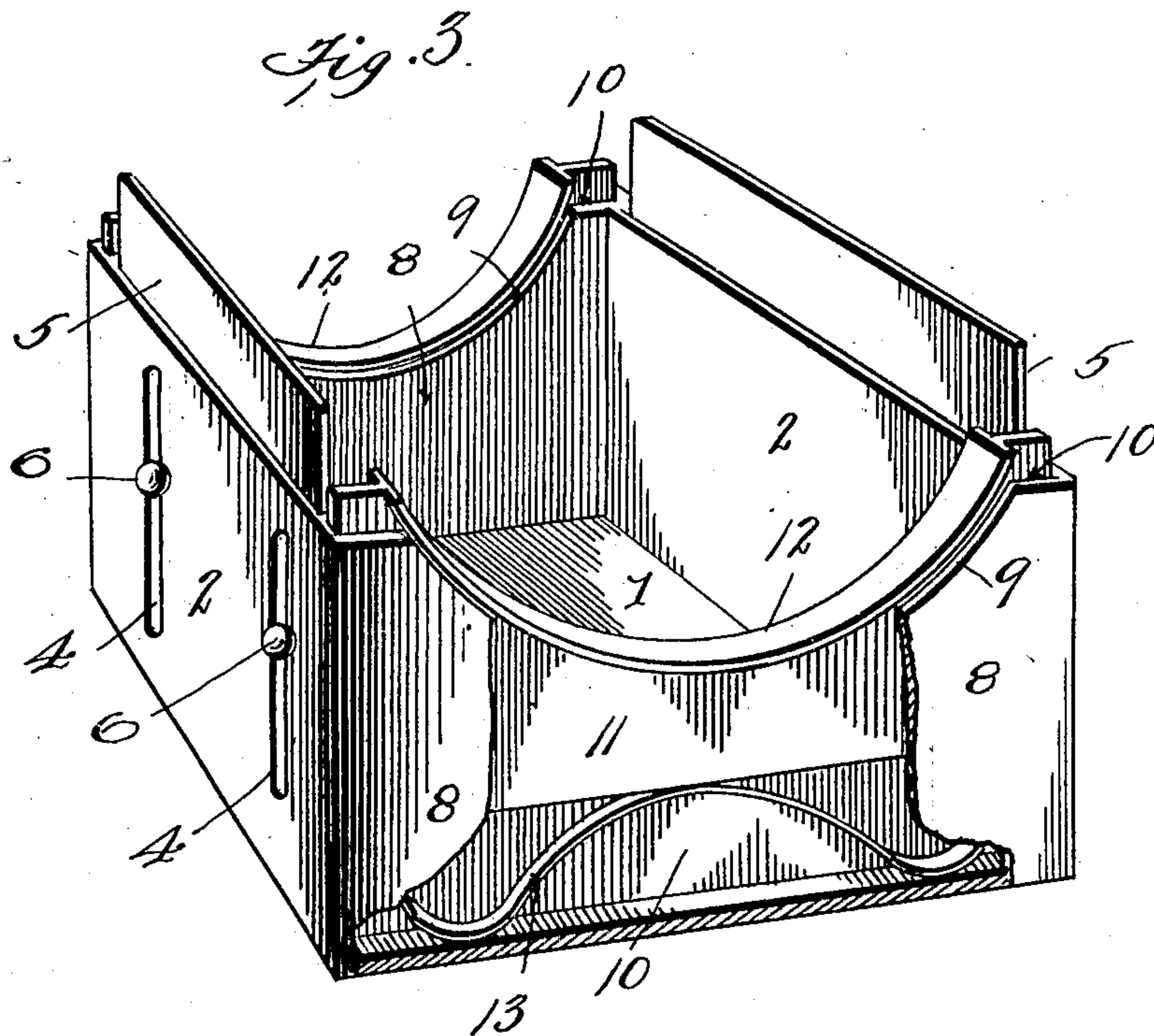
Attorney

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Inventor

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Witnesses
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UNITED STATES PATENT OFFICE.

FRANK BENJAMIN HARRISON, OF TOLEDO, OHIO.

CELLAR FOR AXLE-BOXES.

No. 870,953.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed March 22, 1907. Serial No. 363,811.

To all whom it may concern:

Be it known that I, FRANK BENJAMIN HARRISON, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented new and useful Improvements in Cellars for Axle-Boxes, of which the following is a specification.

The object of my invention is the provision of a cellar for axle boxes, and especially such as are used in connection with locomotive and truck axles where the boxes are located inside the wheels, which will effectively exclude dust and dirt from the bearings.

With this end in view my invention consists in a cellar having movable guards at the ends and sides which are pressed outwardly by springs so as to maintain frictional contact with the axle and box under all conditions of service.

It further consists in certain novelties of construction and combinations of parts hereinafter set forth and claimed.

The accompanying drawings illustrate two examples of the physical embodiment of the improvement constructed according to the best modes I have so far devised for the practical application of the principle.

Figure 1 is a view in perspective of the preferred form of construction of the cellar, the same being removed from the box. Fig. 2 is an end view of Fig. 1 with one end guard in section. Fig. 3 illustrates in perspective the second example of the cellar. Fig. 4 is a cross section of Fig. 3.

Referring to Figs. 1 and 2, the letter A designates the bottom of the cellar; B, the side walls; C, the end walls; D, the curved upper edges of the end walls; E, the movable guards for the end walls, each of said guards having a curved or concave flange F at the top, and two parallel wings G, G, extending downwardly from the flange and one upon each side of an end wall, as shown; H, a spring for forcing the guard upwardly against the journal, and I are side guards of textile material supported at their ends by the end guards so as to move with said end guards.

To hold each side guard securely and prevent the same from sagging the upper edge K may be passed around a rod or wire L and stitched or otherwise fastened, and the ends M of the rod or wire may be inserted within holes N in the end guards and upset as clearly shown by Fig. 2.

Obviously when the cellar is in position between the jaws of the box the springs will force the flanges of the end guards against the under surface of the journal, and the guards at the sides will lie adjacent to or frictionally engage the sides of the axle or box, and dust and dirt thus be excluded.

Referring to the second example, Figs. 3 and 4, the numeral 1 designates the bottom of the cellar; 2, the side walls; 3, vertical recesses formed in each of the

side walls; 4, two vertical slots in the outer portion of each wall; 5, guards located within the recesses and with their edges projecting therefrom; 6, pins with their inner ends fixed in the guards and their outer ends movable within the slots 4, 4, the function of said pins being to retain the guards within the recesses; 7, springs, one occupying the space at the bottom of each recess 3 and bearing against the lower edge of a guard and forcing it outwardly; 8, the end walls made double like the side walls; 9, the curved upper edges of the end walls; 10, recesses in the end walls; 11, movable guards within the recesses 10 as shown; 12, the curved flange at the top edge of each guard; and 13 are the springs located within the recesses 10 and bearing against the lower edge of the guard.

The body of the cellar is preferably cast in one piece but may be otherwise constructed, and the bottom thereof, as well as that of the first example shown by Figs. 1 and 2, may be provided with perforated lugs for the reception of means to hold the cellar in place relative to the box and beneath the axle. When the cellar is in operative position the flanges of the guards at the edges of the cellar bear against the lower surface of the axle and are held in close frictional contact therewith by the springs. The guards at the sides are also pressed outwardly by the springs beneath them, as shown in the cross-sectional view, so that the upper edges are in frictional contact with the axle or box under all conditions of service.

From the foregoing description taken in connection with the drawings it is clear that I have provided a cellar which when secured to an axle box and in use will exclude dust and dirt from the box and the bearing surfaces of the brass and axle.

What I claim is:

1. The combination with an axle box cellar having a bottom, end walls, and side walls, of guards at the sides; and springs for forcing the same upwardly.

2. The combination with an axle box cellar, of end guards, side guards of textile material, and springs for forcing said guards upwardly.

3. The combination with an axle box cellar having a bottom, side walls and end walls, of end guards; side guards connected to the end guards; and springs for the purpose set forth.

4. The combination with a cellar having a bottom, side walls and end walls, of end guards each having wings located each side of an end wall; and a spring beneath each end guard.

5. The combination with a cellar having a bottom, side walls and end walls, of side guards of textile material for excluding dust and dirt from the axle bearing at the sides thereof, and means for supporting said guards.

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

FRANK BENJAMIN HARRISON.

Witnesses:

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LACEY Y. WILLIAMS.