Nov. 7, 1950 C. E. TACK 2,529,235

FRICTION MEMBER

Filed Sept. 27, 1947

Fig. 1.

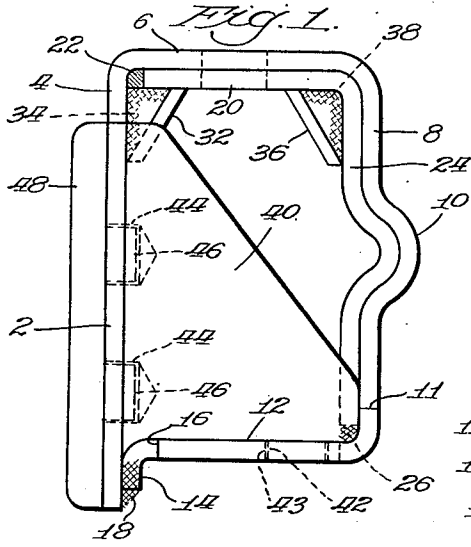


Fig. 2.

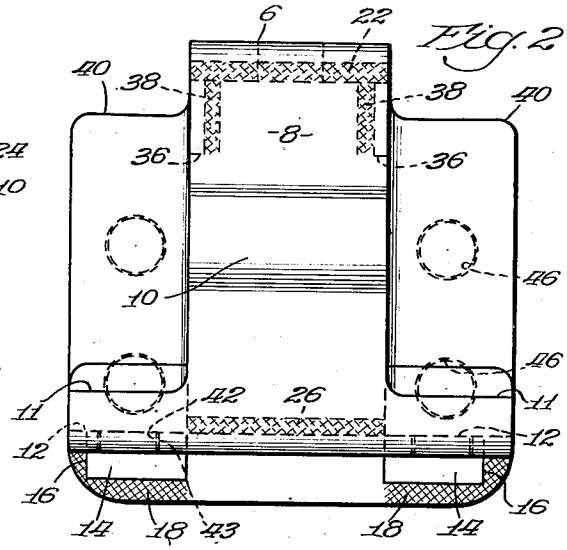


Fig. 3.

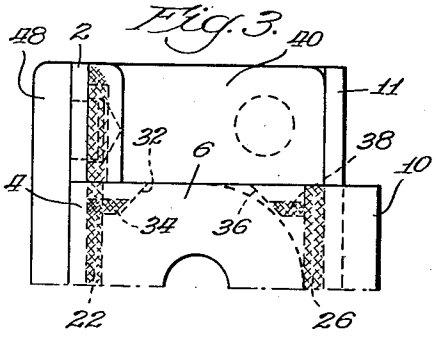
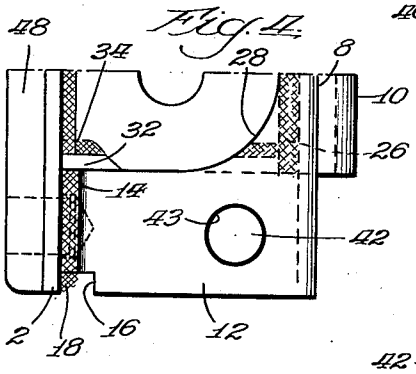


Fig. 4.



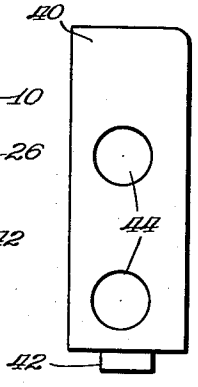


Fig. 5.

Fig. 6.

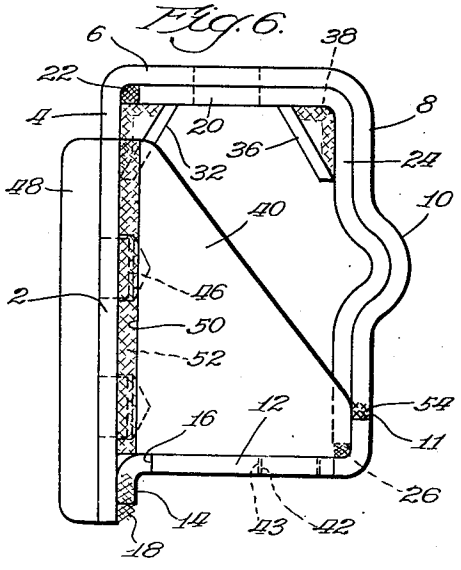
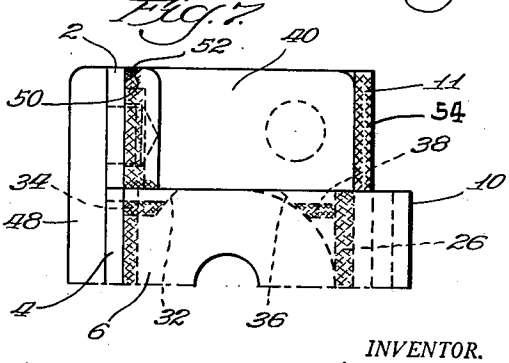


Fig. 7.



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UNITED STATES PATENT OFFICE

2,529,235

FRICTION MEMBER

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Application September 27, 1947, Serial No. 776,604

4 Claims. (Cl. 188—251)

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This invention relates to a friction shoe for use in snubbing devices associated with relatively movable parts of railway car trucks and more particularly to a novel fabricated shoe of the type shown in United States Letters Patent No. 2,366,957.

A general object of the invention is to devise a novel shoe which may be economically fabricated and capable of long life in railway service.

Another object of the invention is to afford a novel welded friction shoe structure adapted to support a friction plate for engagement with a relatively movable friction surface.

Still another object of the invention is to devise a friction shoe structure having novel means for supporting associated wedge blocks.

In one embodiment of the invention the friction plate and wedge blocks are formed of a composition material and in another modification of the invention the friction plate and wedge blocks may be formed of metal to accommodate a welded connection to the supporting structure.

The foregoing and other objects and advantages of the invention will become apparent from a consideration of the following specification and the accompanying drawings, wherein:

Figure 1 is a side elevational view of a friction shoe embodying the invention;

Figure 2 is a rear elevational view of the shoe;

Figure 3 is a half top plan view thereof;

Figure 4 is a half bottom plan view thereof;

Figure 5 is a front view of one of the wedge blocks utilized in the arrangement of Figures 1 to 4; and

Figures 6 and 7 illustrate a modification of the invention, Figure 6 being a side elevational view of the shoe; and

Figure 7 being a half top plan view thereof.

Describing the invention in detail and referring first to the embodiment of Figures 1 to 5, the novel shoe comprises an outer steel shell with a front wall 2 having a narrow portion 4 on the top thereof in the form of an upwardly directed extension connected to a top wall 6 approximately perpendicular thereto and approximately of the same width.

The top wall 6 is connected to a rear wall 8 of approximately the same width and disposed generally parallel to the front wall 2 except for an arcuate bend or loop 10 affording a handle for an associated tool. The lower end of the rear wall 8 is widened to form the rear extremities 11 of spaced shelves or ledges 12 extending generally parallel to the top wall 6, said ledges being flanged at their said extremities as at 14 and

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slotted as at 16 to afford a convenient weld at 18 to the rear surface of the front wall 2.

Thus it will be seen that the front wall 2, the top wall 6, the rear wall 8, and the spaced shelves 12 afford a rigid steel shell adapted for the support of associated wedge blocks and friction plate, as hereinafter described.

This shell is reinforced by a stiffener strip comprising a top web 20 seated against the under side of the wall 6 and welded thereto as at 22 at the juncture of the wall 6 with the front wall extension 4. The top web 20 is connected to a rear web 24 complementary to and seated against the inner side of the rear wall 8, and welded thereto as at 26 along an arcuate web 28 (Figure 4) integral with and connecting the rear wall 8 to the ledges 12. The arcuate forward surface of the web 28 affords spring positioning means for an associated shoe actuating spring (not shown) adapted to seat against the web 20 which thus forms a spring seat surface on the under side of the top wall 6 which constitutes the spring seat wall of the structure.

A pair of ribs or braces 32 are welded as at 34 to the web 20 and the extension 4 of the front wall 2. A pair of similar braces 36 are welded as at 38 to the webs 20 and 24. As best seen in Figure 3, each brace 32 and adjacent brace 36 converge outwardly toward the lateral edge of the web 20 to afford positioning means for an associated spring adapted to seat thereagainst.

A wedge block 40 of any desired composition material is seated on each shelf 12 in abutment with the rear extremity 11 thereof and in abutment with the front wall 2. The block is provided with a positioning lug 42 received within a complementary opening 43 in the shelf and the front edge of the block which seats against the rear surface of the front wall 2 is formed with sockets 44 aligned with complementary openings through the wall 2 for the reception of lugs 46 on a friction plate or liner 48 seated against the front surface of the wall 2 and formed of any desired composition material. Both the plate 48 and the wedge blocks 40 are secured to the abutting surfaces of the reinforcing metallic shell above described as by any well known thermosetting cement.

Figures 6 and 7 illustrate a modification of the novel fabricated shoe wherein the parts corresponding to those of Figures 1 to 4 are identified by corresponding numerals. In this modification the wedge block 40 is formed of steel and is beveled at its forward outer edge as at 50 to accommodate a weld as at 52 to the front wall 2, an

additional weld being made at 54 to the top of the upturned rear extremity 11 of the supporting shelf 12. The friction plate 48 is preferably formed of composition material bonded to the front wall 2 as in the previously described embodiment. However, it will be understood that, if desired, the plate 48 may be formed of any suitable material, such as steel or iron, welded to the front wall 2.

It is to be understood that I do not wish to be limited by the exact embodiments of the device shown which are merely by way of illustration and not limitation as various and other forms of the device will, of course, be apparent to those skilled in the art without departing from the spirit of the invention or the scope of the claims.

I claim:

1. A fabricated friction shoe comprising a shell with front and rear walls, a spring seat wall integral with and extending between said front and rear walls, spaced shelves connecting the front and rear walls at a point spaced from said spring seat wall, a stiffener welded to said shell and having webs complemental to and engaging the inner surfaces of the spring seat wall and the rear wall, a pair of braces welded to the front wall and the stiffener at opposite sides of the spring seat wall, another pair of braces welded to the debs of said stiffener at opposite sides of said spring seat wall, said braces defining a spring seat, one brace of each pair and the adjacent brace of the other pair having surfaces converging outwardly from said spring seat and adapted to position an associated spring, a separable composition wedge block seated on each shelf and bonded thereto, and a separable composition friction liner bonded to the front surface of the front wall.

2. A fabricated friction shoe comprising a front wall, a spring seat wall connected thereto, a shelf connected to said front wall, a separable composition wedge block seated on said shelf in abutment with said front wall, openings through said front wall, sockets in said block aligned with said openings, and a separable composition friction liner secured against said front wall, said liner having lugs projecting through said openings in said sockets.

3. A fabricated friction shoe comprising a shell with a friction wall and a shelf, a separable composition wedge block seated against said shelf and one side of said wall, said block having a wedge surface angularly related to said wall, a separable composition friction liner secured to the opposite side of said wall, sockets in said block aligned with openings into said wall, and lugs on said liner projecting through said openings into said sockets.

4. A fabricated friction shoe comprising a front wall, a spring seat wall connected thereto, a shelf connected to the front wall, a separable composition wedge block member seated on the shelf, openings through the front wall, a separable composition friction liner member secured against said front wall, and lugs on one of said members complementary to said openings and projecting therethrough into complementary sockets of the other member for interlocking said members with each other and with the front wall.

CARL E. TACK.

REFERENCES CITED

The following references are of record in the file of this patent:

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Number	Name	Date
2,366,957	Cottrell	Jan. 9, 1945
2,378,414	Light	June 19, 1945