P. H. BATTEN.

EXPANDED METAL CHAPLET.

APPLICATION FILED NOV. 3, 1911.

1,016,389. Patented Feb. 6, 1912.

Fig. 1.

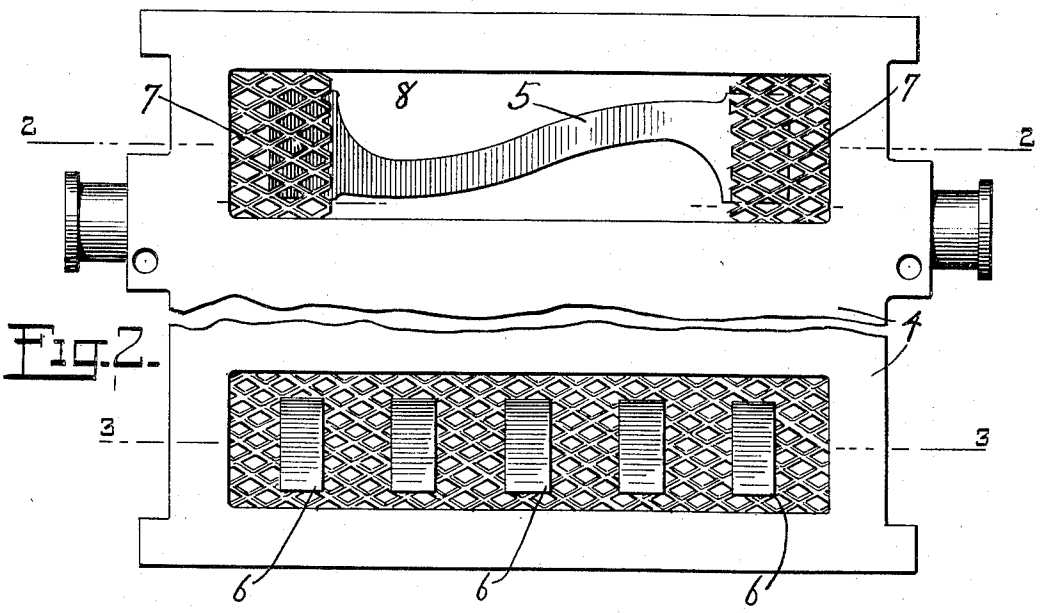


Fig. 2.

Fig. 3.

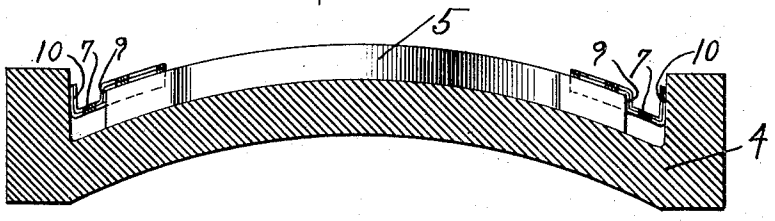
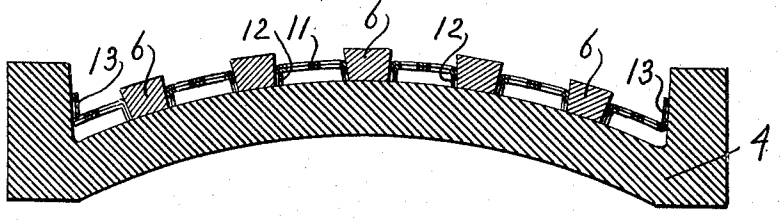


Fig. 4.



WITNESSES

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EXPANDED-METAL CHAPLET.

1,016,389. Specification of Letters Patent. Patented Feb. 6, 1912.

Application filed November 3, 1911. Serial No. 658,366.

To all whom it may concern:

Be it known that I, PERCY HAIGHT BATTEN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have made and invented certain new and useful Improvements in Expanded-Metal Chaplets, of which the following is a specification.

My invention relates to the manufacture of brake shoes having an insert embedded in the body portion thereof, said insert being commonly made of metal, such as hard steel or wrought iron, the object thereof being to provide means for holding the metallic insert in place in a metal mold, while molten metal is poured thereinto and about the insert, whereby the same finally becomes embedded in the cast metal body portion of the shoe.

More specifically stated, the object of my invention is to provide a chaplet for holding the metallic insert in place in a metal mold, said chaplet comprising a foraminous member, formed preferably from expanded metal and adapted to engage the insert, and to extend to and contact with an adjacent wall of the metal mold, to thereby hold the insert in place and prevent it from becoming displaced or from slipping upon the surface of the mold during the process of casting.

With the above and other objects in view, my invention consists in the improved chaplet for holding metallic inserts in place hereinafter described and illustrated in the accompanying drawing, and in such variations and modifications thereof as will be obvious to those skilled in the art to which my invention relates.

In the accompanying drawing wherein the preferred embodiment of my invention is illustrated, Figure 1 is a view showing a part of the lower portion of a metal mold in plan, the view illustrating one type of insert and one form of chaplet for holding the same in place. Fig. 2 is a similar view showing another type of insert and a second form of chaplet. Fig. 3 is a view showing a section upon a plane indicated by the line 2—2, Fig. 1; and, Fig. 4 is a view illustrating a section upon a plane indicated by the line 3—3, Fig. 2.

Referring to the drawing, the reference meral 4 designates a part of the lower part of a metal mold in which brake shoes are cast, it being understood that the complete mold also includes an upper or cope portion, (not shown) and that the two parts of the mold inclose a cavity in the form of the article to be cast.

The reference character 5 designates a metallic insert, continuous throughout its length, and 6 designates a plurality of metallic inserts, the shoe formed in the first case having a single insert, while in the second case the same has a plurality of separate and distinct inserts.

Referring first to the form of my invention adapted for holding the single insert 5 in place, the same comprises two foraminous members 7, located one at either end of the insert, and in engagement therewith, which foraminous members extend to and contact with the inner walls of the recess 8. These members 7 are preferably pressed, or otherwise given the form shown in Fig. 3, that is they are formed with recesses so as to fit over the ends of the insert, thereby providing a shoulder at 9, the end of the foraminous member being turned up as shown at 10, these features insuring a secure or firm hold upon the end of the insert and the wall of the recess 8, and preventing the chaplet from displacement as the shoe is formed.

The chaplet is preferably formed from expanded metal, and it will be understood is, together with the metallic insert 5, embedded in the brake shoe as the same is formed.

In case the brake shoe is to be provided with a plurality of metallic inserts 6, my improved chaplet takes the form of a foraminous member extending the entire length of the recess in the mold in which the shoe is formed. Such a chaplet is shown in Figs. 2 and 4 and comprises a foraminous member 11 formed preferably from expanded metal, and which member is provided with a series of pockets made by cutting the chaplet and forcing the edges downward as shown at 12, whereby a series of pockets are produced in which the inserts 6 are placed, the downwardly extending portions 12 serving not only to secure a firm hold upon the inserts, but also to act as feet to space the foraminous member a proper distance from the surface of the metallic mold. The end portions of the member 11 are turned up as shown at 13, in order that a slight wedging action may result, as the foraminous member is

forced into the mold to thereby more firmly hold the same and the inserts in place. In this form of my device the metallic inserts are firmly held in pockets formed in the foraminous member as above explained, the periphery of the foraminous member extending beyond the inserts and into engagement with the inner walls of the mold.

The chaplet, in both forms of my device, is preferably foraminous in order that the fluid metal as it is poured into the mold may flow about the chaplet as well as about the metallic insert, both becoming embedded in the shoe as the same is cast.

Having thus described and explained my invention, I claim and desire to secure by Letters Patent:—

1. A foraminous member adapted to engage an insert to be embedded in the cast metal body portion of an article as the same is formed, and to engage also an inner adjacent wall of the mold in which said article is cast, to thereby form a chaplet for holding the insert in place during the casting operation.

2. A chaplet for holding a metallic insert in position within a metal mold, the same comprising a foraminous member in engagement with said insert and which member extends to and engages the inner surface of the mold.

3. The combination with an insert to be embedded in a cast metal article as the same is formed, of a foraminous member in engagement with said insert and extending beyond the same a distance sufficient to engage the inner surface of the mold in which the article is formed.

4. A chaplet for holding a metallic insert of a brake shoe in position within a metal mold as fluid metal from which the shoe is formed is poured thereinto, the same comprising a foraminous member formed from expanded metal and which member engages said insert and extends to and contacts with the inner surface of the mold.

5. A chaplet for holding a metallic insert of a brake shoe in position within a metal mold as fluid metal from which the shoe is formed is poured thereinto, the same comprising a foraminous member formed from expanded metal and having a recess in which said insert is contained, and which member extends beyond said insert a distance sufficient to engage the inner surface of the mold in which the shoe is formed.

6. The combination with a metallic insert to be embedded in a cast metal brake shoe as the same is formed in a metal mold, of a foraminous member formed from expanded metal and having a recess in which said insert is contained and which member extends beyond said insert a distance sufficient to engage the inner surface of the mold in which the shoe is formed.

Signed at Chicago in the county of Cook and State of Illinois this 27th day of October A. D. 1911.

PERCY H. BATTEN.

Witnesses:
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ELENOR ORR.