Sept. 8, 1931. M. BELLOCH 1,822,796

BUCKLE AND METHOD OF MAKING THE SAME

Filed Oct. 12, 1929

FIG. 1.

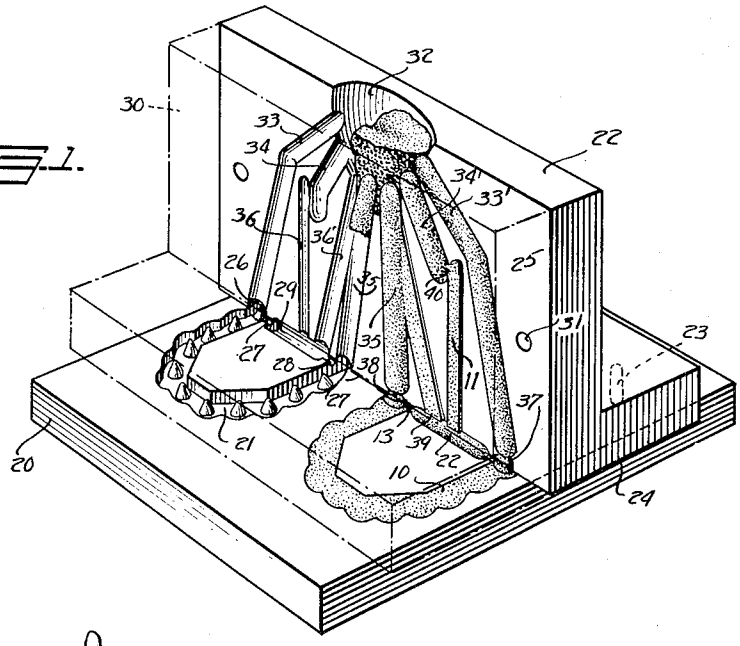


FIG. 2.

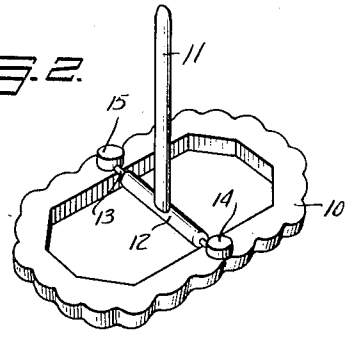
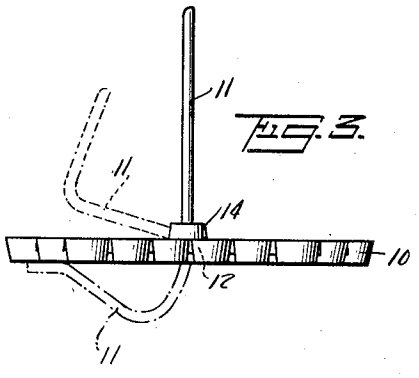


FIG. 3.



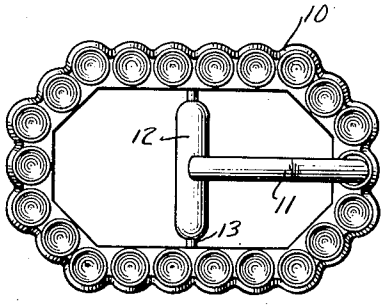


FIG. 4.

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BUCKLE AND METHOD OF MAKING THE SAME

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The present invention relates to buckles and method of making the same and is more particularly directed toward the provision of an improved form of hook for a cast metal buckle.

The present invention contemplates the manufacture of cast buckles in such a manner that the hook for the buckle may be formed at the same time as the cast buckle body. In carrying out the present process of manufacture, bronze molds are employed. These molds are provided with suitable mold cavities to form the buckle body and are arranged to receive a metal rod, or bar, forming the axle of the hook. The hook itself is cast onto the metal rod at the same time as the buckle body is cast, and the ends of the rod, or bar, are anchored in suitable lugs in the body.

The accompanying drawings show a form of mold suitable for making buckles of the present type together with a form of buckle made in such molds, and the various steps in the operation of making such a buckle.

In these drawings:

Figure 1 is a perspective view of a two cavity mold illustrating one cavity empty and the other cavity filled with a completely cast buckle;

Figure 2 is a perspective view of the buckle after having been removed from the mold;

Figure 3 is a side elevational view of the buckle as taken from the mold, and illustrating in dotted and in dot and dash lines the position of the buckle hook during its formation; and

Figure 4 is a front elevational view of a complete buckle.

The buckle, as shown in Figures 2, 3 and 4, has a body 10 of suitable ornamentation, shape and figuration. This buckle body may be cast out of bendable white metal alloy. The hook of the completed buckle is indicated at 11. It is made of the same metal as the buckle body and is carried on an anchorage portion 12, cast about a metal rod 13. This rod is preferably a small brass pin. The ends of the pin extend into lugs 14 and 15, cast integral with the buckle body.

For manufacturing these buckles one may employ a mold such as indicated in Figure 1. The lower mold part 20 has two buckle forming cavities 21 of the design and configuration of the buckle to be produced. It will be understood that one-half only of the cavity is indicated in the upper rear part of the figure, and that only one-half of the finished buckle is indicated in the lower front part of the figure. An angle shaped mold member 22 is carried on top of the bottom part 20 and is held in a definite position by pins 23. The under face 24 of this mold part 22 is smooth. The inner face 25 is cut away, as indicated at 26 and 27, to form one-half of the lugs 14 and 15. The upper face of the mold part 20 and the inner face 25 of the mold part 22 are cut away, as indicated at 27 and 28, to receive the metal pin 13. These mold parts are also cut away, as indicated at 29, to form a cavity corresponding with the anchorage portion 12 of the hook. A third mold part 30 is generally similar to the mold part 22 and is held in definite position by pins entering holes 31.

The mold parts 22 and 30 are cut away, as indicated at 32, to form a filling hole and their adjacent faces are grooved, as indicated at 33, 34 and 35, to form gates 33′, 34′ and 35′. The grooves 33 and 35 extend down toward the cavities 26 and 27, while the groove 34 extend down to a hook forming cavity 36. The lower end of this hook forming cavity opens into the anchorage cavity 29. A gate 36′ also extends to this anchorage cavity.

After the metal rod 13 has been set in its place, the mold parts are secured together and metal is poured into the filling spout 32, flowing down through the various passages and filling all the cavities. It simultaneously forms the buckle body 10, the anchorage portion 12 and the hook forming portion 11, as well as filling the gates with metal.

After the molds have cooled, the part 30 is removed and then the mold part 22, together with the castings, are removed from the mold part 20. The mold part 22 may then be separated from the castings. It will be noted from the right hand side of Figure 1 that the gates are constricted as indicated at 37, 38, 39 and 40.

One may grasp the buckle body in one hand

and the gates in the other and bend and twist the casting so as to break the gates away from the buckle body and hook. This will leave the casting in the condition shown in Figures 2 and 3. The entire buckle body, hook, anchorage portion, and pintle, will be a completed unit. Gentle pressure may then be applied to the cast metal 12 about the pin, so as to break the ends of the pin away from the cast metal which envelops them, permitting turning of the pin and parts carried thereby. The hook 11 may then be bent somewhat as indicated in dotted lines in Figures 3, so as to pass through the opening in the buckle body, and to pass in front of the ornamental surface of the buckle body. It may then be bent again to be in the position indicated in dot and dash lines of Figure 3, thereby completing formation of the article.

It will be understood that the particular form of buckle illustrated is merely illustrative of the type of device which may be produced by the present process. It will also be apparent that this process of manufacture eliminates many expensive operations heretofore necessary in the construction of ornamental buckles out of low melting point alloys.

What is claimed is:

1. The method of making buckles which consists in simultaneously casting a buckle body of low melting point metal forming integral cast lugs about a pivot bar of higher melting point metal, and casting a buckle tongue with an anchorage portion about the pivot bar between the lugs.

2. The method of making buckles which consists in casting a buckle securing member with an integral anchorage about the middle portion of a bar of higher melting point metal, and casting a buckle body with lugs enveloping the ends of the bar.

3. The method of making buckles which consists in casting a buckle securing member with an integral anchorage about the middle portion of a bar of higher melting point metal, casting a buckle body with lugs enveloping the ends of the bar, and applying twisting effort to the anchorage to loosen the ends of the bar from the lugs so that the bar and securing member may be turned with the ends of the bar acting as pintles.

4. The method of making buckles which consists in casting a bendable hook member with an integral anchorage about the middle portion of a bar of higher melting point metal, and casting a buckle body with an ornamental face and rearwardly extending lugs enveloping the ends of the bar, applying twisting effort to the anchorage to loosen the ends of the bar from the lugs so that the bar and hook member may be turned with the ends of the bar acting as pintles, bending the hook member to permit passing it through the opening in the buckle body to place the hook member in front of the buckle body, and straightening out the member to the shape of a buckle hook.

5. In the method of making buckles wherein the buckle body is cast about a pivot pin, the steps which comprise loosening the ends of said pivot pin in cast lugs of said buckle body, bending a hook forming member carried by the pin to permit passing it from the back of the body to the front and then forming the hook member to the shape of a buckle hook.

6. The method of making buckles which comprises inserting a metal pivot forming bar in a mold, casting in said mold and about the metal pivot bar a metal buckle body, forming during this casting operation integral cast lugs on said body, said bar being of higher melting point metal than that of said body, simultaneously casting a buckle tongue with an anchorage portion about the pivot bar between the lugs, removing the casting from the mold and applying twisting effort to the said anchorage portion to render the said tongue pivotally movable.

7. The method of making buckles which comprises inserting a metal pivot forming bar in a mold, casting in said mold and about the metal pivot bar a metal buckle body having lugs integral therewith for holding said pivot bar between the lugs, said bar being of higher melting point metal than that of said body, simultaneously casting a buckle tongue with an anchorage portion about the pivot bar between the lugs, removing the casting from the mold and applying twisting effort to said anchorage portion to render the said tongue pivotally movable.

8. The method of making buckles which comprises inserting a metal pivot forming bar in a mold, casting in a single operation in said mold and about the metal pivot forming bar a buckle body having integral lugs and a buckle securing member, said pivot bar being held between said lugs and being of higher melting point metal than that of said body, said securing member having an anchorage portion about the pivot bar between the lugs, removing the casting from the mold and applying twisting effort to said anchorage portion to render said member pivotally movable.

9. The method of casting assembled buckles including a buckle frame, a buckle tongue pivotally mounted in the frame and a pin for pivotally mounting the tongue in the frame, which method consists in preparing a mold, supporting the said pivot pin of the tongue in the mold, and subsequently casting the buckle frame and the tongue with the latter formed about the pivot pin, and the pivot pin anchored in the buckle frame.

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