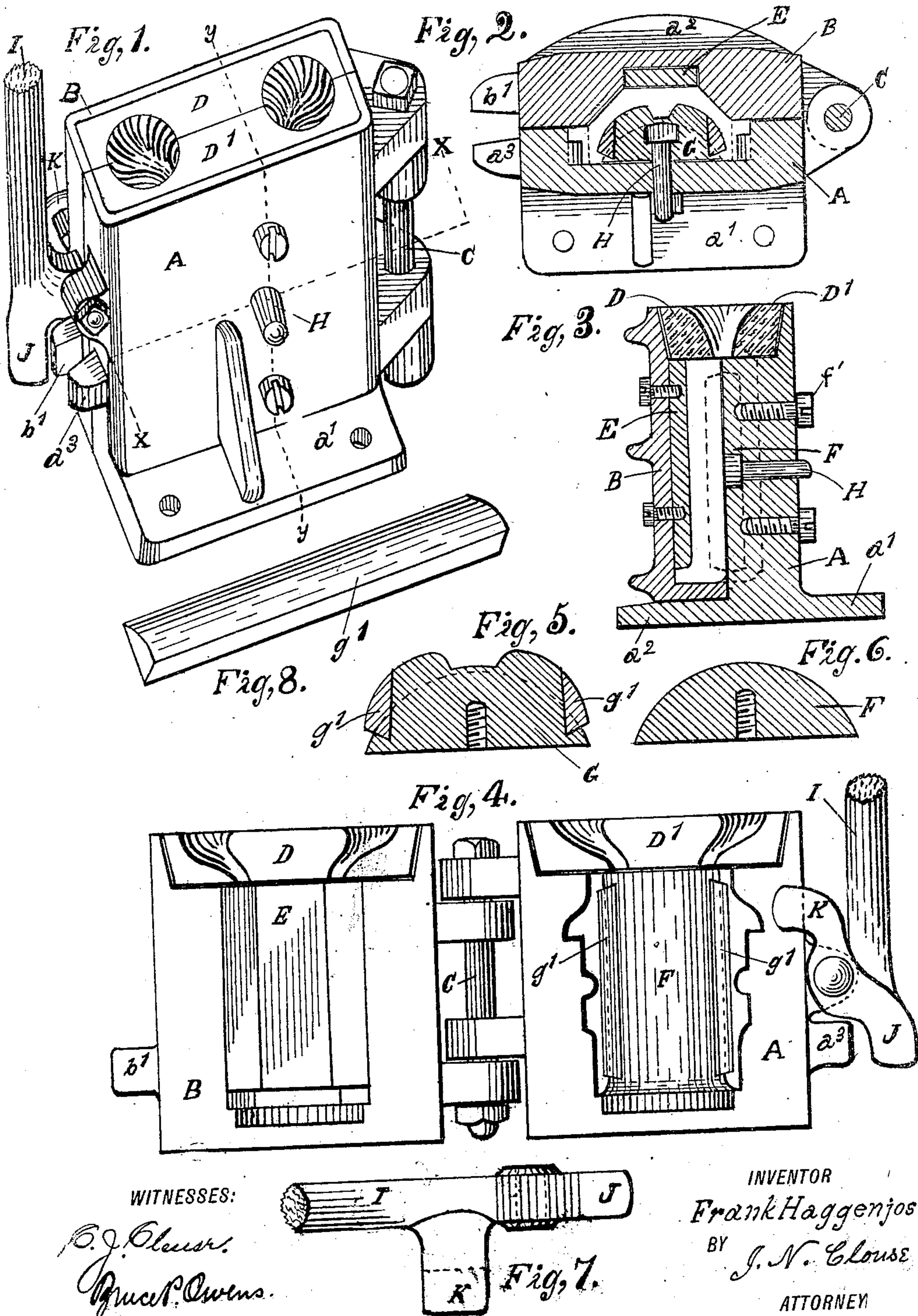


No. 816,315.

PATENTED MAR. 27, 1906.

F. HAGGENJOS.  
METAL MOLD FOR MAKING BRASS CASTINGS.  
APPLICATION FILED AUG. 31, 1905.



WITNESSES:

B. J. Clouse.  
G. P. Owens.

INVENTOR  
Frank Haggenjos  
BY J. N. Clouse  
ATTORNEY



# UNITED STATES PATENT OFFICE.

FRANK HAGGENJOS, OF ST. LOUIS, MISSOURI.

METAL MOLD FOR MAKING BRASS CASTINGS.

No. 818,315.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed August 31, 1905. Serial No. 276,637.

*To all whom it may concern:*

Be it known that I, FRANK HAGGENJOS, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Metal Molds for Making Brass Castings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in metal molds for making brass castings or railroad car and engine journal bearings; and the objects of my improvements are to perfect certain defective molds in use and to add new, desirable, and valuable features to facilitate the manipulation of the molds; to lessen the cost of the castings made in them, and to save coke or oil, labor, and metal and the useless waste and melting of the metal for the same in gates and sinkers and avoiding grinding. These herein specified and claimed improvements are on Patent No. 726,523, dated April 28, 1903, the invention of Frank J. Friese and John E. Gilbert, both of St. Louis, Missouri. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the mold complete with improvements. Fig. 2 is a horizontal cross-section of Fig. 1, taken on the broken line *xx*. Fig. 3 is a vertical longitudinal section of Fig. 1, taken on the broken line *yy*. Fig. 4 is an inside face view of the mold opened. Fig. 5 is an enlarged cross-section of the removable internal extension for making shell-boxes. Fig. 6 is an enlarged cross-section of the removable internal extension for making solid boxes. Fig. 7 is an enlarged detail view of the compound locking and opening lever. Fig. 8 is an enlarged perspective view of one of the shell babbitt strips.

In all of the views like letters and figures refer to like parts.

Referring to the drawings, it is readily seen that the general construction of the invention in its several views is that of the patent referred to above—namely, the two parts A and B, forming the cope and drag of the mold, hinged together so as to work as specified, the location of the part-line of the mold-cav-

ity, the arrangement of the mold in an upright position with a base-plate *a'* to bolt it to a bench, the removable back plate E, the drift-pin H for knocking the casting out of the mold, all being features of the patent referred to above. Further, it is readily seen that I have made several changes, as follows: Have taken off the vertical side gate-opening, with its four branch openings into the mold-cavity, also taken off the sinker 19 on the top of the mold, discarded the clamp shown in Fig. 6, and made parts loose and changeable that were solid. Further, I have added the following new features, such as chambering out the tops of the two mold-sections and inserting loose plugs or cores D D', made of iron, hard sand, or composition. These plugs or cores are provided with two gate-openings into the internal cavity of the mold and form the upper end surface of the mold-cavity and may be made in two parts or solid in one piece, and the molten metal may be poured either in one or both of these said gate-openings, thus allowing easy escape for the gas from the mold-cavity and providing ample gate and sinker capacity to hold up the shrinkage of the casting and at the same time saving the melting of more than two-thirds of the gate metal at each casting and obtaining a more perfect casting. Inside of the mold on the drag side of the mold the convex portion of the mold, which forms the concave bearing side of the casting, is made loose and secured to the body part of the mold A by screws *f'*, as is shown in enlarged cross-section, Fig. 6, which removable piece is marked F. When this piece F is removed, a three-part extension-piece G and *g' g'*, Fig. 5, is also secured in its place by screws *f'* from the outside, as shown in Figs. 1 and 3. This piece extends farther into the cavity of the mold and forms the chambers for the Babbitt metal in what is called a "shell-bearing." The loose strips *g' g'*, forming the side holds for the babbitt, go out with the castings and are replaced in their seatings in the removable block G. Said loose babbitt strip *g'* is shown in enlarged perspective view, Fig. 8. This construction makes it possible to make both solid and shell bearings in the same mold by changing these parts. On the exterior of the mold a compound lever I is pivoted to the drag-section A of the mold. The lower end of this lever is provided with an arm J, which is forced by the motion of the lever between the two lugs *b'* and *a'* and



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opens the mold; also the side of the lever is provided with a hook-arm K, (see Fig. 7,) which passes by the motion of the lever over the cope side B of the mold and locks the two sections together. Thus the locking and the opening of the mold is done by the action of the one lever, which saves time in the manipulation of the mold. Thus I have shown the new features and their advantages as separate from the old. I therefore do not claim this construction broadly; but

What I do claim as new, and desire to secure by Letters Patent, is—

In a metal mold for making car-bearing castings, the two sections of the mold hinged together, in combination with an inserted gate-block of hard sand forming the end of

the casting-cavity, said block having gate-openings through it to the interior of the mold, and internal loose undercut strips on the convex bearing side of the mold-cavity which form inward projections on the casting, and externally a double-acting lever hinged to the edge of one of the sections said lever having an angular arm to hold the two sections together and a straight arm to force the two sections of the mold apart, substantially as shown and described.

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

FRANK HAGGENJOS.

Witnesses:

BRUCE P. OWENS,  
A. SCHREIBER.