No. 848,098. PATENTED MAR. 26, 1907.

H. GEE.

PILE DRIVER.

APPLICATION FILED NOV. 24, 1906.

Fig. 1.

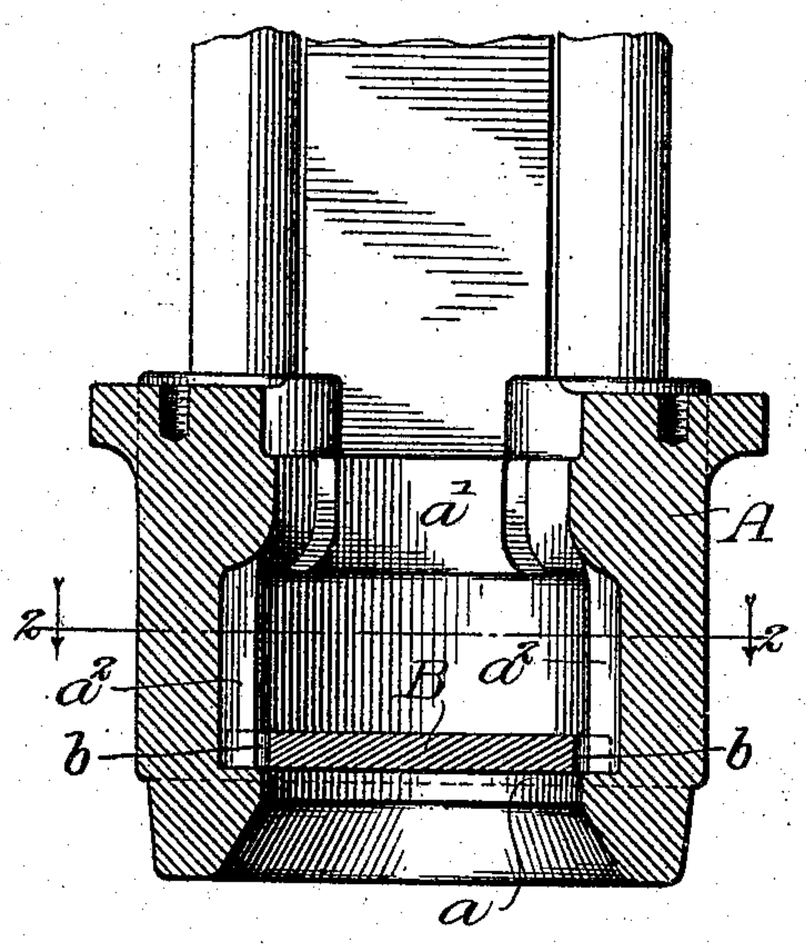


Fig. 3.

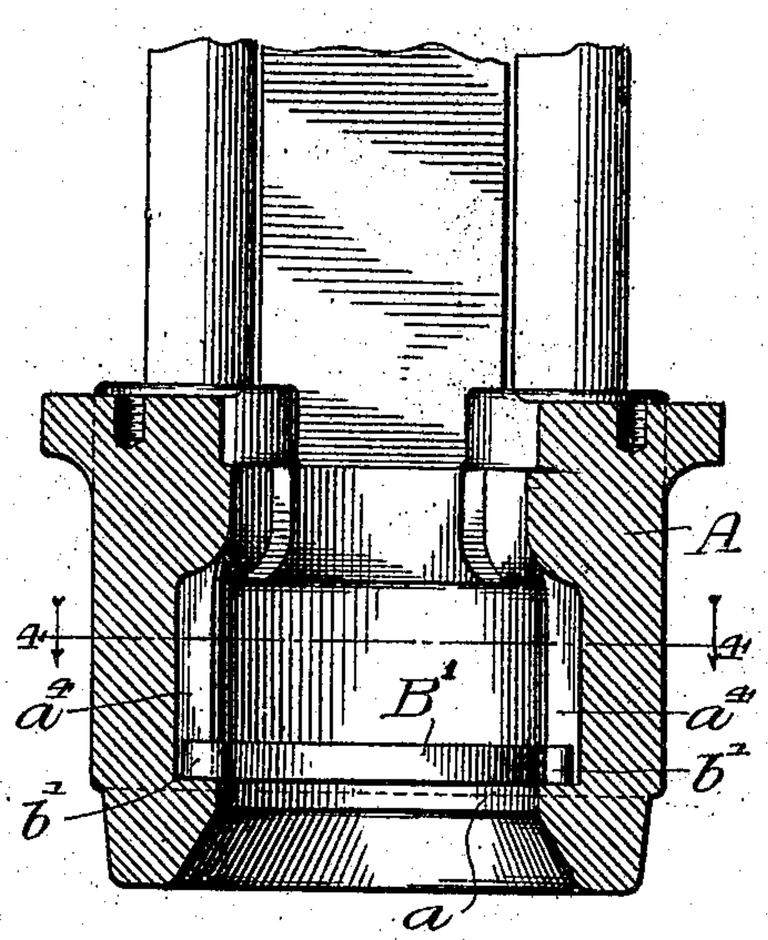


Fig. 2.

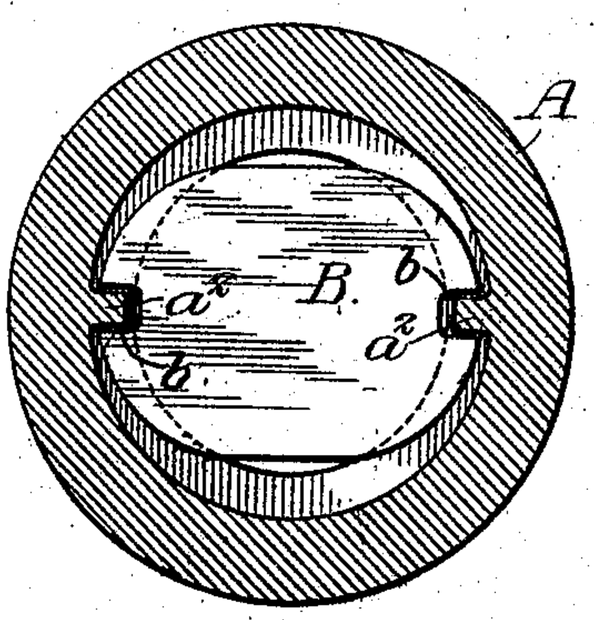
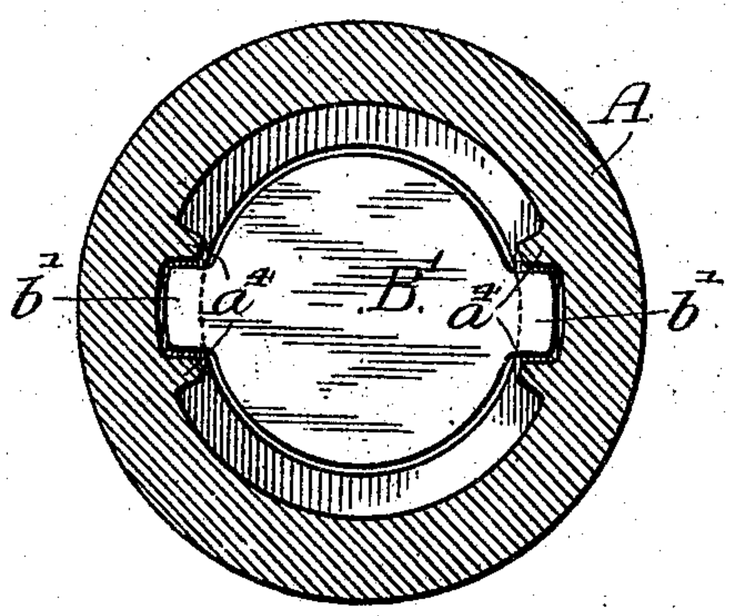


Fig. 4.



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UNITED STATES PATENT OFFICE.

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PILE-DRIVER.

No. 848,098. Specification of Letters Patent. Patented March 26, 1907.

Application filed November 24, 1906. Serial No. 344,805.

To all whom it may concern:

Be it known that I, HAROLD GEE, a citizen of the United States, residing at Kenilworth, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pile-Drivers, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The present invention has for its object to provide an improved construction of follower-head for pile-driving machines; and one object of the invention is to enable the follower-head to be made without the necessity of openings in its walls to admit the drift or impact plate, thereby materially lessening the cost and improving the operation and durability of the follower-head.

The invention consists in the features of novelty hereinafter described, illustrated in the accompanying drawing, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a view in central vertical section through the follower-head of a pile-driving machine embodying my invention. Fig. 2 is a view in horizontal section on line 2 2 of Fig. 1. Fig. 3 is a view similar to Fig. 1, but showing a modified form of the invention. Fig. 4 is a view in cross-section on line 4 4 of Fig. 3.

A designates the follower-head, which may be of the usual or any suitable construction, this follower-head being preferably formed of cast metal. The follower-head A is formed with an open-ended chamber, adjacent the lower portion of which is the interior annular flange or projection a and adjacent the upper portion of which is formed the interior flange or projection a', the purpose of these upper and lower flanges or projections a and a' being to retain in position the drift or impact plate B. The characteristic feature of my present invention is that the drift or impact plate B is formed wider in one direction than the open end of the follower-head, but is narrower in another direction than said opening, so that the drift or impact plate may be inserted into the opening and when turned to horizontal position will be prevented from passing from the chamber of the follower-head by the flanges or projections adjacent the top and bottom thereof. In the construction shown in Figs. 1 and 2 of the drawing the drift or impact plate B is shown as of oblong shape, and the narrower diameter is slightly less than the diameter of one of the openings (preferably the bottom opening) of the follower-head A. This construction enables the drift or impact plate B when turned to an approximately vertical position to be inserted through the lower end of the follower-head and into the chamber thereof, after which the plate B will be turned to the horizontal position shown in the drawing.

Preferably the plate B is formed with diametrically opposite slots b, that receive vertical ribs or projections a^2, formed upon the interior of the follower-head A, these ribs or projections a^2 serving to guide the plate B and aid in preventing its displacement.

In practice the upper beveled end of the pile will be inserted within the lower end of the follower-head and will lift the impact-plate B somewhat above the lower annular flange or projection a, as will be readily understood by those familiar with the operation of pile-driving machines.

In the form of the invention illustrated in Figs. 3 and 4 of the drawing the impact-plate B′ is shown as formed with lateral extensions b', which serve to give to the impact-plate a diameter or width in one direction greater than the opening through which it will be inserted into the chamber of the follower-head. In this form of the invention, as in that above described, the lower and upper portions of the follower-head are provided, respectively, with projections or flanges a and a', and the interior of the follower-head is formed with a plurality of vertical ribs a^4, between each pair of which ribs a^4 the projecting portions b' of the impact-plate will be guided.

It is manifest that the precise details of construction above set out may be varied without departure from the scope of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A pile-driving machine comprising a chambered, open-ended head having materially-contracted end openings and a drift or impact plate that is wider in one direction than the width of one of said end openings, but is narrower in another direction than the

width of said opening to permit the plate to pass through said opening and into the chamber of the follower-head.

2. A pile-driving machine comprising a chambered, open-ended head having materially-contracted end openings and having one or more guide-ribs upon its interior and a drift-plate within the chamber of said follower-head and engaging the guide rib or ribs upon the interior of the follower-head.

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