April 14, 1925. 1,533,897

J. W. POTTS

WELL DRIVER

Filed March 29, 1923

FIG. 1.

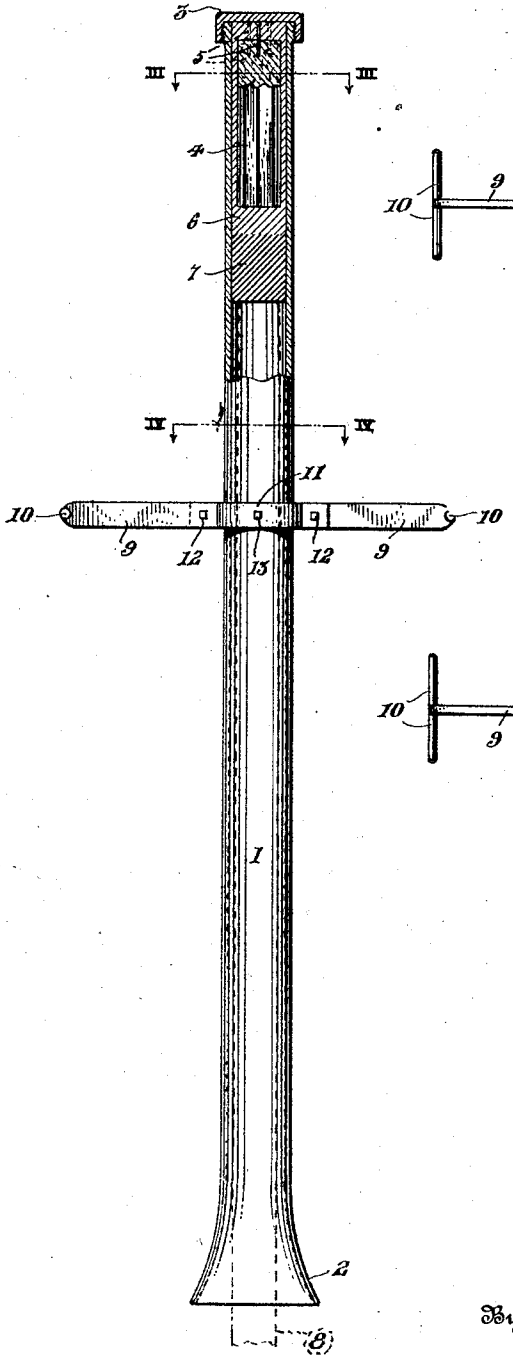


FIG. 2.

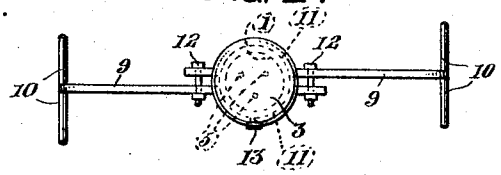


FIG. 3.

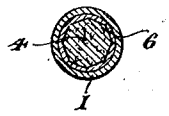


FIG. 4.

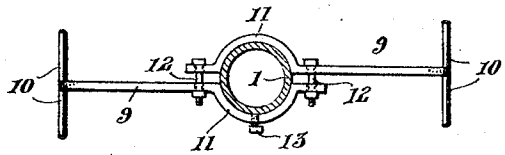
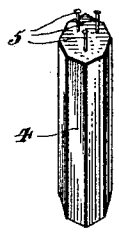


FIG. 5.



Inventor
J. W. Potts

By

Attorney

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UNITED STATES PATENT OFFICE.

JAMES W. POTTS, OF GUNNISON, MISSISSIPPI.

WELL DRIVER.

Application filed March 29, 1923. Serial No. 628,661.

To all whom it may concern:

Be it known that I, JAMES W. POTTS, a citizen of the United States of America, residing at Gunnison, in the county of Bolivar and State of Mississippi, have invented certain new and useful Improvements in Well Drivers, of which the following is a specification.

This invention relates to certain new and useful improvements in well drivers and has particular reference to an implement or device to accomplish the sinking of a pipe in the ground during the sinking of a well.

The primary object of the invention is to provide a well driver having a weighted head constructed in a manner to effectively withstand percussive force during use thereof, eliminating spreading and splitting of the driver head and protecting the upper end of the pipe that is being driven.

Another object of the invention is to provide a metal filling for the head of the driver having a wooden block embedded therein that tends to overcome the destructive action caused by striking the head of the driver during the sinking of a well, the metal filling having a lower section of Babbitt metal that contacts the pipe being sunk and offering the least injury thereto.

With the above general objects in view and others that will appear as the nature of the invention is better understood the same consists of the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the accompanying drawings, wherein like reference characters designate corresponding parts throughout the several views,

Fig. 1 is a side elevational view of a well driver constructed in accordance with the present invention, the same being partly broken away and shown in section to illustrate the construction of the striking head thereof,

Fig. 2 is a top plan view,

Fig. 3 is a cross sectional view taken on line III—III of Fig. 1 showing the wooden block insert and the metal filling enclosing the same,

Fig. 4 is a cross sectional view taken on line IV—IV of Fig. 1 showing the manner of attaching the handles to the driver, and

Fig. 5 is a perspective view of the wooden block insert for the striking head.

The driver includes a relatively long pipe section 1, preferably five feet in length and three inches in diameter, although the invention is not intended to be restricted to these measurements, the lower end thereof being outwardly flared in bell-shape as at 2, while the upper end is externally threaded to receive a screw cap 3.

The upper head or striking end of the driver pipe 1 has a metallic insert in which a wooden block is embedded, the wooden block 4 being substantially of the proportions illustrated in Figs. 1 and 5 and of octagonal formation with a plurality of nails or spikes 5 driven in one end thereof. In forming the metallic head for the driver, the pipe 1 is inverted and the wooden block 4 inserted therein with the outer ends of the nails 5 engaging the inner face of the cap 3 spacing the outer end of the block from the cap while the flat surfaces of the octagonal block permit a free flow of molten metal thereabout. With the block 4 so positioned, molten lead, preferably ten pounds thereof are poured into the pipe 1 and designated by the reference numeral 6, the lead completely enclosing the block and filling the space between the outer end of the block and the cap 3 and further forming a layer overlying the inner end of the block as shown in Fig. 1. Babbitt metal, approximately four pounds thereof, is then poured into the pipe section 1 as indicated at 7 and fuses with the lead filling 6 to form the inner striking face of the head that contacts the upper end of the pipe 8, illustrated by dotted lines in Fig. 1 that is being sunk.

Handles for the driver are shown in Figs. 1, 2, and 4, laterally extending handle bars 9, each carrying a cross hand grip 10 upon the outer end thereof, and having a curved portion 11 at its inner end with the curved portions 11 engaging opposite sides of the pipe as shown in Fig. 4 and bolted together as at 12, a set screw 13 passing through one of the curved portions 11 and engaging the pipe for further anchoring the handles in position thereon.

In the use of the driver, the handles 11 are employed for centering the driver pipe 1 upon the pipe section 8 that is being sunk, and the upper end of the pipe 8 is engaged by the striking face 7 of Babbitt metal. By percussively striking the cap 3 at the upper end of the driver, the pipe 8 is lowered or sunk in a step by step movement, the damaging effects of the striking force

being greatly reduced by the cushioning properties of the metallic insert offered by the wooden block 4 and the lead and Babbit filling, thereby protecting the head of the driver and the upper end of the pipe 8.

While there is herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

Having thus described the invention, I claim:

1. In a well driver of the type described, a pipe section, handle bars carried thereby, a metallic insert at the upper striking end of the pipe section, and a wooden block embedded in the metallic insert.

2. In a well driver of the type described, a pipe section, handle bars carried thereby, a metallic insert at the upper striking end of the pipe section, and a wooden block embedded in the metallic insert and having means for spacing the upper end thereof from the pipe cap.

3. In a well driver of the type described, a pipe section, handle bars carried thereby, a metallic insert at the upper striking end of the pipe section, a wooden block embedded in the metallic insert, and a plurality of nails projecting from the upper end of the block for spacing said end from the pipe cap to permit the flow of molten metal of the insert to completely enclose the block.

4. In a well driver of the type described, a pipe section, handle bars carried thereby, a metallic insert at the upper striking end of the pipe section, a wooden block embedded in the metallic insert, and a plurality of nails projecting from the upper end of the block for spacing said end from the pipe cap to permit the flow of molten metal of the insert to completely enclose the block, and said metal insert including a body of lead disposed at the upper end of the pipe and completely enclosing the block with a lower layer of Babbitt metal.

5. In a well driver of the type described, a pipe section having a flared lower end, a metallic cap threadedly connected to the upper end of said pipe for closing the same, an insert of soft metal within said pipe engaging said cap, and a wooden block embedded in said soft metal.

In testimony whereof I affix my signature.

JAMES W. POTTS.