H. H. MADDREN.

DRIVING RING FOR WELL CASINGS.

APPLICATION FILED MAY 3, 1912.

1,059,624. Patented Apr. 22, 1913.

FIG. 1

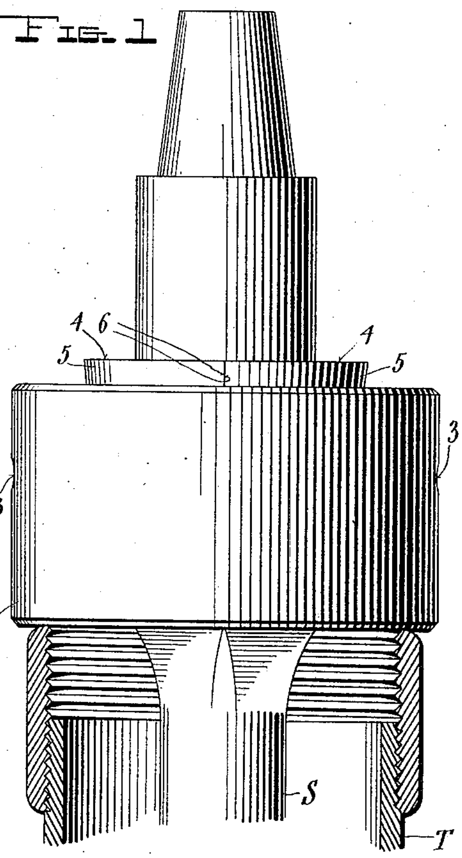


FIG. 2

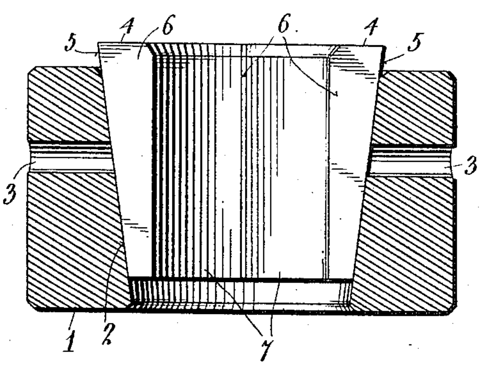


FIG. 3

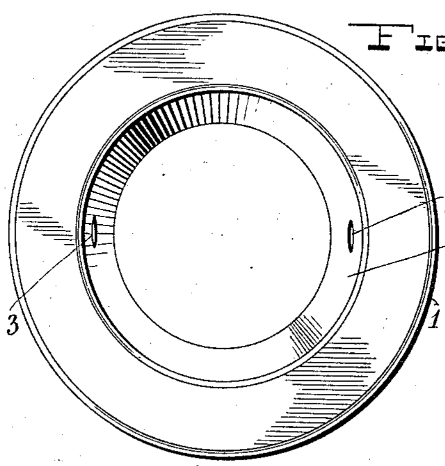
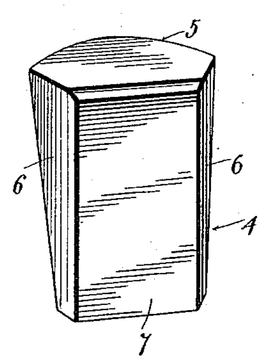


FIG. 4



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DRIVING-RING FOR WELL-CASINGS.

1,059,624. Specification of Letters Patent. Patented Apr. 22, 1913.

Application filed May 3, 1912. Serial No. 694,907.

To all whom it may concern:

Be it known that I, HAROLD H. MADDREN, a citizen of the United States, residing at Maricopa, in the county of Kern, State of California, have invented certain new and useful Improvements in Driving-Rings for Well-Casings; and I do hereby 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.

The present invention relates to certain novel and useful improvements in a driving ring designed especially to be employed in connection with drive pipes and casings of oil, water and other wells.

In the present instance it is my intention to provide a driving ring which may be employed as a substitute for the drive clamps now commonly employed for driving the casing. As is well known, the ordinary clamps are bolted together, with result that it frequently happens that the heads of the bolts are broken off under the impact of the blows administered by the driving apparatus, and the threads frequently become upset. In either event it is necessary to repair the clamp either by rethreading, or by employing entirely new bolts, such procedure involving more or less trouble expense and delay.

It is therefore my purpose to provide a ring which will obviate the objections above mentioned as incident to the use of the ordinary drive clamp.

It is also my aim to provide a drive ring which will embrace the desired features of compactness and durability and strength, coupled with convenience and efficiency, and which ring is so constructed that the harder it is driven the tighter it will hold, yet such ring may be readily removed when desired.

With the above recited objects and others of a similar nature in view my invention consists in the construction, combination and arrangement of parts set forth in and falling within the scope of the appended claims.

In the accompanying drawings like characters of reference indicate like parts in all the views, and Figure 1 is a view partly in elevation and partly in vertical section, showing the application of my invention. Fig. 2 is a vertical sectional view taken through the ring. Fig. 3 is a top plan view of the drive ring. Fig. 4 is a detail perspective view of one of the segmental clamping members.

Referring now to the accompanying drawings in detail the letter S designates the drill stem which is of an ordinary and well known construction which is adapted to be positioned in the driving ring as is shown in Fig. 1. This driving ring which forms the essential feature of my invention comprises the annular member 1, which is preferably of forged steel, though not necessarily so, the inner face of said ring being inclined downwardly and inwardly as shown at 2, so that the ring is provided with a tapered bore. The body of the ring is further provided with horizontally disposed channels or bores 3 for the reception of a pin or other means by which the head or ring is raised from the tube by the withdrawal of the drill prior to the addition of a new section of tubing. In the present case the tubing for the well is indicated at T. In order to clamp the ring to the drill stem I provide a series of segmental clamping members 4 each of which, as will be seen by reference to Fig. 4 is formed with a tapered curved outer face 5, inwardly beveled side edges 6, and an inner straight vertical face 7 so that when the segments are assembled as shown in Figs. 1 and 3 they will form a clamping member having a bore conforming to the shape of the drill stem, and a tapered circumferential outer wall conforming to the taper of the bore of the ring 1.

From the above description taken in connection with the accompanying drawings the construction and manner of employing my invention will be readily apparent to those skilled in the art. In use the drill stem is secured in the ring as indicated and the ring which is designed to bear upon the edge of the casing acts as a drive head in the well known manner.

What is claimed is:

1. A driving ring for well casings comprising an annular member having its bottom face constituting a circular casing-striking portion, said member being provided with a tapered bore, and a series of clamping members adapted to fit within the bore to bind the ring on a drill stem.

2. A driving ring for well casing comprising an annular member having its bot-

tom face constituting a circular casing-striking portion, said member being provided with an inwardly tapered bore and having transverse bores communicating with the inwardly tapered bore, and a plurality of segmental clamping members having the outer faces thereof shaped to conform to the bore of the annular member, the inner faces of said clamping members being adapted to bear against a drill stem to bind the driving ring on said stem.

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

HAROLD H. MADDREN.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."