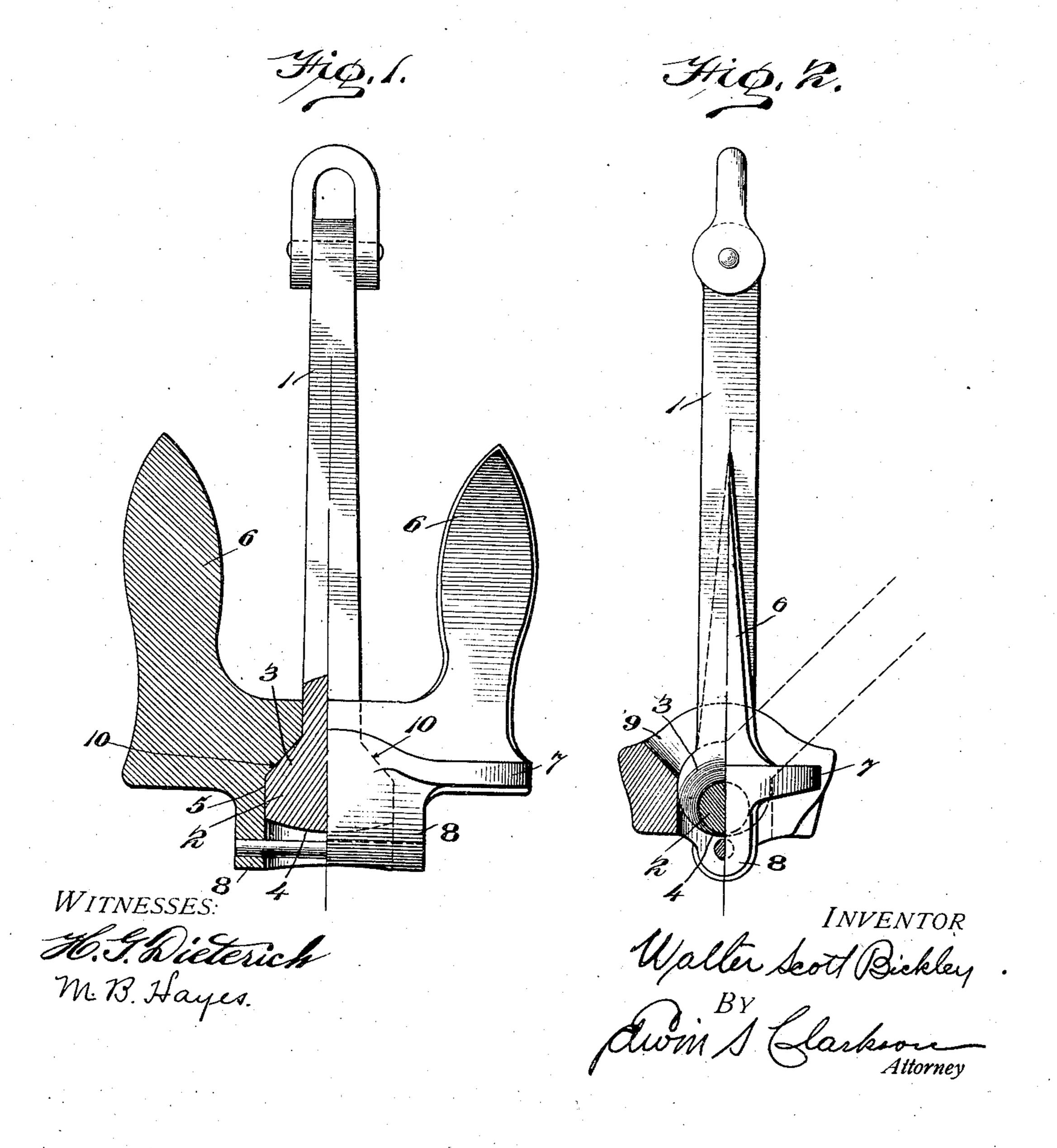
W. S. BICKLEY.
STOCKLESS ANCHOR.
APPLICATION FILED OCT. 6, 1904.

928,895.

Patented July 20, 1909.



## UNITED STATES PATENT OFFICE.

WALTER S. BICKLEY, OF CHESTER, PENNSYLVANIA, ASSIGNOR TO BALDT ANCHOR COM-PANY, A CORPORATION OF NEW JERSEY.

## STOCKLESS ANCHOR.

No. 928,895.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed October 6, 1904. Serial No. 227,417.

To all whom it may concern:

Be it known that I, Walter Scott Bick-Ley, citizen of the United States, residing at Chester, in the county of Delaware and 5 State of Pennsylvania, have invented certain new and useful Improvements in Stockless Anchors, of which the following is a specification.

My invention relates to stockless anchors and resides in an anchor of that type which can be readily made of cast steel, with a minimum of machine operations, and with a coöperation between shank and crown which is both cheap in construction and of great strength.

My invention resides in the features hereinafter described and pointed out in the

claims.

For an illustration of my invention, ref-20 èrence may be had to the accompanying drawing, in which:

Figure 1 is a front elevation, partly in section. Fig. 2 is a side elevation, partly in section.

The shank 1 has at its lower end the integral head 2 having the beveled or conical portion 3, 4 being the lower face of the head, and 5 the vertical sides.

The flukes 6 are cast integral with the 30 crown 7, the crown being provided with integral downwardly extending lugs 8, 8. An elongated transverse opening 9 on the fluke side of the crown permits the shank 1 to swing from side to side with respect to 35 the crown, as will appear from Fig. 2.

In the bottom or under side of the crown, there is formed a cavity between the lugs 8, said cavity communicating with the transverse opening 9, and provided with inclined or conical walls 10 to form a bearing for the portion 3 of the shank head. The socket cavity thus extends entirely through the crown and has a wide mouthed opening at the underside of the crown.

The shank is slipped in from the bottom through the cavity between the lugs 8 and up through the crown to the position shown in the drawings. A bolt or pin is then passed through the lugs 8 and secured, thus

preventing the shank from separating from 50 the crown.

From the construction above described, it is apparent that the anchor is made by separately casting the shank and crown, the latter with the integral flukes, and then assem- 55 bling, the construction being at once cheap and of great strength. And the cavity between the lugs 8 is always open below the head of the shank, causing the same when in use to be always washed or cleaned out, thus 60 preventing an accumulation of grit or other material which would work into the cavity and clog the anchor if such cavity were closed.

What I claim is:

1. A stockless anchor comprising the combination with a single crown piece having integral flukes, of a shank, a head thereon, the upper portion of said head having conical bearing surfaces, a socket in said crown 70 piece, the fluke side of said socket being conical to receive said conical bearing surfaces on said head, a permanently open cavity communicating with said socket, an opening from said socket to the fluke side of 75 said crown piece to receive said shank, and means in said permanently open cavity for preventing said shank from separating from said crown piece.

2. A stockless anchor comprising the combination with a single crown piece having integral flukes, of a shank, a conical head thereon, a cavity extending entirely through said crown and having a wide mouthed opening at the underside of said crown, the 85 bottom of said cavity formed by conical surfaces adapted to receive said conical head, whereby said head bears directly upon said crown piece and whereby the parts are open to the sea, and means for preventing said 90 shank from separating from said crown piece.

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

WALTER S. BICKLEY.

Witnesses:

EDWIN S. CLARKSON, NORRIS D. POWELL.