No. 640,360. Patented Jan. 2, 1900.

W. McBRIDE.

FOLDING ANCHOR.

(Application filed July 1, 1899.)

(No Model.)

Fig. 1.

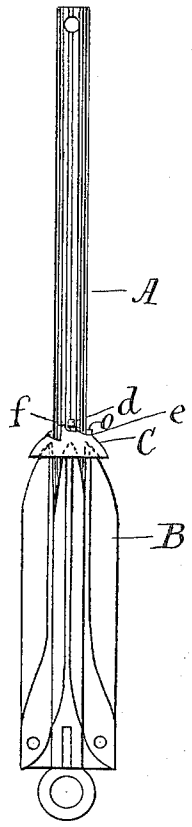


Fig. 2.

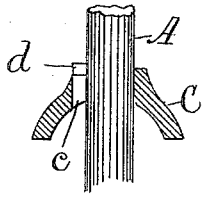


Fig. 3.

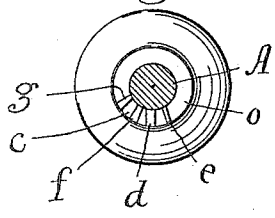
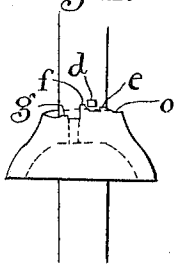


Fig. 4.



Witnesses:,

John T. Estes

L. M. Godfrey

Inventor:

William McBride

by S. M. Bates.

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM McBRIDE, OF PORTLAND, MAINE.

FOLDING ANCHOR.

SPECIFICATION forming part of Letters Patent No. 640,360, dated January 2, 1900.

Application filed July 1, 1899. Serial No. 722,515. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McBRIDE, a citizen of the United States of America, and a resident of Portland, Cumberland county, State of Maine, have invented certain new and useful Improvements in Folding Anchors, of which the following is a specification.

My invention relates to a folding anchor of that class having a cup-shaped ring adapted to slide on the shaft, the recess in the under side of said ring serving to confine the ends of the pivoted arms to hold them against the shank and the ring also serving when in its lower position to hold the arms open. These rings have commonly been secured by means of a key inserted in a hole in the shank above the ring; and my invention has for its object to do away with the key, which is liable to be lost, and to substitute therefor a simple and effective construction by which the ring may be secured in position without the use of a loose key.

I illustrate my invention by means of the accompanying drawings, in which—

Figure 1 is a side elevation of the anchor in its folded position. Fig. 2 is a longitudinal section through the cup-shaped fastening-ring. Fig. 3 is a top or plan view of the fastening-ring with the shank in section, and Fig. 4 is a side elevation of the ring in its locked position.

A represents the shank of the anchor, and B are the folding arms, four in number as here shown. The arms are held in place against the shank by an inverted-cup-shaped ring C, having a recess on its under side adapted to receive and retain the ends of the arms when they are folded against the shank. The ring C is secured in position by a pin *d*, which projects from the side of the shank adjacent to its upper surface when the ring is in its normal position over the ends of the arms.

In order to permit the ring to slide down over the pin, I form a longitudinal slot *c* adjacent to the shank.

The upper surface *o* of the ring, on one side of the slot, is considerably below the level of the pin when the ring is fitting over the ends of the arms, and a raised projection *g* is formed at that point to assist in checking any tendency of the ring to turn so that the pin will come opposite the slot *c* and so be in a position to slide up and unlock. It is chiefly locked in position and prevented from turning by two upward-extending projections *f* and *e* on its upper surface, the former being on the side of the slot *c* opposite to the projection *g* and projecting high enough so that the pin *d* will impinge against it when the ring is turned. The projection *e* is something more than the width of the pin *d* from the projection *f* as here shown, and it is just on a level with the lower surface of the pin, so that when the ring is turned it will just pass under the pin with a close fit. The upper surface of the ring slopes spirally upward from the projection *g* to the projection *e*, so that the ring will turn easily until the projection *e* is reached.

The operation of the ring is as follows: The arms being folded up against the shank, the ring is slipped down onto their ends, the pin *d* passing through the slot *c*. The ring is then turned so that the pin passes over the projection *g* and around the ring until the projection *e* is reached, when a little pressure will force it over and into the recess between the projections *f* and *e*, where it will be held until it is released in a similar manner by the application of force applied to turn it back over the projection *e*.

It will be seen that after the pin once gets into the recess between the projections *f* and *e* it will stay there under all ordinary circumstances, because the tendency of the ends of the confined arms is to lift the ring, and so keep the pin in the bottom of the recess. Again, the surface of the projection *e* next the pin is vertical, and before the pin can escape from its recess the ring must be pressed firmly down and then a considerable force applied to turn it on the shank, conditions which would be very unusual in ordinary use.

In case the pin should escape from its locking-recess the projection *g* will have a tendency to check it from coming to a point where the pin will pass through the slot.

It will be understood that a pin similar to the pin *d* is located at the lower end of the shank and that the ring in its lower position holds the arms open in the usual manner.

I claim—

1. The herein-described folding anchor having pivoted arms which are adapted to be folded against the shank, a locking-pin projecting

from said shank above the ends of the arms, a cup-shaped fastening-ring adapted to slide on said shank and having a depression in its under side to receive and retain the ends of the arms and having a longitudinal slot to allow the passage of said pin, a projection or stop *f* on the upper surface of the ring and on one side of said slot adapted to impinge against the pin to keep the ring from turning when in its normal position, a projection *e* adjacent to said projection *f* and adapted to pass closely under the pin, a recess being formed between the projections *e* and *f* in which said pin normally rests, a projection *g* on the other side of said slot below the level of said pin, the surface from the projection *g* to the projection *e* ascending spirally.

2. The herein-described folding anchor having pivoted arms which are adapted to be folded against the shank, a locking-pin projecting from said shank above the ends of the arms, a cup-shaped fastening-ring adapted to slide on said stock and having a depression in its under side to receive and retain the ends of the arms and having a longitudinal slot to allow the passage of said pin, a projection or stop *f* on the upper surface of the ring and on one side of said slot adapted to impinge against the pin to keep the ring from turning when in its normal position, a projection *e* adjacent to said projection *f* and adapted to pass closely under the pin, a recess being formed between the projections *e* and *f* in which said pin normally rests, the upper surface of the ring from the longitudinal slot around to the projection *e* being below the level of the pin.

Signed by me at Portland, Maine, this 15th day of June, 1899.

WILLIAM McBRIDE.

Witnesses:
S. W. BATES,
L. M. GODFREY.