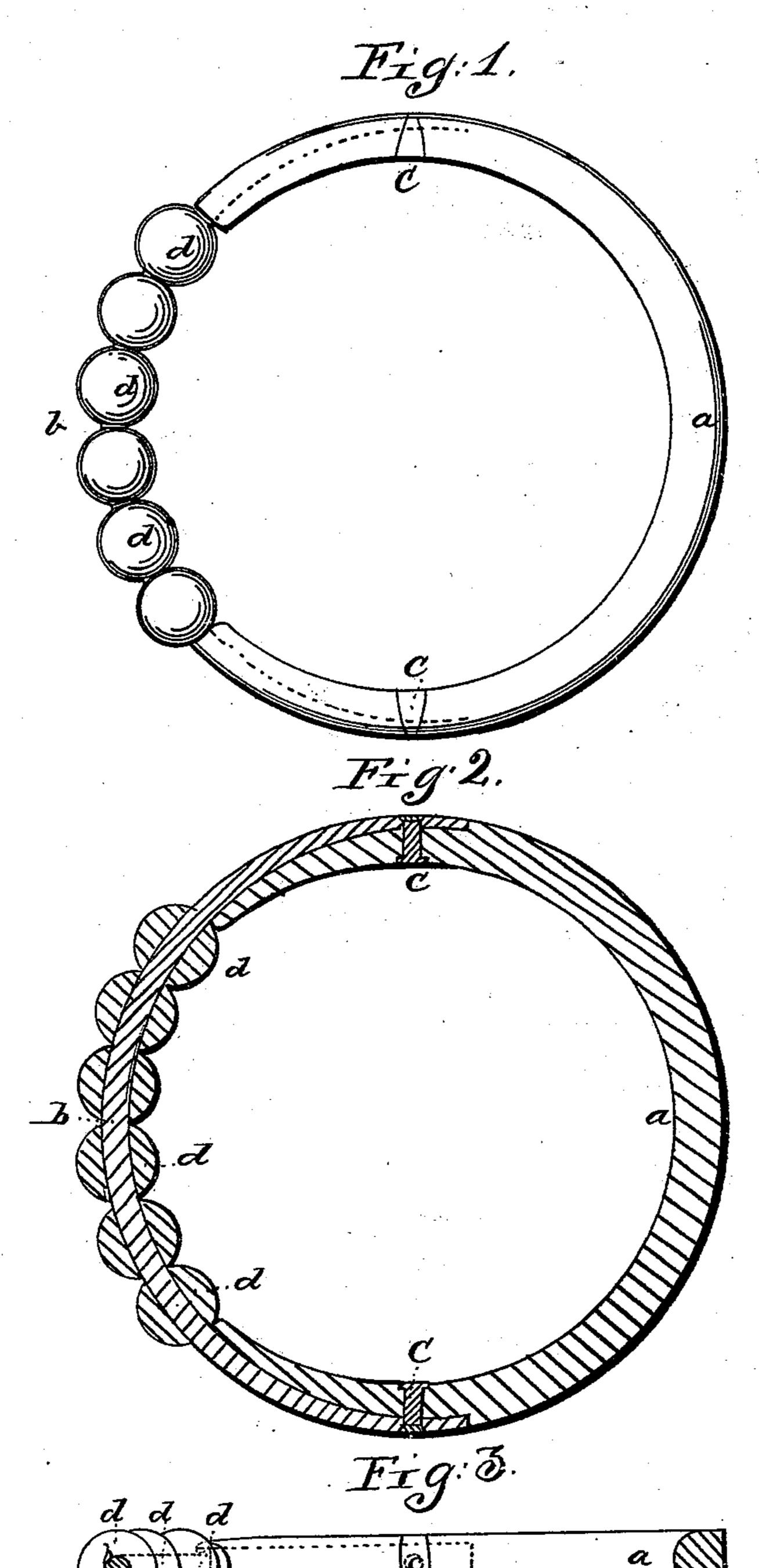
## IV. Il.c. Kay. Il.ast Hoop. Nast Hoop. Patented Dec. 22, 1868.



Witnesses:

S. N. Piper A. P. Wale je Inventor:

Wm.M.C. Kay
by his attorney

Maloring.



## WILLIAM McKAY, OF NEWBURYPORT, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND CHARLES E. BAYLEY, OF SAME PLACE.

Letters Patent No. 85,234, dated December 22, 1868.

## IMPROVEMENT IN MAST-HOOPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, WILLIAM McKay, of Newbury-port, in the county of Essex, and State of Massachusetts, have invented a new and useful Improvement in Mast-Hoops; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view,

Figure 2, a horizontal section, and

Figure 3, a transverse section of a mast-hoop, made in accordance with my invention.

In such drawings, the hoop is shown as composed partly of wood and partly of metal, the wooden portion being exhibited at a, and the metallic part at b.

The metallic part is round or cylindrical in section, where it extends between the two ends of the wooden part, each being a section of an annulus.

The remaining portions or flanks of the said metallic part are broader, and are let or sunk into grooves in the wood, and held to it by riveted clasps c c.

There is strung on that portion of the metallic part b, which is between the ends of the wooden portion, a series of balls, d d d, each of which is to turn loosely and easily on the metallic part b.

A mast-hoop so made is far superior to the common mast-hoop, as it will run freely on the mast, and does not require any greasing of the mast.

In the said hoop the ends of the wooden part operate as shoulders to the series of balls.

I am aware that it is not new to apply a series of

rollers to a line fixed to the crotch of a gaff, and therefore do not claim such.

I am also aware of the patent of Charles Ellis, No. 38,445, for an improved sail-hank, in which two sets of rollers are used, and are arranged one over the other, at the back of the hank. The said hank is closed by locking the ends on one another, as ordinary hanks are closed.

With my mast-hoop the wooden hoop or portion a is closed by a different means, viz, by the metallic part b, which not only forms the continuation of the hoop, but serves as an axle to support the rollers, and for them to run on.

The ends of the part a also serve as shoulders for the set of rollers.

Now this construction of the hoop is different from that of the sail-hank of Ellis, and renders the hoop far stronger and better, as well as neater in appearance.

Therefore I make no claim to a mast-hoop or a sail-hank, as provided with friction-rollers; but

What I claim, as my invention, is—

The improved arrangement, as described and represented, of the parts a b, and the series of friction-rollers d d, the same being productive of an improved manufacture of mast-hoop provided with friction-rollers.

WILLIAM McKAY.

Witnesses:

R. H. Eddy,

F. P. HALE.