H. BROWN.

Nautical Alarm-Bell.

No. 222,622. Patented Dec. 16, 1879.

Fig. 1.

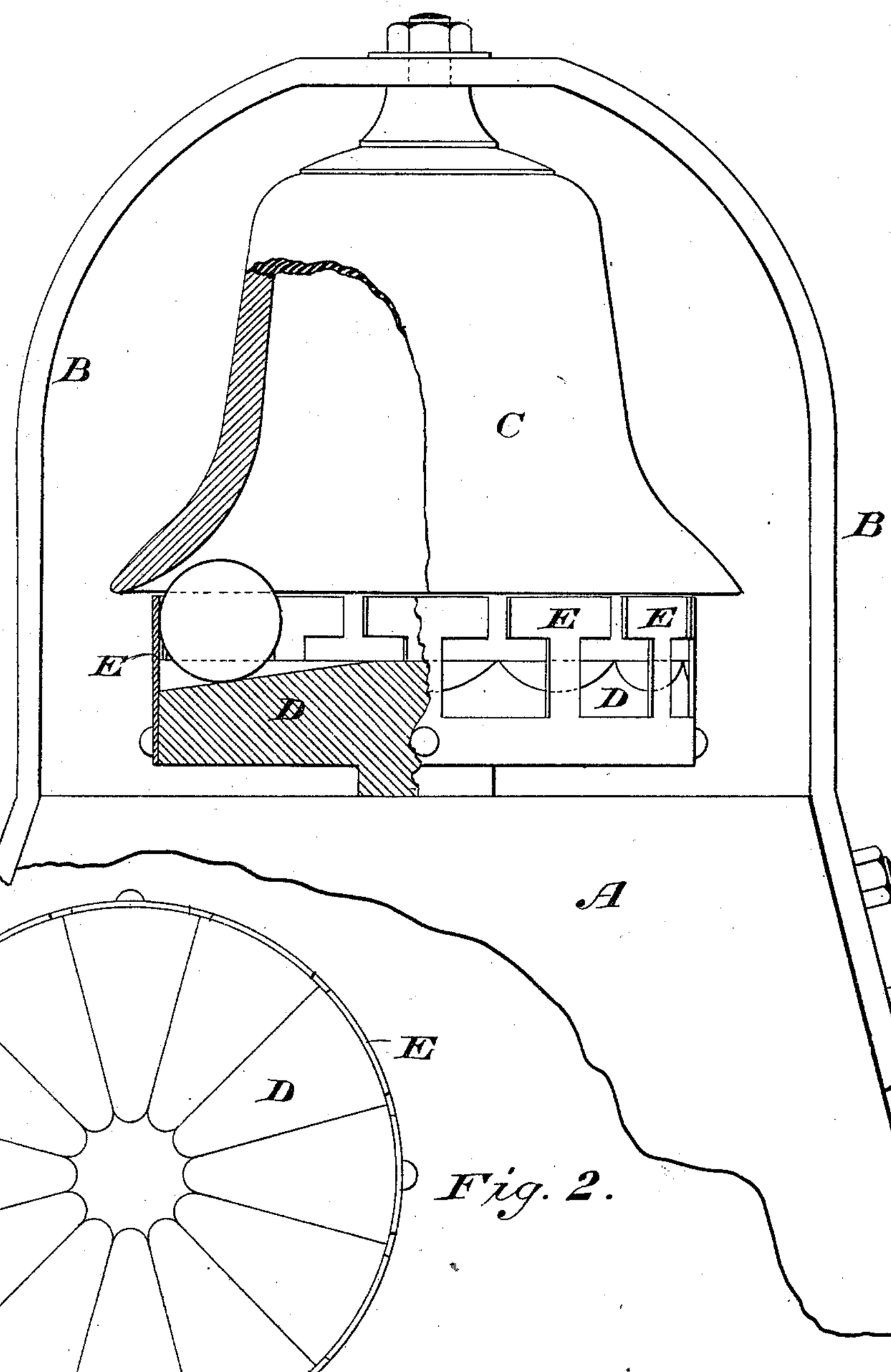

Fig. 2.

WITNESSES

Wm A. Skinkle.

Geo W. Breck.

INVENTOR

Henry. Brown.

By his Attorneys,

Baldwin, Hopkins, & Peyton.

UNITED STATES PATENT OFFICE.

HENRY BROWN, OF CHARLESTON, SOUTH CAROLINA, ASSIGNOR TO HIMSELF AND ALFRED BROTHERHOOD, OF SAME PLACE.

IMPROVEMENT IN NAUTICAL ALARM-BELLS.

Specification forming part of Letters Patent No. **222,622**, dated December 16, 1879; application filed May 21, 1879.

To all whom it may concern:

Be it known that I, HENRY BROWN, of Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Nautical Alarm-Bells on floating buoys at sea or in harbors, of which the following is a specification.

The object of my invention is to produce an automatic bell-ringing device, in connection with a buoy, which shall be operated by the motion of the waves and give warning to mariners of dangerous shoals, or to indicate the course to be taken.

My invention consists in hanging a bell over the top of a floating buoy rigidly in a frame, and providing underneath the bell a radially-grooved disk, which supports a ball in such a position that the motion of the waves will cause it to roll from side to side and strike against the interior of the bell.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation, partly in section, showing a portion of the top of a buoy with my improvements applied. Fig. 2 is a plan view of the radially-grooved disk or table upon which the striking-ball rolls.

A indicates a buoy, which is to be anchored so as to float within a limited space. B indicates the bell frame or support secured to the top of the buoy, and C indicates the bell secured rigidly within the frame by means of a nut, or in any convenient manner. D indicates a circular disk or table supported upon a block or standard on the top of the buoy, and preferably of a diameter something less than the greatest diameter of the bell. This disk is placed slightly below the bottom of the bell, and is grooved radially upon its upper surface, and a heavy metallic ball is placed loosely upon it, so as to roll in the radial grooves back and forth by the tilting or swaying of the buoy under the influence of the waves. The radial grooves prevent the ball from moving in a circular direction, and cause it to strike direct blows against the interior surface of the bell.

I provide springs E around the circumference of the disk, projecting so as to be struck by the ball when coming in contact with the bell and throw it back out of contact with the bell after it has imparted its stroke. These springs should be as numerous as the radial grooves. In the center of the disk there is a flat, circular, plain surface, so that the ball may readily take any direction from the center.

Having thus described my invention, what I claim as new is—

1. The combination, with the bell, of a grooved disk carrying a ball for striking the bell, substantially as described.

2. The combination of the rigidly-suspended bell, the grooved disk, the ball, and the ball-retracting springs, substantially as described.

In testimony whereof I have hereunto subscribed my name.

HENRY BROWN.

Witnesses:

FRED. BROTHERHOOD,

JAMES W. GETTY.