

CHARLES VOLGER.

Improvement in Call-Bells.

No. 116,241.

Patented June 20, 1871.

Fig. 1.

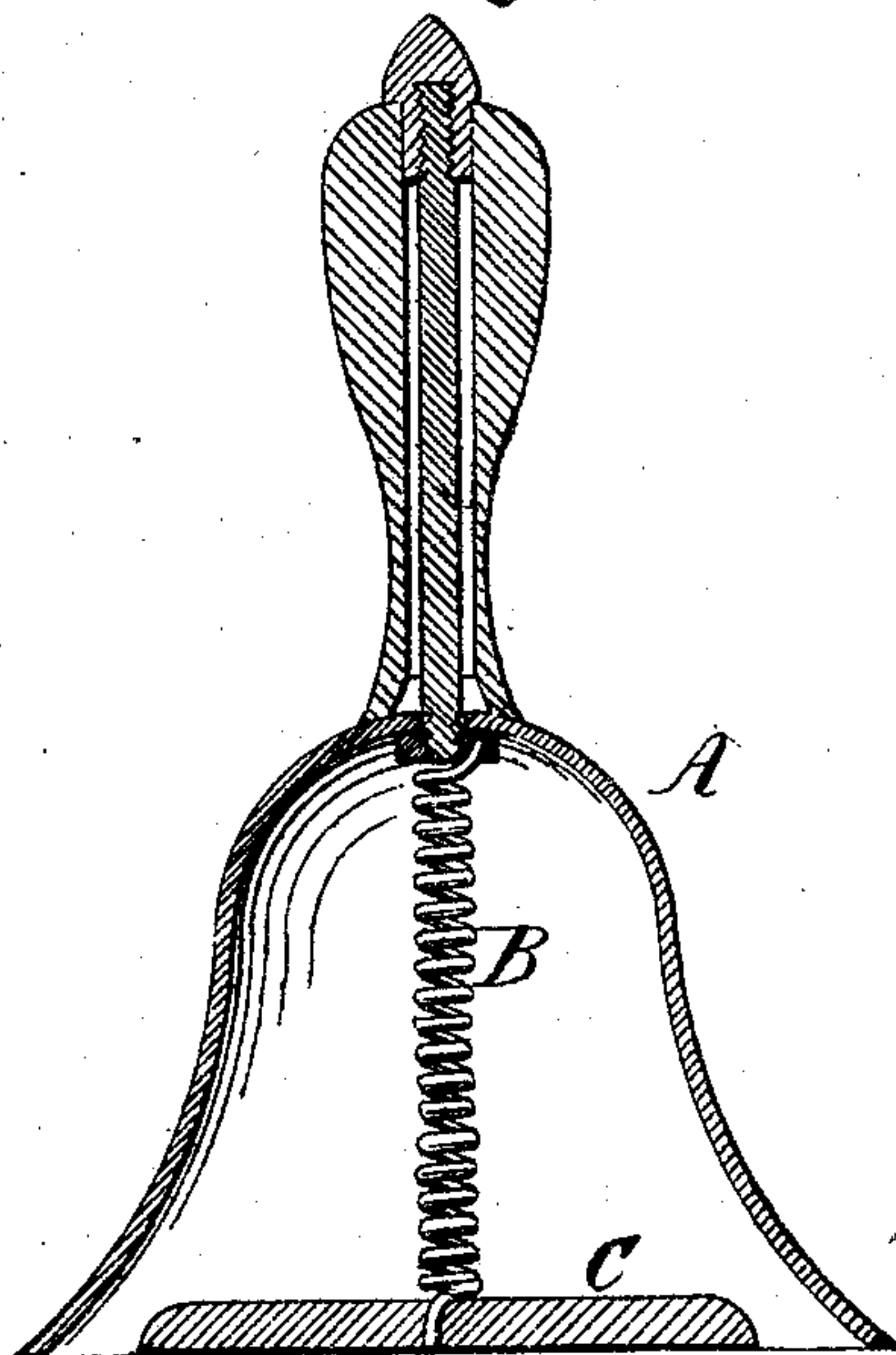
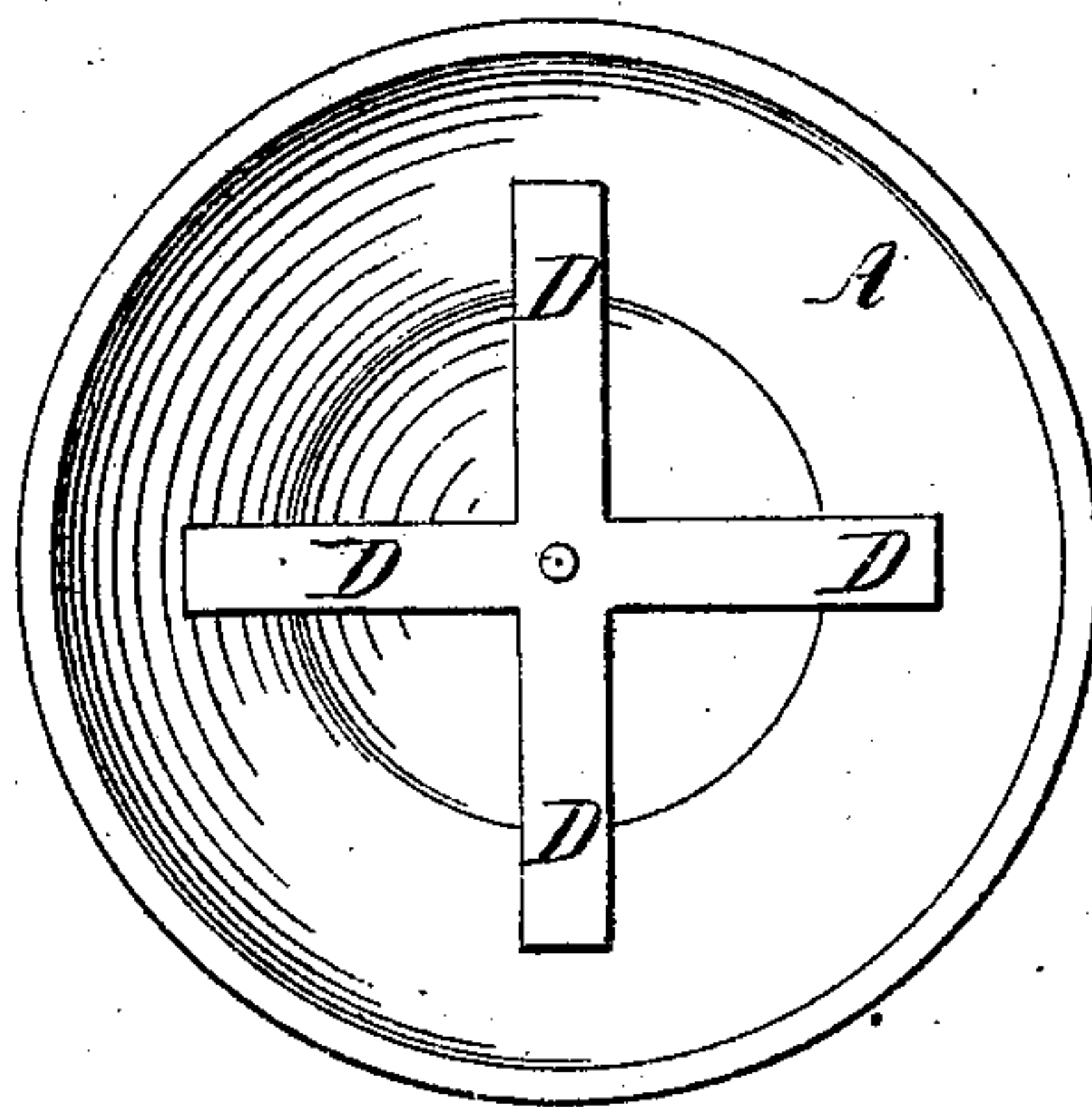


Fig. 2.



Witnesses.

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CHARLES VOLGER, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN CALL-BELLS.

Specification forming part of Letters Patent No. 116,241, dated June 20, 1871.

To all whom it may concern:

Be it known that I, CHARLES VOLGER, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in Call-Bells; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a central vertical section of my improved bell. Fig. 2 is an inverted plan view.

Similar letters indicate corresponding parts.

This invention consists in a clapper provided with ray-like arms or points, the ends of which strike against the sound-bow of the bell when the clapper is swung or moved, the clapper being suspended in the bell by a flexible or elastic rod, composed of wire wound in a spiral form, so as to produce a hollow suspension-rod.

The letter A designates the bell, from the center of which hangs the flexible rod B, which I make by winding wire spirally upon a mandrel until I obtain the requisite length. The mandrel is then removed, leaving a hollow flexible rod, which I then fasten rigidly in any suitable manner at one end to the crown of the bell, the other end being rigidly attached to the clapper. The clapper C consists, in this

example, of a metallic frame, from the center of which radiate four arms, D D D D, whose ends extend toward the sound-bow of the bell, as shown in the drawing. The clapper is suspended so that its arms will be in the proper plane for striking against the sides or bow of the bell, and the ends of the arms D are arranged to be, when at rest, at the proper distances, respectively, from the sides of the bell, according to the size or quality of the bell and the loudness of tone required. The flexible rod is made stiff enough to enable it to bring back the clapper to the center of the bell after each vibration in readiness for another stroke.

By my invention the bell is rung in whatever direction it is swung, and I obtain great sensitiveness in the clapper, and preserve the bell from injury from severe shocks, such as are given by a clapper swinging on a loose joint.

What I claim as new, and desire to secure by Letters Patent, is—

1. A coiled-spring shank for a bell-clapper, substantially as described.

2. The four-armed clapper and its flexible rod, in combination with the bell, as and for the purpose specified.

CHARLES VOLGER.

Witnesses:

JOSEPH DEVER,
JNO. W. WOOD.