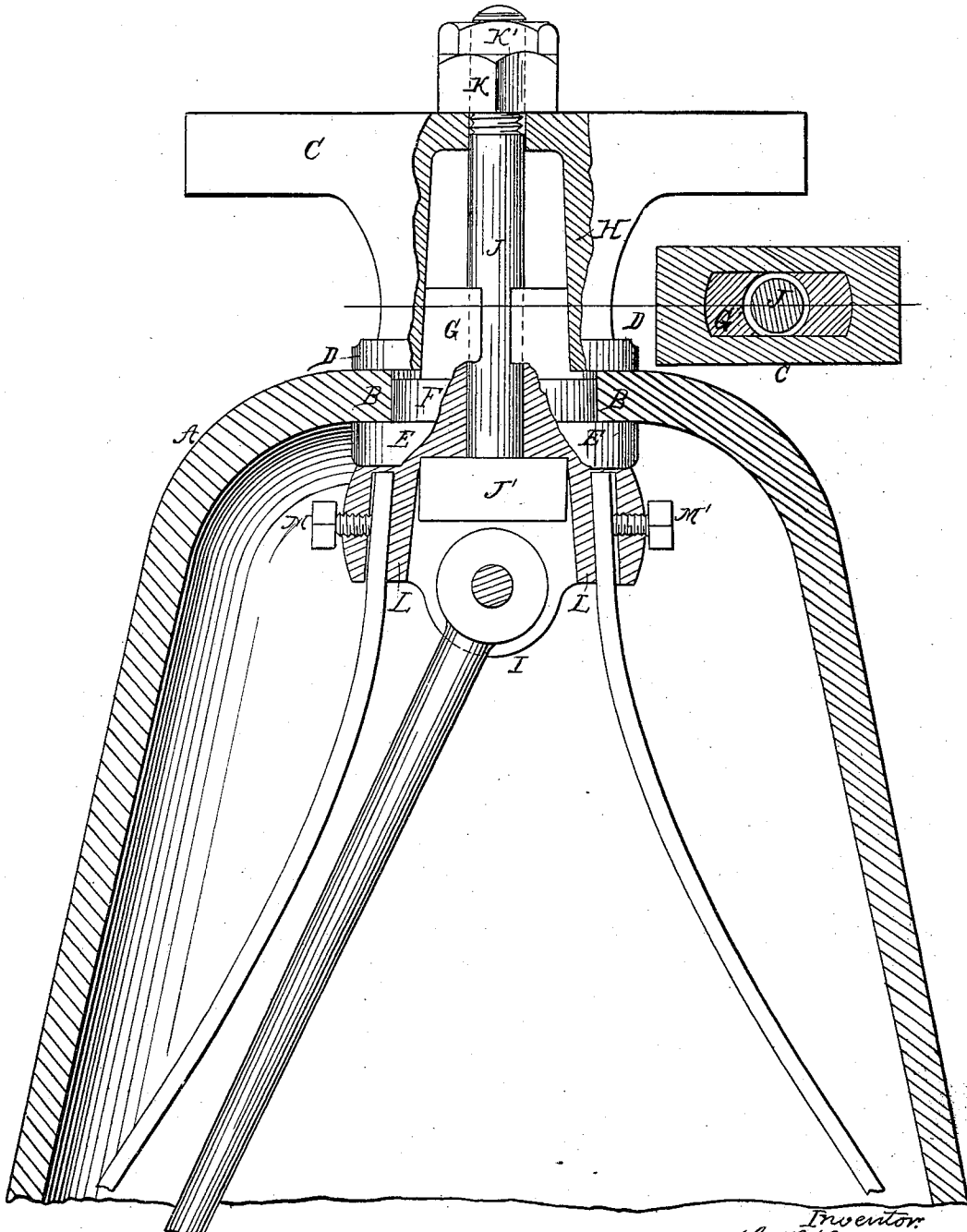


E. W. VAN DUZEN.
Mode of Hanging Bells.

No. 59,099.

Patented Oct. 23, 1866.



Witnesses:
D. H. Layman
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UNITED STATES PATENT OFFICE.

EZRA W. VANDUZEN, OF CINCINNATI, OHIO.

IMPROVED MODE OF HANGING BELLS.

Specification forming part of Letters Patent No. 59,099, dated October 23, 1866.

To all whom it may concern:

Be it known that I, EZRA W. VANDUZEN, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Hanging Bells; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification.

This invention relates to large open-air bells which are rung by swinging the same, and is especially designed for bells not exceeding four hundred pounds weight of the bell proper.

The accompanying drawing is an axial section of the upper portion of a bell embodying my improvements.

A is the upper portion of the bell proper, and has a large circular aperture, B, which takes the place of the usual crown portion of the bell.

The yoke C has a circular flange or collar, D, to press upon or gripe the upper margin of the aperture. E is a circular plate or disk, which I call the crown-plate. F is a boss on said plate, which enters the aperture B of the bell. G is a rectangular or other non-circular tenon, which, rising from the boss F, enters a corresponding cavity or mortise, H, in the under side of the yoke.

A cast projection, I, from the under side of the crown-plate, is perforated to receive the pivot by which the clapper is suspended.

The crown-plate and yoke are traversed by a single axial bolt, J, whose head J' occupies a cavity in the projection I, and which bolt is fastened by nuts K K' bearing on top of the yoke. The crown-plate has also, on its under side, sockets L L' to receive the shanks of the springs or buffers, which, being inserted, are secured by set-screws M M'.

It will be seen that this construction saves a considerable weight of costly metal usually employed in the crown of a bell, and which is rather a detriment than otherwise, because, from being the last part of the bell to cool, it puts the other parts upon a strain in the act of solidifying; also, that while a single bolt unites the yoke and crown-plate, the large diameters of the latter afford a secure gripe or purchase upon the bell. It is also manifest that the tenon G holds the yoke and plate firmly to their proper relative positions and permits the bell to be shifted circumferentially, so as to present a fresh surface for the clapper, and thus prolong the durability of the bell.

The provision of the sockets L L' and set-screws M M' enables the springs to be removed or inserted without unhooking or disturbing the bell.

I claim herein as new and of my own invention—

1. The arrangement of flanged and mortised yoke C D H, and bossed and tenoned crown-plate E F G, the whole traversed by a single axial bolt, J, in the manner set forth.

2. The combination of sockets L L' beneath the crown-plate, and buffers I I' and set-screws M M', for the purpose explained.

3. The bossed crown-plate E E, either with or without the tenon G and spade-handle I, as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

E. W. VANDUZEN.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.