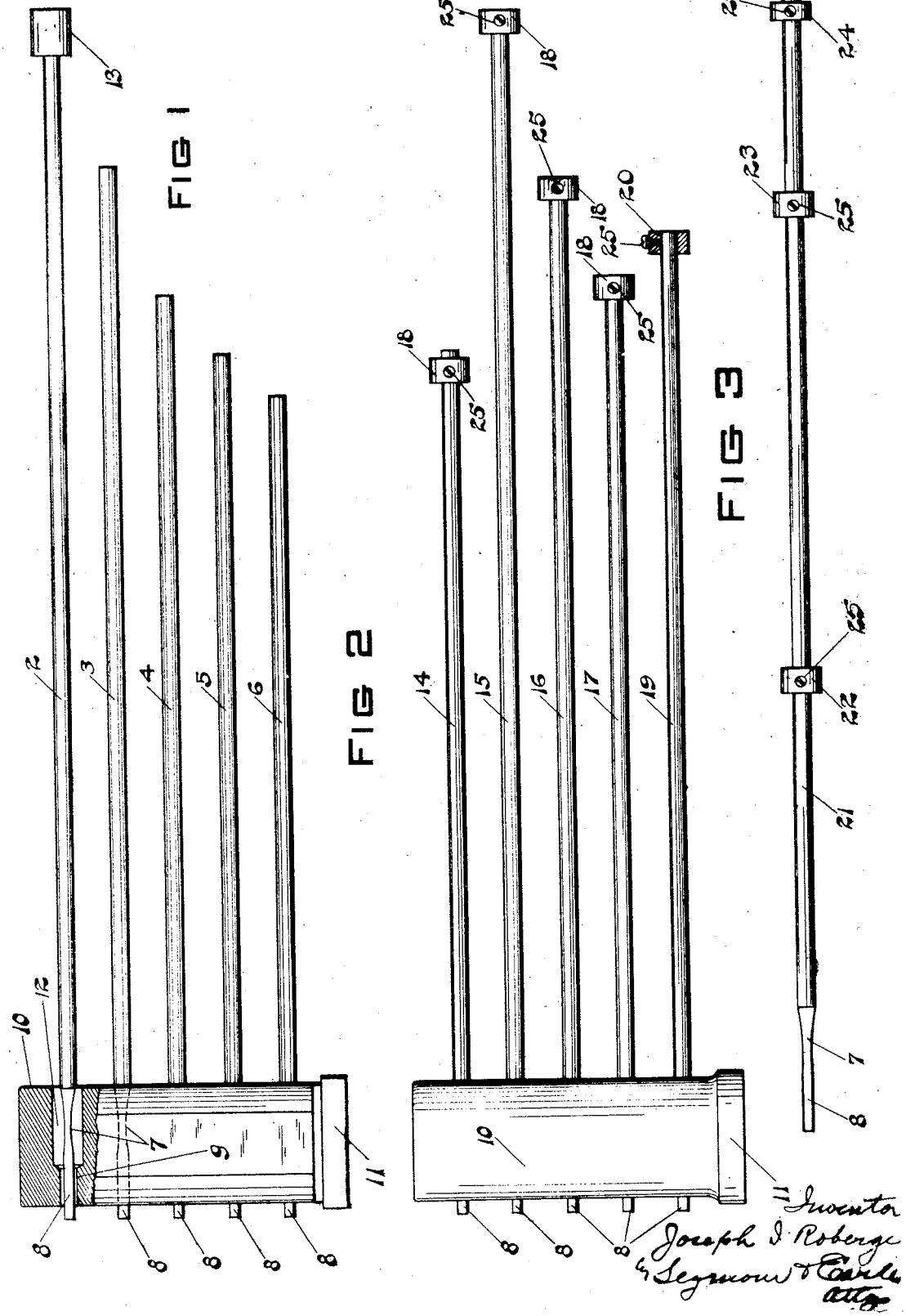
J. I. ROBERGE.

ROD GONG FOR STRIKING CLOCKS.

APPLICATION FILED AUG. 30, 1917.

1,269,511.

Patented June 11, 1918.



UNITED STATES PATENT OFFICE.

JOSEPH I. ROBERGE, OF WATERBURY, CONNECTICUT, ASSIGNOR TO WATERBURY CLOCK CO., OF WATERBURY, CONNECTICUT, A CORPORATION.

ROD-GONG FOR STRIKING-CLOCKS.

1,269,511. Specification of Letters Patent. Patented June 11, 1918.

Application filed August 30, 1917. Serial No. 188,954.

To all whom it may concern:

Be it known that I, JOSEPH I. ROBERGE, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Rod-Gongs for Striking-Clocks; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a view partly in side elevation, and partly in section, of a rod-gong constructed in accordance with my invention.

Fig. 2 a view in side elevation of another rod-gong embodying my invention.

Fig. 3 a detached view of a single gong-rod provided with a plurality of collets.

My invention relates to an improvement in rod-gongs for clocks, the primary object being to effect an economy of space in clock cases by the use of relatively short rods without sacrificing depth of tone. A further object of my invention is to provide for modifying the sonorous quality of gong-rods without changing their length.

With these ends in view, my invention consists in a gong-rod provided with one or more collets.

My invention further consists in certain details of construction as will be hereinafter described and pointed out in the claims.

As shown in Fig. 1, I have applied my invention to a rod-gong comprising five rods 2, 3, 4, 5 and 6, decreasing in length in the order named, the rod 2 being designed for use in striking the hour, and the remaining rods for sounding the notes which make up a so called "Westminster chime." All of these rods are reduced in diameter at their butt-ends to form necks 7 which increases their amplitude of vibration, this being a common practice. The extreme or butt-ends of the rods are flattened as at 8 to adapt them to be driven into holes 9 formed one above the other in a cast metal base or gong-stand 10 provided with a foot 11 by means of which it is secured in place, though this may be done in any desired manner. The forward ends of the holes 9 are enlarged as at 12 to form chambers which receive the necks 7 of the rods, and leave the rods free to vibrate when struck. The longer the rods the slower the vibrations, and the deeper the tone. However, rods long enough to secure deep tones require large cases. I have discovered that by providing the rods with one or more collets 13, relatively short rods may be given the sonorous quality of long rods. Thus, the rod 2 of the gong of Fig. 1, is provided at its extreme end with a collet 13 which so lowers the tone of the rod as to make the tone thereof quite distinctive from the tones of the "Westminster-chime" rods 3, 4, 5 and 6. In this particular gong, therefore, the rod 2 is used for striking the hour, while the rods 3, 4, 5 and 6 are used for the "Westminster chime."

In the gong of Fig. 2, the rods 14, 15, 16 and 17 are each provided with a collet 18, these rods being arranged in a group for use in striking the hour upon the major chord of the "Westminster chime." The gong is also provided with a rod 19 having a collet 20, and used in sounding the "Westminster chime," but excluded from the major chord, with which it does not harmonize, in striking the hour. It will be understood that the rods 14, 15, 16, 17 and 19 are otherwise constructed and mounted the same as the rods of the gong of Fig. 1.

The single gong-rod 21 shown in Fig. 3, is furnished with three collets 22, 23 and 24, these being adapted to be shifted upon the rod as required to lower its tone and to modify the character of its over tones. I do not limit myself to any particular number and arrangement of rods, nor to the number of collets employed, that being left to the dictation of circumstances. Nor do I limit myself to any particular method of securing the collets in place. Thus the collet 13 is driven upon the rod 2, while the other collets shown, are mounted so as to be adjustable, and held in place by set-screws 25. The collets in accordance with their positions on the rods serve to change generally the pitch and intensity, either or both, of every overtone, and so the character of the sound.

I claim:—

1. In a striking mechanism for clocks, a gong-rod consisting of a solid straight vibrating rod provided with a collet.

2. In a striking mechanism for clocks, a gong-rod consisting of a solid straight vibrating rod provided with a collet adjust-

able in the direction of the length of the rod.

3. In a striking mechanism for clocks, a series of gong-rods and a support therefor in which the rods are mounted and capable of vibrating, and a collet on any number of the rods.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JOSEPH I. ROBERGE.

Witnesses:
J. R. PUTNAM,
W. J. SMITH.