

W. S. BLAKE.

BELLS.

No. 179,840.

Patented July 18, 1876.

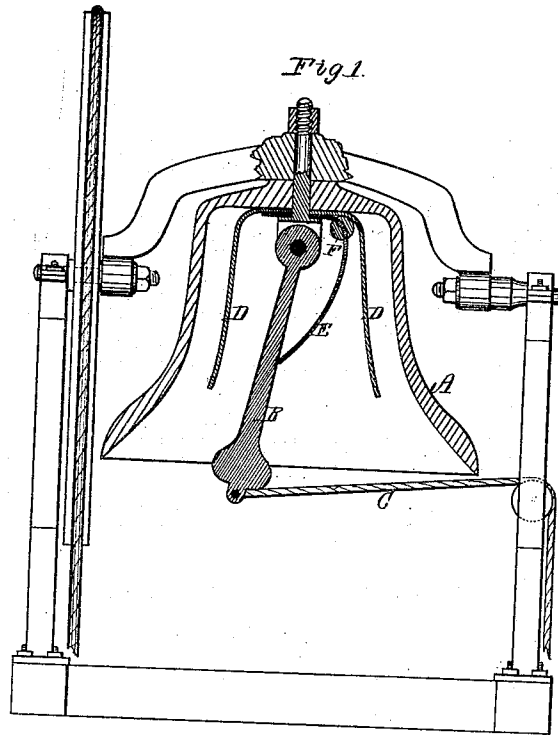
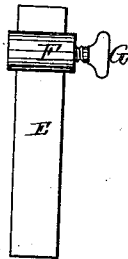


Fig. 2.



Witnesses.

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WILLIAM S. BLAKE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BELLS.

Specification forming part of Letters Patent No. **179,840**, dated July 18, 1876; application filed June 28, 1876.

To all whom it may concern:

Be it known that I, WILLIAM S. BLAKE, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bells; 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 sectional view of a bell provided with my invention. Fig. 2 is a side view of the auxiliary spring and its adjuster, to be hereinafter described.

In Fig. 1, A denotes a church-bell, and B its tongue, of ordinary form, such tongue having fixed to it, at its lower end, what is termed a chime-rope, C. The bell also has within it, and secured to its crown, two springs, D D, between which its tongue is arranged, each of such springs being to prevent the tongue, after a ringing blow upon the bell, from falling back against the bow of the bell. Such springs are in common use in bells.

In chime-bells it has been customary to employ a spring to counterbalance the weight of the chime-rope and its working-lever, such rope being fixed to the clapper or tongue, in which case the spring has been fastened both to the bell and the clapper, or to the bell and to a projection from the clapper, such being as represented in the United States Patent No. 122,397, dated January 2, 1872. When the spring is so connected with the tongue, the latter can be operated only by the chime-rope. The bell cannot be rung by being swung around against the tongue, the latter being held and controlled by the spring.

In carrying out my invention the chime-rope balance-spring, fixed in and to the bell, is not connected with or attached to the tongue, but simply rests against it, and such spring is provided with an adjuster or slider to slide lengthwise upon and to be fixed in place or clamped to the spring by a screw.

In the drawings, the chime-rope balance-spring is shown at E, as fastened at or near its upper end to the crown of the bell, the said spring at its lower end resting against the tongue without being connected therewith. The adjuster or slide represented at F is a

block of metal or other suitable material, having a hole through it to receive the spring, such block being provided with a screw, G, screwed into it and against the spring.

By moving the block higher or lower on the spring I can properly adjust the spring to counterbalance the weight of the chime-rope, and its pedal or operative lever, which can be done while the bell may be hung in a steeple or other place designed for its reception, the bell being supposed to be hung so as to enable it to be swung against the hammer or tongue.

The chime-rope balance-spring is shown as arranged directly over that part of the chime-rope C which is beneath the bell, and extends from the clapper or tongue. This enables the bell, besides being used as a chime-bell, to be swung against the tongue, and thus be rung in the ordinary way, which cannot be done when the tongue is controlled by the chime-rope, and is attached to a counter-balance spring.

Without the slider the auxiliary spring, separate from the tongue, is very useful, but with the adjustable slide it is preferable, as the latter affords a ready means of adjusting the spring, to cause it to balance the chime-rope, or such and its actuating lever.

I claim—

1. In combination with the bell A, its tongue B, and main springs D D, the auxiliary chime-rope balance-spring E, disconnected from the tongue, and fixed to the bell, all being substantially as described.

2. In combination with the bell A, its tongue B, and main springs D D, arranged as represented, and with the chime-rope balance-spring E fixed to the bell and disconnected from the tongue, as set forth, the adjustable fulcrum-slide F, applied to such spring, and provided with a clamp-screw, G, or means of fixing it in place on the spring, all being substantially as specified.

WILLIAM S. BLAKE.

Witnesses:

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