(No Model.)

J. R. LOMAS.

ORCHESTRA CHIME.

No. 317,391. Patented May 5, 1885.

Fig. 1.

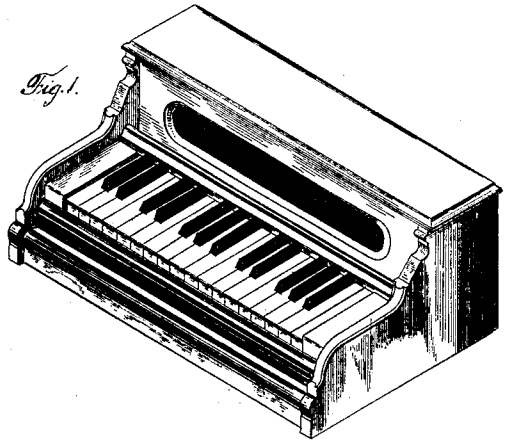


Fig. 2.

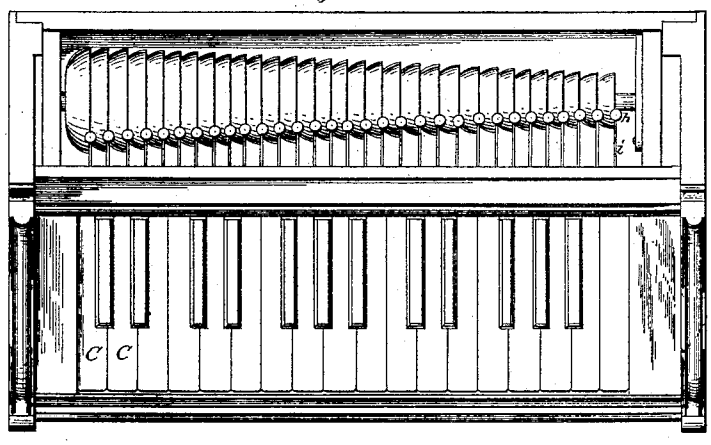
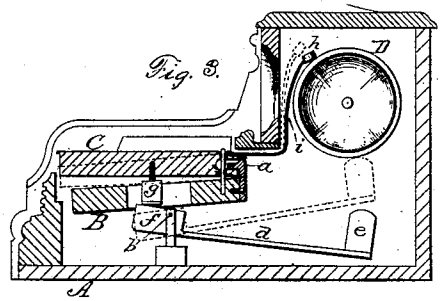


Fig. 3.



Witnesses
Jos. C. Earle
L. C. Forker.

John R Lomas
Inventor
By Atty
Wm. Ord

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN R. LOMAS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO B. SHONINGER, OF SAME PLACE.

ORCHESTRA-CHIME.

SPECIFICATION forming part of Letters Patent No. 317,391, dated May 5, 1885.

Application filed August 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. LOMAS, of New Haven, in the county of New Haven and State of Connecticut, have invented new Improvements in Orchestra-Chimes; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the instrument complete; Fig. 2, a top view showing the cover over the bells removed; Fig. 3, a vertical transverse section.

This invention relates to the construction of an instrument to be used as an accompaniment to other instruments in an orchestra, the object being to arrange a chime of bells in so simple and compact a shape that the chime may be conveniently introduced wherever required as an accompaniment in the orchestra; and the invention consists in an instrument as a complete article having a chime of bells arranged therein combined with a corresponding series of keys, hammers, and dampers, all constructed and arranged as more fully hereinafter described.

The case A, within which the chime and mechanism is arranged, in its best and most convenient form resembles somewhat the upper part of a reed-organ, as seen in Fig. 1. In the front portion of the case the platform B is arranged, for the support of the keys, in the usual manner of arranging such a board in reed-organs—that is, inclined from the rear forward and downward, and made fast in its position. C, the keys, are hung at the rear, as at *a*, and in the usual manner for hanging keys of like musical instruments. At the rear, and preferably elevated above the keys, is a series of bells, D, corresponding to the respective keys on the key-board. These it will be understood are graduated according to their respective keys in the usual manner of graduating chimes.

Beneath the platform B, and upon a fulcrum, *b*, the hammer-levers *d* are hung; the rear end provided with a hammer, *e*. The forward or shorter arm, *f*, stands beneath the opening in the key-platform. In the under side of the key is a stud, *g*, made fast to the keys by a screw-shank, and whereby the studs may be adjusted up or down, as occasion may require. The studs bear directly upon the shorter arm of the bell-lever, and so that when the key is depressed the stud, acting upon the shorter arm *f*, will throw up the hammer against the bell, as indicated in broken lines, Fig. 3. The key therefore acts directly upon the bell-hammer without intermediate or connecting mechanism, as in the usual construction of chime attachments for musical instruments. The damper *h* is attached to the end of an arm, *i*, the other end of the arm made fast to the key, one such damper being provided for each bell, the damper applied at the front of the bell, and so that when the key is in its normal position the damper will rest upon the bell; but when the key is depressed, as indicated in broken lines, Fig. 3, then the damper is raised from the bell, as also indicated in broken lines, Fig. 3, leaving the bell free for vibration under the blow of the hammer so long as the key shall remain depressed. The damper, like the hammer, is operated directly from the key and without interposition of the intermediate levers or mechanism, as in the usual arrangement of chimes. This construction of instrument adapts it to convenient use as an accompaniment in the orchestra, is produced at a small expense, and may be used to advantage by beginners in piano practice, it being equally as well adapted for such practice as a piano, and less offensive to those who are compelled to be in the vicinity.

It will be understood that I do not claim, broadly, a chime of bells combined with hammers, dampers, and keys, whereby under the manipulation of the keys the bells may be struck, as such an arrangement of bells I am aware is not new, and may be found in Letters Patent of the United States granted to me March 2, 1875, No. 160,448; but

What I do claim is—

1. The combination, in an instrument, of a series of bells, D, corresponding series of keys, C, the hammer-levers *d*, hung upon a fulcrum

beneath the keys, the longer arm extending beneath the bells and having the hammer rigidly fixed at its end, the shorter arm extending beneath a stud on the keys, substantially as described, and whereby the keys act directly upon the hammer-levers.

2. The combination, in an instrument, of a series of bells, D, corresponding series of keys, C, hammer-levers *d*, hung upon a fulcrum beneath the keys carrying the hammer *e* at the longer end, the shorter arm extending beneath the stud on the keys, and the dampers *h*, attached directly to the respective keys, substantially as described.

JOHN R. LOMAS.

Witnesses:
JOHN E. EARLE,
LILLIAN D. KELSEY.