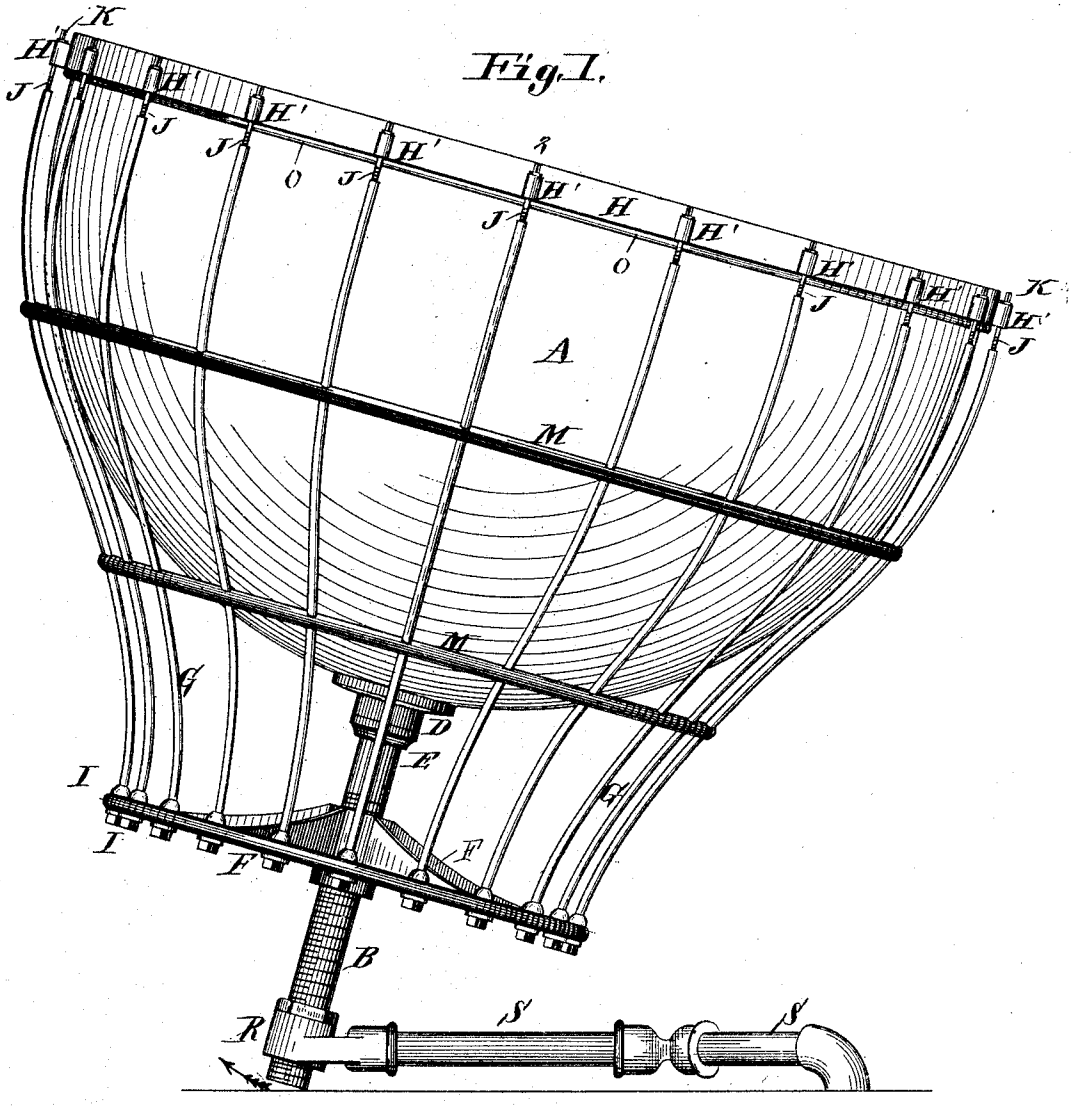
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E. BOULANGER.

TYMPANUM.

No. 355,970. Patented Jan. 11, 1887.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

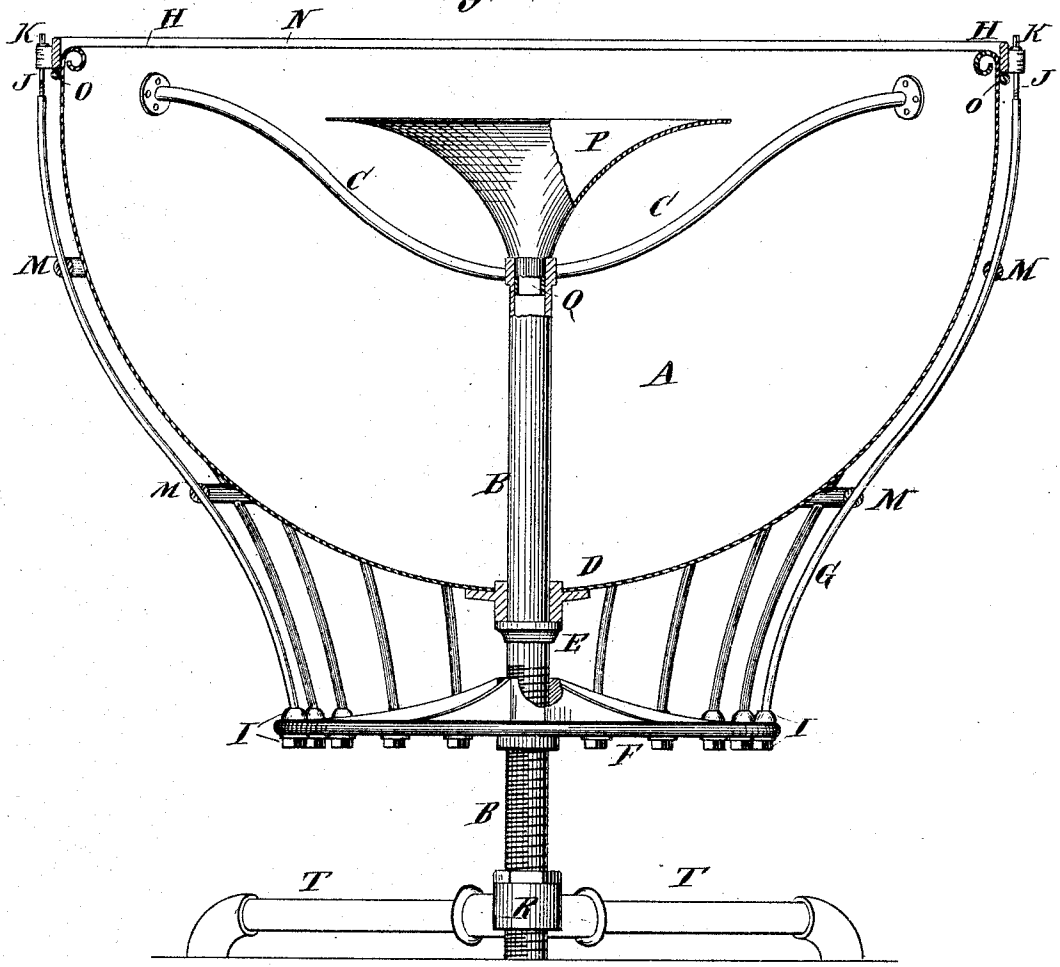
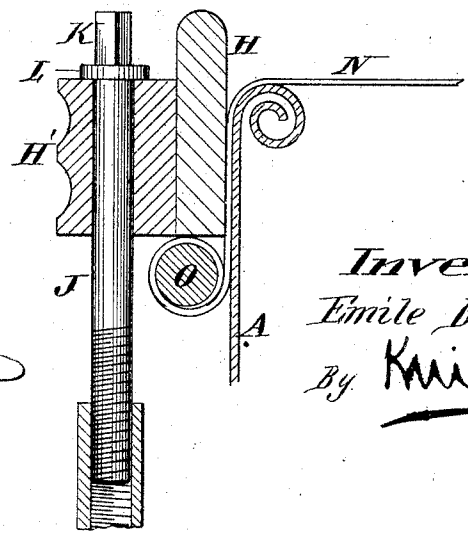


Fig. 3.



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UNITED STATES PATENT OFFICE.

EMILE BOULANGER, OF ST. LOUIS, MISSOURI.

TYMPANUM.

SPECIFICATION forming part of Letters Patent No. 355,970, dated January 11, 1887.

Application filed January 4, 1886. Serial No. 187,623. (No model.)

To all whom it may concern:

Be it known that I, EMILE BOULANGER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Tympanums, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side elevation of my improved instrument. Fig. 2 is a vertical section through the kettle of the instrument, showing the stand in elevation and part of the tympan in section. Fig. 3 is an enlarged detail section showing the manner of tightening the head on the kettle.

My invention relates to certain improvements in tympanums or kettle-drums; and my invention consists in features of novelty, hereinafter fully described, and pointed out in the claims.

Referring to the drawings, A represents the body or kettle of the instrument connected to a vertical central stem, B, by means of braces C and a collar or ring, D. The collar or ring D fits loosely on the stem B, but is prevented from downward vertical movement by a fixed flange, E, on the stem B. Beneath the kettle on the stem, and having screw-threaded connection therewith, is a disk, F, connected by means of rods G to a ring, H, located at and surrounding the upper end of the kettle, as shown. These rods are outside the kettle, and are connected to the disk F by collars or nuts I, and to the ring H by pins J, that pass through the ring, as shown in Fig. 3, and screw into the hollow upper ends of the rods. These pins turn loosely in the ring, and are made square or non-circular at their upper ends, K. Secured to or formed upon them, above the ring H, is a collar or flange, L, which acts to pull the ring H downward when the pins are turned into the hollow upper ends of the rods G.

The rods G may be horizontally connected together by circumferential rods or straps M. The pins J may pass through the body of the ring H, or they may pass through lugs H′, formed upon or secured to the body of the ring, as shown.

The head N of the instrument extends down a distance from and outside of the top of the kettle, as shown in Fig. 3, and is secured by its outer edge to a rod, O, that surrounds the kettle. This rod O is beneath the ring H, so that as the latter is forced downward by the means described the rod O is also forced downward, tightening on the head N, to give the proper tune to the instrument.

In tuning the instrument each one of the pins J may be turned until the head is properly tightened in all directions to give the proper unity or blending of notes, and then the whole head may be tightened all around equally by turning the disk F on the stem B, thus pulling the ring H down uniformly on all sides, the kettle being held from downward movement by the flange E, as stated.

The stem B is made hollow, as shown in Fig. 2, and it supports the tympan P, which is made with a hollow neck, Q, that fits at its lower end into the stem B.

The principal object of making the stem B and the neck Q hollow is to allow a free vibration of the notes from the tympan down through the stem, where they escape at the opening, as shown by the arrow, Fig. 1. This circulation adds greatly to the tone of the instrument.

The lower end of the stem B screws into a collar, R, of a stand, S, preferably made, as shown in Figs. 1 and 2, with legs or extensions T.

The inclination of the head of the instrument may be adjusted, as desired, by the operator without changing its height by simply turning the stem in the collar R, which will elevate the end of the stand S, thus adding materially to the practical value of the instrument.

The stem B is made quite long above the collar E, so as to elevate the tympan to near the head of the kettle, where it more effectually performs its functions than it would were it located near the bottom of the kettle, as has been the practice heretofore.

I claim as my invention—

1. In a tympanum, the combination of the kettle, stem by which the kettle is supported, having a screw-thread, disk turning on the screw-thread, rods having hollow upper ends secured to the disk, ring surrounding the top

of the kettle, and screw-threaded pins working in the hollow ends and securing the ring to the rods, substantially as described.

2. In a tympanum, the combination of the kettle, stem by which the kettle is supported, having a screw-thread, disk turning on the screw-thread, flange on the stem, collar on the stem above the flange on which the kettle rests, rods secured to the disk, having hollow upper ends, ring surrounding the top of the kettle, and pins connecting the ring to the hollow ends of the rods, substantially as described.

3. The combination of the stem B, having screw-threaded lower end, the flange E, and the collar D, kettle A, seated on the collar, disk F, adjustable on the screw-thread of the stem, a ring, H, having pins J, rods G, secured to the disk, and adjustable connection between the rods and pins, substantially as described.

4. In a tympanum, the combination of the kettle, hollow supporting-stem, and tympan provided with a hollow neck entering the stem, substantially as and for the purpose set forth.

5. In a tympanum, the combination of the kettle, hollow supporting-stem, and tympan supported on the upper end of the stem near the head of the kettle, as and for the purpose set forth.

6. In a tympanum, the combination of the kettle, hollow supporting-stem, and stand, the stem being screwed into the stand to permit the kettle to be inclined more or less toward the operator, as set forth.

7. In a tympanum, the combination of the stand having a screw-threaded collar, the stem entering said collar of the stand, and kettle supported on the stand, the whole being arranged so that by turning the stem in the collar the inclination of the kettle may be changed, as and for the purpose set forth.

8. In a tympanum, the combination of a stem, a kettle supported on the stem, a disk, a ring surrounding the kettle, rods G, having hollow upper ends, and screw-threaded pins J, turning in the ring and adjustable in the hollow ends of the rods, substantially as described.

EMILE BOULANGER.

In presence of—
GEO. H. KNIGHT,
EDW. S. KNIGHT.