

(No Model.)

J. W. WORCESTER.

TOY.

No. 295,138.

Patented Mar. 11, 1884.

Fig. 1.

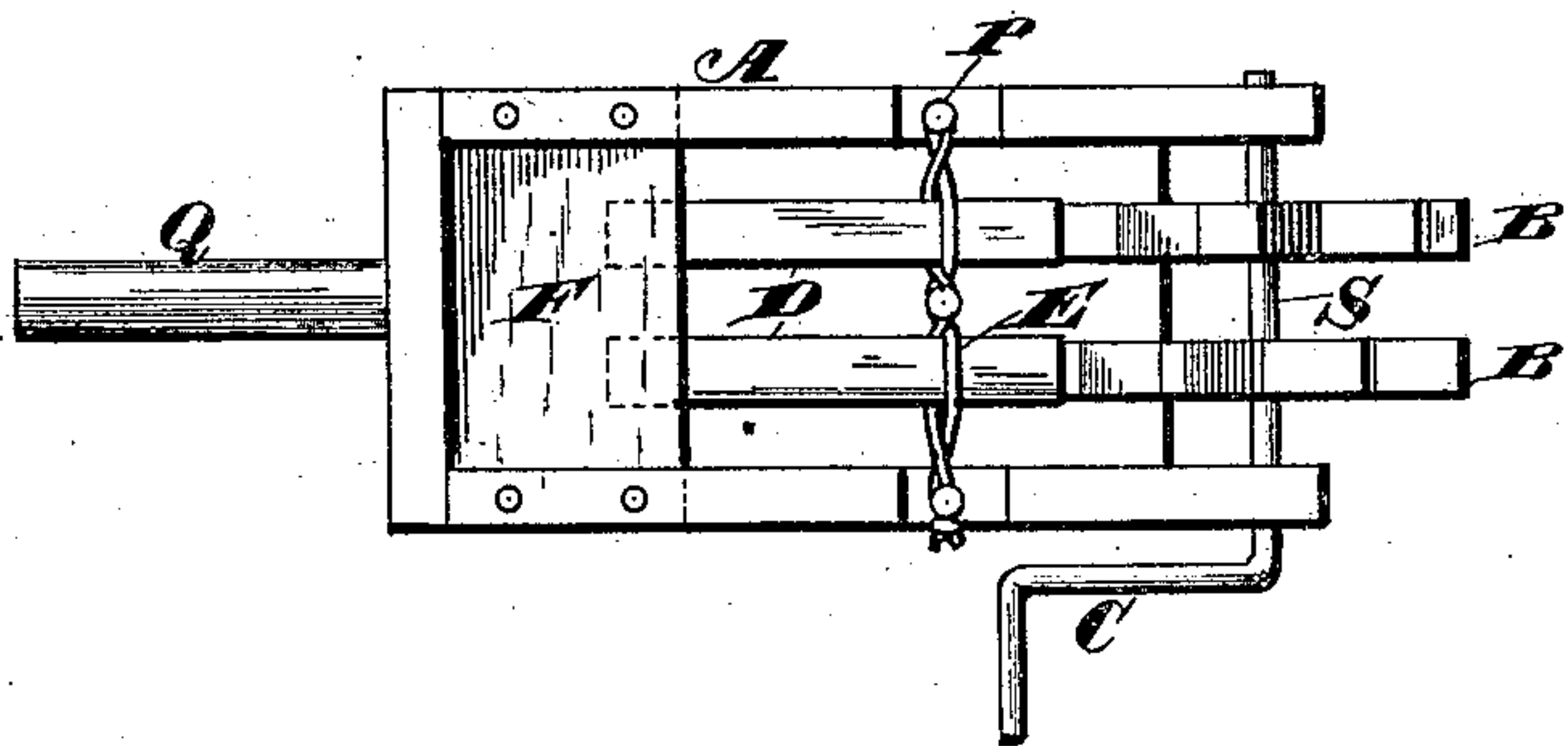


Fig. 2.

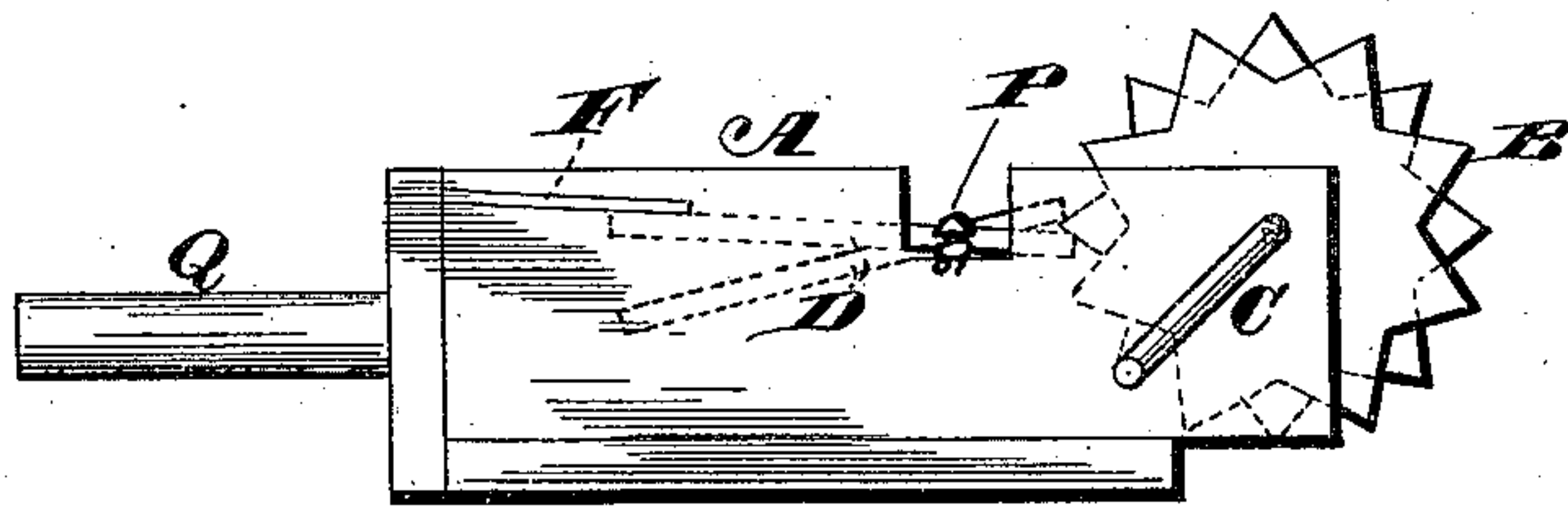
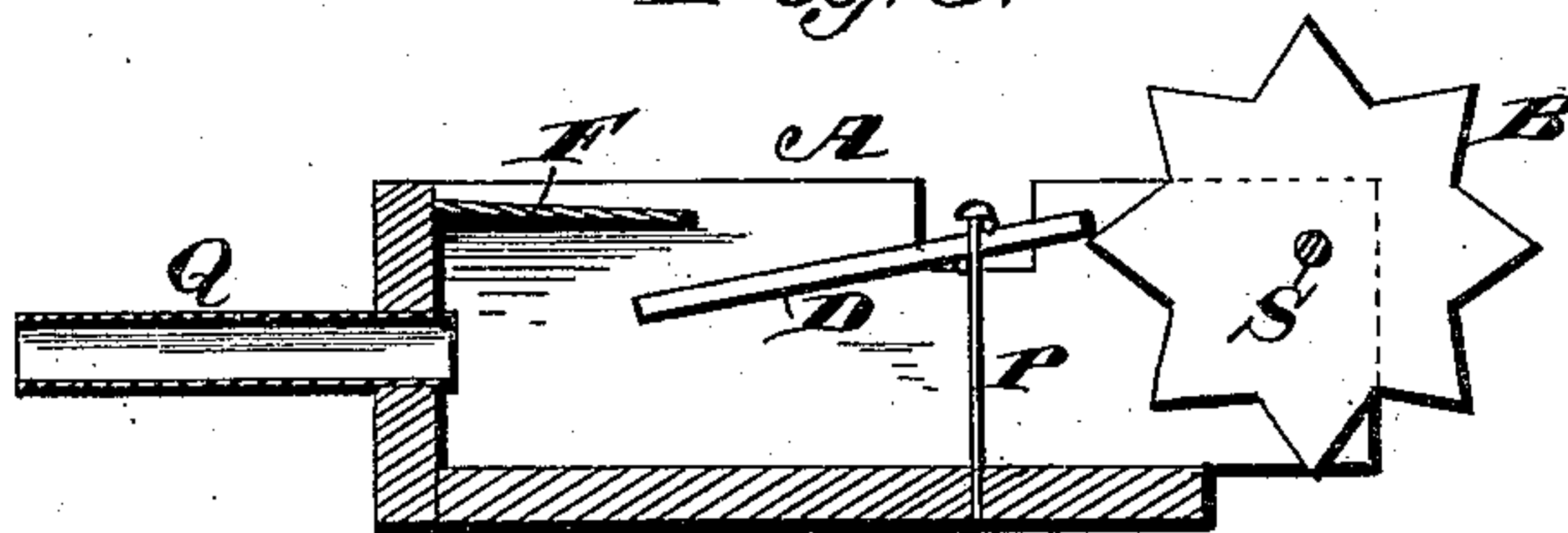


Fig. 3.



Witnesses.

Robert Emmett.

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Atty.

UNITED STATES PATENT OFFICE.

J. WARREN WORCESTER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
ALFRED W. STORM AND EDWIN R. STORM, BOTH OF SAME PLACE.

TOY.

SPECIFICATION forming part of Letters Patent No. 295,138, dated March 11, 1884.

Application filed January 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, J. WARREN WORCESTER, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Toys, of which the following is a specification.

This invention has for its object to provide an improved toy whereby tones or sounds like or similar to the tapping of a drum can be produced, and also to provide novel means for imitating or approximately imitating the combined playing of a fife or flute and a drum.

To such ends the invention consists, essentially, in the combination, with a case or box, of a toothed wheel, a slat or strip suspended intermediate its ends by a support in the nature of a spring, and a diaphragm or plate held adjacent to one end of the slat or strip, in such manner that when the teeth of the wheel engage and release one end of the slat or strip the other end of the latter will be violently thrown against the diaphragm or plate at short intervals, thereby producing loud tones or sounds like or similar to the tapping of a drum.

The invention further consists in combining a quill or tube with the case or box, the toothed wheel or disk, and the slat or strip, so that a person whistling through the tube or quill and operating the wheel can produce harmonious tones or sounds in imitation, to a certain degree, of the combined playing of a fife or flute and a drum.

In the accompanying drawings, Figure 1 is a top plan view of a toy constructed in accordance with my invention; Fig. 2, a side elevation of the same, and Fig. 3 a longitudinal central sectional view.

The letter A indicates a case or box having an open top and end; S, a shaft journaled to rotate in the sides of the case at the open end thereof, and provided with a hand-crank, C; and B, two toothed wheels or disks rigidly secured to the shaft at a short distance apart, with the points of their teeth preferably arranged to alternate, as shown. The points of the teeth operate on the free ends of two slats or strips, D, of wood, metal, or other suitable material, the other free ends of the

slats being arranged adjacent to a diaphragm or plate, F, fixed in the upper part of the closed end of the case, so that when the teeth of the wheels engage and release the slats at one end their other ends are caused to violently strike the diaphragm at short intervals. These slats are supported intermediate their ends by a cord, E, twisted taut and secured to pins P, attached to the case, said twisted cord forming loops in which the slats are held apart parallel to each other and in line with the plane of the toothed wheels, and constitute, in effect, a spring-support for the slats, so that when the outer ends of the slats are lifted by the teeth of the wheels and released, the other ends of said slats, through the medium of the impelling force created by the tension of the tautly-twisted cord, are violently thrown into contact with the diaphragm or plate, to produce loud tones or sounds like the tapping of a drum, due to the slats rapidly and alternately striking the diaphragm with some violence. In the closed end wall of the case or box is inserted a quill or other tube, Q, having a beveled mouth end, the object being that a person whistling or blowing through the tube, and simultaneously therewith operating the toothed wheels, can produce loud tones or sounds in imitation of, or approximately so, the combined playing of a fife or flute and a drum. The instrument is held in the hand in such position that the end of the quill or tube can be placed in the mouth of the operator, and the toothed wheels are rotated by the crank-shaft, so that the slats or strips are operated in the manner above described.

I have shown and described two slats or strips and two operating-wheels, but do not confine myself to any specific number, inasmuch as one or more can be used; and the construction of the toothed wheels may be varied, the only requisite being that when one end of the slat is engaged and released the other end will be violently thrown against the diaphragm by the tension of the support which holds the slat.

A toy embodying this invention will afford considerable pleasure and amusement to children, owing to the possibility of imitating a

fife or flute and a drum, and by the means set forth the sounds are not only greatly increased, but differ in effect and tone from what are known as "toy rattles," since the tones or
5 sounds more nearly resemble the harmonious
tappings of a drum, owing to the presence of the resonant diaphragm.

The diaphragm can simply be a thin plate or strip of wood; but other material can be
10 used which will produce a like effect.

Having thus described my invention, what I claim is—

1. A toy consisting of a case or box, a vibrating slat supported intermediate its ends,
15 a toothed wheel or disk arranged to engage and release one end of the slat, and a diaphragm against which the other end of the slat is violently thrown when engaged and released by the wheel or disk, substantially as described.

20 2. A toy combining in its structure a case or box, a twisted cord or equivalent device supported thereby, a slat sustained intermediate its ends by the cord, a toothed wheel for engaging and releasing one end of the slat,
25 and a diaphragm against which the other end

of the slat is violently thrown when released by the teeth of the wheel, substantially as described.

3. A toy consisting of a case or box, a vibrating slat, a toothed wheel for engaging and
30 releasing the slats of the diaphragm, and a quill or tube for producing a whistling sound in harmony with the sounds of the slat produced by violently striking the diaphragm, substantially as described.

35 4. A toy consisting, essentially, of a slat supported intermediate its ends by a device held under tension, a diaphragm supported adjacent to one end of the slat, and means for acting on the other end of the slat to violently
40 strike the diaphragm at short intervals, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

J. WARREN WORCESTER.

Witnesses:

FRANK K. MONTFORT,
EDWIN R. STORM.