(No Model.)

J. RIEDL.

DAMPER FOR MECHANICAL MUSICAL INSTRUMENTS.

No. 580,425. Patented Apr. 13, 1897.

Fig. 1.

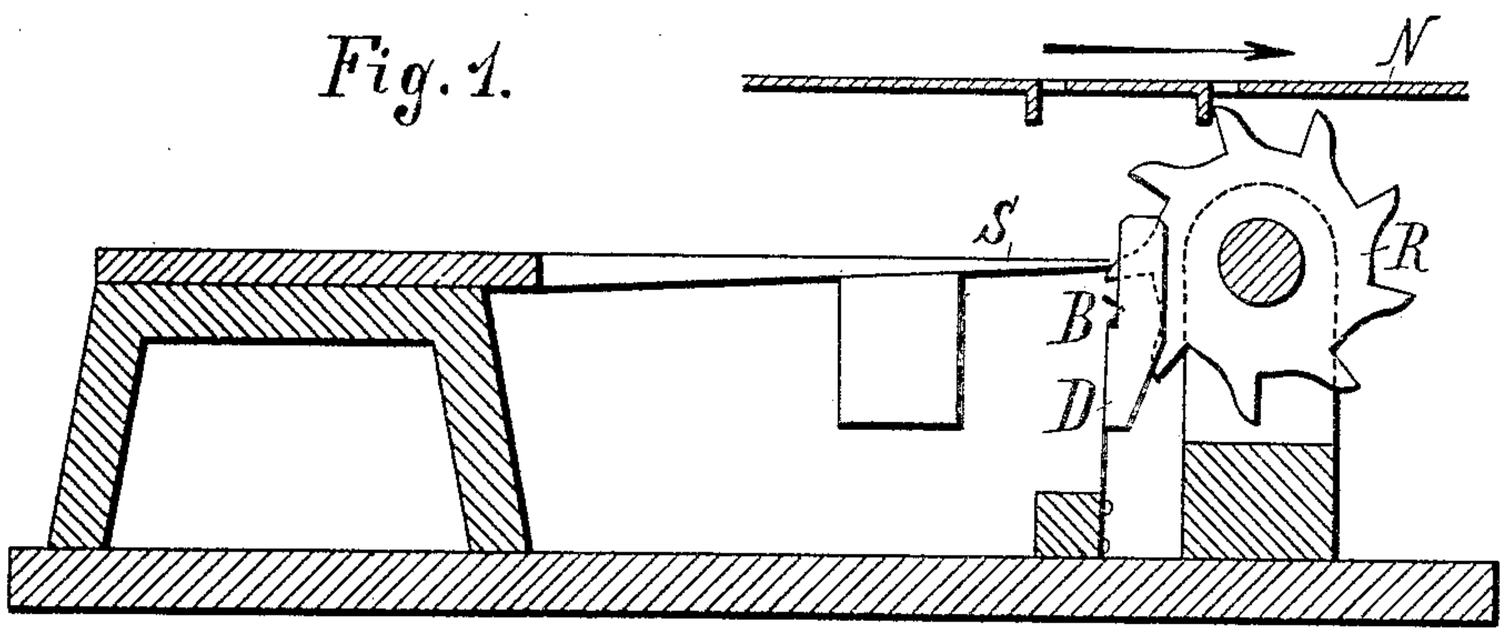


Fig. 2.

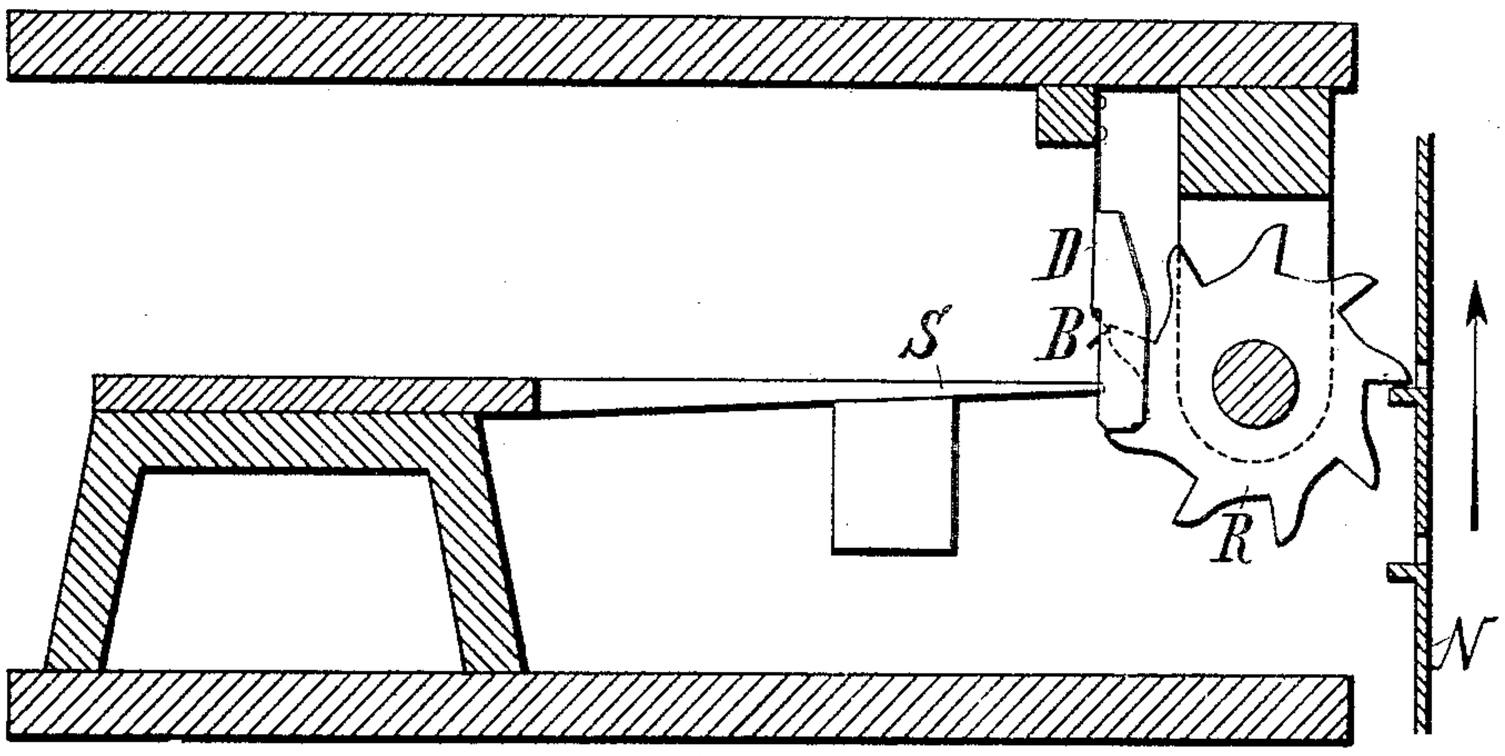


Fig. 3.

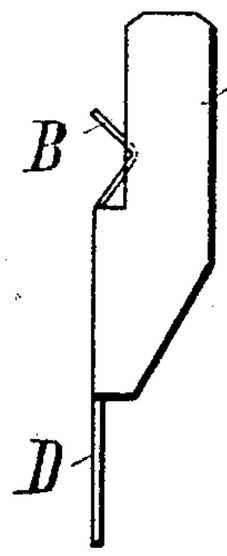
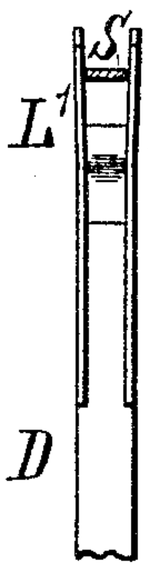


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHANN RIEDL, OF LEIPSIC, GERMANY.

DAMPER FOR MECHANICAL MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 580,425, dated April 13, 1897.

Application filed October 5, 1896. Serial No. 607,904. (No model.)

To all whom it may concern:

Be it known that I, JOHANN RIEDL, a subject of the Emperor of Germany, and a resident of Leipsic, in the Empire of Germany, have invented certain new and useful Improvements in Dampers for Mechanical Musical Instruments, of which the following is a specification.

In the improved damping arrangement the point of the vibratory tongue is caught between the two elastic ends of the damper for the purpose of damping, so that it is interrupted suddenly in its vibrations.

In the annexed drawings, Figure 1 is a sectional view illustrating the arrangement of the dampers D, supported below the tongue. Fig. 2 shows an arrangement in which the damper is supported above the tongue. Figs. 3 and 4 are side and end elevations, respectively, showing the damper on a larger scale.

Fig. 1 illustrates the moment in which by the movement of the music-sheet N a tooth of the operating-wheel R touches the tongue S, in order to make it sound.

In Fig. 2, showing the inverted arrangement of the damper, is represented the moment when the wheel R, propelled by the music-sheet N, presses the damper D forward, so that it comes into the damping position.

The damper has the form shown in Figs. 3 and 4. It consists of a spring-operated body D, with the two elastic ears L′ and L^2 and a projection B for its operation by the teeth of the playing-wheel. The two ears L′ and L^2 are bent apart, so that the tongue S, as in Fig. 4, can enter easily between them and be limited in its vibrations between the ears of the damper.

The action is as follows: The wheel R is turned by means of the music-sheet and presses with one of its teeth against the projection B of the damper, so that the damper is brought forward against the tongue. The damper swings in the one case from the front and from above or in the other case from the front and from below against the tongue and damps the latter by catching it between its elastic ears L′ L^2. When the tooth of the wheel passes off the projection B, the damper moves back from the tongue, which is thus released from the damper, whereupon the tongue is operated in the known manner by the toothed wheel R. This arrangement allows also a very easy mounting of the playing-wheels R, which can be arranged loose upon an axle, while they can never move in relation to the damper, being situated between the ears L′ L^2 of their respective dampers. Thus the directing of the dampers is completely avoided.

I claim as my invention in a mechanical musical instrument—

1. The combination with a vibrating tongue of a damper having elastic ends adapted to catch the tongue between them and by limiting its movement prevent it from vibrating.

2. The combination of a series of vibrating tongues and a series of dampers each consisting of a body D with ears L′ L^2 and a projection B with a series of toothed wheels R adapted to operate said tongues and dampers and situated each between the ears L′ L^2 of the respective damper.

In witness whereof I have signed this specification in presence of two witnesses.

JOHANN RIEDL.

Witnesses:
RUDOLPH FRICKE,
OTTO H. DOEDERLEIN.