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COMPLETE SPECIFICATION.

Improvements in or connected with Damping Devices for the Steel Reeds of Mechanical Musical Instruments.

I, FRIEDRICH ADOLF RICHTER, of Rudolstadt, in the Empire of Germany, Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement :—

- 6 This invention relates to a damper for the steel reeds of mechanical musical instruments, which damper consists as hereafter described of a single piece of sheet metal stamped out in the shape of a fork.
- In order that my invention may be readily understood I will describe same with reference to the accompanying drawings.
- 10 Fig. 1 shews a damper constructed according to my invention when in conjunction with such other parts of a steel reed mechanical musical instrument as is necessary to shew an application of same.
- Fig. 2 shews the sheet metal blank, before the damper to be formed therefrom, is bent into shape.
- 15 Fig. 3 shews a damper so formed, provided with a contact piece of fabric, leather or the like.
- Fig. 4 shews a blank from which a modified form of damper is to be formed,
- Fig. 5 shews the damper when bent to the required shape, from such a blank as is shewn at Fig. 4, and
- 20 Fig. 6 is a horizontal section of the damper shewn at Fig. 5 taken on the line *xy* of the latter figure.
- In forming a damper according to my invention a piece of sheet metal is cut or stamped out in the shape of a fork as for example is shewn at Fig. 2 and the resilient portion *a* of the same, is, as shewn in Fig. 1, bent at its upper end in such
- 25 a manner that there will always be one tooth of the plucking wheel, rubbing along the damper as it (the tooth) moves up, until the damper is caught by the next tooth, whereby chattering of the damping device is obviated. The arm *e* of the damper is bent up at or about right angles at *b*, in such a manner as to cause the said arm *e* to present its narrow edge to the reed.
- 30 By means of the teeth of the plucking wheel acting upon the arm *a*, the arm *e* is pressed, just before the plucking movement, against a special shoulder *d* (Fig. 1) of the reed, and thereby the reed is damped at the proper time.
- The damping of the reed is thus effected in a noiseless and resilient manner, notwithstanding that the arm *e*, bears with its narrow edge against the shoulder *d*,
- 35 because the bend *b* in the arm *e*, is situated below the point of engagement of the plucking wheel, so that the spring action of the arm *a* comes in aid of the arm *e*, which acts as damper.
- If a reed that is more difficult to be damped, is to be damped by means of fabric, cloth, leather or the like, the upper end of the arm *e* is bent around a small piece
- 40 of cloth, leather or the like (C Fig. 3), so that the cloth bears against the shoulder *d* of the reed.
- If a reed which is plucked from above, is to be damped, the damper is made of the shape shewn in Fig. 5, which is produced by suitably bending over the arm *a* and the lug *b*¹ of the fork-shaped piece of sheet metal Fig. 4. The lug *b*¹ is bent
- 45 over in the manner indicated in Fig. 6 and serves to support the downwardly bent arm *a*.

[Price 8d.]

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 PATENT AGENTS

Impts. in Damping Devices for the Steel Reeds of Mechanical Musical Instruments.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed I declare that what I claim is :—

1. Damping devices for the steel reeds of mechanical musical instruments each composed of a fork shaped piece of sheet metal (Figs. 2 and 4), one arm (*e*) being bent into a plane at or about right angles to the other arm, (and fitted or not with a fabric or leather head) the arm (*e*) bearing against a special shoulder of the reed, immediately before the plucking, by the action of the plucking wheel, such damping devices having the other arm (*a*) bent at its upper part so that a tooth of the plucking wheel is always bearing upon it, and thereby ensuring noiseless action, all substantially as described. 5 10
2. The damping device for the steel reeds of mechanical musical instruments, substantially as described and illustrated with particular reference to Figs. 1, 2, and 3 of the accompanying drawings.
3. The damping device for the steel reeds of mechanical musical instruments, substantially as described and illustrated with particular reference to Figs. 4 5 and 6, of the accompanying drawings. 15

Dated this 11th day of November 1896.

BREWER & SON,
London and Leeds, Agents for the Applicant. 20

Fig. 1.

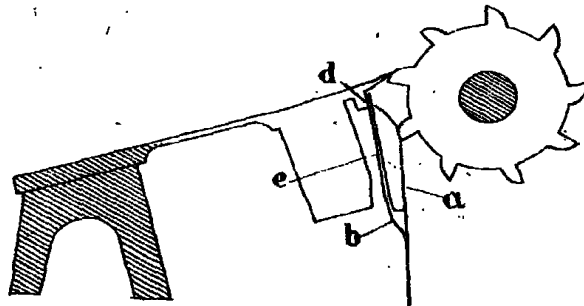


Fig. 2.

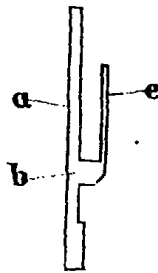


Fig. 3.

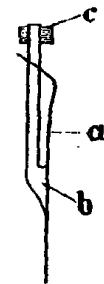


Fig. 4.

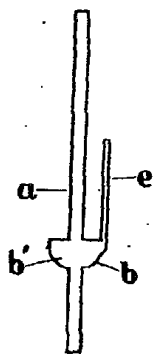


Fig. 5.

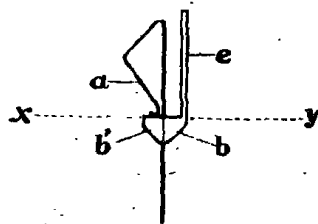
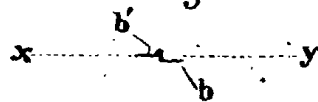


Fig. 6.



[This Drawing is a reproduction of the Original on a reduced scale]