



Date of Application, 18th Sept., 1893—Accepted, 28th Oct., 1893

COMPLETE SPECIFICATION.

Improvements in or connected with Musical Instruments.

I, Dr. 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:—

5 This invention has reference to improvements in or connected with musical instruments, and particularly refers to the stops and connecting mechanism of such as are mechanically operated. In such instruments as usually constructed, the closing and opening of the stops or valves are effected somewhat as illustrated at Fig. 1 of the drawing accompanying this Specification, wherein, as will be observed, 10 the point of a bent lever *y* mounted on axis *x* is actuated by a traversed notation sheet having either perforations therein or projections formed thereon; the lever *y* is connected by a spring-wire 2 with the stops or valves *d*.

Now according to this invention I provide levers or arms *f* shewn in the sectional views Figs. 2, 3, and 4, resting directly upon spring stops or valves *d*, the said 15 valves *d* being carried by spring parts *c*, whereby the points of the levers or arms *f* are caused to press against a notation sheet *m*, formed or provided with perforations, elevations, or points, the traversing of which sheet *m* causes the opening or closing of the valves. The levers *f* have their points supported in the slots of a 20 guiding plate *k* (see Figs. 2, 3, and 4, also shewn detached at Fig. 6) and are easily depressed by the traversing notation sheet *m* by reason of the formation of the pointed ends *a* of the levers *f*, three such forms being shewn at Figs. 2, 7, and 8.

The lower end of the lever *f* takes into a tongue *b* which latter is formed by a part of the sheet metal or equivalent cover of the stop *d* being bent out at right angles, the spring part *c* by which the valve *d* is secured to the wind chest *g*, being 25 also formed from the same sheet metal cover and tending to keep the stop or valve *d* normally open. Fig. 5 shews in perspective a valve or stop detached, and illustrates the tongue *b* and the spring part *c* formed from the metal cover of the valve.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I 30 claim is:

1. In mechanically operated musical instruments, the levers or arms *f* operated by a traversed notation sheet, and directly acting upon spring stops or valves (without intermediate parts) the said levers or arms *f* being guided to retain their proper positions relative to the notation sheet and valves, all constructed and 35 acting substantially as and for the purposes herein set forth.

2. In mechanically operated musical instruments having levers or arms *f* operated by a traversed notation sheet, as claimed by Claim 1, the arrangement and construction whereby the ends of the said levers *f* take into or against tongues *b* formed out of the sheet metal or equivalent covers of the valves, the prolongation of said 40 covers also forming the springs to retain the levers *f*, substantially as set forth.

3. The general arrangement and combination of parts composing the herein described improvements in the mechanism of mechanically operated musical instruments substantially as and for the purposes set forth.

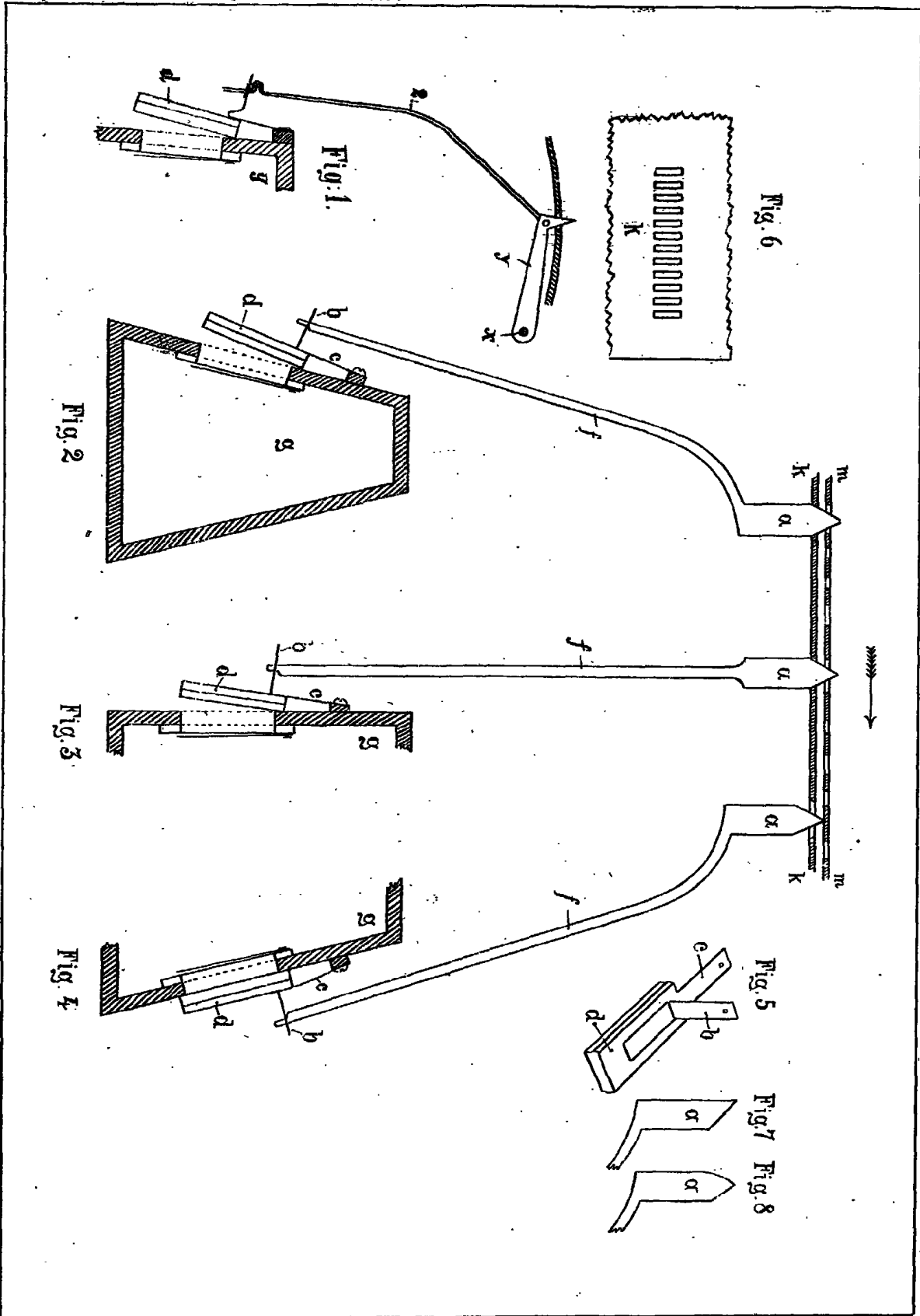
Dated this 18th day of September 1893.

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London: Printed for Her Majesty's Stationery Office, by Darling & Son, Ltd.—1893

[Price 8d.]



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