

(No Model.)

P. GMEHLIN.

MUTE BAR DAMPER FOR UPRIGHT PIANOS.

No. 353,301.

Patented Nov. 30, 1886.

Fig: 1.

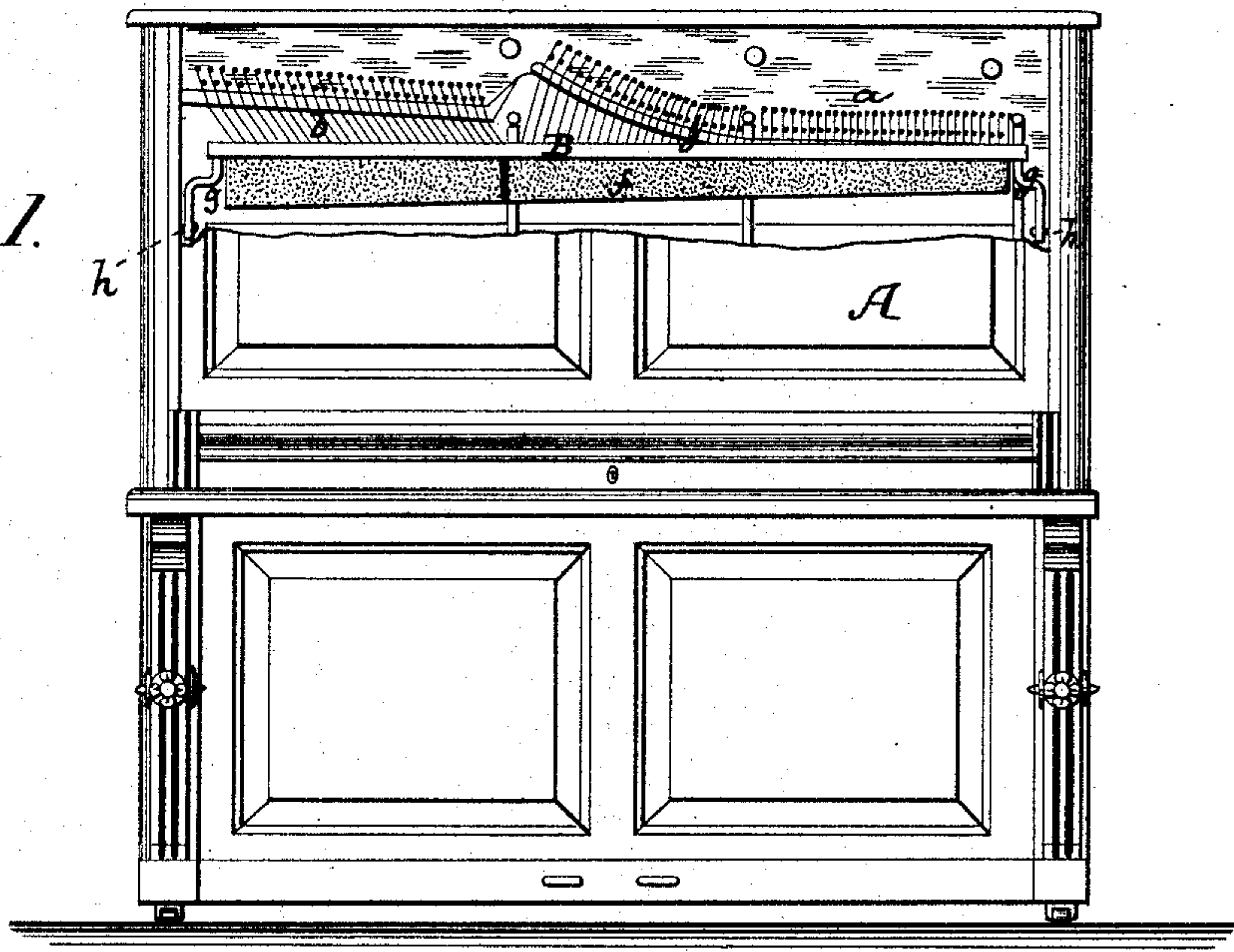


Fig: 2.

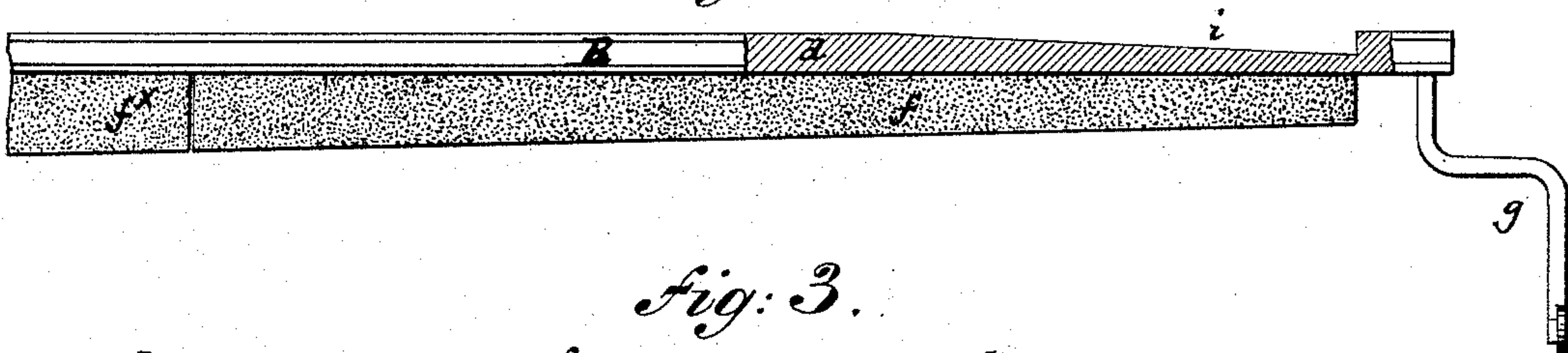


Fig: 3.

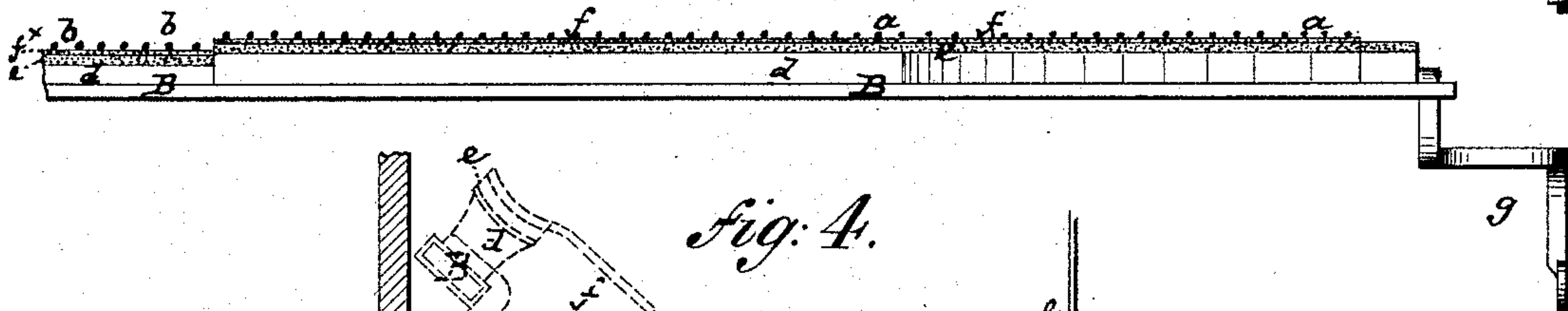
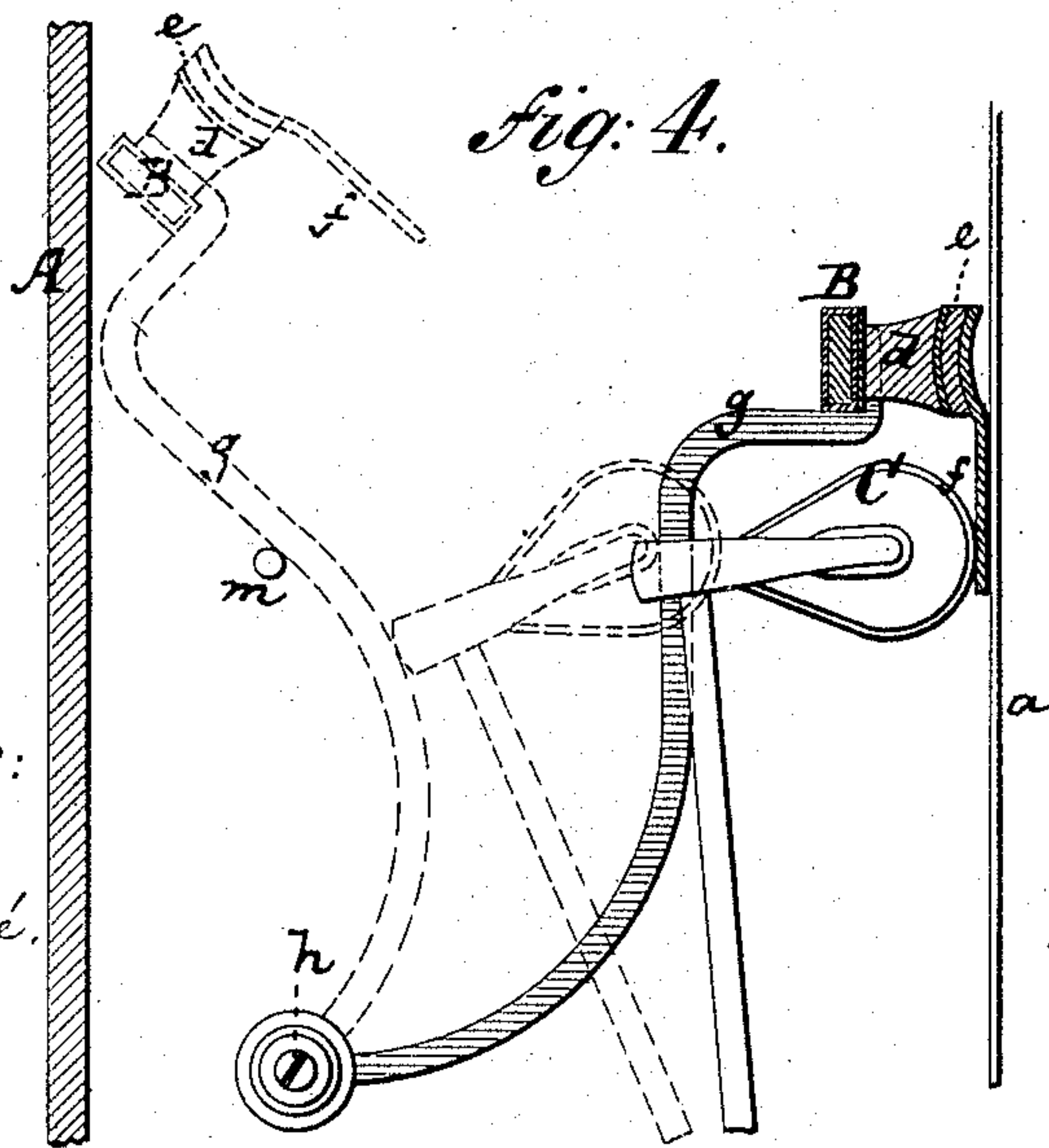


Fig: 4.



WITNESSES:

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MUTE-BAR DAMPER FOR UPRIGHT PIANOS.

SPECIFICATION forming part of Letters Patent No. 353,301, dated November 30, 1886.

Application filed February 18, 1886. Serial No. 192,414. (No model.)

To all whom it may concern:

Be it known that I, PAUL GMEHLIN, a resident of the city of New York, county and State of New York, have invented an Improved Mute-Bar Damper for Upright Pianos, of which the following is a complete specification, reference being had to the accompanying drawings.

Figure 1 is a face view of an upright piano having my mute-bar damper. Fig. 2 is a front view of part of the mute-bar damper, portion thereof being shown in section. Fig. 3 is a top view of the same. Fig. 4 is a cross-section of same.

The object of my invention is to provide an upright piano with an attachment by means of which the instrument may be made inaudible to all except the player. The annoyance suffered by neighbors and others from loud playing of beginners and practitioners will thus be entirely avoided.

The invention, in substance, consists in providing the instrument with a weighted and cushioned damper-bar, which carries a flexible apron and is wholly disconnected from any pedal, as hereinafter more fully described.

In the drawings, the letter A represents the upright piano, in which *a* are the strings, and *b* the overstrings. In front of these strings is a bar, B, which, by preference, is made of metal and sufficiently heavy that it would damp the strings when placed against them. This bar B carries a molding, *d*, to which is glued a strip, *e*, of felt, and this in turn carries a wider strip or apron, *f*, of felt. The bar B is attached to brackets *g*, which at *h* are pivoted to the frame or casing of the instrument. The bar B can be thrown forward by hand, so that it rests by its own weight on the strings of the piano and acts as a perfect damper.

C in Fig. 4 represents a hammer.

Fig. 4 clearly shows that when the bar B is let forward against the strings *a*, pressing the apron *f* against the same, the latter lies in the path of the hammers, so that each hammer, instead of striking the string in its front, will only strike the apron, and therefore indirectly vibrate the string. The player will still hear the string gently sounded, but at a distance the operation will be inaudible. This arrangement is superior to contrivances which entirely suppress the production of sound in

pianos, in that it permits the player to hear the music and judge of the correctness or incorrectness of his playing.

When the bar B is swung back, as is indicated by dotted lines in Fig. 4, the hammers will be in a position to strike the strings directly, in the ordinary manner. When the bar B is swung against the strings and the instrument played, it serves by its own weight to damp the string which receives the muffled blow through the apron.

The molding *d* is cut away near the treble end of the instrument, as is indicated at *i* in Fig. 2, to allow the bar to be brought fully forward and avoid the bridge *j*, which would otherwise overlap. That part of the apron *f* which is to be placed against the overstrings is set back, as at *f*^x, (see Fig. 3,) of the other part of said apron as far as the overstrings extend forward of the strings. The parts *f* and *f*^x do not overlap.

For arresting the bar B in its inactive position, suitable stops, *m*, may be secured in the frame or casing of the instrument.

I am aware that mute-bar attachments have been used which prevent the production of any sound; also that bars have been supplied with aprons to bring these aprons in the path of the hammers, but such bars were not damper-bars adapted to act by their own weight.

I claim—

1. The movable weighted damper-bar B, provided with the felt facing *e*, and with the flexible apron *f*, which is adapted to be carried in or out of the path of the series of hammers of a piano, the damper-bar with its felt facing serving by its own weight to damp the string which receives the muffled blow, as specified.

2. The weighted damper-bar B, combined with the molding *d*, having tapering portion *i*, and with the flexible apron *f*, substantially as herein shown and described.

3. The weighted damper-bar B, provided with the flexible aprons *f* and *f*^x, which are set in different planes on said bar without overlapping one another, as described.

PAUL GMEHLIN.

Witnesses:

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HARRY M. TURK.