

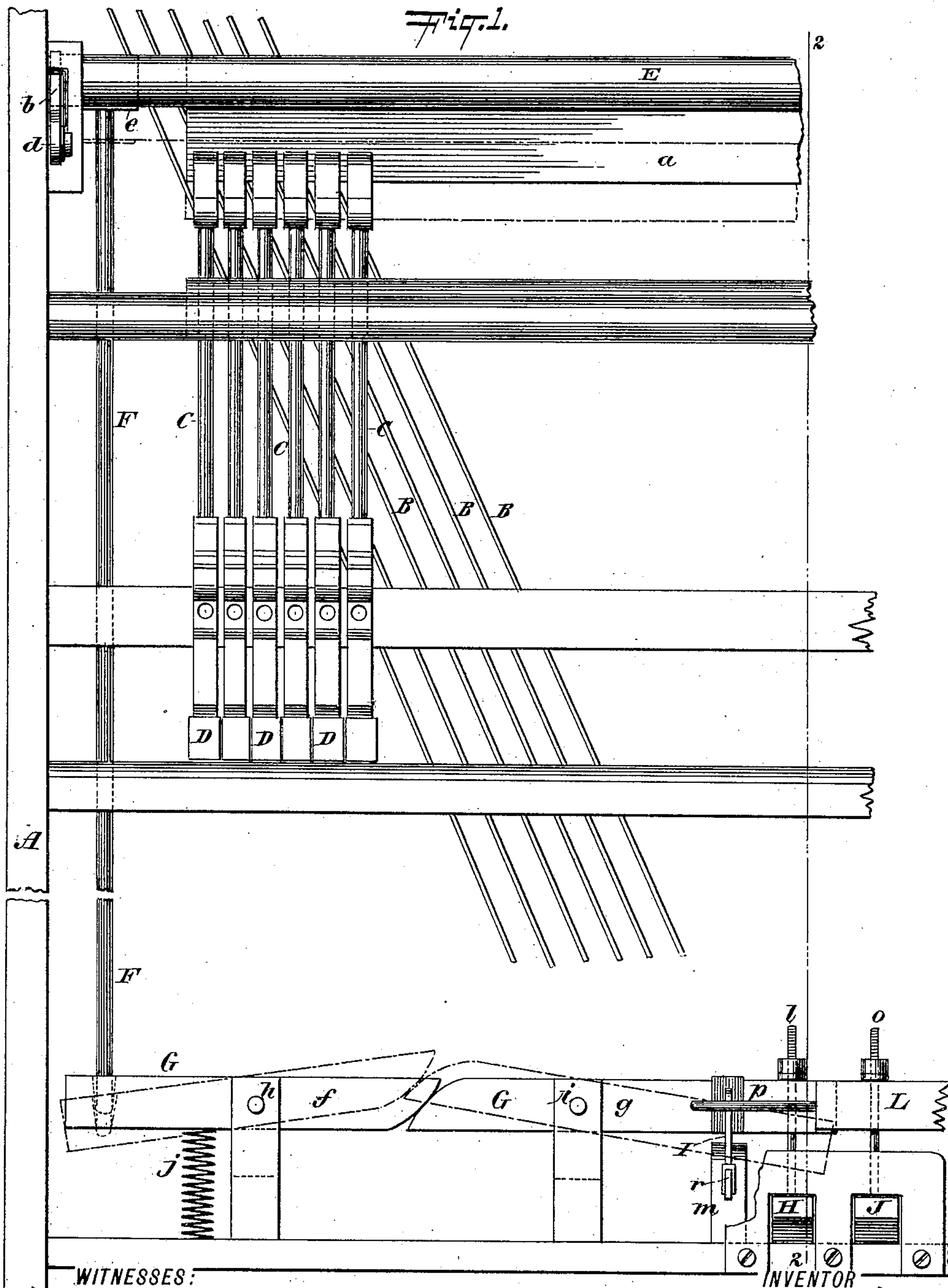
(No Model.)

2 Sheets—Sheet 1.

H. JACOBI.
MUFFLING ATTACHMENT FOR PIANOS.

No. 467,132.

Patented Jan. 12, 1892.



Gustave Dietrich
Henry E. Eversding

Henry Jacobi
BY *Briesen & Knautz*
HIS ATTORNEYS.

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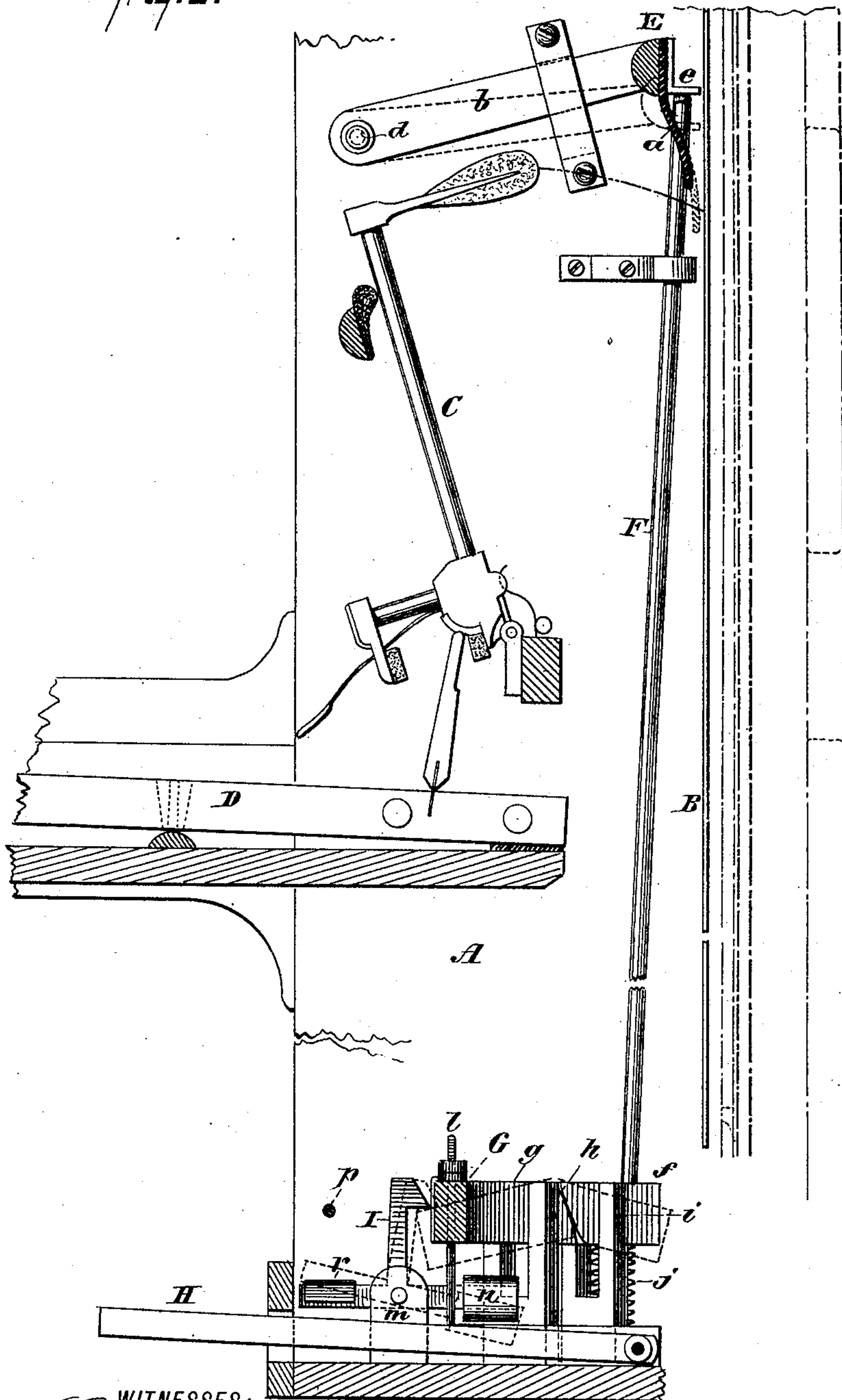
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Fig. 2.



WITNESSES:
Gustave Dietrich
Henry E. Eversding

INVENTOR
Henry Jacobi
BY *Briese & Knaut*
HIS ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY JACOBI, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES S. FISCHER,
OF SAME PLACE.

MUFFLING ATTACHMENT FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 467,132, dated January 12, 1892.

Application filed August 10, 1891. Serial No. 402,310. (No model.)

To all whom it may concern:

Be it known that I, HENRY JACOBI, a resident of the city of New York, in the county and State of New York, have invented an Improved Muffling Attachment for Piano-Fortes, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 presents a front view of a portion of an upright piano, showing my improvement; and Fig. 2 is a vertical cross-section of the same on the line 2 2, Fig. 1.

This invention relates to a new mechanism for muffling or deadening the sound of a piano-forte or analogous instrument while practicing or at other times, whenever desired, and for throwing the muffling or sound-deadening contrivance out of action whenever needed.

The invention consists of the new combination of parts hereinafter more fully described.

In the accompanying drawings, the letter A represents the frame of an upright piano.

I have in the drawings illustrated the invention as applied to an upright piano, but do not, of course, limit myself to that particular kind of instrument.

B B are the strings, C C the hammers, and D D the keys, of the piano, all of the usual or suitable construction.

E is a bar placed across the line of strings and carrying an apron or muffler attachment *a*, which it is the intention of this invention to interpose between the strings and hammers when the muffling is to take place and to withdraw from between the strings and hammers when the muffling is not to take place. The bar E is for this purpose free to move up and down and to carry the muffling shield or apron *a* up and down with it. When down, as by dotted lines in Fig. 2, the apron serves to muffle the sound. When raised, as by full lines in Fig. 2, it exerts no influence upon the play of the instrument. The bar E has rigidly-projecting arms *b*, that are pivoted at *d* to the frame of the instrument. By moving on these pivots the bar E can be raised or lowered. The bar E or a projection *e* thereon rests on an upright rod F, which stands on a compound lever G, said compound lever being con-

structed, as is usual in many pianos, of two lever-sections *f* and *g*, that are respectively pivoted at *h* and *i* to supports that project for this purpose from the frame-work of the instrument. A spring *j* is placed under the outer portion of the lever-section *f* and has the tendency to raise the same and to lift the rod F and the bar E. This tendency of the spring *j* can be counteracted by means of a pedal H, which connects by strap or rod *l* with the inner end of the compound lever G. Hence by pressing on the pedal H the inner end of the compound lever G is drawn down, the outer end of the same compound lever thereby being also drawn down, the rod F lowered, the bar E lowered, and the muffler put into action.

Now the principal object of this invention is to keep the muffler down and in action once the pedal H is depressed to lower it. For this purpose I place in the proximity of the pedal H or into the framing of the piano a lug *m*, to which is pivoted a weighted hook I. The beak of this hook in the normal position of parts is, by the weight *n* of said hook, made to bear against one face of the compound lever G; but when by depressing the pedal H the end of the compound lever G is drawn down the beak of the hook I is by the weight *n* immediately brought over the top of the lever G, holding its inner end down, and thereby serving, also, to hold the outer end of said compound lever down, thus locking the muffler in the lowered position, all without locking the pedal itself or interfering with its movement. As soon, therefore, as the player depresses the pedal H once or for an instant only the muffler is brought down into action—that is to say, is interposed between the strings and hammers—and is then automatically retained in this effective position so long as the hook I overlaps the lever G. In order now to disengage the said hook I from the lever G and to allow the spring *j* to elevate the muffler out of action, I provide a second pedal J, which connects by strap or rod *o* with its pedal-lever L, which pedal-lever has a projecting arm or pin *p*, that reaches over an arm *r* of the hook I.

In Fig. 2 the pin *p* is shown in section in its normal position above the arm *r*.

Assuming now that the pedal H had been depressed and that thereby the muffler had

been brought down into action and had been locked into action by the hook I lapping over the compound lever G, and that the player desires to re-elevate the muffler out of action, all that is necessary for the player to do is to depress the pedal J for an instant, thereby depressing the arm *r* of the hook and withdrawing the hook from contact with the lever G, whereupon the spring *j* will instantly exert itself and lift the muffler out of the path of the hammers. It is evident that instead of the spring *j* an equivalent weight may be employed. Likewise that instead of the weight *n* an equivalent spring may be employed; also, that it is not essential that the hook I should have the projecting arm *r*, because the pin *p* may be applied directly to the slanting beak of the hook or to any other part of said hook to move the same off the lever G. It is also evident that the pedal J and its pedal-lever L may be used as one of the regular pedals of a piano, its function in disengaging the hook I being an additional function to those it usually performs. In like manner the pedal H is free to be used for other functions than those herein specifically described.

What I claim, and desire to secure by Letters Patent, is—

1. In a piano-forte, the combination of the vertically-movable muffler-bar E and its muffler-apron *a*, and means, substantially as de-

scribed, for supporting said muffler-bar with the rod F, lever G, pedal H, hook I, and spring *j*, said hook I being adapted to catch over the lever G, leaving the pedal free, substantially as herein shown and described.

2. In a piano-forte, the combination of the vertically-movable muffler-bar E and its muffler-apron *a*, and means, substantially as described, for supporting said muffler-bar with the rod F, lever G, pedal H, hook I, spring *j*, pedal J, pedal-lever L, and pin *p* thereon, all arranged so that said pin *p* shall be adapted to disengage the hook I from the lever G, substantially as herein shown and described.

3. The combination, with a pianissimo-pedal and its auxiliary, of a fulcrumed lever connected to them, and a stop arranged to lock the lever when the auxiliary is depressed.

4. The combination, with a pianissimo-pedal and its auxiliary, of a fulcrumed lever for actuating the sound-diminishing mechanism and connected to them, and a pivoted and weighted stop arranged to lock the lever in lowered position when depressed by the auxiliary and to release the same when the pianissimo-pedal is depressed.

HENRY JACOBI.

Witnesses:

HARRY M. TURK,
HENRY E. EVERDING.