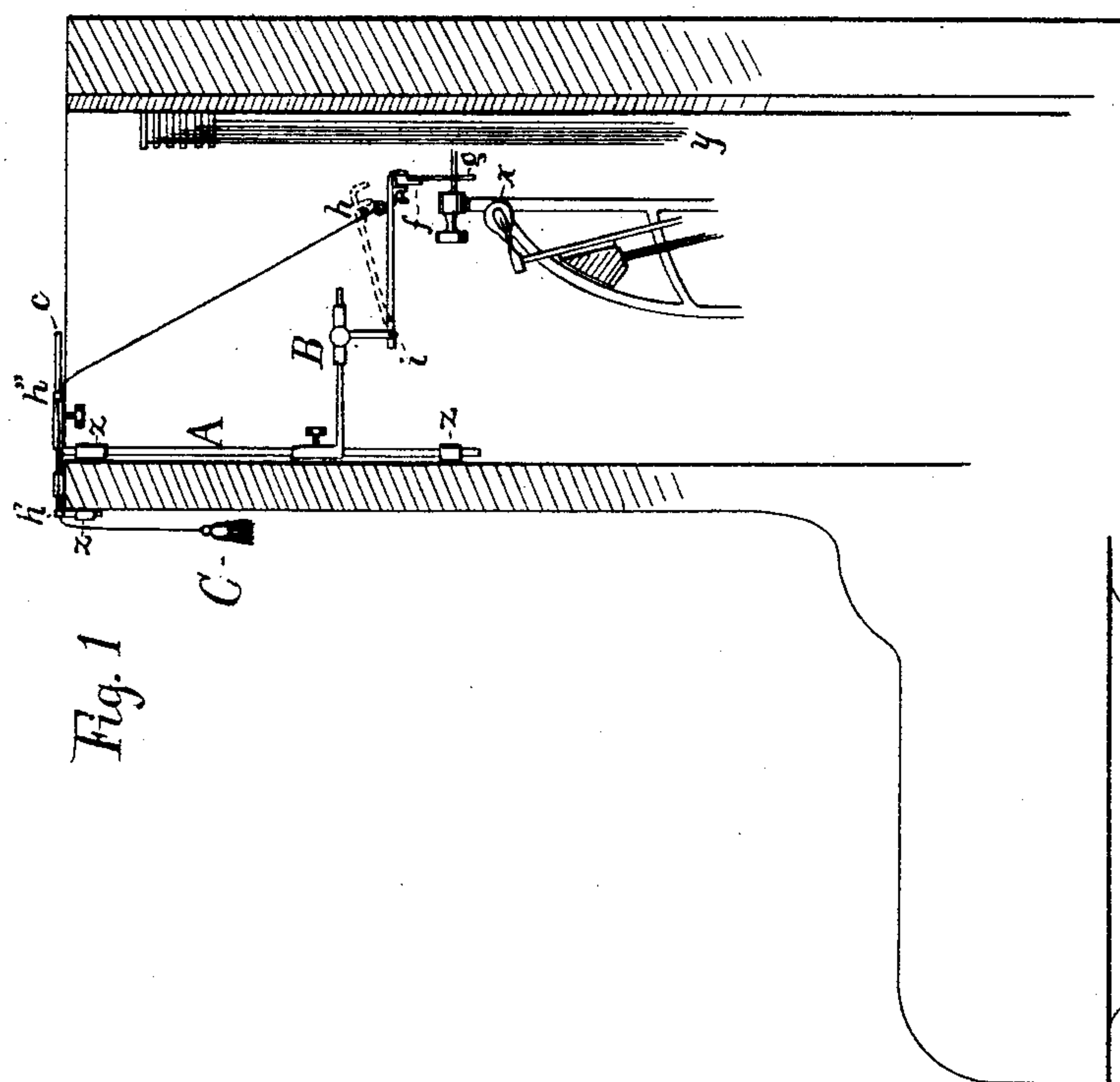
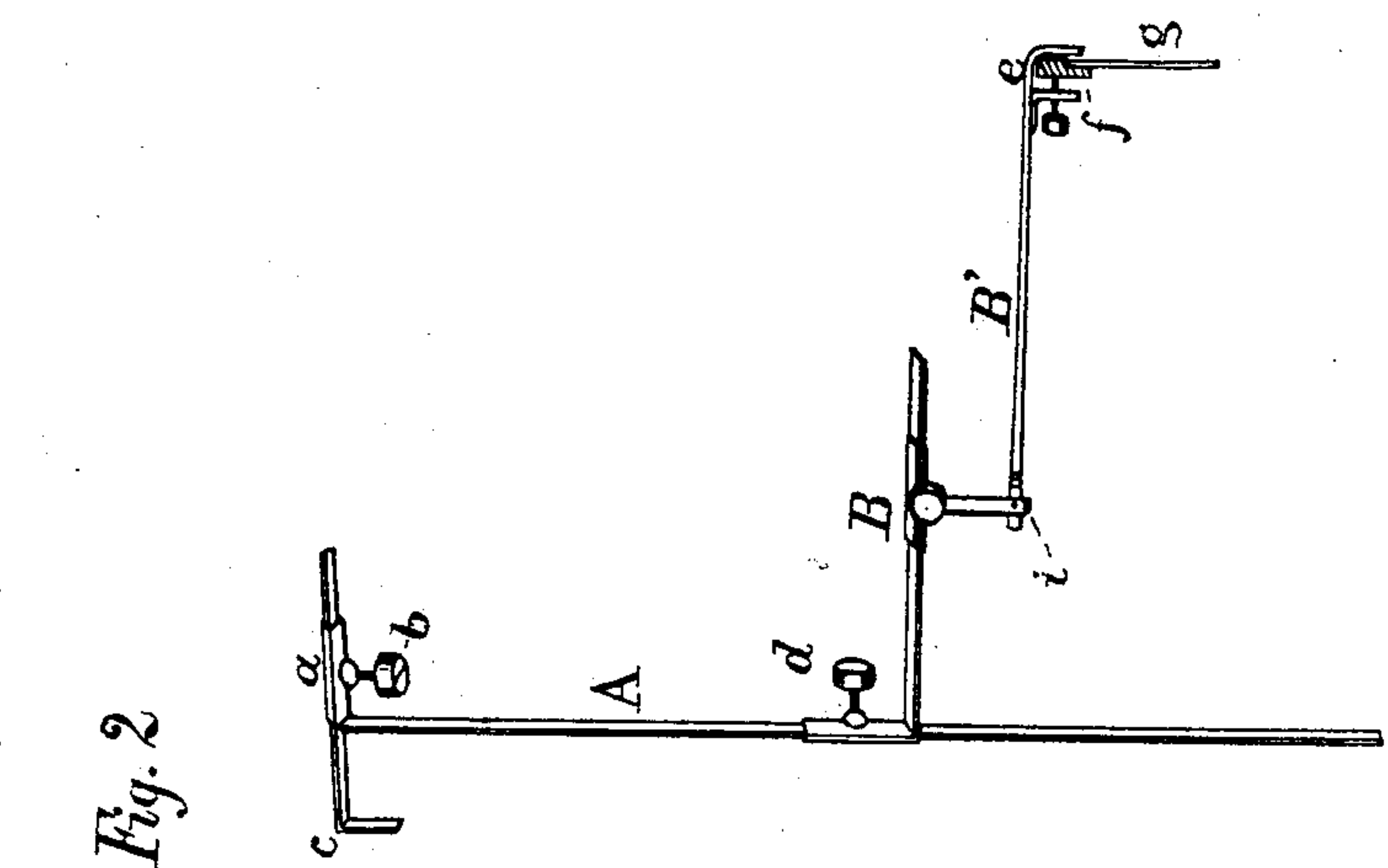


(No Model.)

S. FREIDENRICH & T. J. GEISLER.  
PIANO MUTE.

No. 459,837.

Patented Sept. 22, 1891.



Witnesses:

Albert Oberender  
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# UNITED STATES PATENT OFFICE.

SAMUEL FREIDENRICH AND THEODORE J. GEISLER, OF PORTLAND,  
OREGON.

## PIANO-MUTE.

SPECIFICATION forming part of Letters Patent No. 459,837, dated September 22, 1891.

Application filed June 25, 1890. Serial No. 356,727. (No model.)

*To all whom it may concern:*

Be it known that we, SAMUEL FREIDENRICH and THEODORE J. GEISLER, citizens of the United States, residing at Portland, Multnomah county, and State of Oregon, have invented a new and useful Improvement in Piano-Mutes, of which the following is a specification.

Our invention relates to contrivances for suspending an apron of felt or like soft material between the hammers and strings, so as to reduce the tone to an intense piano or soft quality; and it is the purpose of our invention to construct an adjustable mechanism for suspending such muting-apron, so that the same can be readily attached to a piano and operated from the outside, and when attached the piano may be used with or without the muting appliance without removing the latter. This we accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 shows a partial vertical section of a piano with our invention attached, and Fig. 2 is a side elevation in perspective.

Like letters refer to like parts.

A is a flat rod, having a slide *a*, with a thumb-screw *b*, in which adjusts the extension-clamp *c*. The movable extension-arm B B' is also provided with a slide and thumb-screw *d* for adjusting on the rod A, and from the end of this extension-arm is suspended in the brace *e* the slat *f*, to which is attached the apron made of felt or other suitable material, such apron being suspended between the hammer *x* and strings *y*. The lower part of the extension-arm B' is pivoted at *i*, so that by being properly stopped it will hang at about right angles to the rod A, but permitting it to be raised about an inch or sufficient to enable the apron to clear the hammers *x*. A cord or gut string is next attached to the eye *h* and passed through eyes *h'* *h''*, and to the end of this is attached the weighted tassel C, heavy enough to counterbalance and sustain the lower arm B' and the apron carried by it in an inclined position, as shown in

Fig. 1. Our invention having been attached to a piano, the action of the former can be controlled by means of the tassel C, viz: Pulling this down will raise the mute or apron, so as to free the hammers, while lifting the tassel will cause the mute or apron to drop in place by its own weight, so that the hammers will strike against it in their action against the keys; and to protect the polished surfaces of the instrument from being scratched we slip over the parts coming in contact therewith rubber bands *z*. Our mechanism is suspended from the front of the piano, and cuttings must be made in the apron wherever required to pass some brace or other part of the instrument. Two of our brackets are to be used attached to any convenient place on the front of the piano, so as to hold the apron-slat nicely in position that when in use or otherwise it will not come in contact with the strings. The slat must be made stout enough to remain rigid when raised or lowered by the cord, so that operating one bracket with such cord will cause the other to respond to its action.

Now what we claim as our invention, and desire to secure by Letters Patent, is—

1. In a piano-mute, in combination, an adjustable bracket, a movable extension-arm supported thereby, an apron carried by said arm, and means for raising and lowering said arm and with it the apron to withdraw the latter from or insert it between the hammer and strings at will, substantially as described.

2. In combination, the rod A, having a slide *a* *c*, movable extension-arm B B', adjustable on the rod A by its slide *d*, and clamp *e*, the latter carrying the slat *f*, and apron *g*, and being operated by means of a cord and counter-weight C, as and for the purposes described.

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THEODORE J. GEISLER.

Witnesses:

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