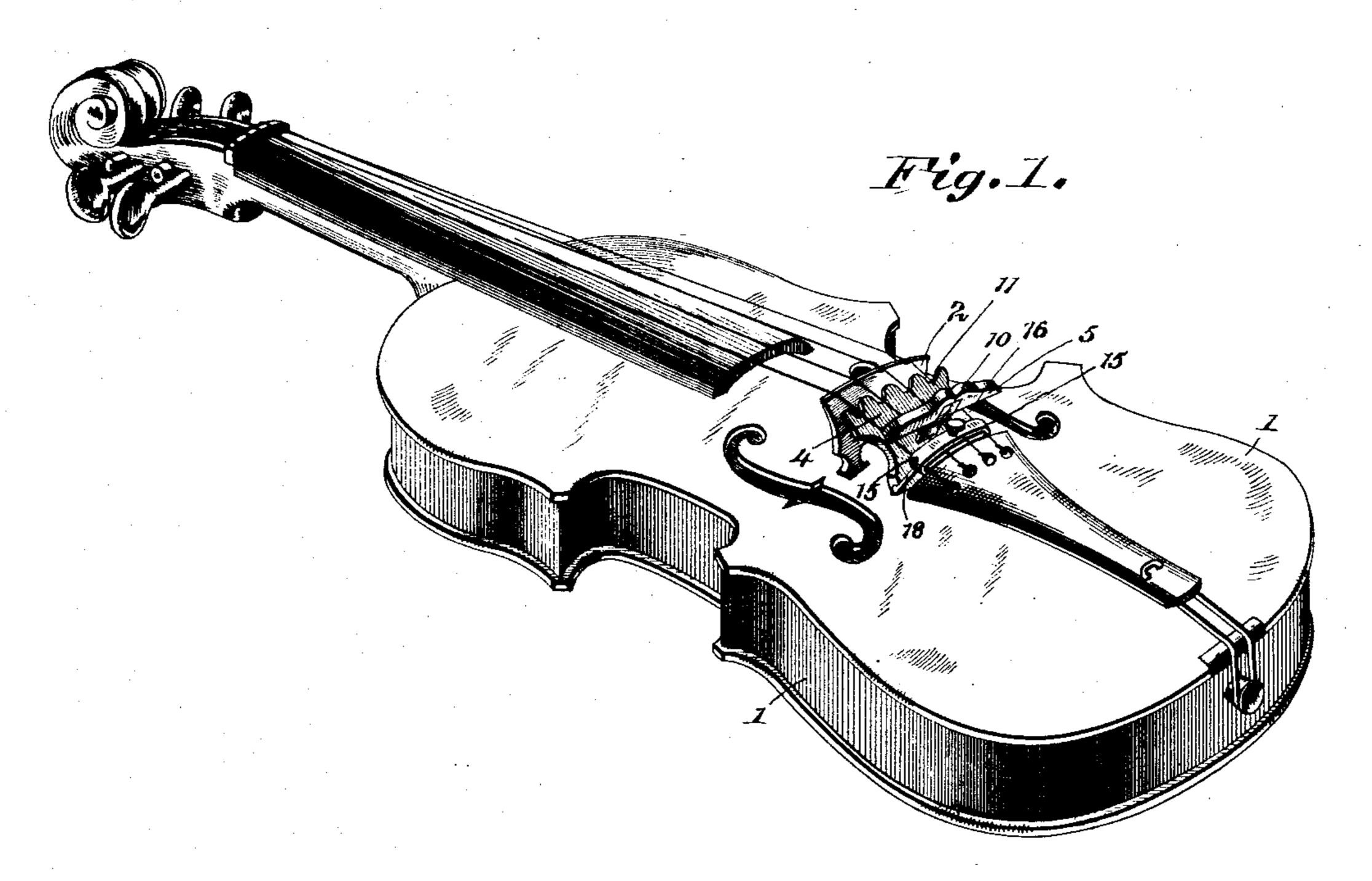
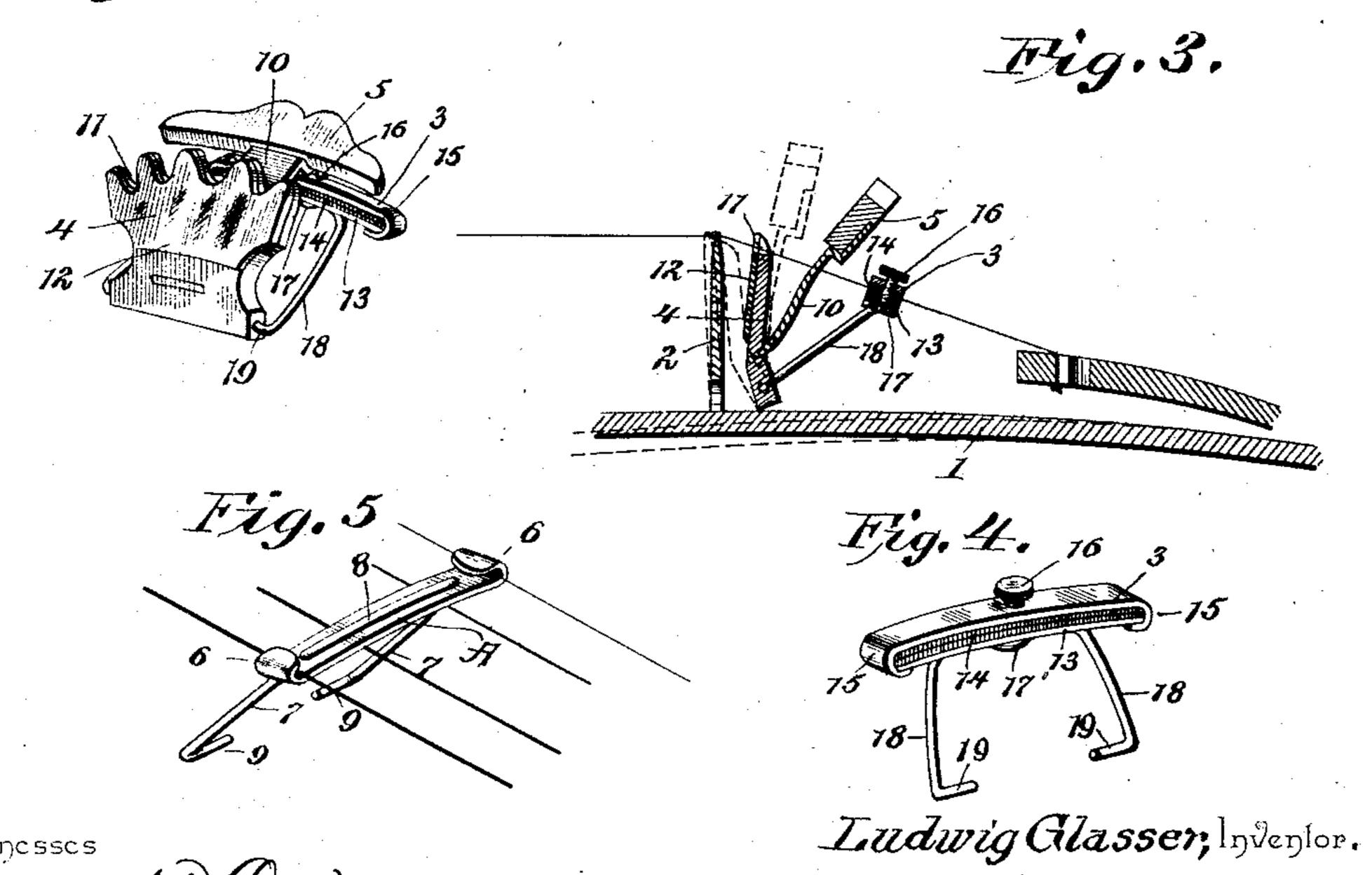
## L. GLASSER.

MUTE.

(Application filed June 9, 1899.)

(No Model.)





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## United States Patent Office.

LUDWIG GLASSER, OF OLEAN, NEW YORK.

## MUTE.

SPECIFICATION forming part of Letters Patent No. 632,407, dated September 5, 1899.

Application filed June 9, 1899. Serial No. 719,948. (No model.)

To all whom it may concern:

Beitknown that I, LUDWIG GLASSER, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New 5 York, have invented a new and useful Mute, of which the following is a specification.

This invention relates to mutes for musical stringed instruments, and is particularly designed for use in connection with violins.

The object of the present invention is to provide a simple device which may be readily fitted to the violin and is automatically thrown into and out of engagement with the bridge thereof, whereby the player is not required

15 to operate the device by hand.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying draw-20 ings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and the minor details of construction may be made within the scope of the appended claims with-25 out departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a perspective view of the violin, showing the improved mute 30 fitted thereto. Fig. 2 is a detail perspective view of the mute. Fig. 3 is a detail longitudinal sectional view of the mute and a portion of a violin, showing both the operative and inoperative positions of the mute. Fig. 35 4 is a detail perspective view of the holder. Fig. 5 is a similar view of a modified form of holder.

Corresponding parts in the several figures of the drawings are designated by like char-40 acters of reference.

Referring to the accompanying drawings, 1 designates a violin of common form, having the usual bridge 2, these being fully shown so as to illustrate the application and opera-45 tion of the device.

The mute consists, essentially, in a holder or support 3, a mute block or plate 4, pivoted or hinged to the holder, and an actuating-weight 5, carried by the mute-block and adapted to 50 swing the latter upon its pivotal or hinged connection with the holder thereof.

The holder is best illustrated in Fig. 4 of | with the strings. It is preferable to locate

the drawings and comprises upper and lower clamping members 3 and 13, respectively, the contiguous faces of which are provided with 55 strips of felt 14 or other suitable packing material which will not injure the strings of the instrument. The opposite ends of the upper clamp member 3 are bent inwardly and downwardly, forming opposite hooks 15, embracing 60 the opposite ends of the lower clamp member 13. These members are adjustably connected together by means of a thumb-screw 16, passing loosely through the upper member intermediate of its ends and engaging a suitable 65 nut 17, fixed to the under side of the lower member 13. Connected to the under face of the lower clamp member is a pair of opposite spring-arms 18, which are preferably formed from a single length of wire bent into sub- 70 stantially U shape, the bend thereof being soldered or otherwise secured to the said clamp member. The lower extremities of these arms are bent inwardly so as to form pivots 19, upon which the mute block or plate 75 4 is adapted to be mounted.

In fitting the holder to the violin the lower clamp member 13 is placed against the under side of the hitch portions of the strings of the instrument and the upper member 3 is fitted 80 over the upper sides of the strings with the hooks 15 embracing the outer strings and the ends of the member 3, after which the thumbscrew 16 is engaged with the members so as to clamp the same firmly upon the strings. 85 The holder being thus positioned the muteblock 4 is passed beneath the hitch portions of the strings and in rear of the bridge 2, and then the pivots 19 of the supporting-arms 18 are sprung into suitable openings provided 90 in the opposite edges of the mute-block and near the lower end thereof, whereby the muteblock is pivoted to the holder and may be actuated by gravity to throw the block into engagement with the rear side of the bridge.

To hold the mute normally out of engagement with the bridge 2, the weight 5 is provided and is connected to the rear side of the mute-block by means of a suitable connecting-arm 10, which engages the holder above roc its pivotal connection with the supportingarms 18 and carries the weight at its outer free end above and wholly out of engagement

the connecting-arm 10 intermediate of the sides of the mute-block, so that said arm may work between the D and A strings of the violin.

The block is provided in its upper edge with suitable notches 11, corresponding to the number of strings of the instrument and they are adapted to receive said strings when the mute is thrown out of engagement with the bridge, to as shown in Fig. 3. A suitable covering 12, of leather, felt, or the like, is fitted to the front side of the mute-block and is adapted to engage the bridge, whereby the mute-block is cushioned upon the bridge and sympathetic 15 vibrations of the block are deadened or prevented.

A modified form of holder is shown in Fig. 5 and comprises a flat strap A, bowed intermediate of its ends and having the latter bent 20 inwardly across the upper face thereof, forming the hooked shoulders 6. The mute-block 4 is connected to the strap A by means of a pair of opposite arms 7, which are preferably formed from a single length of wire bent in-25 termediate of its ends into substantially U shape, having the transverse bent portion 8 soldered or otherwise connected to the upper face of the strap A and the opposite arms 7 being passed through openings provided in 30 the strap, whereby the arms embrace the holder and are firmly connected thereto. The free extremities of the arms are bent inward, so as to form pivots 9, which are adapted to be loosely and removably fitted into 35 suitable openings provided in the opposite side edges of the mute-block and near the lower end thereof.

As best shown in Fig. 5, it will be seen that the holder is fitted to the hitch portions of the 40 strings by passing the arms 7 astraddle of the D and A strings and within the respective G and E strings, whereby the strap A engages across the top of the D and E strings, and the opposite ends of the strap are engaged 45 beneath the respective G and E strings, and the hooked shoulders 6 engage over the latter, whereby the holder is firmly fitted in place. After the holder has been positioned as described the mute-block 4 is passed be-50 neath the hitch portion of the strings and between the holder and the bridge 2, and then the pivots 9 of the opposite arms 7 are sprung into engagement with the respective openings provided in the opposite sides of the block, 55 whereby the block is pivoted at its lower end to the arms of the holder and is adapted, by reason of its own weight, to drop forward into engagement with the rear side of the bridge and beneath the strings of the violin.

In the operation of the device, the violin being in its normal horizontal position, the mute-block is held out of engagement with the bridge by reason of the fact that the weight 5 is disposed in the rear of the vertical 65 plane of the pivotal axis of the mute-block. When it is desired to bring the mute into operation, it is simply necessary to lower or de-

press the neck of the violin, whereby the weight 5 will drop forward and engage the front side of the mute-block with the rear 70 side of the bridge, as indicated in dotted lines in Fig. 3. In the normal position of the mute the bases of the notches 11 are adapted to engage against the hitch portions of the strings of the violin, so as to prevent the mute-75 block from being thrown or tilted too far backward and also to hold the mute-block in a substantially upright position, whereby a slight depression of the neck end of the violin is adapted to throw the mute into engage- 80 ment with the bridge.

The present invention provides an exceedingly simple and practical device which may be readily fitted to a violin, and may be thrown into or out of operation automatic- 85 ally, whereby the player need not stop playing to operate the mute. Furthermore, the parts of the device are few in number and are connected together in a simple and substantial manner, whereby the device is not 90 liable to get out of order.

Having thus described the invention, what I claim is—

- 1. A mute for stringed musical instruments, comprising a holder, a mute-block pivoted or 95 hinged thereto, and actuated by gravity to throw the mute into operation, substantially in the manner shown and described.
- 2. A mute, comprising a holder, a muteblock pivoted or hinged to the holder, and a 100 weight connected to the mute-block and adapted to throw the mute into operation by a movement of the instrument, substantially. in the manner shown and described.
- 3. A mute for violins and other stringed 105 musical instruments, comprising a holder, supporting the arms pendent therefrom, and a mute-block pivoted or hinged near its lower end to the lower end of the pendent arms, whereby the block is located below the strings 110 of the instrument and is adapted to engage one side of the bridge thereof, substantially as shown and described.
- 4. A mute for violins and other stringed musical instruments, comprising a holder 115 adapted to be fitted to the hitch-strings of the instrument, a mute-block pendent from the holder and located below the hitch-strings and adapted to be thrown into engagement with the adjacent side of the bridge, the up- 120 per edge of the mute being provided with notches adapted to receive the strings, substantially as shown and described.
- 5. A mute for violins and other stringed musical instruments, comprising a holder 125 adapted to be fitted to the hitch-strings of the instrument, a mute-block pendent from the holder and having a pivotal or hinged connection therewith, an arm projecting upwardly and rearwardly from the mute-block, 130 and a weight carried at the upper end of said arm, substantially as and for the purpose set forth.
  - 6. In a mute for violins and like stringed

musical instruments, the combination with a holder comprising a pair of clamping members, one of the members being provided with hooks at its opposite ends and embracing the respective ends of the other member, a thumb-screw adjustably connecting the clamping members, and opposite arms inclined forwardly and downwardly from the holder, and provided at their lower ends with inwardly-extending pivots, a mute-block pivoted near its lower end to the pivots of the respective arms, and an actuating-weight carried by the mute-block, substantially as shown and described.

musical instruments, the combination with a holder comprising a pair of clamping members, one of the latter having its opposite ends bent into hooks which embrace the respective ends of the other clamp member, a thumbscrew adjustably connecting the clamping members, and opposite arms formed from a single length of wire bent into substantially

U shape and connected to the under side of the lower clamp member, the free ends of said arms being bent inward and forming pivots, of a mute-block mounted upon the pivots of the said arms, and an actuating-weight carried by the mute-block, substantially as shown and described.

8. In a mute for violins and like stringed musical instruments, the combination with a mute-block, of a holder therefor having opposite arms embracing the mute-block and adapted to be sprung into pivotal engagement 35 therewith, and an actuating-weight carried by the mute-block, substantially as shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 40 the presence of two witnesses.

LUDWIG GLASSER.

Witnesses:

J. II. THOMPSON,

J. M. LARKIN.