

No. 714,658.

Patented Dec. 2, 1902.

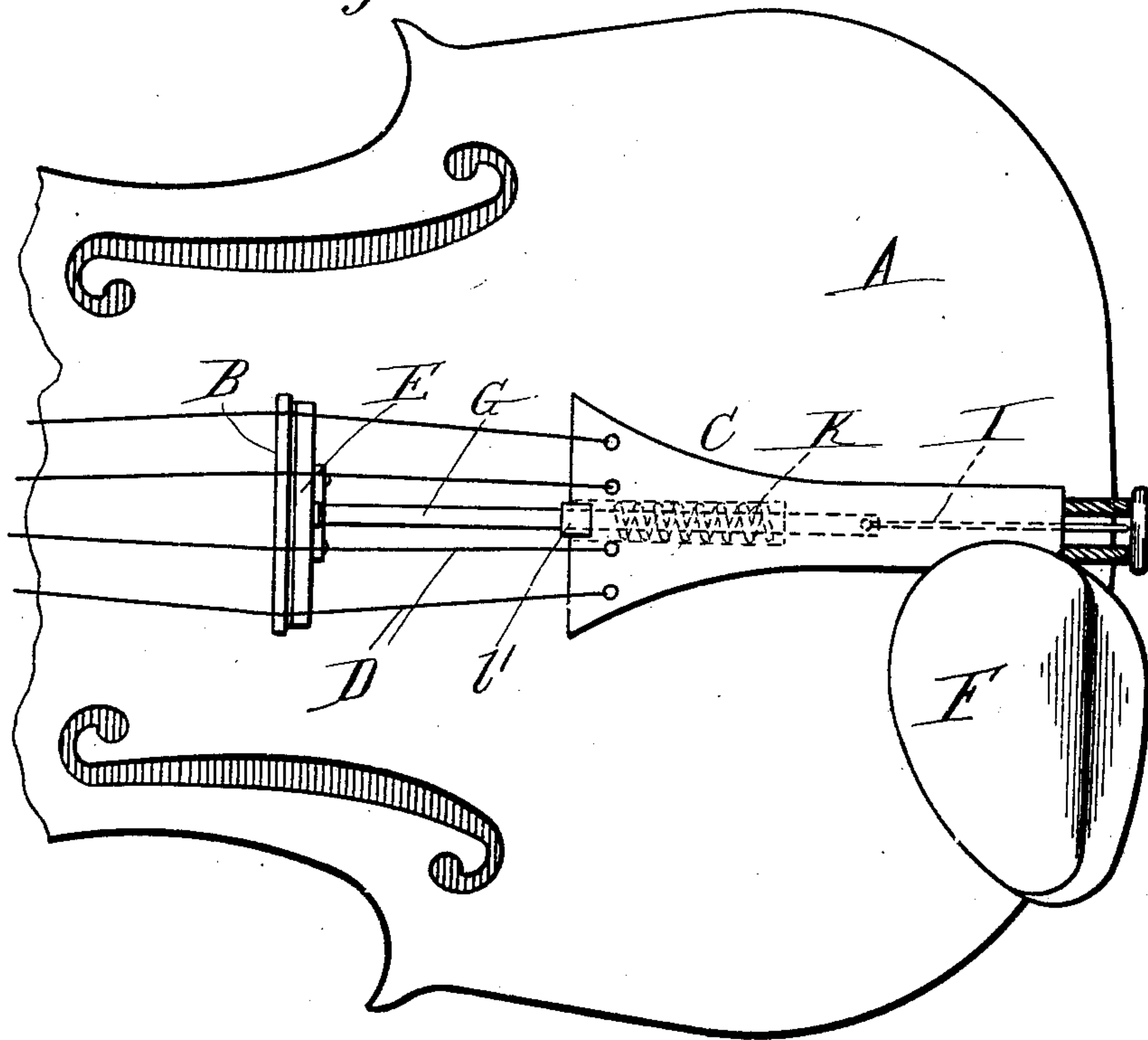
E. BARGINDE.  
DEVICE FOR MUTING VIOLINS.

(Application filed May 2, 1901.)

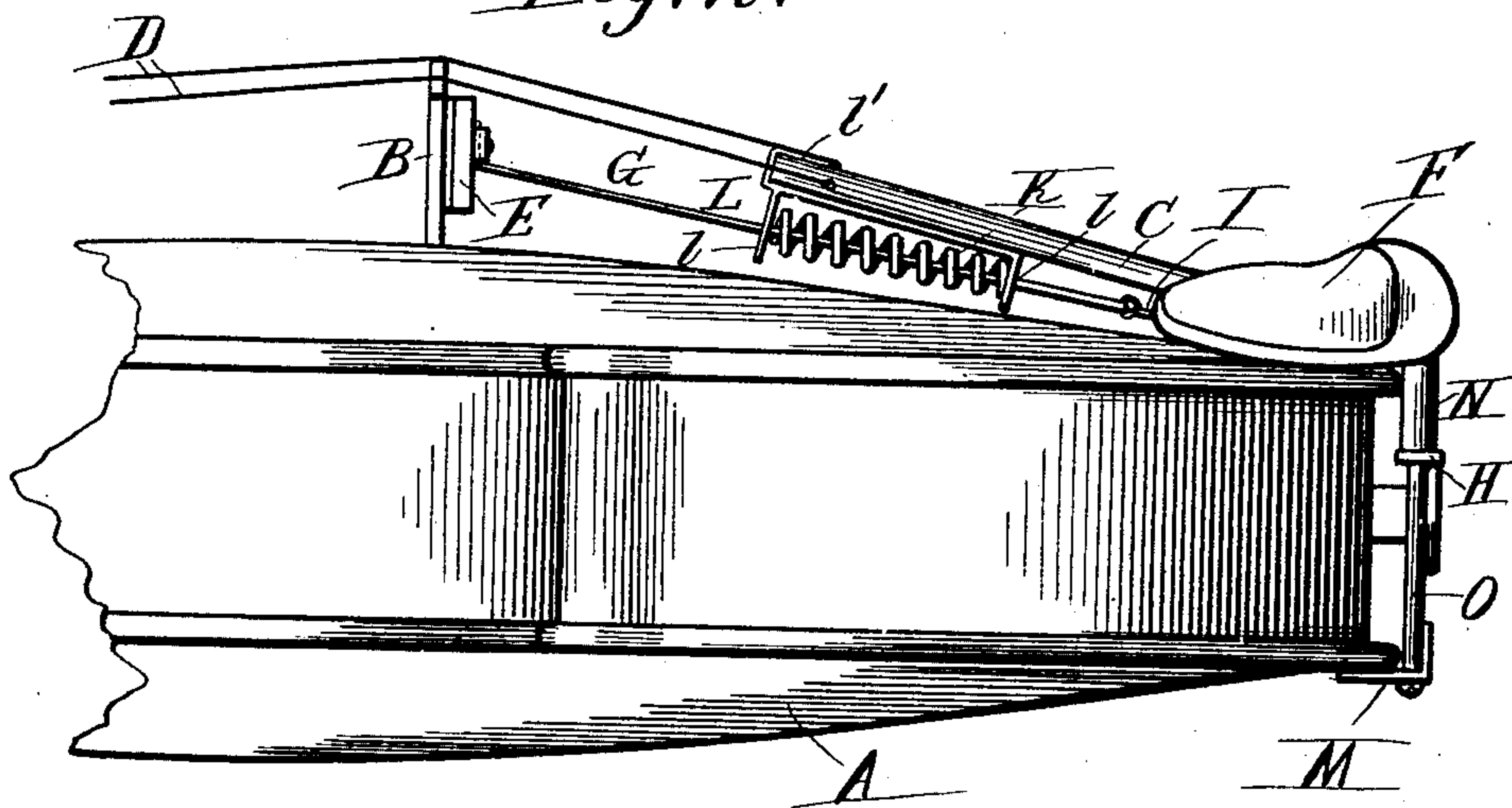
(No Model.)

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*Fig. 1.*



*Fig. 2.*



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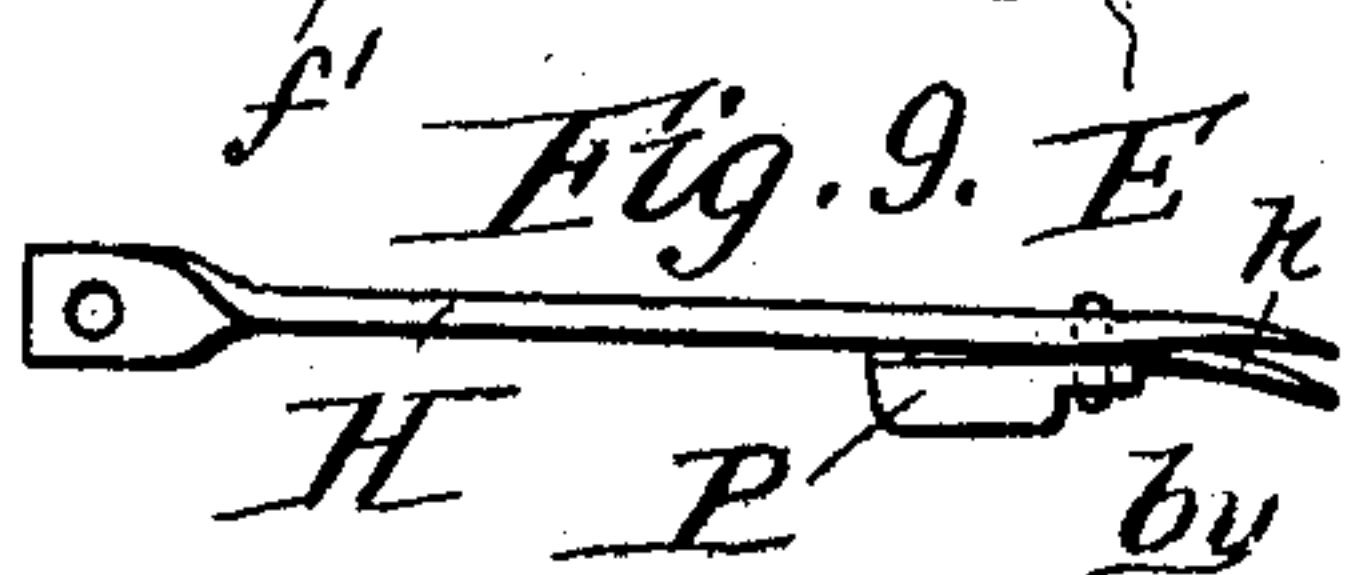
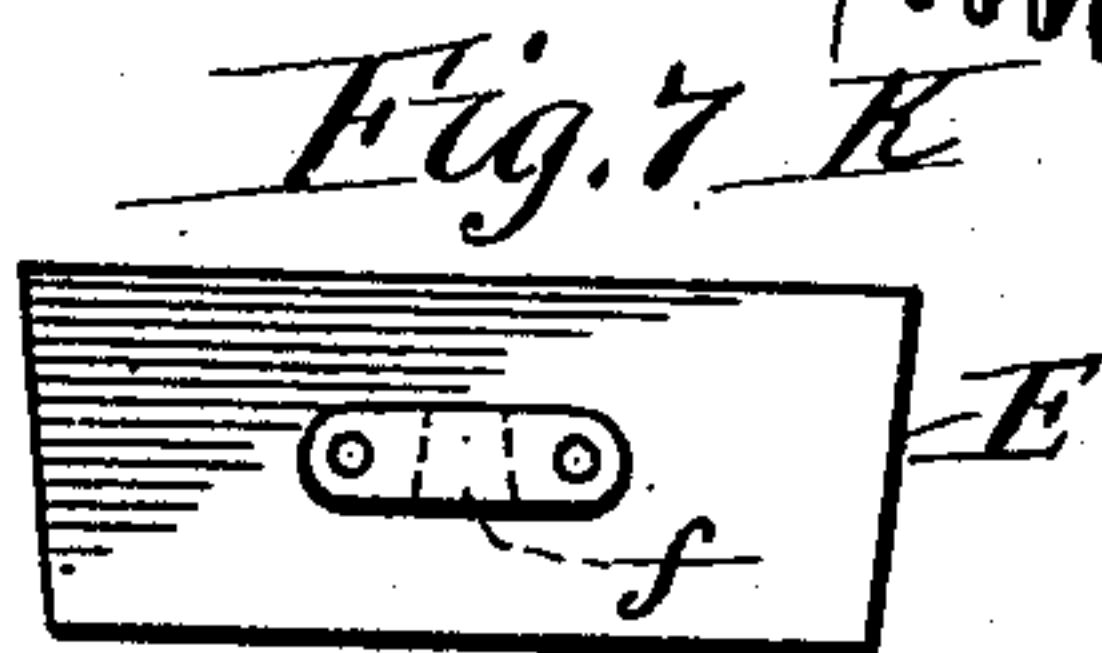
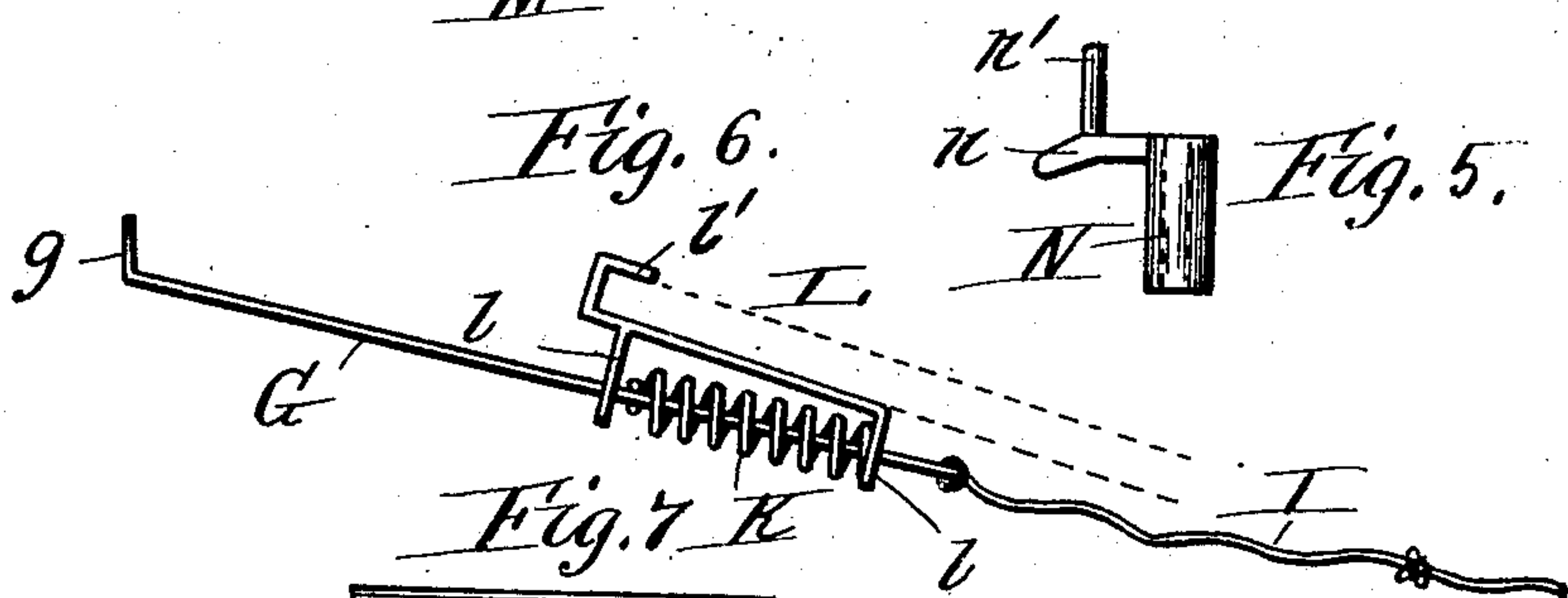
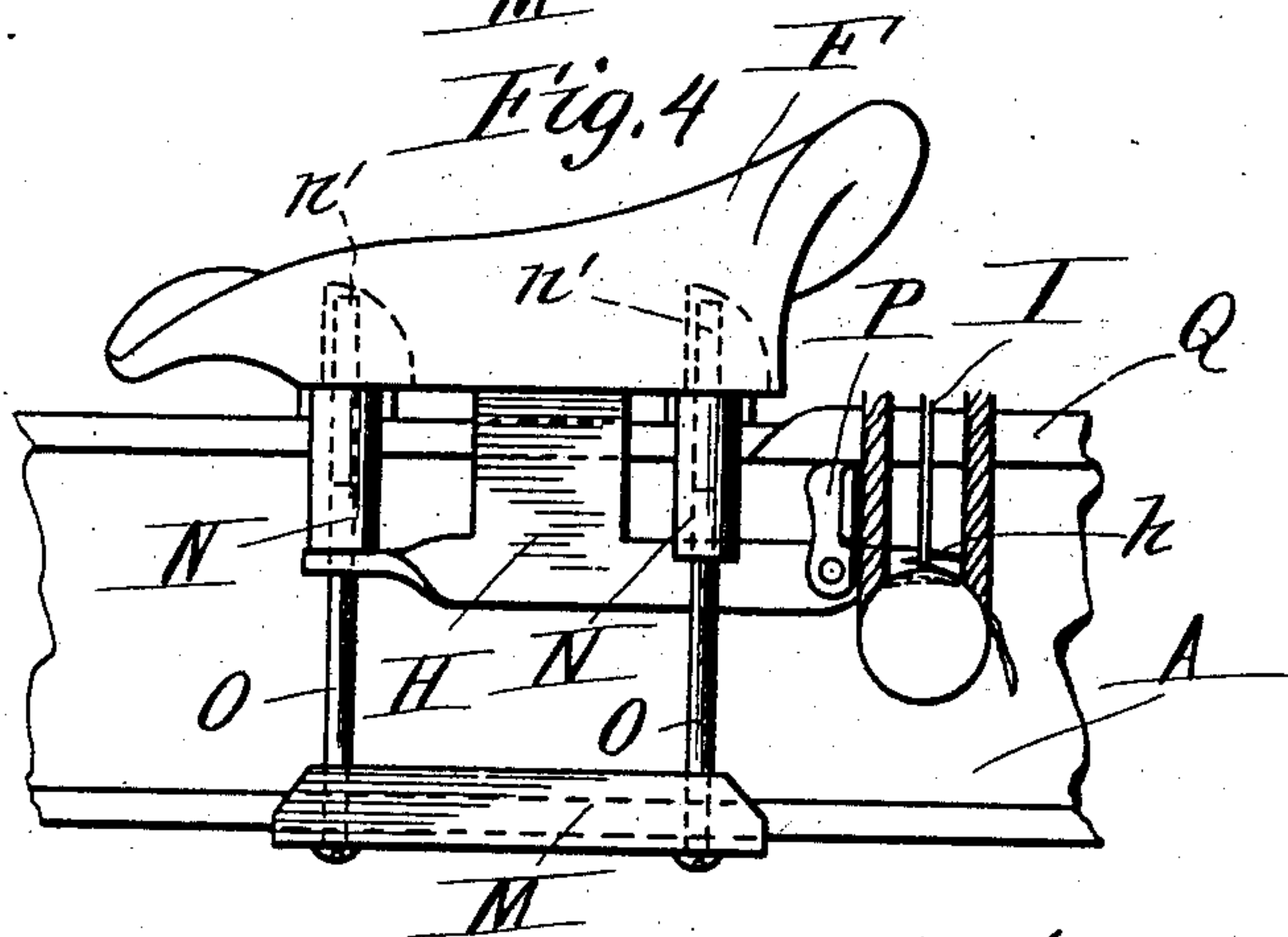
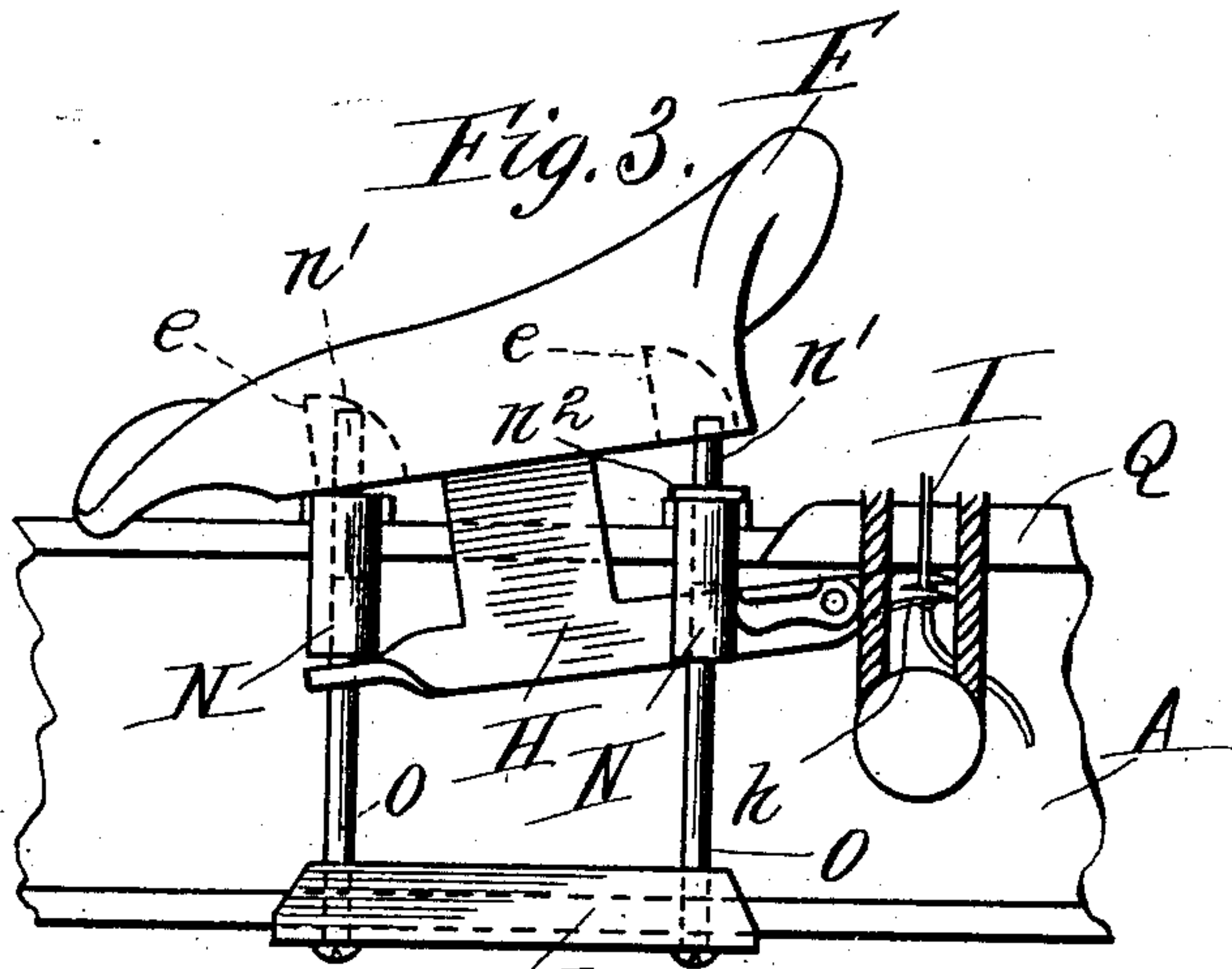
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# UNITED STATES PATENT OFFICE.

EWALD BARGINDE, OF CHICAGO, ILLINOIS.

## DEVICE FOR MUTING VIOLINS.

SPECIFICATION forming part of Letters Patent No. 714,658, dated December 2, 1902.

Application filed May 2, 1901. Serial No. 58,525. (No model.)

*To all whom it may concern:*

Be it known that I, EWALD BARGINDE, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have  
5 invented a certain new and useful Improvement in Devices for Muting Violins and other Stringed Instruments of the Viol Class, of which the following is a specification.

My invention relates to means for muting  
10 violins and violas, and comprising a mute which is automatically caused to engage the bridge of the instrument by spring-power and which is freed from the bridge by the performer.

15 Objects of my invention are to avoid any and all pressure upon the tailpiece of the instrument when the mute is actuated by the performer, and thereby to avoid such variations of tone as will occur when the tailpiece  
20 is subject to pressure during the act of playing upon the strings; to permit the performer to continuously maintain bearing contact between his or her chin and the upper side of a chin-rest, which is concaved to fit and receive the chin, and thereby to hold the instrument between the chin and collar-bone, and at the same time to operate the mute by simply varying the chin-pressure upon the chin-rest without shifting the chin there-  
25 from.

Further objects are to attain the foregoing-described advantages and also permit the player to mute the instrument at will and at any time during the performance of a piece  
35 without reference to stops or rests; to instantly change the character of the tone of the instrument whenever such change becomes desirable by throwing on or off the mute without the slightest interruption of the playing; to  
40 permit such changes to be made without notice by an audience, and thereby maintain an illusion which will to some extent be dispelled by the usual method of stopping the playing of the instrument for a length of time sufficient to permit the player to either apply or  
45 remove an ordinary mute; to automatically mute the instrument at the will of the player; to provide a simple and efficient device for muting such instruments at will and while  
50 playing without hindrance to the performer; to render the operation of such devices a mat-

ter which shall be in consonance with the natural bent of the player, and to provide certain novel and improved features of combination, arrangement, and details.

In the accompanying drawings, Figure 1 illustrates a muting device embodying the principles of my invention and applied to a violin, a portion only of the instrument being shown. Fig. 2 is a side view of the muting device and portion of the violin shown in Fig. 1. Fig. 3 is an end elevation showing a portion of the instrument with the chin-rest in position to allow the mute to engage the bridge. Fig. 4 is a like view showing the mute device locked in position to hold the mute away from the bridge. Fig. 5 shows one of the clamp-nuts. Fig. 6 illustrates a spring-controlled support or carrier for the mute and a bracket by which such support or carrier is held and guided. Fig. 7 shows the rear side of the mute. Fig. 8 is an edge view of the mute as seen from its lower edge. Fig. 9 is a detail showing a lever having a cord-gripping end.

In said drawings, A indicates the rear portion of a violin; B, the bridge; C, the tailpiece, and D the strings.

The mute E is adapted and arranged to be brought into engagement with and also released from the bridge at the will of the player of the instrument and at any time during the performance without interruption of the playing. Broadly considered, the mute may engage the bridge in any way consistent with any means or mechanism arranged for throwing the mute on and off and adapted to be operated by the player at will and without necessitating an interruption of the playing of the instrument.

The mute-operating means illustrated in connection with a violin comprises a vibratory chin-rest F, which is concaved, as usual, to fit or receive the performer's chin and depressed by down pressure of the chin of the player when it is desired to free the mute from the bridge, and a spring arranged to normally bring and maintain the mute in engagement with the bridge when the chin-rest is relieved of the pressure necessary to overcome the spring-power and free the mute from the bridge. As a simple and efficient



construction the mute is held at the forward end of a reciprocating carrier or plunger G, consisting, for example, of a rod having its rear end connected with a vibratory lever H by a cord I. The vibratory lever H is arranged opposite the rear side portion of the instrument and is secured to the vibratory or tilting chin-rest E, whereby movement on the part of the chin-rest in one direction will serve to move the mute through the medium of the cord and rod. With such arrangement movement of the mute in an opposite direction will be secured by the action of the spring K. As a simple and efficient organization the longitudinally-reciprocating rod has its bearings in and is supported by a bracket L, having pendent lugs *l*, provided with openings for the rod, in which case the rod, while permitted to move longitudinally, will be held against turning in any suitable way, such as by squaring or flattening the rod and correspondingly forming the openings in lugs *l*, through which it works. The rod G is also provided with an upturned hook portion *l'*, adapted to engage the forward end portion of the tailpiece, as in Figs. 1 and 2. By this arrangement the rod will pass under the tailpiece and all of the bracket save its hook portion will also lie under the tailpiece and be substantially concealed. The spring is conveniently arranged about the portion of the rod which extends between the lugs of said bracket, one end of the spring bearing against the rear one of such lugs, while the opposite forward end of the spring is either secured in one of a couple of holes in the bar or, as an obvious equivalent, in place of providing the bar with holes whereby the connection between the spring and bar may be adjusted in accordance with instruments of different measurements the forward end of the spring could abut against a stop adjustably secured upon the rod. As a simple arrangement the lever H has a notch or fork *h*, with which a knotted end of the cord may engage, as in Fig. 2, although any other desired form or construction of gripping device can be employed.

M indicates a clamp-plate fitted to the rear edge portion of the back of the instrument, and N N denote clamp-lugs having laterally-projecting lips *n*, which clamp against the top or face portion of the instrument and which are provided with upwardly-projecting studs *n'*, as best shown in Fig. 5. The clamp-plate and the pair of clamp-nuts can be suitably clamped upon the instrument by long screws O, which extend through the clamp-plate and engage in the nuts. The studs or pins *n'*, which project upwardly from these clamp-nuts, serve as guide-pins for the rocking or tilting chin-rest, and to such end the chin-rest is provided with recesses *e*, (shown in dotted lines,) in which the studs or pins *n'* are received. One of the screws or screw-rods O may also serve as a fulcrum for

the lever H, in which case an unthreaded portion of such screw or screw-rod will extend through an opening in one end of the lever, as illustrated in Figs. 3 and 4.

In the arrangement shown the spring is adjusted so that when the bracket L is fitted to the tailpiece C the rod G will be normally projected forward to an extent to cause the mute to abut against the bridge, as in Figs. 1 and 2, and with such arrangement the connection between the mute and the tilting chin-rest can be proportioned or adjusted in length to cause the lever H to normally stand at the end of its up swing when the mute is thus projected forward and against the bridge. This position of the lever tilts the chin-rest upwardly, as in Fig. 3, and hence the player not exerting abnormal pressure on the chin-rest may play with the mute on. The instant, however, the player wishes to change the character of the tone by taking off the mute it will only be necessary for such player to exert suitable downward chin-pressure on the chin-rest, thereby causing the latter to swing down the lever and draw back the mute against the spring resistance through the medium of the connecting means (such as the rod and cord) between such lever and the mute. When it is again desired to change the character of the tone, or, in other words, to mute the instrument, such change can be automatically attained by simply relieving the extra pressure on the chin-rest, thereby allowing the spring to perform the work of throwing on the mute.

The mute may consist of a frame or plate and is preferably detachably connected with the rod G—as, for example, the rod may have a lip *g*, Fig. 6, adapted to engage in a socket *f*, Figs. 7 and 8, in or on the mute.

Where the vibration is considerable, as in playing double notes, I find it desirable to avoid any tendency on the part of the mute to rattle against the bridge without undesirably strengthening the spring K, and to such end I provide the mute with an elastic or yielding facing *f'*, Fig. 8, arranged to bear against the bridge and preferably made of rubber or like composition.

When it is desired to play for any length of time with the mute off, the player can depress the chin-rest by chin-pressure or by hand and lock it down, or, in other words, withdraw the mute from the bridge and lock the mute in such off position. As one way of thus locking the mute in an off position, I pivot a dog P to the lever H and arrange it so that when the chin-rest and lever are depressed, as in Fig. 4, the dog can be swung up at right angles to the lever, so as to engage under the projecting edge of the saddle Q, with which a violin is usually provided. In order to guard against rattling and to secure a tight lock when the dog is thus used, I provide an elastic washer or cushion *n<sup>2</sup>*, arranged on one of the nuts N, so that when the chin-rest



is held down, as in Fig. 4, it will bear on said cushion, and, if desired, a like cushion can be arranged between the other clamp-nut and the chin-rest. It will also be seen that when  
 5 so desired the mute proper can be readily detached from the rod G. The bracket carrying such rod can be detached from the tailpiece, and the cord or like flexible connection between the rod and lever can be detached  
 10 from the latter.

In the arrangement illustrated the mute is normally maintained in engagement with the bridge by spring-power and is released from the bridge by moving it against the yielding  
 15 spring resistance. It will be obvious, however, that the converse of such arrangement could be employed—as, for example, the mute could be normally maintained out of engagement with the bridge by spring-power and be  
 20 moved against such spring resistance when operated to engage the bridge. I regard it, however, as greatly preferable to normally maintain the mute against the bridge by spring-power, since by such arrangement the  
 25 spring can be graduated or adjusted with reference to the desired results and will automatically secure a determinate contact with uniform pressure.

With the arrangement of chin-rest illustrated such device is, in effect, fulcrumed at  
 30 one side upon the instrument, and hence when the opposite side of the chin-rest is permitted to rise the player's chin will still have suitable hold upon the lower fulcrumed side of the chin-rest, it being also obvious that the  
 35 player can readily adapt the position of the chin and cause pressure thereof to requirements. I also find that by backing the bridge with a mute-plate, as illustrated, I can secure  
 40 a quality of tone superior to that attained by the use of the ordinary clip-mute. When not in use, the mute, together with the bracket-plunger and the cord or like flexible connection, can be readily secured and stored away,  
 45 and, if desired, the lever can also be easily removed and likewise laid away.

It will be seen that with my arrangement the performer can continuously maintain his or her chin in practically normal or usual po-  
 50 sition upon the rocking or movable chin-rest, and that in order to move the mute at will it will only be necessary for the player to vary the degree of pressure by which the instrument is constantly clamped between the chin  
 55 and collar-bone, and that no shifting of the chin from its natural bearing contact with the chin-rest is required. The changes can therefore be secured in an easy natural way and without endangering any shift or move-  
 60 ment of the instrument, which, particularly in playing in the upper positions, must be clamped between the chin and collar-bone. It will also be seen that the chin-rest F is independent of the tailpiece and that it is con-  
 65 nected with a clamp which is secured to the body of the instrument and which provides

a bearing whereon the chin-rest can tilt or have a reciprocating movement.

What I claim as my invention is—

1. A muting device for violins and violas, 70 comprising a chin-rest supported for reciprocating movement; a clamp adapted for application to the body of the instrument at one side of the tailpiece thereof and forming a holder for the reciprocating chin-rest; a mute 75 for alternately engaging and releasing the bridge of the instrument; and power-transmitting connection between the mute and chin-rest, the latter being adapted to form a rest which is engaged by the chin of the player 80 to hold the instrument in playing position, and being operated by movement of the player's chin.

2. The combination with a violin or viola, 85 of a muting device comprising a chin-rest supported to rock upon a bearing on the body of the instrument at one side of and independent of the tailpiece; a mute for alternately engaging and releasing the bridge; and power-transmitting connection between the mute and 90 chin-rest; the chin-rest being engaged by the player's chin to hold the instrument in playing position, and being depressed by pressure of the player's chin to operate the mute.

3. A muting device for violins and violas, 95 comprising a clamp which is secured to the body of the instrument; a chin-rest F connected with and arranged for reciprocating movement independent of the clamp and a reciprocating mute arranged for alternately 100 engaging and releasing the bridge and operated from the chin-rest by varying the chin-pressure upon the latter.

4. A muting device for violins and violas, 105 comprising a clamp which is secured to the body of the instrument; a chin-rest F connected with and arranged for reciprocating movement independent of the clamp; a reciprocating mute arranged for alternately en- 110 gaging and releasing the bridge; connecting means whereby the movement of the chin-rest in one direction causes a movement in one direction of the mute; and a spring applied for reversely moving both the mute and the chin- 115 rest.

5. A muting device for violins and violas, 120 comprising a clamp secured to the body of the instrument; a vibratory chin-rest F normally inclined as to the plane of the face of the instrument and having a rocking bearing con- 125 nection with the clamp; a reciprocating mute arranged for alternately engaging and releasing the bridge; spring means for normally maintaining the mute in engagement with the bridge and the chin-rest in an inclined po- 130 sition; and connecting means whereby the down-tilt of the chin-rest shall cause the mute to release the bridge.

6. A muting device for violins and violas, 135 comprising a clamp which is secured to the body of the instrument; a vibratory tilting chin-rest F having a rocking connection with



- the clamp; a mute arranged for alternately engaging and releasing the bridge; spring means for normally holding the mute against the bridge and normally maintaining the chin-rest in an inclined position; connecting means whereby the down-tilt of the chin-rest will withdraw the mute from the bridge; and a locking device for locking the mute out of engagement with the bridge.
7. In a muting device for violins and violas, a vibratory chin-rest F; a lever secured to the chin-rest and arranged back of the rear end of the instrument; a reciprocating mute arranged to alternately engage and release the bridge; power-transmitting connection between the mute and said lever; and a spring arranged to normally maintain the mute at one extreme of its permitted movement.
8. In a muting device for violins and violas, a bracket arranged under the tailpiece and having a bent lip which hooks upon the forward end edge of the tailpiece; a reciprocating rod having its bearings in the portion of the bracket under the tailpiece and provided at its forward end with a mute; a vibratory chin-rest F; power-transmitting connection between the chin-rest and the reciprocating rod; and a clamp secured to the body of the instrument and providing a bearing for the vibratory chin-rest.
9. A muting device for violins and violas, comprising a mute arranged for alternately engaging and releasing the bridge; a clamp secured to the body of the instrument, a normally inclined tilting chin-rest having a rocking connection with the clamp, and providing a chin-rest whereby the instrument is held between the chin and the collar-bone of the performer; and power-transmitting connection between the chin-rest and the mute.
10. A muting device for violins and violas, comprising a mute arranged for alternately engaging and releasing the bridge; a clamp secured to the body of the instrument; a normally inclined tilting chin-rest having a rocking connection with the clamp; a lever connected with the chin-rest and arranged opposite the rear end of the instrument; and power-transmitting connection arranged between the mute and said lever and involving a flexible portion which is attached to the lever.

11. In a muting device for violins and violas, a mute arranged for alternately engaging and releasing the bridge; a normally inclined, tilting chin-rest supported upon the body of the instrument; a lever H secured to the chin-rest; power-transmitting connection between the chin-rest and the mute; spring means arranged for normally maintaining the mute in engagement with the bridge, and the chin-rest in an upwardly-inclined position; and a catch P for locking the mute in position to be out of engagement with the bridge.

12. In a muting device for violins and violas; a mute arranged for alternately engaging and releasing the bridge; a clamp secured to the body of the instrument and having an upwardly-projecting stud; a normally inclined chin-rest having a recess in which the stud on the clamp is received and having a rocking bearing connection with the portion of the clamp provided with such stud; and power-transmitting connection between the chin-rest and the mute.

13. In a muting device for violins and violas, a mute arranged for alternately engaging and releasing the bridge; a clamp secured to the body of the instrument and having a pair of upwardly-projecting studs *n'*; a normally inclined chin-rest having a rocking connection with the clamp and provided with recesses *e* in which the studs are received; and power-transmitting connection between the chin-rest and the mute.

14. The combination with a mute adapted for alternately engaging and releasing the bridge of a violin or viola; of a constant chin-rest F supported upon the body of the instrument and arranged at one side of the tailpiece, and having at its side farthest from the tailpiece a rocking, bearing connection with the body of the instrument; spring means operating to cause the mute to engage the bridge, and to normally maintain the chin-rest in an upwardly-inclined position; and power-transmitting connection between the mute and the chin-rest.

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