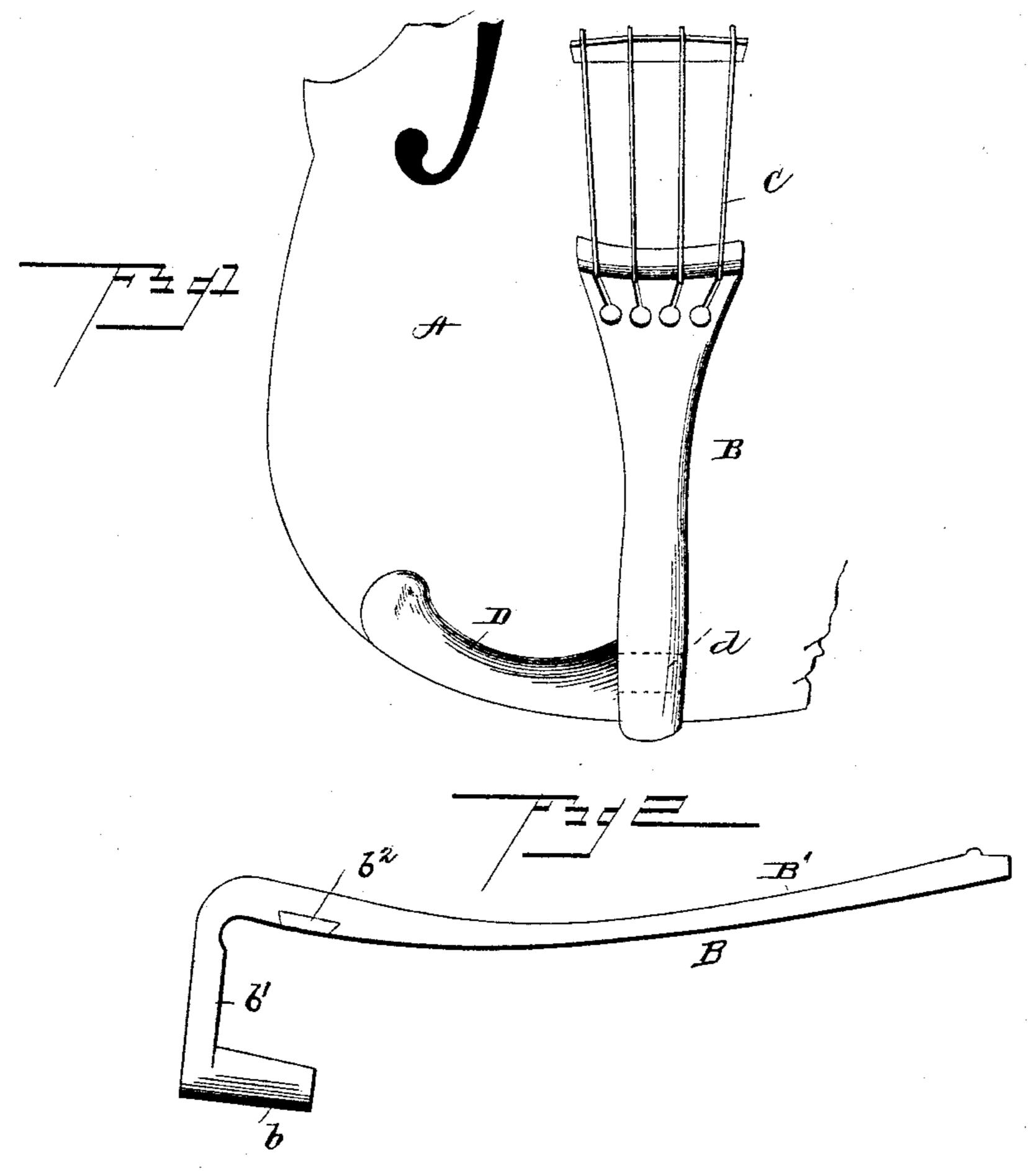
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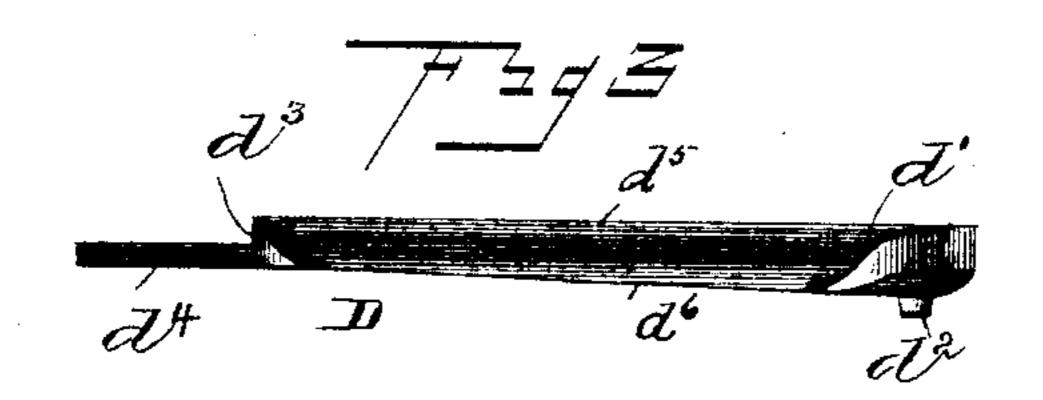
## C. G. D. WATKINS.

VIOLIN TAIL PIECE AND CHIN REST.

No. 450,270.

Patented Apr. 14, 1891.





Witnesses

Coharles Ko Stanly M.A. Fridles Maile Hatteine Inventor

Ottorney Attorney

## United States Patent Office.

CHARLES G. D. WATKINS, OF STEELE, NORTH DAKOTA, ASSIGNOR OF ONE-HALF TO WILLIAM A. FRIDLEY, OF SAME PLACE.

## VIOLIN TAIL-PIECE AND CHIN-REST.

SPECIFICATION forming part of Letters Patent No. 450,270, dated April 14, 1891.

Application filed July 29, 1890. Serial No. 360,301. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. D. WATKINS, a citizen of the United States, residing at Steele, in the county of Kidder and State of North Dakota, have invented certain new and useful Improvements in a Violin Tail-Piece and Chin-Rest Combined; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation generally to that class of musical instruments which are played by a bow, and particularly to the tail-piece

and chin-rest thereof.

The objects of the invention are, first, to increase the vibration of the strings upon actuation, and thereby correspondingly increase the resonance of the sound produced in playing the instrument; second, to prevent interruption of the sound vibrations as caused by the direct contact of the chin or chin-rest with the body of the instrument, and, third, to attain these objects with structural simplicity and economy.

To these ends the invention consists in cer-30 tain novel features in the construction of the tail-piece and chin-rest and in the novel combination thereof, substantially as hereinafter described, and particularly pointed out in the

subjoined claims.

In the accompanying drawings illustrating the invention, Figure 1 is a plan view of part of a violin with my improved tail-piece and chin-rest applied thereto. Fig. 2 is a side view of the tail-piece detached, and Fig. 3 is an elevation view of the chin-rest detached.

The same letters of reference designate the

same parts in the several views.

A designates the violin-body, B the tailpiece, and C the violin-strings, which are secured at their rear ends to the forward end
of the tail-piece in the ordinary and wellknown manner. This tail-piece is formed at
its rear end with a depending projection b',
from the lower end of which projects inward

a peg b, which is received by a perforation or 50 opening formed in the back of the violin-body, by which means the tail-piece is secured rigidly to said violin-body. Said tail-piece is made of horn, metal, celluloid, or other material having the requisite strength and a cer- 55 tain amount of elasticity, and its upper or main part B' is concavo-convex throughout its length. When the violin is tuned up to the concert pitch, the tension nearly straightens the tail-piece, which, as stated, being elas. 60 tic, causes the resulting sound to be louder, softer, and more resonant, and, in fact, nearly double the volume of sound produced by violins in which is employed the ordinary rigid tail-piece movably secured to the body of the 65 violin by the usual peg and gut or wire attachment. The upper or main part B' of the tailpiece is formed near its rear end with a dovetailed recess or groove  $b^2$ , which is designed to receive a projection  $d^4$ , extending from the 70 chin-rest D. The thickness of the chin-rest increases gradually from the wall  $d^3$  to the curved end d', and decreases gradually, transversely, from its forward side d5 to its rear side  $d^6$ . It is preferably made of the same 75 material as the tail-piece, and interposed between it and the belly of the instrument is an elastic peg or cork  $d^2$ , the upper end of which is received by a recess formed in the under side of said chin-rest, which peg prevents di- 80 rect contact of the rigid chin-rest with the violin-body.

I have hereinabove described my invention in its application solely to the violin; but it is obvious that it is equally applicable to all 85 bow-instruments. The chin-rest, not being needed in connection with the larger bow instruments, can be readily removed, as it simply has a dovetailed connection with the tail-

piece, as described. Having now described my invention, what

I believe to be new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, an elastic tail-piece for violins concaved throughout its length, and having at its rear end a depending projection and a peg extending inward from the lower end of said projection,

all of said parts being integral, substantially as described, and for the purposes specified.

2. The combination, with a tail-piece having a dovetailed groove near its rear end, of a chin-rest having a dovetailed projection received by said groove in the tail-piece.

3. The combination, with a tail-piece for violins, of a chin-rest secured thereto and an

elastic peg interposed between said chin-rest and the belly of the violin.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES G. D. WATKINS.

Witnesses:

CHARLES H. STANLEY, W. A. FRIDLEY.