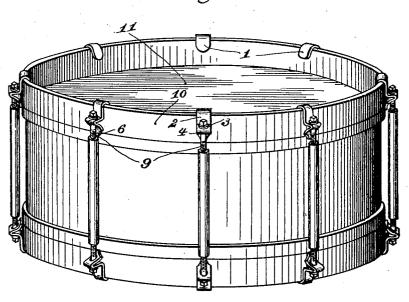
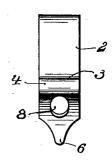
#### A. G. SOISTMANN.

# STRAINING HOOK FOR MUSICAL INSTRUMENTS. APPLICATION FILED JUNE 22, 1905.

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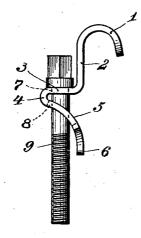


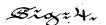


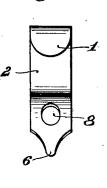


Brituessesz Mac Hofmann Engen Jaylon

Figz3.







Adolph G. Forestmann
Bes Anterondals
Ottorney

## UNITED STATES PATENT OFFICE

ADOLPH G. SOISTMANN, OF PHILADELPHIA, PENNSYLVANIA.

#### STRAINING-HOOK FOR MUSICAL INSTRUMENTS.

No. 816,754.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed June 22, 1905. Serial No. 266,377.

To all whom it may concern:

Be it known that I, ADOLPH G. SOIST-MANN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Straining-Hook for Musical Instruments, of which the following is a specification.

My invention relates to straining-hooks to for musical instruments having stretchable heads—such as drums, banjos, &c.—my object being to provide improved means for securing the straining rod or cord to the hoop

surrounding the stretchable head.

r5 Referring to the drawings, Figure 1 is a view in perspective of a drum employing my improved straining-hooks. Fig. 2 is a front elevation of one of said hooks. Fig. 3 is a side elevation of same, showing the straining rod or bolt in position. Fig. 4 is a rear elevation of said hook.

Similar numerals refer to similar parts

throughout the several views.

My improved hook is especially adapted to be used in lieu of a hook, such as is shown and indicated by 3 in patent to me No. 641,901, dated January 23, 1900. The straining-hook shown in my said patent as now in common use is made of cast metal and is of such 30 dimensions that the total weight of twenty-four such hooks used on a single drum is a serious element in the drum's weight. My improved hook is not east, but is wrought from a single piece of sheet metal which is preferably case-hardened steel.

Viewing the device in the operative position (shown best in Fig. 3) it is provided at its upper extremity with the curved portion or hook proper, 1. Next to the curved portion 2 tion is the vertical er downwardly-extending portion 2. Next is the right-angular or horizontally-extending portion 3, terminating in a sharp return-curve 4 and thence continuing in an enlarged reverse curve 5 back to and terminating at 6 in the plane of the vertical portion 2. The horizontal portion 3 is provided with the aperture 7, and the curved portion 5 is provided with the aperture 8.

A pertures 7 and 8 are in vertical alinement to receive the straining bolt or screw 9.

A special advantage of my improved device is that the spring of the angle formed by portions 3.4,5, and 6 serves to maintain a pe-

culiarly efficient resilient tension between the straining-bolts 9 and the hoop 10. Each 55 hook acts independently with respect to this function, so that the correlated effect of all the hooks is to maintain an even and balanced tension on the hoop 10, and consequently upon the stretchable head 11.

The lightness as well as the elasticity of the wrought hook of sheet metal as compared with the ordinary cast-iron hook reduces to a minimum the deadening effect upon the tone of the instrument due to heavy hooks or an 65 excess of heavy metal about its vibrating portions. This is also a factor in the life or durability of the drum. The reduction of weight of these hooks, as above stated, especially in large drums using as many as twenty-70 four of said hooks, is an important element in the total weight of the drum.

What I claim is—

1. In combination with a musical instrument having a stretchable head, straining 75 means therefor comprising resilient straining-hooks each provided with an apertured bend midway its length and a portion below the bend to lie against the body of the instrument, and a bolt passing through said aper-80 ture as means for connecting the same with the associated straining mechanism.

2. In combination with a musical instrument having a stretchable head, a resilient straining-hook having a vertical portion and 85 a bent-out portion midway its length at substantially a right angle with the vertical portion, an aperture in said bent-out portion and a straining-bolt operating through said aperture, the said parts being so formed and constructed as to exert a resilient tension upon

the said stretchable head.

3. A straining-hook for musical instruments formed of sheet metal having a hook portion, a vertical portion adjoining said 95 hook portion, a horizontal portion adjoining said vertical portion and at right angles thereto, with a sharp return-curve and a larger reverse curve and terminating below in the plane of the said first-mentioned ver- 100 tical portion.

4. The combination of a straining-bolt and a resilient straining-hook connected therewith for musical instruments, the said hook having its general longitudinal extension in a rost vertical plane provided with a hook proper

at one end and an intermediate apertured loop portion projecting out of the plane of its vertical extension.

vertical extension.

5. The combination of a straining-bolt, and a straining-hook wrought of sheet metal having its general longitudinal extension in a vertical plane provided at its upper end with the hook proper and midway its extension

with a transversely-projecting apertured loop for receiving said bolt and means connected therewith for securing the associated straining mechanism.

ADOLPH G. SOISTMANN.

Witnesses:

Mae Hofmann, Eugene Ziegler.