

(No Model.)

G. F. PRUEFER.
CLARINET.

No. 545,610.

Patented Sept. 3, 1895.

Fig. 1.

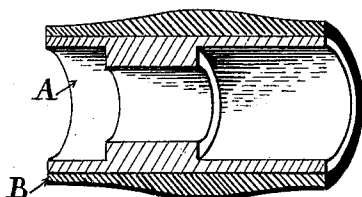


Fig. 2.

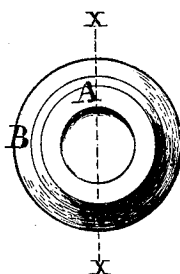
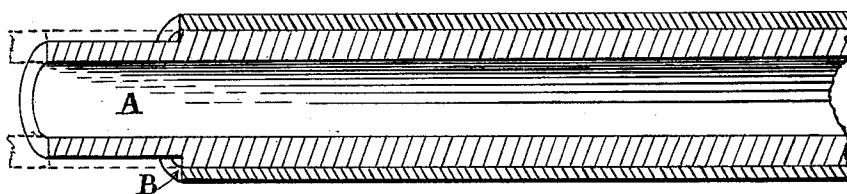


Fig. 3



Witnesses,

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GUSTAV FRANZ PRUEFER, OF PROVIDENCE, RHODE ISLAND.

CLARINET.

SPECIFICATION forming part of Letters Patent No. 545,610, dated September 3, 1895.

Application filed March 9, 1893. Serial No. 465,308. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV FRANZ PRUEFER, a subject of the Emperor of Germany, residing in Providence, in the county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Clarinets; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figure 1 is a view in longitudinal section of the first or short joint of a clarinet made in conformity with my invention. Fig. 2 is an end view of the second or long joint of said instrument. Fig. 3 is a view of said second or long joint in longitudinal section on line *x x* of Fig. 2.

Like letters indicate like parts.

My invention relates to musical wind-instruments made of wood, and more especially to clarinets; and it consists of a wooden tubular portion and a vulcanized rubber covering for the same, cemented together and provided with the usual keys, as hereinafter particularly specified.

Musical instruments made of wood are liable to swell and crack on account of the condensation upon their interior surface of the warm breath blown into them when in use by the musician. The moisture so produced soaks into the pores or grain of the wood and tends to swell the wood, and the repeated alternate soaking and drying of the wood results after a while in cracking the instrument and so impairing the quality of the vibrant sound.

It is the purpose of my invention to prevent this, and I accomplish this desirable result by covering a wooden clarinet with a vulcanized rubber tube cemented thereto.

In the drawings, A represents the wooden portion or tube of the clarinet, and B the

outer covering of the same, made of hard vulcanized rubber. The wooden portion A is made as usual and turned to the proper size to receive the rubber tubing B, of the necessary length and diameter. Said rubber tube B is fitted on the wooden tube A and is securely held in position by any suitable cement, preferably shellac.

The ends of the short joint of the clarinet, as seen in Fig. 1, have the bore enlarged to form circular sockets, while the ends of the long joint of the instrument are circular-reduced from the outside to form circular tenons, as shown in Fig. 3. When one of said tenoned ends of the joint is fitted and secured within the circular socket of the joint shown in Fig. 1, the bores or interior surfaces of the two joints are continuous, as also their exterior cylindrical surfaces. The several joints of combined wood and rubber thus formed are turned and finished in a lathe in the usual manner. The rubber casing B should be of sufficient thickness so that the counter sinking of the keyholes may not reach through to the wood, but be formed entirely in the rubber portion. By this construction I secure a continuous wood connection between the joints and preserve all the rich and soft quality of tone from the vibrations of the wood. All possibility of the swelling or cracking of the wood is wholly prevented.

I claim as a novel and useful invention and desire to secure by Letters Patent—

The improved clarinet herein described, whose joints are made of wood and covered with a hard rubber casing cemented thereto, substantially as described.

GUSTAV FRANZ PRUEFER.

Witnesses:

JOHN F. MURRAY,
CHARLES L. SPENCER.