



US 20020092783A1

(19) **United States**

(12) **Patent Application Publication**

Banner

(10) **Pub. No.: US 2002/0092783 A1**

(43) **Pub. Date: Jul. 18, 2002**

(54) **MUSICAL INSTRUMENT DAMAGE PROTECTOR**

(76) Inventor: **Christopher Henry Banner,**
Manhattan, KS (US)

Correspondence Address:
Christopher Henry Banner
2308 Browning Ave.
Manhattan, KS 66502 (US)

(21) Appl. No.: **09/760,336**

(22) Filed: **Jan. 16, 2001**

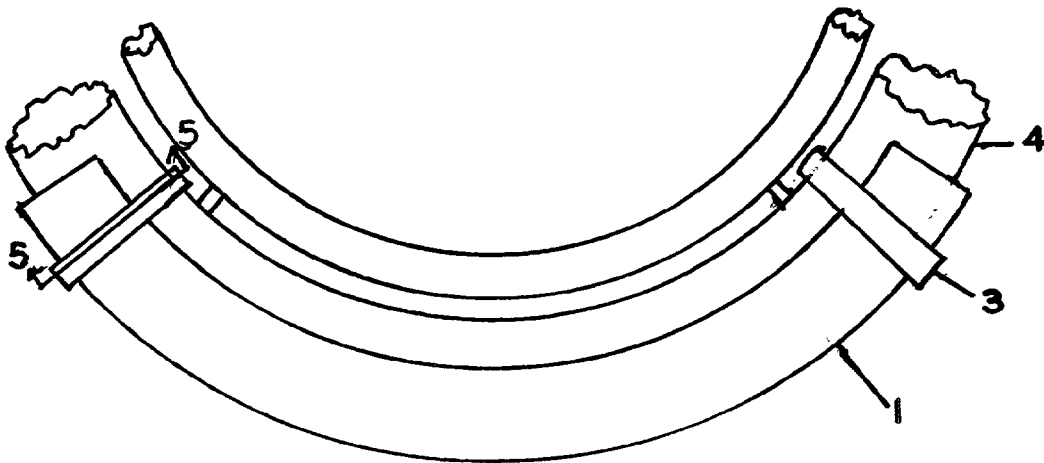
Publication Classification

(51) **Int. Cl.⁷** **A45C 11/00;** B65D 81/02;
B65D 85/30

(52) **U.S. Cl.** **206/314;** 206/592; 206/594

(57) **ABSTRACT**

A device to prevent damage to a musical instrument from impact, shock, impingement, contact, and abrasion, which comprises a relatively rigid, resilient shell, a compressible lining, and straps as a means of attaching the device to the musical instrument.



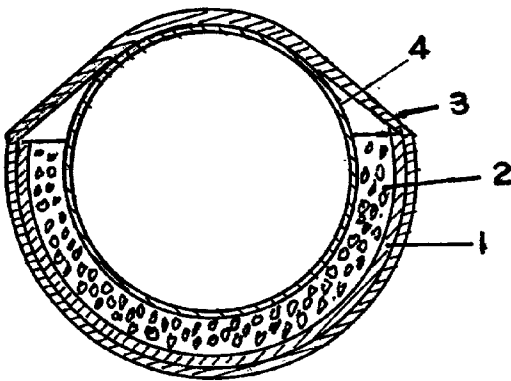


FIG. 2

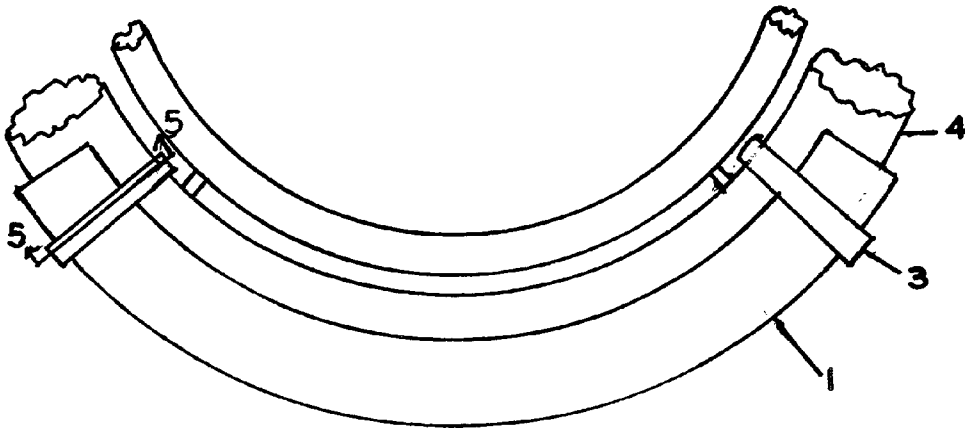


FIG. 1

MUSICAL INSTRUMENT DAMAGE PROTECTOR

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates generally to a novel method of protecting from damage brass bodied musical instruments such as, but not limited to, baritone horns, euphoniums, tubas, and sousaphones while in use.

[0003] 2. Description of the Prior Art

[0004] Musical instruments are not only valued for their ability to produce pleasing sounds, but, often, for their appearance as well. Often in the course of transporting or using them, scrapes, scratches or dents can be incurred. Since the playing characteristics of a wind instrument are defined by its bore, and departure from the manufacturers dimensions because of dents can degrade the playing quality of the instrument. Large brass bodied instruments, such as, but not limited to, baritone horns, euphoniums, tubas, and sousaphones, are particularly vulnerable to damage because of size and weight. Because these instruments are affected in value, appearance, and utility by external damage by impact, shock, contact, and abrasion from foreign substances and objects as a result of accident and normal wear and tear various means are employed to protect them. When the instrument is being carried outside of its usual protective hard case, or is in use, usual protection, if any, is provided by soft, flexible, textiles, leather, and other substances, sometimes lined or filled with a padding or other soft substance. These soft substances afford only minimal protection against contact and abrasion, and impinging shock forces or blows against the instrument.

[0005] Many ingenious techniques have been developed over the years to remove dents and to minimize other damage from various sources, but even the best effort can result in an imperfect repair, and in any event, repairs are an undesired expense for the user or owner of the instrument. The present invention is a device to prevent these various sorts of damage from occurring in the first place.

[0006] Various inventions exist to protect stringed instruments against damage, but they cannot be adapted to brass bodied instruments while in use, or do not afford sufficient protection against damage from shocks and blows. U.S. Pat. Nos. 4,084,477 and 5,103,709 are intended to protect the finish of guitars, basses, and other stringed instruments against scratches, dirt, grime, abrasion, and similar damage, but afford no shock or impact protection. U.S. Pat. No. 4,427,113 affords protection of brass bodied instruments against all damage, but only while the instrument is stored within it, and offers no protection while the instrument is in use. Similarly, U.S. Pat. No. 4,846,340 provides protection to the instrument while it is stored in its case but offers no protection while the instrument is in use. U.S. Pat. No. 4,951,541 has many of the features of the present invention, but is intended to protect the back of violins and other stringed instruments and to help the player to hold a violin or similar instrument while protecting it, and makes no claim to be applicable to brass bodied instruments, and in any event, it does not surround and grip part of the instrument as the present invention does, for such contact would partially absorb and muffle the violin sound, affecting its tonal quality and resonance.

SUMMARY OF THE INVENTION

[0007] The object of this invention is to provide a convenient means to protect both the finish and the body of a brass bodied instrument against impact, shock, contact, abrasion, and other unsightly damage while it is being carried or used outside of its usual storage case. This protection is provided by means of a rigid, resilient padded shell which is easily attached to and detached from the instrument.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] In order that the present invention may be more fully understood, it will now be described, by way of example, with reference to the accompanying drawing in which:

[0009] **FIG. 1** is a pictorial representation in elevation of the present invention attached to a section of a typical brass bodied instrument, particularly, a sousaphone.

[0010] **FIG. 2** is a view of a typical cross section, as indicated in **FIG. 1**, of the present invention while attached to a section of a typical brass bodied instrument, particularly a sousaphone.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0011] Referring now to the figures, more particularly, **FIGS. 1 and 2**, there is illustrated therein the features of the present invention. The preferred embodiment consists of an assembly of an outer cover which is a relatively rigid, solid, shock absorbing and/or shock dissipating shell **1** of approximately semicircular cross section, which shell is larger than, but conforms to the shape of the part or parts of the instrument to be protected;

[0012] a soft, pliable, resilient, yieldable padding **2** which is attached to the shell **1** and which fills the space between the shell **1** and said instrument **4** and provides snug contact with said instrument;

[0013] and a plurality of straps **3** to provide easy and convenient attachment and detachment of the assembly to and from said instrument **4**.

[0014] The shell **1** may be, for example, but not limited to, polystyrene plastic, polycarbonate sheet, acrylic, fiberglass, carbon fiber saturated with resin, kevlar fiber saturated with resin, nylon, expanded PVC sheet, various other polymer materials, cardboard, pressed board, or sheet metal.

[0015] The padding **2** may be, for example, but not limited to, cellular foam rubber or plastic or other cellular material, felt or other soft fibers whether natural or man made, textiles, and other suitable materials known to persons skilled in the art.

[0016] The straps **3** may be made of any suitable material including, but not limited to belting material and provided with conventional hardware clips and snaps at the ends, hook and loop style fasteners such as are sold under the trademark Velcro, elastic bands, and other suitable materials and devices as are known to persons skilled in the art, so that the assembly may be easily placed on and removed from said instrument.

[0017] It should be understood that various changes in the details, materials, arrangements of parts, and operational

Having thus set forth the nature of the invention, I claim:

1) A device for protecting musical instruments which comprises an assembly of:

(a) a relatively rigid shell 1 made of a shock absorbing and/or dissipating, resilient material;

(b) a shell lining 2 made of a compressible, soft, pliable, resilient, yieldable padding material which fills the space between said shell and said instrument 4; and

(c) straps 3 as a means of attaching said shell and lining assembly to the outside of the body of said instrument.

2) A device for protecting musical instruments in accordance with claim 1 wherein said shell 2 protects those parts of said instrument 4 which are particularly susceptible to damage of various sorts including, but not limited to, shock, impact, impingement, scratching and abrasion from outside forces and agents.

3) A device for protecting musical instruments in accordance with claim 1 wherein said shell lining 2 protects those parts of said instrument 4 which are particularly susceptible to damage of various sorts including, but not limited to deformation of said shell due to shock, impact, impingement from outside forces and agents.

4) A device for protecting musical instruments in accordance with claim 1 wherein said shell lining 2 protects those parts of said instrument 4 which are particularly susceptible to damage of various sorts including, but not limited to imperfect fit of said shell.

5) A device for protecting musical instruments in accordance with claim 1 wherein said straps 3 provide an easy and convenient means of attaching said shell and lining assembly to and removing said shell and lining assembly from the outside of the body of said instrument 4 thereby making said shell and lining assembly easier to use and more effective.

* * * * *