508422988 03/06/2024

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 Assignment ID: PATI74718

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------------|----------------|
| Warburton Industries Inc. | 02/29/2024 |

RECEIVING PARTY DATA

| Company Name: | Wanne Inc |
|-------------------|----------------|
| Street Address: | 1515 Fraser St |
| Internal Address: | L108 |
| City: | Bellingham |
| State/Country: | WASHINGTON |
| Postal Code: | 98229 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------|---------|
| Patent Number: | 8502054 |

CORRESPONDENCE DATA

Fax Number: 2082463410

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Address Line 1: 2189 N US Highway 1
Address Line 4: Titusville, FLORIDA 32796

| NAME OF SUBMITTER: | Ardean Warburton | |
|--------------------|------------------|--|
| SIGNATURE: | Ardean Warburton | |
| DATE SIGNED: | 03/06/2024 | |

Total Attachments: 13

source=pto1595 Recordation Form#page1.tif source=Signed Patent Assignment#page1.tif source=Signed Patent Assignment#page2.tif source=Purchase Agreement 013024#page1.tif source=Purchase Agreement 013024#page2.tif

source=US Patent 8,502,054#page1.tif

PATENT REEL: 066669 FRAME: 0093

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| source=US Patent 8,502,054#page2.tif | |
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| RECORDATION FORM COVER SHEET | | |
|---|---|--|
| PATENTS ONLY | | |
| | record the attached documents or the new address(es) below. | |
| 1. Name of conveying party(ies) | 2. Name and address of receiving party(ies) | |
| Warburton Industries, Inc | Name: Wanne, Inc. | |
| | Internal Address: | |
| Additional name(s) of conveying party(ies) attached? | | |
| 3. Nature of conveyance/Execution Date(s): | Street Address: 1515 Fraser Street | |
| Execution Date(s) February 29, 2024 | L108 | |
| X Assignment Merger | Rellinghem | |
| Security Agreement Change of Name | City: Bellingham | |
| Joint Research Agreement | State: WA | |
| Government Interest Assignment | Country: US Zip: 98229 | |
| Executive Order 9424, Confirmatory License | Country. 03 | |
| Other | Additional name(s) & address(es) attached? Yes X No | |
| 4. Application or patent number(s): | document serves as an Oath/Declaration (37 CFR 1.63). | |
| A. Patent Application No.(s) | B. Patent No.(s) | |
| US 8,502, 054 | | |
| | | |
| Additional numbers at | tached? Yes XNo | |
| Name and address to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: 1 | |
| Name: Ardean T Warburton | 7. Total fee (37 CFR 1.21(h) & 3.41) \$_0 | |
| Internal Address: | 7. (6. 6. 6. 6. 12. (6.) 3. 6. 1.) | |
| | Authorized to be charged to deposit account | |
| Street Address: 2189 N US Highway 1 | Enclosed | |
| Odect/Addicoo | None required (government interest not affecting title) | |
| City: Titusville | 8. Payment information | |
| State: FL Zip: 32796 | | |
| Phone Number: 407-455-2793 | | |
| Docket Number: | Deposit Account Number | |
| Email Address: ann@warburton-usa.com | Authorized UserName | |
| | | |
| 9. Signature: (/ m/cm - T () () | February 29, 2024 | |
| 9. Signature: Signature | February 29, 2024 Date | |
| Signature Ardean T. Warburton | Date Total number of pages including cover 13 | |
| Signature Ardean T. Warburton Name of Person Signing | Date | |

PATENT

REEL: 066669 FRAME: 0095

FORM OF PATENT ASSIGNMENT

EXHIBIT B

PATENT ASSIGNMENT

WHEREAS, Warburton Industries Inc, a Florida corporation, with an address at 2189 N US Highway 1, Titusville, Florida 32796 ("Assignor"), owns all right, title and interest in and to the patent, US 8,502,054,B2, identified in Exhibit A attached hereto, including the inventions described therein and the patent issued (the "Patent"), and the applications and renewals therefor and all claims for past or future infringement thereof.

WHEREAS, Wanne Inc, a Washington corporation with an address at 1515 Fraser Street, L108, Bellingham, WA 98229 ("Assignee"), and Assignor have entered into an Asset Purchase Agreement (the "Agreement") dated January 31_, 2024, under which Assignor agreed to sell and Assignee agreed to purchase certain assets of Assignor, including the aforesaid Patent, and the applications and renewals therefor and all claims for past or future infringement thereof.

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor does hereby sell, assign, convey and transfer unto Assignee, its successors and assigns, free and clear of any and all liens, restrictions, claims and encumbrances, Assignor's entire right, title, and interest in and to the Patent, together with all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements and of interference proceedings and reexaminations involving such Patents.

This Assignment is deemed to be executed and delivered within the State of Florida, and it is the intention of the parties that it shall be construed, interpreted and applied in accordance with the laws of the State of Florida without regard to its conflicts of law principles.

[SIGNATURES ON FOLLOWING PAGE]

(SIGNATURE PAGE TO PATENT ASSIGNMENT)

IN WITNESS WHEREOF, Assignor has duly executed this Assignment on this 27 day of February, 2024.

WARBURTON INDUSTRIES INC

| andem T. Wurturch | Yi Name: Ardean T. Warburton Title: President |
|-------------------|---|
| | WANNE, INC. |
| B B | y: Name: Theo Wanne Title: President |
| æ | |

On this Dday of February, 2024, before me, Holland Marthersonally appeared Addin Multiple personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

IN WITDLESS WHEREOF Thave hereunto set my hand and official seal.

Notary Public

My Commission expires: 2 27 20

Notarial Scal

On this 5 day of February, 2024 before me, <u>It and Jinthi Cum</u> personally appeared <u>Theo Wound</u>, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

IN WITNESS WHEREOF, J have hereunto set my hand and official seal.

Notary Public

My Commission expires: June 4, 2025

Notanal Scal

JENNEL JAMMICUM hotary Public State of Washington Commission # 109602 Comm, Expires Jun 4, 2025

PURCHASE AGREEMENT

1. DATE & PARTIES. Effective as of January 31, 2024, the following parties enter into this PARCHASE AGREEMENT (this "Agreement").

a. Buyers

Theo Wanne Wanne Inc. 1515 Fraser Street, L108 Bellingham, Washington 98229 b. Seller:

Ardean T Warburton Warburton Industries Inc 2189 N US Highway 1 Titusville, Florida 32796

- 2. SALE OF US PATENT. The Seller hereby agrees to sell US Patent 8,502,054 for Modular Sax Neck described in Exhibit A.
- 3. PURCHASE PRICE. The Buyer hereby agrees to purchase US Patent 8,502,054 for Modular Sax Neck for Twenty-Five Thousand Dollars (\$25,000).
- 4. PAYMENT. Seller agrees to accept payment in the form of a wire transfer with a down payment of \$5000 to be paid upon signing of this agreement and the balance to be paid within three weeks of the date of this agreement and the completion of Terms by Seller outlined in 5.
- 5. TERMS AND CONDITIONS OF PURCHASE AGREEMENT.
 - a. Seller agrees to process the assignment (Exhibit B) with the United States Patent and Trademark Office (USPTO) to transfer US Patent 8,502,054 within three weeks of the date of this purchase agreement and to provide buyer with documentation of the USPTO assignment.
 - b. The purchase price of \$25,000 includes patent, all product design files and finished inventory to include:
 - 20 alto necks
 - 25 tenor necks
 - 45 alto tenons sizes 59,60,61,62,63,64
 - 55 tenor tenons sizes 80,81,82,87,97
 - 70 alto initiators sizes F47, CA48, S48, S46 in popular diameters
 - 80 tenor initiators F50, F48, S50, A50, RT47-46 in popular diameters
 - c. Seller agrees to deliver all items listed above in 5.b. to Wanne Inc. within three weeks of the date of this agreement.
- 6. BUYER'S COVENANTS, REPRESENTATIONS AND WARRANTIES. The Buyer covenants, represents and warrants as follows:
- a. Buyer is duly qualified and in good standing in the State of Washington and in every other state in which he is doing business.
- 7. SELLER'S COVENANTS, REPRESENTATIONS AND WARRANTIES.

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- a. Seller is duly qualified and in good standing in the State of Florida and in every other state in which he is doing business.
- b. Seller agrees to maintain in proper standing all USPTO patent requirements up to the point of sale and assignment of the patent.

8. GENERAL.

- a. This Agreement shall remain in full force and effect until all of the Obligations including the delivery of components, patent assignment processing and payment in full are completed, and no modification, rescission, waiver, release or amendment of any provision of this Agreement shall be made except by a written agreement executed by Buyer and Seller.
- b. This Agreement shall be binding upon, and inure to the benefit of, both Parties, their heirs, devisees, personal representatives, shareholders, directors, officers, employees, receivers, assigns or the like, and these terms Seller and Buyer as used herein shall include such parties. The provisions of this Agreement shall apply to the parties according to the context hereof and without regard to the number or gender of words and expressions used herein.
- c. The terms herein shall have the meaning in and be construed under the laws of Florida, and all issues arising hereunder shall be governed by the laws of Florida.

WHEREFORE the Parties hereby execute the foregoing Agreement:

"Buyer":

Theo Wanne Wanne Inc.

"Seller":

Ardean T Warburton

Warburton Industries Inc.



US008502054B2

(12) United States Patent

Warburton

(10) Patent No.:

US 8,502,054 B2

(45) Date of Patent:

Aug. 6, 2013

(54) SAXOPHONE NECK SYSTEM

(75) Inventor: Ardean Terrance Warburton, Mims,

FL (US)

(73) Assignee: Warburton Industries Inc., Mims, FL

(US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 38 days.

(21) Appl. No.: 12/724,829

(22) Filed: Mar. 16, 2010

(65) Prior Publication Data

US 2010/0229709 A1 Sep. 16, 2010

Related U.S. Application Data

- (60) Provisional application No. 61/160,474, filed on Mar. 16, 2009.
- (51) Int. Cl. *G10D 9/04* (2006.01) *G10D 7/08* (2006.01)
- (52) U.S. Cl. USPC **84/387** A; 84/385 R; 84/385 A

(56) References Cited

U.S. PATENT DOCUMENTS

| 1,870,211 | A * | 8/1932 | Smith 84/386 |
|--------------|-----|---------|-------------------------|
| 2,061,928 | A * | 11/1936 | Albrecht \$4/385 R |
| 3,776,●9● | A * | 12/1973 | Ihara \$4/380 R |
| 5,249,499 | A * | 10/1993 | Goldstein et al \$4/386 |
| 5,456,152 | A * | 10/1995 | Cusack et al 84/383 R |
| 6,054,644 | A * | 4/2000 | Allen et al \$4/3\$2 |
| 2008/0202314 | A1* | 8/2008 | Thanyakij 84/385 R |

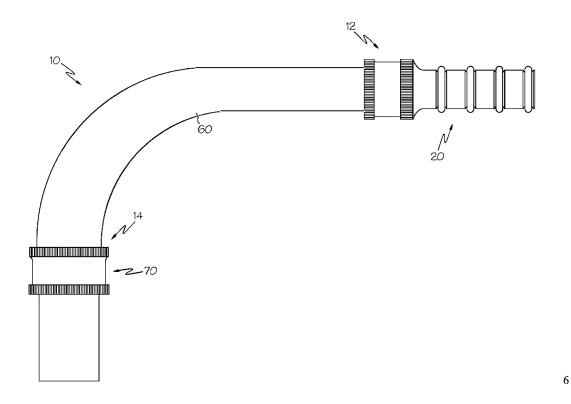
^{*} cited by examiner

Primary Examiner — Christopher Uhlir (74) Attorney, Agent, or Firm — Schwegman Lundberg & Woessner, P.A.

(57) ABSTRACT

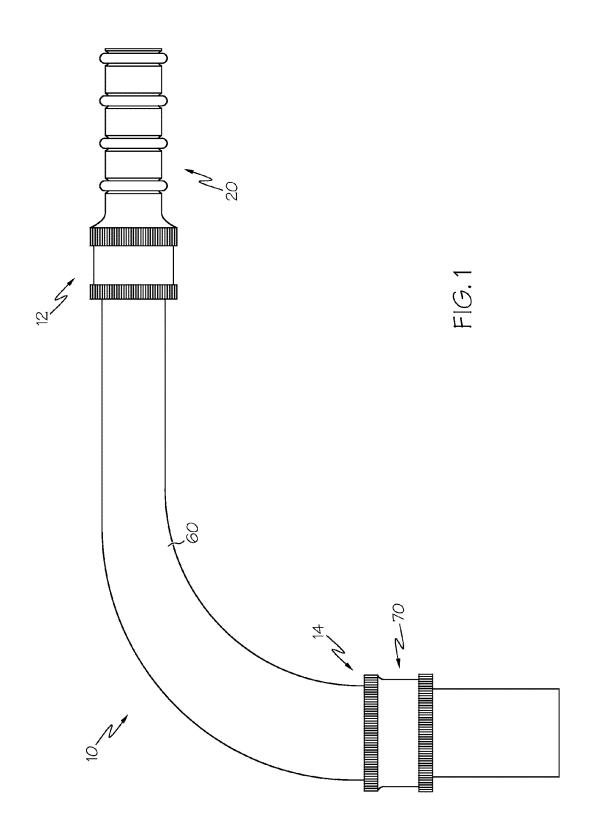
A saxophone neck system uses interchangeable component parts to modify and optimize sound and resistance. The saxophone neck system may allow a saxophone player the ability to change components to achieve variations in sound and to use the components with various manufacturers' instruments and mouthpieces. With the use of various internal shapes and dimensions placed in a specific combination, the player can create a desired sound. Additionally, the saxophone neck system may eliminate neck cork compression discrepancies from different manufacturers by offering different diameters of the body of the initiator portion of the saxophone neck system to fit any saxophone mouthpiece.

8 Claims, 4 Drawing Sheets

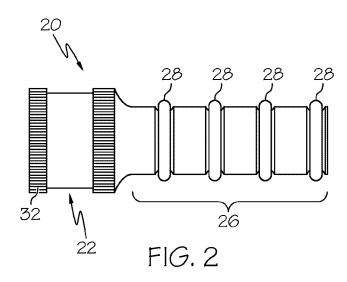




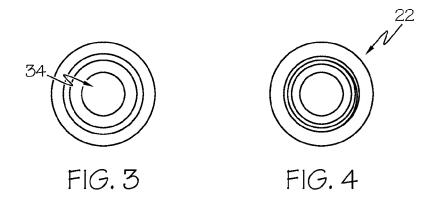


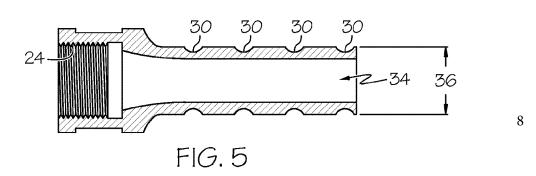


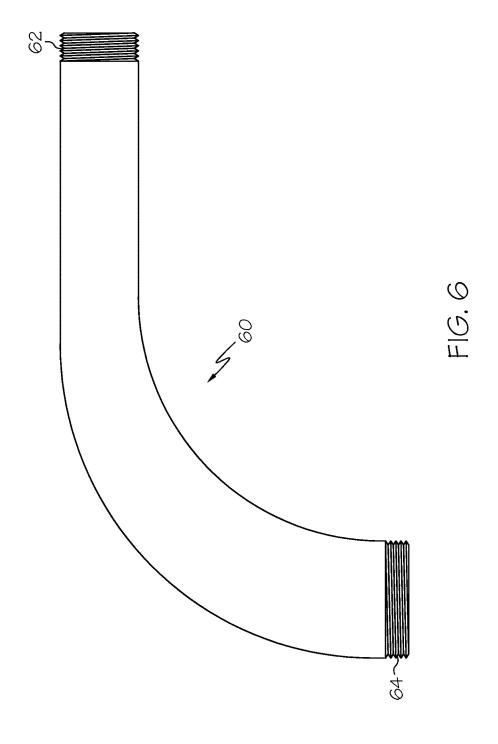
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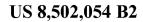
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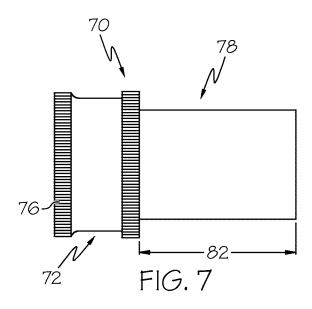






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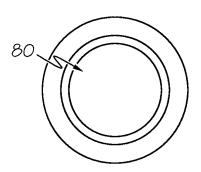


FIG. 8

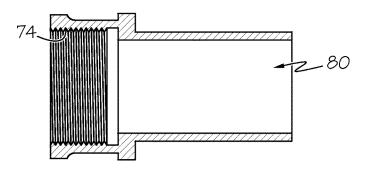


FIG. 9

SAXOPHONE NECK SYSTEM

RELATED APPLICATIONS

This patent application claims the benefit of priority, under ⁵ 35 U.S.C. §119(e), to U.S. Provisional Patent Application Ser. No. 61/160,474, filed Mar. 16, 2009.

BACKGROUND OF THE INVENTION

The present invention relates to musical devices and, more particularly, to a saxophone neck system.

Saxophones utilize neckpieces to form the interface between the reed-carrying mouthpiece and the body of the saxophone. Current saxophone necks are formed as a single assembly, with no configurable or interchangeable components. This is disadvantageous to the player, as the specific neck configuration of a saxophone often has a significant effect on the playing and/or sonic characteristics of the instrument. These effects are due to the configuration of the neck, 20 including the size and configuration of the various tapers of the internal bore within the neck. Even if a player finds a neck that provides the characteristics she wants, that neck will often not always be compatible with saxophones from another manufacturer. Additionally, even on a single instru- 25 ment, if the player were to want different characteristics for different playing environments, for example solo playing as opposed to jazz playing, the player may often need to find a different neck to use. Saxophone players are all too familiar with the trial-and-error method of purchasing and fitting tra- 30 ditional one-piece necks to their instruments while searching for a particular set of playing and sound qualities. Typically, saxophone players may find a one-piece neck that plays well enough and learn to like it.

As can be seen, there is a need for a saxophone neck that 35 allows the player the ability to change components to achieve variations in sound and to use the components with various manufacturers' instruments and mouthpieces.

SUMMARY OF THE INVENTION

The present invention provides a saxophone neck system that provides a central neck component, with at least one adaptor component removably coupled thereto. Some preferred examples of the invention have two adaptor compo- 45 nents, one configured to form that portion of the neck system that receives the mouthpiece (herein termed the "initiator"), and another configured to form that portion of the neck system that engages the saxophone body (herein, the "tenon"). In some examples of the inventive neck system, each adaptor 50 component will be manually removable from and attachable to the central neck component. For clarity, the term "manually removable" as used herein means that there is a mechanical coupling that facilitates mechanical assembly and disassembly of the components either by hand or by hand-held equip- 55 ment; and distinguishes, for example, essentially permanently-coupled components (such as brazed or soldered components). In the description of the present invention, the term "saxophone neck" (element 60, in FIG. 1) will be used to identify the central neck component, but should not be con- 60 fused with the described prior art "saxophone neck" that is a single component extending between the mouthpiece and the instrument body.

In one aspect of the present invention, a saxophone neck system comprises a saxophone neck having a portion configured as a first part of a first releasable mechanical coupling mechanism; and a first adaptor component having a desired 2

external and internal configuration, the first adaptor component further having a portion configured as a second part of the first releasable coupling mechanism; wherein the first adaptor component is adapted to releasably couple to the central neck component through use of the first and second parts of the first releasable coupling mechanism.

In another aspect of the present invention, a saxophone neck system comprises a saxophone neck; an initiator, the initiator having a first end adapted for removably connecting to a first end of the saxophone neck and the initiator having a second end adapted for attachment to a mouthpiece; and a tenon, the tenon having a first end adapted for removably connecting to a second end of the saxophone neck and the tenon having a second end adapted for attachment to a body of a saxophone, wherein the second end of the initiator has a plurality of o-rings therearound, the o-rings providing an airtight seal to a mouthpiece fitted around the second end of the initiator.

In a further aspect of the present invention, a method of manufacturing a saxophone neck assembly comprises forming a central neck component having a portion configured as a first part of a first releasable mechanical coupling mechanism; forming a first adaptor component having a desired external and internal configuration, the first adaptor component further having a portion configured as a second part of the first releasable coupling mechanism; and attaching the first adaptor component to the central neck component through use of the first and second parts of the first releasable coupling mechanism.

These and other features, aspects and advantages of the present invention will become better understood with reference to the following drawings, description and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a saxophone neck system according to an embodiment of the present invention;

FIG. 2 is a side view of an initiator according to an embodiment of the present invention;

FIG. 3 is a front view of the initiator of FIG. 2;

FIG. 4 is an end view of the initiator of FIG. 2;

FIG. 5 is a cross-sectional side view of the initiator of FIG.

FIG. **6** is a side view of a saxophone neck according to an embodiment of the present invention;

FIG. 7 is a side view of a tenon according to an embodiment of the present invention;

FIG. 8 is an end view of the tenon of FIG. 7; and

FIG. 9 is a cross-sectional side view of the tenon of FIG. 7.

DETAILED DESCRIPTION OF THE INVENTION

The following detailed description is of the best currently contemplated modes of carrying out exemplary embodiments of the invention. The description is not to be taken in a limiting sense, but is made merely for the purpose of illustrating the general principles of the invention, since the scope of the invention is best defined by the appended claims.

Various inventive features are described below that can each be used independently of one another or in combination with other features.

Broadly, an embodiment of the present invention provides a saxophone neck system using interchangeable component parts to modify and optimize sound and resistance. The saxophone neck system according to an embodiment of the present invention may allow a saxophone player the ability to change components to achieve variations in sound and to use

the components with various manufacturers' instruments and mouthpieces. With the use of various internal shapes and dimensions placed in a specific combination, the player can create the desired sound. Additionally, the saxophone neck system of the present invention may eliminate neck cork compression discrepancies from different manufacturers by offering different diameters of the body of the initiator portion of the saxophone neck system, each sized to fit a known size of saxophone mouthpiece.

Referring to FIG. 1, there is shown a saxophone neck system 10 having an initiator 20 attached to a first end 12 of a saxophone neck 60. A tenon 70 may be attached to a second end 14 of the saxophone neck 60.

The initiator 20 and the tenon 70 are each typically removably attached to the neck 60, typically through use of a manually releasable mechanical coupling, which may be of any desired configuration to achieve the necessary coupling. In the depicted example, the mechanical coupling is achieved through mating threads, but other coupling mechanisms 20 might be used, such as, by way of example only, bayonet couplings, compression or friction couplings or adjustable interference couplings (such as a split sleeve, with a dimension controlled by an adjustment screw, as used on any saxophone bodies for engaging a conventional neck tenon). Any of 25 these coupling mechanisms may include one or more sealing mechanisms, such as o-rings, gaskets, etc. to assure creation of an airtight coupling. In one possible embodiment the initiator 20 may include an initiator adapter section 22 having female threads 24. The female threads 24 may threadably engage with male threads 62 (FIG. 6) of the neck 60. The initiator adapter section 22 may include outer knurls 32 to assist in threading the initiator 20 on and off the neck 60.

The initiator 20 may include a mouthpiece attachment section 26 having a plurality of o-rings 28 positioned therearound. In one possible embodiment, about two to six o-rings 28, typically four o-rings 28, will be positioned around the mouthpiece attachment section 26 of the initiator 20. The o-rings may fit into channels 30 cut around the mouthpiece attachment section 26 of the initiator 20. A mouthpiece (not 40 shown) will fit over and engage o-rings 28, replacing conventional cork mouthpiece attachment mechanisms. The mouthpiece attachment section 26 may have a diameter 36 that will fit into the user's mouthpiece in an airtight manner.

The initiator **20** may have an internal bore **34** that may be shaped to produce a certain sound and/or resistance. Typically, the shapes of the internal bore **34** may be formed to close tolerances with computerized numerical controlled (CNC) equipment. Exemplary shapes may include 1) tapered small to large (relative to the direction of air flow through the played saxophone), similar to conventional saxophone design; 2) tapered small to large (relative to air flow through the played saxophone) through the first half if the length, then arc-shaped; 3) cylindrical for the first third of the length, then arc shaped; 4) continuous arc shaped; 5) cylindrical for the 55 first two-thirds of the length, then flared-shaped; 6) reverse taper large to small (relative to air flow through the played saxophone); and 7) straight cylinder.

Each of the above described tapers and arcs may have varying degrees of taper and arc. For example, a slight taper of 60 about 1% (referring to a 1% change of inside diameter from end to end) could be used for any of the tapers described above. At another extreme, a large taper of about 50% may be used. The degree of taper may even vary over the length of the internal bore 34. For example, a small to large taper may start 65 at a small 1% taper and may change at a midpoint to about 10% taper.

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Each of the above described tapers and arcs may also have varying inside diameter bores. The bore diameter may be varied due to mouthpiece size, for example. The bore diameter may also be varied to provide different sounds and resistances for the saxophone player. In other words, each bore shape may have a number of different bore sizes.

Each combination of bore size and internal shape may provide different resistance levels and sound characteristics. A user may interchange various initiators 20 onto the same neck 60 to achieve different sounds and playing characteristics.

The initiator 20 (as well as neck 60, and tenon 70) may be made of brass, for example, which may be left bare (or "raw") or may have a protective and/or appearance-enhancing material applied thereto, such as, for example, a lacquer or epoxy coating, or a metallic plating, such as gold, nickel or silver. Other materials may be chosen for all or a portion of the initiator 20. For example, some (or all) of the initiator 20 may be made from plastic, cork or another desired material, so long as the described mechanical coupling can be formed from, or attached to, the material forming the remainder of the initiator 20.

Referring to FIG. 6, the neck 60 may include a first male threaded end 62 for attachment of the initiator 20 and a second male threaded end 64 for attachment of the tenon 70. The threaded ends 62, 64 may have, for example, a number forty thread pitch to assure an accurate mating to the initiator 20 and tenon 70, respectively. The neck 60 may include an octave key and octave hole (not shown) that may be designed and positioned similar to conventional saxophone necks. The neck 60 may be typically made of brass, but may also be made of plastic, wood or other materials. The neck 60 may be made by forming threads (such as by soldering, brazing, welding or the like) on each end of a user's original neck. Where the saxophone neck 60 is formed through use of a conventional prior art, one-piece neck, it will be apparent to those skilled in the art, that the prior art neck will have to be shortened to accommodate the described one or two mechanical couplings.

Referring to FIGS. 7 through 9, the tenon 70 may include a tenon adapter section 72 that may have female threads 74 therewithin. The female threads 74 of the tenon adapter section 72 may threadably attach to the second end 64 of the neck 60. The tenon adapter section 72 may have exterior knurls 76 to assist in threading the tenon 70 on and off the neck 60. A tenon coupling section 78 may frictionally fit into the body of a saxophone (not shown).

An internal bore **80** of the tenon **70** may be formed with a taper from smaller to larger (relative to air flow through the played saxophone). Such a tapered tenon **70** may result in relatively continuous taper throughout the saxophone neck system **10**. Alternatively, the internal bore **80** of the tenon **70** may be any shape, including independently selected from the bore shapes described above for the initiator **20**. Further, as described above, a single bore shape may include a number of bore sizes.

The tenon coupling section **78** may be sized for any particular saxophone. The tenon **70** may be made of, for example, plated brass, and may be machined to the proper size, thereby reducing or eliminating misalignment problems associated with many commercial fittings between the saxophone neck and the body of the instrument.

As the saxophone player blows air into the mouthpiece, the selected initiator 20 may influence the air column and influence the sound and resistance characteristics as a result of the shape and size of the bore 34 through the initiator 20, and to a lesser extent through the configuration of the tenon. The

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initiator 20 may be attached by precision threads 24, 62 to the neck 60, which may transport air through the instrument. The saxophone neck 60 may be attached to the tenon 70. The size of the tenon 70 may be selected to allow a proper fit to any make and model of saxophone, thus achieving a universality for the saxophone neck system 10 according to an embodiment of the present invention. The tenon 70 may also be used to control resistance and sound through various diameters and length 82 thereof.

In an exemplary use situation, a saxophone player would try different models and styles of the initiator **20** and the tenon **70** attached to the saxophone neck **60**. Ideally, as described earlier herein, the initiator and tenon will be relatively easily interchangeable on the neck to allow a player to try different combinations until finding the most satisfactory combinations for that player. These different models and styles of the initiator **20** and the tenon **70** may result in different sounds and tones. Players may choose different models for various types of musical styles. Thus the described neck system allows a customization of the saxophone neck configuration and properties in a novel and unique manner.

It should be understood, of course, that the foregoing relates to exemplary embodiments of the invention and that modifications may be made without departing from the spirit and scope of the invention as set forth in the following claims. 25

What is claimed is:

RECORDED: 03/06/2024

- 1. A saxophone neck system, comprising:
- a saxophone neck component having a first portion configured as a first part of a first threaded coupling and having a second portion configured as a first part of a second 30 releasable mechanical coupling mechanism; and
- a first adaptor component having a desired external and internal configuration, the first adaptor component further having a first portion configured as a second part of the first threaded coupling, the first adaptor component further having a second portion configured to engage a saxophone mouthpiece, the first adapter component defining an internal bore;
- wherein the first adaptor component is an initiator including an initiator adapter section adapted for threadably 40 coupling to a first end of the saxophone neck component, and the initiator further including a mouthpiece attachment section adapted for releasably coupling to the saxophone mouthpiece;
- wherein the first adaptor component is adapted to releasably couple to the saxophone neck component through use of the first and second parts of the first threaded coupling; and
- a second adaptor component having a desired external and internal configuration, the second adaptor component 50 further having a portion configured as a second part of the second releasable coupling mechanism;
- wherein the second adaptor component is adapted to releasably couple to the saxophone neck component through use of the first and second parts of the second 55 releasable coupling mechanism;
- and wherein the second adaptor component comprises a tenon, and wherein the second adaptor component is adapted for releasably coupling to a saxophone body.

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- 2. The saxophone neck system of claim 1, wherein the second end of the saxophone neck component has a first threaded portion and wherein the second adaptor component has a mating threaded portion.
- 3. The saxophone neck system of claim 2, wherein the second adaptor component has an internal bore that is tapered from smaller to larger relative to air flowing from the initiator, through the saxophone neck component and through the tenon.
- **4**. The saxophone neck system of claim **2**, wherein the second adapter component has external knurls.
- 5. The saxophone neck system of claim 1, wherein the tenon of the second adapter component is adapted to frictionally fit into a body of a saxophone.
 - 6. A saxophone neck system comprising:
 - a saxophone neck component;
 - an initiator component, the initiator having a first end adapted for removably connecting to a first end of the saxophone neck component through a threaded coupling, and the initiator component having a second end adapted for attachment to a mouthpiece; and
 - a tenon component, the tenon having a first end adapted for removably connecting to a second end of the saxophone neck component and the tenon component having a second end adapted for attachment to a body of a saxophone.
 - wherein the second end of the initiator has a sealing mechanism thereon, the sealing mechanism providing an airtight seal to a mouthpiece fitted around the second end of the initiator component.
 - 7. The saxophone neck system of claim 6, wherein:
 - the first and second ends of the saxophone neck component have male threads; and
 - the first end of the tenon component and the first end of the initiator component each have female threads mating with the respective male threads at each end of the saxophone neck component.
- **8**. A method of manufacturing a saxophone neck assembly, the method comprising the acts of:
 - forming a saxophone neck component having a first portion configured as a first part of a first threaded coupling and having a second portion configured as a first part of a second threaded coupling; and
 - forming a first adaptor component having a desired external and internal configuration, the first adaptor component further having a first portion configured as a second part of the first threaded coupling, the first adaptor component further having a second portion configured to engage a saxophone mouthpiece;
 - forming a second adaptor component having a desired external and internal configuration, the second adaptor component further having a portion configured as a second part of the second threaded coupling, and wherein the second adaptor component comprises a tenon configured to engage a saxophone body.

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