

UNITED STATES PATENT OFFICE.

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SOPRANO SAXOPHONE.

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This invention relates to an improvement in musical instruments, and more particularly in a soprano saxophone, a musical instrument of the reed type. As usually constructed the soprano saxophone is made in two forms, one commonly called a curved model and the other a straight model.

The curved model embodies a bow or bend in the body at its lower end and a bell. In the curved model the bend at the lower end causes the sound-vibration to travel unevenly and the tone leaves the saxophone with a muffled sound. Also, the bow or curved end of the saxophone obstructs the air passage and makes the instrument hard to play as well as interfering with the clearness of tone. Another objectionable feature is the presence of tone holes in the curved or bow and bell part of the curved instrument, such tone holes making an uneven air column as the sound-vibration travels around the bends. The curved instrument is also too short to hold in a restful position while sitting, and in using this instrument the bell opening can not be held conveniently at the proper angle to deliver the tones direct and true to the audience.

The straight model is used in preference over the curved model by professional musicians because it has a clearer and truer tone than the curved model, due to the fact that the air column, comprising the neck, the body, and the bell, is built in a straight line with no obstructions. Notwithstanding the straight saxophones in use also have their objections and disadvantages. For example, where a musician must face his audience while playing, the straight saxophone must be held horizontally in an up-lifted position in front of the face, which places the wrists and arms in a cramped position, and makes the instrument very tiresome to hold and play. A straight soprano instrument cannot be supported effectively by a neck strap and it is very difficult to hold while playing open tones. Another objection to the straight saxophone is that the musician cannot rest his fingers and wrists, while playing in a sitting position, by supporting the bell end of the instrument upon his knees or lap. If he attempted to support the end of a straight soprano saxophone in that way he would partially close the bell end and direct the

sound into his lap, which would deaden the tones.

The object of my invention is to overcome all the objections recited and provide an instrument which may be easily played and handled without wearisome effort, and which will produce clear and true tones and direct the sound forwardly at right angles to the tapered body of the instrument. Thus, I construct the neck, body and bell of the instrument in a particular way so that the musician can face his audience while playing and still permit his wrists and arms to remain in a natural, restful position. Moreover, the present construction of the neck, body and bell allows the instrument to hang or be held vertically close to and parallel with the body of the user, and permits the bell opening to be disposed perpendicularly so that the tone will issue unmuffled, and be clear and true and projected in full directly toward the audience. Also, the design and construction of the instrument permits the musician to rest the bottom edge of the bell on his knees or lap while playing the instrument in a sitting position, thus relieving the operator of the weight of the instrument. In addition, the structural form of the present instrument also permits a neck strap to be used if desired, to support and control the instrument in playing the open tones.

A further object of my invention is to provide a straight tapering body and a curved bell, without a bend or reverted portion in the body, so that all of the tone holes may be placed in the straight body of the instrument. In this way the air column is smooth and true, that is, a large volume and true tone is produced as the air column leaves the instrument; and because the plane of the bell opening is perpendicular and parallel with the instrument body the tone is delivered directly and squarely to the audience. Moreover, by making the full length of the tapering body straight instead of curved the instrument possesses the requisite length to place the edge of the bell in a natural rest position upon the thigh or knee of the musician; therefore, the instrument is exceptionally easy to support and operate while the player is in a sitting position.

In the accompanying drawings, Fig. 1 is a front view of the instrument resting in