SPRING BLOCK FOR CARRYING CASES FOR MUSICAL WIND INSTRUMENTS

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MUSICAL WIND INSTRUMENTS

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1 Claim. (Cl. 206—13)

This invention relates to new and useful improvements in carrying cases for cornets, trumpets and other musical wind instruments having valves or the like.

More particularly, the present invention proposes the construction of an improved spring block for such carrying cases which can be secured in a case by the manufacturer of the case and which will permit the case to be used securely to hold any instrument for which it is intended regardless of the valve dimensions of the particular instrument.

As a further object, the present invention proposes forming the spring block so that a case in which it is secured can be used equally as well for any make or model of any instrument of a particular manufacturer regardless of the common variations in valve sizes and shapes.

Another object of the present invention proposes constructing the spring block with two jaws, one resiliently connected with the other and movable in the same plane toward and away from each other to grip and hold the valves of a valve containing wind instrument.

A further object of the present invention proposes arranging the jaws and providing them with means conveniently to open them merely by inserting the instrument in the case and to limit the extent to which the jaws may be opened.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a cornet or trumpet case having a spring block secured therein constructed and arranged in accordance with the present invention.
Fig. 2 is a top plan view of the spring block shown in Fig. 1 with the case and a horn shown in dot-dash outline.
Fig. 3 is a perspective view of the spring block shown in Figs. 1 and 2.
Fig. 4 is a side view of the structure shown in Fig. 3 but with the movable jaw shown in an extended position.
Fig. 5 is a top plan view of the structure as shown in Fig. 4.
Fig. 6 is a sectional view taken on line 6—6 of Fig. 5.
Fig. 7 is a sectional view taken on line 7—7 of Fig. 5.
Fig. 8 is a longitudinal sectional view of a structure similar to that shown in the foregoing described figures, but illustrating a modification of the present invention.
Fig. 9 is a sectional view taken on line 9—9 of Fig. 8.
Fig. 10 is a top plan view with parts broken away and in section of the structure shown in Figs. 8 and 9.
Fig. 11 is a view similar to Fig. 3 but illustrating another modification of the invention.
Fig. 12 is a perspective view of the movable jaw member shown in Fig. 11.

The spring block, in accordance with the first form of the invention illustrated in Figs. 1—7, inclusive, is generally designated by the reference numeral 15.

Block 15 is shown in Figs. 1 and 2 as mounted in a cornet or trumpet carrying case 16 which has a lid 17, a lift-up platform 18 and an end compartment 19 for the flared end of a horn (cornet or trumpet) 20. The spring block 15 is mounted on the platform 18 adjacent a guide block 21 fixed to the platform. Case 16 is felt-lined and the platform 18 and guide block 21 are felt-covered.

Spring block 15 has a fixed jaw or jaw member 22 which is fixed to the platform 18 by glue, cement or other fastening means. The fixed jaw member 22 has an integral hollow arm 23 extending from it.

A movable jaw or jaw member 24 is also provided on the spring block 15. Movable jaw member 24 has a hollow arm 25 which is adapted slidably to fit inside the hollow arm 23 of the fixed jaw member 22 so that the movable jaw member 24 can be moved toward and away from the fixed jaw member 22.

Inside the hollow arms 23 and 25, a tension coil spring 26 is disposed resiliently to connect the jaw members 22 and 24. Coil spring 26 has one end 27 secured by hook 28 to the fixed jaw member 22 and another end 29 secured by a cross pin 30 to the movable jaw member 24.

The free end 31 of arm 23 of the fixed jaw member 22 abuts the movable jaw member 24 at abutment stop points 32 to keep the movable jaw 24 normally spaced from the fixed jaw 22 and the length of the fixed jaw arm 23. Spring 26 tends to bias the movable jaw into such position. The spring block 15 preferably is covered with felt 33 which matches the felt lining of the case into which the block 15 is to be mounted.

Block 15 may be mounted in case 16 by the manufacturer of the case. Any difference in size, shape or other dimensions of valve 34 of a horn 20 will be compensated for by the movement of the movable jaw. By placing the instrument 20 in the case, the valves 34 will seat between the jaws 22 and 24 forcing the movable jaw 24 apart the necessary distance. The spring 26 will keep the movable jaw 24 firmly pressed against the valve 34 but will permit removal of the instrument from the case when such removal is desired.

The modification of the invention illustrated in Figs. 9, 10 and 11 is characterized by the provision of a spring block 35 having a fixed jaw or jaw member 26 with a hollow arm 27 and a movable jaw or jaw member 38 having a hollow arm 29 adapted slidably to fit inside the hollow arm 37 of the fixed jaw or jaw member 36.

A tension coil spring 40 is disposed inside the hollow arms 37 and 39, one end 41 of spring 40 being secured by a cross pin 42 to the movable jaw 38 and the other end of spring 40 being secured by a tie rod 43 to the fixed jaw 36. The abutment of the free end 44 of arm 39 of the fixed jaw 38 against an abutment stop 45 of the movable jaw 38 keeps the jaws 36 and 38 spaced apart the length of arm 39.

A set screw 23a is threadedly engaged in arm 23 and is adapted to engage the side 25a of the hollow arm 25. By tightening the set screw 23a against the surface 25a, the jaw member 38 may be fixed against motion by the coil spring 40.

In addition, the arm 39 of the movable jaw 38 has a slot 46 into which projects a stop pin 47 secured to and extending through the arm 37 of the fixed jaw 36. Stop pin 48 limits the movement of the arm 39 in arm 37 and prevents it from being forced out the free end of arm 37.

The modification of the invention illustrated in Figs. 11 and 12 is characterized by the provision of a spring block 48 constructed generally the same as spring block 35 illustrated in Figs. 8, 9 and 10 and described above and hence like parts of block 48 being given like reference...
numbers as block 35 except primed to distinguish the figures. Spring block 48, however, has a movable jaw 49 with a hollow arm 50 which contains two opposed slots 51 and two stop pins 52 are provided extending through and secured to the arm 37' of the fixed jaw 36'.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

The combination with a case for a musical instrument having a flaring horn and crossed valve members comprising a body section and a cover section hinged together, of a block built in said body section for supporting the instrument, said block extending from one end of the body section to a point remote from the other and thereby providing a compartment at said latter end for accommodating the flaring horn of the instrument, a sectional block on the center of the upper surface of said supporting block for retaining the instrument, said retaining block having a section fixed on the supporting block and having a section slidable thereon, said fixed and slidable sections each having a vertically disposed head with a horizontally disposed hollow arm portion at its lower end leaving a portion of the head extending thereabove, the hollow arm portion of the slidable section being telescoped in the hollow arm portion of the fixed section, and a tension spring extending through said telescoped hollow arm portions, one end of the spring being fixed to the fixed section and its other end fixed to the slidable section for urging the fixed and slidable sections toward each other, the portions of the heads of the fixed and slidable sections protruding above the hollow arm portions defining a space for receiving the crossed valve members of the instrument, the upper surfaces of said hollow arm portions providing a supporting surface therefor.

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