

34a. The B-flat pad 36 is also connected to this shaft by the arm 36a. Spring 35 is affixed at its opposite ends to shaft 34 and to post 34a and urges pad 36 to the open position.

The B key 18 is attached to rockable shaft 38 by the arm 18b which curves underneath B-flat key 16 as shown. B pad 40 is connected to shaft 38 by the arm 40a. Spring 39 is affixed at its opposite ends to post 38a and to shaft 38, and urges pad 40 to the open position.

The B pad 40 may be closed against the bias of spring 39 either by pressure against key 18 or by pressure against key 16. In the latter case, key 16 engages the curved portion of arm 18b to rock that arm downwardly.

The C-sharp key 20 is affixed to arm 20b which connected to rockable shaft 42. This shaft also is formed with an arm 44 extending transversely of the length of the instrument. Arm 44 overlies arm 46 which is attached to the rockable shaft 48. The latter is connected to C-sharp pad 50 (shown from the under side in Figure 2) by the arm 50a. Spring 49 is anchored at its opposite ends to shaft 48, and to the supporting post 48a. This spring urges pad 50 to the closed position and flexes when key 20 is depressed to open pad 50.

In accordance with the present invention the shaft 32 receives a lug 52 which underlies key 20 and lever 18b in spaced relation with shaft 32. This lug threadedly receives screws 54 and 56 which extend upwardly therefrom to be engaged by keys 18 and 20, respectively.

The distance screws 54 and 56 project above the lug 52 fixes the movement of the shaft 32 when keys 16, 18 or 20 are depressed. If, for example, the player prefers to have the pad 24 opened fully as these keys are actuated, the screws 54 and 56 are adjusted to extend substantially above lug 52.

However, if the player prefers to have pad 24 remain in position as keys 16, 18 or 20 are actuated, the screws 54 and 56 are turned to retracted positions more nearly flush with lug 52, thus permitting these keys to be fully depressed without rocking shaft 32.

From the foregoing description it will be apparent that by the present invention I have provided an improved saxophone capable of adjustment for use by players desiring to actuate the G-sharp pad in unison with the B, B-flat, and C-sharp keys or by players not desiring this operation.

While I have shown and described only one mechanism whereby this operation may be accomplished it will, of course, be understood that in the appended claims I intend to cover all modifications and alternative constructions falling within the true spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A woodwind instrument of the saxophone type having four flat closely adjacent finger plate keys approximately in the same plane, for G-sharp and B-flat and B and C-sharp, said in-

strument having tone-holes corresponding to said notes, pads for said tone-holes, means operated by said keys to actuate said pads, said means including a member rockable to actuate the pad corresponding to said G-sharp key and other members rockable to actuate said B-flat, B, and C-sharp keys, the first named member lying adjacent to the other members, and an element adjustably carried by the first named member and adjustable into and out of the paths of movement of said other members for actuating the pad corresponding to said G-sharp key as said B-flat, B, and C-sharp keys are actuated when the element is in said paths of movement and for permitting movement of the B-flat, B, and C-sharp keys independent of the G-sharp key when the element is out of said paths.

2. A woodwind instrument of the saxophone type having four flat closely adjacent finger plate keys approximately in the same plane, for G-sharp, B-flat, B and C-sharp, four levers for said keys mounted substantially parallel to each other crosswise of said instrument, the B lever underlying the B-flat key for rocking movements in response thereto, said instrument having tone-holes corresponding to each of said keys, a shaft connected to each of said levers and having pad elements adapted to close said holes, whereby actuation of said keys opens and closes said holes, a member affixed to the shaft corresponding to said G-sharp key and underlying said C-sharp and B levers and bearing adjustable elements normally operable to engage said levers but which may be retracted to operate free of said levers to move said member in response to movements of said C-sharp, B, or B-flat keys in the normal condition but to free said member from said movements when in the retracted condition.

3. An actuating mechanism for a saxophone having shafts individually rockable to actuate G-sharp, B-flat, B, and C-sharp pads, said mechanism including closely adjacent finger plate keys for each of said shafts, levers extending transversely of said saxophone and connecting each of said keys to the corresponding shaft, the lever for the B key extending under the lever for the B-flat key to be actuated upon actuation of the B-flat key, an arm affixed to the G-sharp shaft and extending under the B and C-sharp levers, and screws threadedly received in said lever and in registry with said B and C-sharp levers and adjustable to retracted positions wherein said B and B-flat levers may be rocked without engaging said arm.

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REFERENCES CITED

The following references are of record in the file of this patent:

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