## PATENT SPECIFICATION



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Complete not Accepted.

COMPLETE SPECIFICATION.

## Improvements in or relating to Wind Musical Instruments.

I, MAURICE EVETTE, of 18 and 20, Passage du Grand Cerf, Paris, France, a citizen of the Republic of France, do hereby declare the nature of this inven-5 tion and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:

The present invention relates to saxo-10 phones or like key wind instruments and has the object of improvements in these instruments, which allow of obtaining a great softness of tone accuracy of pitch, facility of fingering, at the same time as 15 a sonorous power superior to that hitherto obtained with instruments as now made; said improvements consisting more particularly in providing in the body of the saxophone a plate provided with an air 20 escape aperture suitably dimensioned and operated by the left thumb, also to the provision of additional holes adapted to be closed by the fingers or thumb of the hands directly or through keys and asso-25 ciated operating mechanism whereby the aforesaid advantages are obtained.

In the accompanying drawing Fig. 1 is a view of the right hand side of the body of the saxophone, from which, for 30 the sake of clearness, all the customary keys have been removed, the body being shown provided merely with the new mechanisms according to the invention.

Fig. 2 is a front view of the upper part 35 of the body of the saxophone, with the mouthpiece removed.

Fig. 3 shows the mouthpiece, which fits on to the upper part of the body of Fig. 2. Fig. 4 is a view of the upper part of 40 the left hand side of the body of the saxophone.

Fig. 5 is a view to a larger scale of the lower part of the instrument at an angle slightly different from that of Fig. 1, 45 showing the operating mechanism of the lower C sharp.

Fig. 6 is a view completing Fig. 5. Fig. 7 is a view showing the operating mechanism of B flat for the left forefinger 50 and that of upper D.

Fig. 8 is a view to a larger scale of a

detail of Fig. 7.

Fig. 9 shows a device applied to all the keys, which permits of obtaining with the same hole and a combination of overlapping plates the note of the ordinary tone or the note of the octave higher. This device is shown as applied to the hole of C sharp located at the top of the

Fig. 10 shows an aggregate of mechanisms which permits of leaving only one hole stopped below the hole by which the note is emitted.

On referring to the drawings it is seen that one of the characteristics of the new that one of the characteristics of the new saxophone consists in arranging at the upper part thereof a plate pierced with an aperture, which technically is called "left hand thumb hole" or "speaker". The plate is represented at 1 and is integral with the body 2 of the instrument. This plate is pierced at its centre with an aperture 3 of suitable section, into which fits a small tube 4 projecting into the inside of the body of the saxointo the inside of the body of the saxo-phone. The advantage of this arrangement is, that it permits of playing the octave of low notes by lifting the thumb or the cup closing the aperture. The freeing of the aperture 3 thus produces the emission of upper notes, owing to the alteration in the vibrations of the sonorous body. The "speaker" may be located equally well on any part of the section of the instrument having the same diameter and more particularly at any diameter and more particularly at any point of the plate operated by the left hand forefinger. It may be said that by this aperture 3 there is produced a division 90 of the vibrations of the air column.

The invention comprises further the arrangement of new notes on the body of the instrument.

There is seen in Fig. 4, showing the left 95 inere is seen in rig. 4, showing the left side of the saxophone, at 5 a key of upper F sharp, attached to a key barrel 6 operated by a head 7, the key barrel 6 being fixed on a supporting rod 8.

The opening of the key 5, giving consequently the upper F sharp, is limited by an arm 9 constituting a stop and also

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