## CHAPTER XVI.

ON THE STUDY OF MUSIC, AND THE SELECTION AND GENERAL MANAGEMENT OF A FLUTE.

\$689. THE STUDY OF MUSIC.—690. THE ELIGIBILITY OF THE FLUTE.—701. THE CHIEF POINTS OF EXCELLENCE IN FLUTE-PLAYING.—702. THE SELECTION OF A FLUTE.—704. THE PRESERVATION OF A FLUTE.—707. CLEANING THE KEYS AND OTHER MECHANISM.—708. REPAIRING THE MECHANISM.—709. PUTTING TOGETHER AND ADJUSTING THE JOINTS.

689. The Study of Music. The delightful art of Music being now almost a daily necessity for the many instead of, as formerly, an occasional luxury for the few, it is hardly necessary to urge the importance of its universal study and practice; yet I cannot refrain from transcribing the words of the excellent Dr. Thomas Young (1800) on this subject, premising, however, that while time has intensified the truth of some of these memorable utterances, many of the difficulties in the path of the musical aspirant, which existed in the days of the learned Doctor, have been palliated, and others, especially some of those which formerly beset the flute-player, have vanished altogether.

"The pursuit of musical excellence, if properly conducted, amply exercises the faculties, at the same time that it forms a desirable variety when intermixed with literary or professional employments. To call it an amusement only, betrays an ignorance of the nature and difficulty of the study. So far is the science of music from being of a light and superficial nature, that in its whole extent it is scarcely less intricate or more easily acquired than the most profound of the more regular occupations of the schools, and even practical perfection in music requires so much intense and laborious application; such a minute accuracy of perception, and so rapid an association of various

sensitive ideas and mechanical motions, that it is inconceivable how men who have no superior brilliancy in any other accomplishment should be able to attain a conception and execution in music which seem almost to require the faculties of a superior order of beings. An intemperate and dissipated attachment to music may indeed be productive of evils, but probably the same individuals who have been its victims would have been equally idle and irregular if they had been destitute of this accomplishment.

THE STUDY OF MUSIC.

"A considerable share of the pleasure of practical music arises from causes perfectly distinct from the sensual perceptions: the consciousness of having overcome difficulties; the laudable satisfaction of entertaining others, and the interest and emulation produced by a concurrence of others in the same pursuits: all these entirely outweigh the temporary amusement of the ear, and wholly remove the objection, which might be made, to the enervating effect of a continued devotion to pleasurable sensations. The ancient philosophers, with all the manliness and dignity of character to which they aspired, were not ashamed to consider music as an indispensable part of a liberal education, and Plato devotes three of the earlier years of his young citizen entirely to the study of the lyre: nor are we without examples, in modern times, of philosophers and princes and heroes, who have excelled as much in musical performances as in literature and arms."

690. The Eligibility of the Flute. It might almost be assumed that no one without some predilection for the flute would take the trouble to open this volume, but should the reader happen to be undecided as to the most appropriate medium for the development of his musical talents, the following account of the advantages possessed by the flute might, perhaps, induce him to give favourable consideration to its claims on his notice.

691. (I) From a hygienic point of view, the flute is undoubtedly pre-eminent amongst the instruments of music, The opinion of a professional flute-player, on this question,

might be open to the imputation of not being altogether disinterested; the opinion of a medical man unacquainted with the nature of the instrument and the kind of exertion which it demands would be valueless: only he who has a thorough knowledge of the economy of the human frame, and who is at the same time a good flute-player, is capable of arriving at a just conclusion on the subject.

The first authoritative opinion that was given to me was that of my old friend, the late Mr. Campbell de Morgan of Middlesex Hospital, who was not only a most distinguished surgeon, but also an excellent and hard-working amateur flute-player. His words were to this effect: "Everyone with a strong, sound chest must be benefited by the practice of flute-playing, which, while it constitutes a natural and healthy exercise, never demands any undue labour. For a weak and delicate person flute-playing is still more beneficial, as it tends to expand and strengthen the chest, and owing to the deep inspirations that are necessary, the upper part of the lungs (generally the seat of the origin of disease, and too often scarcely used) is efficiently brought into play. Only in case of the presence of actual disease should I hesitate to recommend the adoption of the flute."

I have frequently conversed on this matter with eminent physicians and surgeons, amateurs of the flute, and one and all have expressed similar views. The practice of reed-instruments is not, however, attended by the same advantages; that of the hautboy is particularly dangerous for those who are not exceptionally strong, as the necessary pressure of wind through the small aperture of the reed is liable to cause emphysema of the lungs, and I regret to say that the object of my special admiration, "the loud bassoon," is not free from the reproach of having been the cause of many untimely deaths.

Note. Since the preceding section was written, and while this book was in the press, a friend kindly brought under my notice an excellent paper on wind-instruments, by Mr. G. T. Hankins (1890), which affords striking corroboration of the preceding remarks on the physical advantages attendant on the practice of flute-playing. The closing sentences of this able paper are as follows: "From my foregoing comparison of the different instruments, and review of the dangers likely to result from constantly subjecting the lung and air passages to high pressure, you will gather that I consider the instrument par excellence for the young amateur to be the flute. Its practice is not only free from danger, but may be indulged in with positive benefit to the health. The pressure is very slight, the position of the body is good, and the respirations free; I have frequently played for three hours at a stretch without any inconvenience, if I may except a crick in the neck from holding the head so long in one position. During flute-playing the renewal of the air in the lungs is frequent, and the inspiratory action, without being excessive, is sufficient to bring into play the apices of the lungs, those portions which on account of their usual inactivity and consequent low vitality are the seat of election for tubercle.

"Flute-playing is a capital substitute for walking exercise, when from accident or local disease this is impossible, and I can answer for its promoting appetite and raising the spirits in a way it would be difficult to find excelled by any other sedentary amusement. . . .

"Lest it should be thought that a personal preference for my instrument may have induced me to run my hobby too hard, I might explain that, personally, I prefer playing the clarionet, as giving me more satisfaction as regards expression and quality of tone, but there is no doubt it requires greater exertion to play, more constant practice to keep up a fair average of proficiency, and has, moreover, the disadvantage of being less easily tuned to the pitch of other instruments.

"I venture to express a hope that the playing of wind-instruments, with proper precautions, may take a prominent place in the preventive treatment of pulmonary disease."

692. (II) The intonation of the flute is so perfectly under the command of the accomplished player that not only may an ill-tuned specimen be made to rival the "well-tempered clavier" in accuracy, but certain delicate modifications of musical intervals, elsewhere explained, may be effected with a precision unattainable on any other instrument. Moreover, the flute stands supreme in its capabilities for being played judiciously out of tune, in order that it may be brought to accommodate itself to the imperfections of the voices or instruments that it may have to accompany.

693. (III) The inimitable charm of the tone of the flute should be sufficient in itself to account for the general admiration which has for so many generations been accorded to the instrument. In order to prove whether I am justified or not in the use of the word "inimitable" it will only be necessary for anyone with a refined ear, and an open mind, to listen carefully to a first-rate orchestra; to observe the tone of the flute, and to compare it with that of any other instrument. I have not the slightest doubt as to the opinion that will be formed by ninety-nine dispassionate persons out of a hundred. Far be it from me to disparage the other wood-wind-instruments of the orchestra; I yield to no one in admiration for them; but, notwithstanding their many valuable qualities, excepting in power, volume and gravity (see §229), they are unable to rival the flute.

694. (IV) In some respects this instrument excels all others in its capabilities for agreeable expression: this is not only due to the loveliness of its general tone, but in a great measure to the unequalled facilities which it affords for the exercise of the always charming quality, variety, as well as to the absolute control possessed by a good flute-player over his instrument.

695. (V) The flute is peculiarly well adapted for playing in concert with other instruments, especially the clarionet, the bassoon, the hautboy, the piano-forte, the harp and the guitar, as well as in duets, trios and quartets of flutes alone. If it does not always blend effectively with the violin, this must be attributed to the sometimes uncongenial nature of the tone of the last-mentioned instrument: I think no one would venture seriously to assert that the tone of the flute suffers in comparison with that of any stringed instrument. In a quintet consisting of flute, violin, two tenors, and violoncello, the flute shines transcendently, and the combination is extremely effective, though not nearly so fine as that of the "wood-wind" with the horn.

696. (VI) The flute affords facilities for rapid execution

that are admittedly unrivalled, and, chiefly for this reason, proficiency in manipulation may be more easily attained on this than on any other musical instrument worthy of the name. The diatonic and chromatic scales; arpeggios in almost every variety of form, and passages of octaves, can be played at rates of speed perfectly impossible on other instruments; nevertheless there are certain passages, easy and effective on the piano-forte, which are not well adapted for the flute. Amongst these may be mentioned the continued repetition, legato, of two notes forming a wide interval. The powers of the flute are also generally restricted to playing one note at a time, though the ease and celerity with which the notes of an air and its accompaniment can be made to follow each other, often delude the hearer into the belief that they are played simultaneously: see BAYR in part IV. It is obvious that, in common with other wind-instruments, the flute is incapable of rendering, in the ordinary sense of the words, music in two or more parts, but this end can, of course, be readily accomplished by employing several flutes, and the various parts may then be played in practically perfect tune. We therefore need not sigh for the double and triple notes of stringed instruments, for which their most devoted admirers would hardly dare to claim so much, and if, on the one hand, all players on wind-instruments, as well as vocalists, are often hampered by the necessity for taking breath; on the other hand, they have no strings to vex them or their audiences by breaking at critical moments, or worse than all, to require tuning between the movements of a sonata.

697. (VII) The power of musical articulation is necessarily confined exclusively to singers and players on wind-instruments. The only special advantage possessed by the flute-player, in respect of articulation, is due to his facility for the execution of rapid *staccato* passages by means of what is termed "double-tongueing." The best methods of performing this kind of articulation are explained at length in chapter XXI.

698. (VIII) The consummate ease and elegance of the correct position of the flute-player will compare favourably

with that of any other instrumentalist. It is partly owing to this gracefulness of attitude that the flute is so peculiarly well adapted for ladies, amongst whom I hope to see it even more popular than it is at present.

699. (IX) The portability of the flute is not by any means a trifling advantage, but it is so self-evident that it is unnecessary to dilate upon it.

700. (X) In 1637 old Mersenne considered it desirable that "the excellence of the instrument should be combined with beauty of appearance, in order that the eye might in some measure participate in the pleasure of the ear." The appearance of the instrument that he so much admired is shown in fig. 42 (§404), but though Mersenne's flute is no longer imitated, his precepts have been followed to the letter, and in the best flutes elegance is so combined with excellence that the mere possession of one of these beautiful instruments should be a source of gratification.

701. The chief Points of Excellence in Flute-playing. No one can be a really good flute-player who fails noticeably in any one of the following essential points, here placed in what I consider the order of their relative importance.

I. Strict time-keeping.

II. Accuracy with regard to the notes.

III. Perfect intonation, according to equal temperament.

IV. Correct accentuation.

V. Judicious respiration.

VI. Neat articulation, embracing the extremes of vigour and of delicacy.

VII. Varied, but always refined style.

VIII. Facility in the production of a pure, flexible and powerful tone, of the true flute-character, and perfectly under command even in the extremes of *forte* and *piano*.

IX. Neat, rapid and fluent execution.

X. Faultless position of all those parts of the body which are in any way concerned in performance.

XI. Facility in reading music at sight.

Phrasing has not been separately mentioned in this table because it is included in time, accent and respiration. Musical expression is included in time, accent, respiration, articulation, style, tone and execution. Emphasis depends upon articulation and tone; it is an important element of style, and will hereafter be seen to be totally distinct from musical accent.

Directions for the acquirement of all the above-mentioned points of excellence are given in succeeding chapters, though, for obvious reasons, a different order has been adopted in the arrangement of the subjects, but I would here most particularly emphasize the importance of every action of the flute-player being regulated by the most precise method. Those who trust to chance may possibly play well sometimes, but a well-educated and truly methodical artist will play well always, although he may, of course, play on some occasions better than on others.

Before entering upon the minute consideration of the art of flute-playing, it will be necessary to give some attention to a most important preliminary step which forms the subject of the next two sections.

702. The Selection of a Flute. By careful study of this book the reader may gain sufficient theoretical knowledge to enable him to form a correct estimate of the qualities of a perfect flute, but he will require some experience before that knowledge can be of much practical assistance to him in choosing an instrument. It will therefore be safer for an inexperienced intending purchaser to obtain the advice of some competent and trustworthy expert than to rely entirely on his own judgment. This caution is necessary in the selection of any new wind-instrument, but it is doubly so in the case of a second-hand one, and it should be known that a flute, originally good, may become so deteriorated by time, ill-usage or accident as to be practically worthless for musical purposes, although still possessing all the outward characteristics of excellence.

A flute of wood is, of course, more liable to irremediable injury than one of any other material, but a metal flute may become so much altered in calibre by the removal of bruises, or by careless cleaning, as to be rendered useless. Even a flute of ebonite may be spoiled by injudicious repairs; by the substitution of an imperfect joint for an originally perfect one, or by careless treatment.

703. It is obvious that the wisest course to pursue, for those who can afford to do so, is to procure a new flute of the best kind: those who are unable to follow this advice should obtain a well-preserved second-hand one, or a new one of low price, but let no lover of the instrument be deterred from beginning to learn to play, if he should have really set his heart upon doing so, on account of his inability to purchase a high-class flute. My first instrument cost half-a-crown! It was only a little one, and it had but one key, but it made me very happy for some years, and I taught myself, from the age of seven, to play a variety of tunes upon it, to the delight of some of my companions as well as to my own. The impecunious amateur should refer to the accounts of the early flute-players and of their one-keyed flutes, given in this work, and it should never be forgotten that Quantz, by the excellence of his playing on such a flute, caused Scarlatti to abandon his long-cherished prejudice against players on windinstruments, or that before the year 1864 no flute was ever made which did not require to be corrected in its intonation by the player.

Every aspirant to musical honours should thoroughly recognise the fact that the innumerable essential qualities for artistic performance must necessarily depend to a far greater extent on his own skill, taste and judgment than on the merits of the particular instrument which he may happen to possess; a truth which may be read between the elegant lines of Samuel Rogers:

"The soul of Music slumbers in the shell
Till waked and kindled by the master's spell."

704. The Preservation of a Flute. The best of flutes may be soon spoiled by careless usage, and the cheapest may be preserved for many years by judicious treatment; it is therefore one of the first duties of every flute-player to take all reasonable care of his instrument whatever may be its value.

During playing, as well as in the intervals of rest, the flute should be held as still as possible, in order that the moisture, inevitably caused by the condensation of the breath, may continue to run in an even channel along the lower side of the tube, where there are, or should be, no holes. The pads of the keys would soon be injured if allowed to become wet, moreover, bubbles might form if the water should run into the holes of the keys, and in that case it would be impossible for the notes to sound properly.

Moisture should never be allowed to remain in a flute, in any considerable quantity, but it is not necessary that the bore should be perfectly dried. Ebonite or metal flutes are, of course, impervious to the influence of moisture, as far as their tubes are concerned, but flutes of any kind of wood are apt to warp; to change their calibre, and to crack. These accidents may be often averted for a long time by distributing the moisture evenly over the interior surface after ceasing to play. This is easily done by means of one of the silk mops made for the purpose. A woollen mop is of little use. The head-joint of a flute (even if made of, or lined with, metal) should be often wiped out, for the sake of cleanliness, previously removing the cork or stopper. A wooden flute should not be completely dried with a handkerchief after playing, because, if regularly so treated, only a small part of the surface of the bore can ever become thoroughly wet. and nothing is more likely than such partial wetting to cause the accidents to which such instruments are especially liable.

705. After a flute has been taken into use no oil should ever be applied to the inside of it. The tuning slide and the cork or thread covering of the pins of the joints should be kept lubricated with spermaceti ointment, or some similar material of suitable consistency, and this should be occasionally cleaned off with a little olive-oil, and renewed.

The mouth-hole should be kept scrupulously clean, but the greatest care should be taken to preserve the sharpness of its edge, or the tone of the instrument will be rendered dull.

A flute, after use, should not be allowed to remain in a horizontal position while wet: it may be stood up in a corner, or held upright in the hand. If of the modern type, it should be carefully put away in its case when no longer in use, otherwise the mechanism may be injured by dust.

706. The mechanism of flutes with six open holes and eight or more keys requires very little attention, but should the pads be covered with leather, they may, if inclined to stick to their beds, be cleaned with a very little olive-oil, or the stickiness may be removed by the application of a small quantity of powdered French chalk (glove or boot-powder). Metal plugs may be cleaned with a piece of damp linen or leather, and they may be rendered almost noiseless in their action by the application of a small quantity of fine olive-oil on that part of the surface which impinges on the plate, but the oil will require frequent cleaning off and renewal.

The skin-covered pads of the best flutes seldom stick if they are properly treated, but should they do so French chalk may be applied, and if this fail to effect a permanent cure the damp corner of a clean handkerchief may be several times gently pressed between the pad and the bed, the operation being finished with a dry portion of the handkerchief. A pad may be dried in the same way if it should accidentally become wet, a condition in which it should never be allowed to remain.

In moist climates the needle-springs (see §390), if made of steel, may be kept thinly covered with linseed-oil, which will preserve them from rust.

707. Cleaning the Keys and other Mechanism. This is a subject on which it is difficult to give advice: the keys of the "old flute" may be kept bright, easily and harmlessly enough, by rubbing them after use with a piece of clean chamois-leather free from plate-powder. With the keys of modern flutes it is a very different question: some persons of patient disposition, and

inclined to mechanical pursuits, may trust themselves to perform the delicate operation of rubbing the complicated machinery with a clean plate-leather, (the smallest recesses may be reached with the point of a "drawing-stump"), and I have seen flutes preserved in all their original beauty for many years, without the least detriment to the action of the machinery, but I should hesitate to recommend the general adoption of the process. The safer plan is to sacrifice the continuance of the charming appearance of a new well-finished flute, for the sake of that far more important matter, the maintenance of the instrument in efficient working condition, and to content oneself with the necessary operation of keeping the machinery free from dust by means of a fitch-brush about the size of a duck-quill.

708. Repairing the Mechanism. Persons of mechanical proclivities can often accomplish simple repairs without special instructions; those who are unable to remedy a trifling mishap without precise directions would be wise if they abstained from trying to do so. In all cases of serious damage to a flute of modern construction, the instrument should be sent to the maker if possible, as much mischief may be wrought in the attempt to perform a delicate mechanical operation without the necessary skill and appliances, but a moderately good amateur mechanic should be able to make judicious use of a pair of watch-maker's pliers and a small turn-screw; these simple tools may be found exceedingly useful in cases of emergency.

A broken spring may be temporarily replaced by a common sewing-needle of the requisite thickness; by a piece of wire, or by a small India-rubber band, the best method of applying which, an ingenious person will readily discover.

If a key should become fixed or clogged, the application of Rangoon oil or kerosene to its spindle will often set it free. Fine watch-oil (or, in its absence, good salad-oil) may be applied two or three times a year to all the working parts of the machinery. Considerable wear will thus be saved, and the tubes of the keys will be prevented from rattling on their spindles. Noiselessness is, of course, an essential element of

perfection in the action of the mechanism of all musical instruments.

A spring may be strengthened by increasing its curve; this operation must be performed by careful use of the pliers. A needle-spring will require its point to be first unhooked. For this purpose a small crochet-hook will be found a convenient implement. In order to strengthen a flat spring it will be first necessary to remove the key from the flute.

Sets of extra pads and springs are often supplied to persons residing in remote places, and, for those who are sufficiently skilful to apply them, they are exceedingly useful accessories, but it is far better, when possible, to have a flute periodically cleaned and repadded by the maker.

Everyone who intends to become a flute-player should, apart from the question of repairs, make himself thoroughly acquainted with the action of the machinery of his instrument, as such knowledge will not only conduce to the maintenance of the flute in working order, but will also materially aid the learner in remembering the fingering.

709. Putting together and adjusting the Joints. The pins of the joints being sufficiently lubricated to ensure their working easily in the sockets, the head-joint should be grasped by the left hand, the palm being turned upwards. The second joint should be held in the right hand, the thumb being placed above the highest finger-hole. The palm of this hand should be turned towards the body, and should press against the side of the flute. On no account should there be any pressure on the keys. The pin of the joint should be inserted carefully in the socket and pressed in with a slightly rotatory motion. The left hand may then take the place of the right, the foot-joint (or the third joint, if there be four) being held in the right hand, while the union is effected as before.

If the flute consist of more than three joints, the finger-holes of the second and third joints should be ranged in a straight line. The foot-joint (if separate, which is generally the case) should be so placed that the little finger of the right hand may

conveniently reach the touches of all the keys, without the position of the hand being altered.

The most important point to be observed in joining the parts of the flute is the correct adjustment of the head-joint. This must be so placed that the outer edge of the mouth-hole shall be rather within than without the line of the centres of the finger-holes. The reasons for this turning inwards, which has been recommended by almost every writer of authority on the subject, will appear at length in the next chapter.

When put together correctly, the joints should be marked with the point of a pen-knife. A neat and convenient method of doing this is to make two small dots, one on each side of the junction, thus:

By means of these marks, uniformly true adjustment may be readily effected, and much time and trouble saved.

## CHAPTER XVII.

ON THE POSITION OF THE PLAYER; THE SUPPORTING OF THE FLUTE; THE ACTION OF THE FINGERS, ETC.

§710. THE POSITION OF THE BODY AND THE HEAD.—712. THE SUPPORTING OF THE FLUTE.—715. AUTHORITIES FOR TURNING THE MOUTH-HOLE INWARDS.—716. AUTHORITIES FOR PRESSING THE RIGHT HAND THUMB AGAINST THE SIDE OF THE FLUTE.—717. THE POSITION OF THE FLUTE.—718. THE POSITION OF THE LEFT ARM, HAND AND FINGERS.—719. THE POSITION OF THE RIGHT ARM, HAND AND FINGERS.—720. THE ACTION OF THE FINGERS.—721. GENERAL REMARKS ON POSITION.

710. The Position of the Body and the Head. When playing a solo or an obbligato in public, the flute-player should always stand before his audience for the sake of appearance; at other times a sitting posture is generally to be preferred. As far as convenience in playing is concerned, one position is just as good as the other, but, as sitting is undoubtedly less fatiguing, it would be advisable either to adopt that position during long continued practice, or to stand and sit alternately.

Whether standing or sitting, the player must keep the body erect and still; the shoulders as nearly as possible on a level; the chest raised and slightly thrown forward, and the shoulder blades rather nearer together than ordinarily, so that a full inspiration may be conveniently taken. When standing, the weight of the body should rest chiefly on the right foot; the left leg should be somewhat in advance of the right; the left knee slightly bent, and the heel three or four inches from the right foot. Both feet should, of course, be turned outwards.

It is important, particularly in a large room, to turn the foot-joint of the flute towards the audience, otherwise a great deal of the tone will be lost. See §246.