

## CHAPTER XIII.

A CENTURY AND A HALF OF THE EARLY LIFE  
OF THE TRANSVERSE FLUTE.

A.D. 1511—1660.

§397. EARLY WRITERS ON THE FLUTE: SEBASTIAN VIRDUNG, 1511.—400. MARTIN AGRICOLA, 1528, 1545.—401. THOINOT ARBEAU, 1588.—402. SALOMON DE CAUS, 1614.—403. MICHAEL PRÆTORIUS, 1620.—404. MARIN MERSENNE, 1637.—405. ATHANASIUS KIRCHER, 1650.—406. THE FINGERING, AND OTHER PARTICULARS OF THE PRIMITIVE FLUTES.

**397. Early Writers on the Flute.** *Sebastian Virdung*, 1511. The early history of the instrument that is now called a flute is involved in much obscurity, the sources of information being few and imperfect. I have not been able to discover any engraving of a flute prior to that given by Sebastian Virdung (1511), nor have I seen any authentic allusion to an earlier description or representation of an instrument of this type, though casual mention of the transverse flute appears in writings of much earlier date. For instance: Guillaume de Machault, a noted French poet of the fourteenth century, discourses of

“*Tabours, floutes traversaines.*”

The only copy in England of Virdung's extremely rare and valuable work is the property of Mr. Alfred H. Littleton, to whose kindness I am deeply indebted for the opportunity of inspecting it, and of comparing it with his fine copy of the Latin translation by Luscinius (1536). Mr. Littleton is also the fortunate possessor of perfect copies of the *Syntagma* of Prætorius, and the first edition of the *Musica Instrumentalis Deudsch* by Martin Agricola (1528). Of the former work the British

Museum possesses only the volume of plates, and of the latter but a tattered fragment.

The small oblong work of Virdung consists of fifty-six leaves, not paged. A copy of it is priced, in a catalogue recently printed in Vienna, at three thousand florins. Fétis (1860) describes the book as containing fourteen leaves: he must therefore have seen only an incomplete copy. A well-executed facsimile of the entire work has recently been printed in Germany.

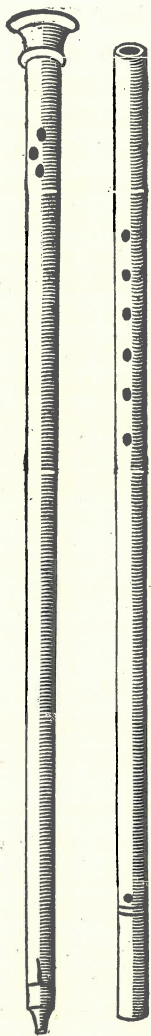
**398.** The instrument figured by Virdung (*fig. 37*), though bearing a close resemblance to a flute, does not appear to have been known in the sixteenth century, either in Germany or in Switzerland, by that name. The *Floeten* represented by Virdung are but whistles, with their mouth-pieces not sloped according to the present fashion, for passing between the lips, but cut off nearly square as if intended to be placed to the mouth after the manner of a trumpet. These instruments are styled in France *flûtes droites*.

Rabelais relates in his *Life of Gargantua*, which is supposed to have been written in 1535, that “Gargantua played on the German flute,” but the instrument then known in France by that name, was called in Germany the *Schweytzerpfeiff* (Swiss pipe), or the *Zwerchpfeiff* (transverse pipe), and it appears to have been known in Switzerland by the latter name only.

**399.** Although the fife was used in the French army early in the sixteenth century, it is evident that both it and the flute, were little known, and less understood, by the Germans in those days, for Virdung's representation of it is so incorrect in its proportions that it can only have been drawn either from imperfect recollection or from imagination. One cannot believe that such an instrument as he has figured could have produced a musical scale, the finger-holes being too close together and too far from the mouth-hole to admit of such a possibility.

As much confusion has arisen between the *Schwegel* and the *Zwerchpfeiff*, I give here a facsimile of Virdung's wood-engraving

FIG. 37.

Facsimile of a wood-cut from *Virdung's work*. (1511.)

Schwegel.

Zwerchpfeiff.

of both instruments. He supplies no detailed account of them, nor any indication of the manner in which they were fingered, but the testimony of later authors leaves no doubt that he has correctly applied the names, and the drawing, though rude, is sufficiently exact for the purpose of identification.

Nachtgall, who writes under the pseudonym of Luscinius (a literal rendering of the old German name), translated, more or less literally, the entire work of Virdung into Latin, without any acknowledgment of its authorship, and evidently made use of Virdung's wood-blocks, but some of these have been carelessly or ignorantly inverted, and the names of the instruments misplaced. This is notably the case with the two pipes under discussion, and Sir John Hawkins (1776), W. N. James (1826), and others, who knew nothing of Virdung, have repeated the error of Nachtgall, applying the name *Schwegel* to the primitive transverse flute, instead of to the whistle. A comparison of figures 37 and 38 will be sufficient to explain the origin of the mistake.

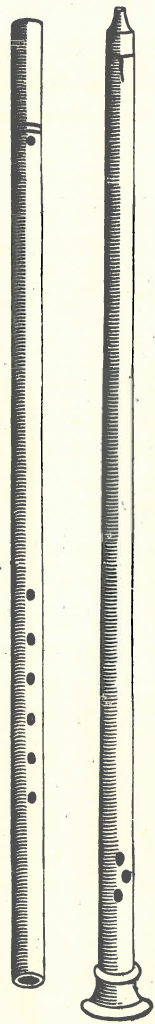
It is evident that the *Zwerchpfeiff* was a primitive flute, and that the *Schwegel* was the barbaric pipe which has survived, in all its primitive simplicity, even to our own time. Not long since, I witnessed a performance on one of these pipes in the streets of London. The performer was apparently a Savoyard who, while he beat a tabour with his right hand and kept a string of

FIG. 38.

Facsimile of *Virdung's* wood-cut as inserted by *Luscinius* (1536).

Schwegel.

Bwerchpfeiff.

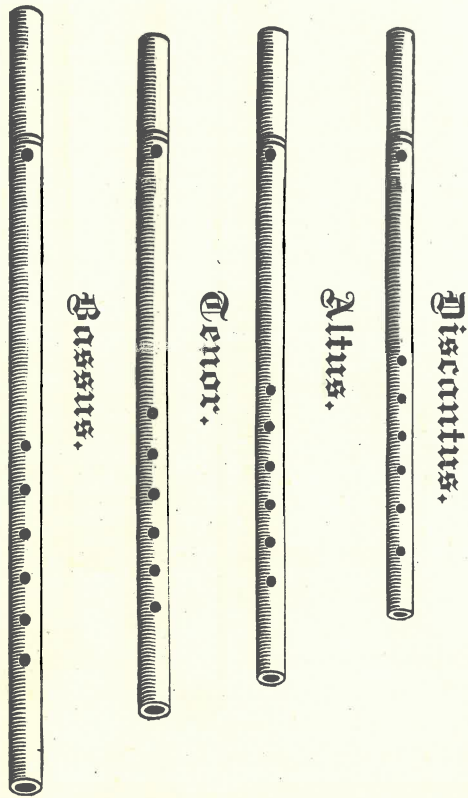


puppets dancing by means of his knee, held the pipe to his lips with his left hand and charmed the British public with a sort of quasi-musical "twiddling" thereon.

400. *Martin Agricola*, 1528, 1545, gives a wood-cut of four Swiss pipes placed left-handed. In the latest edition of his work (1545), the pipes are portrayed as in the annexed facsimile.

FIG. 39.

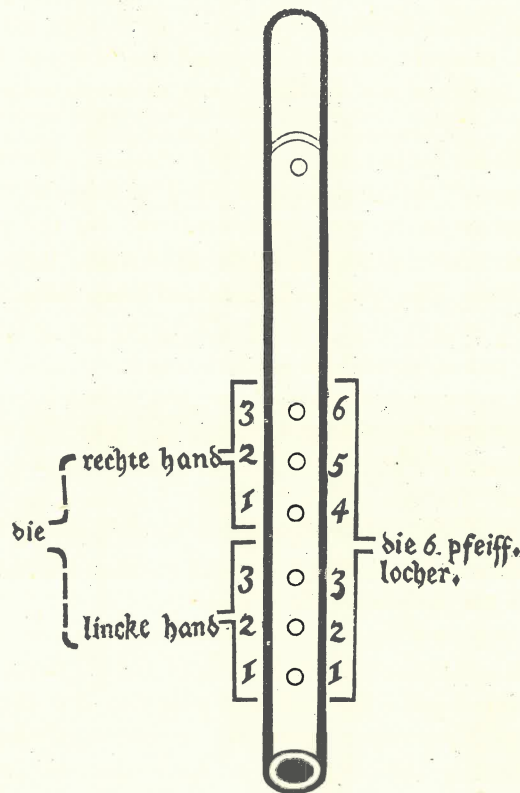
Vier Schweytzer Pfeiffen.



These are not much more correctly drawn than the transverse pipe of Virdung, but in the same volume there is a wood-cut which is peculiarly interesting, being probably the earliest published representation of a really possible flute, capable of giving an approach to a musical scale.

FIG. 40.

Facsimile of Martin Agricola's engraving of the Schweytzerpfeiff (1545).



It must be left to the ingenious reader to carry out the indications of Agricola for the holding of this pipe.

In all the editions of Agricola, the *Floeten* and the *Schwegel* are represented as in Virdung.

401. *Thoinot Arbeau*, in his "*Orchesographie*" (1588) affords some information on the subject of the fife of his time, and also on the duties of a professor of that instrument, duties which can scarcely be pronounced onerous. "We apply the name fife," he writes, "to a small transverse flute with six holes, which is used by the Germans and the Swiss, and which, as it has a very narrow bore no bigger than a pistol bullet, gives a piercing sound. . . ."

"Those who perform on this instrument, play according to their own pleasure, and it is enough for them to keep time with the sound of the drum." (*tumber en cadence avec le son du tambour.*)

402. *Salomon de Caus* (1614) divides musical instruments into three classes: "instruments with fixed sounds, the intervals of which cannot be in any manner altered by the performer; instruments with sounds partly fixed, as viols, lutes, *guiternes*, *cithres* and the like, which are provided with frets, and instruments with sounds that can be altered by the performer, for example: *cornets*, *flustes* and *hautbois*, which are graduated with holes that to some extent determine the sounds; nevertheless, those who know well how to manage the said instruments can raise or lower them at their pleasure by means of the fingers, which cover the holes little by little, according to the will of the player." (*ceux qui savent bien manier lesdits Instrumens peuvent les hausser ou baisser à leur plaisir par le moyen des doigts qui bouchent lesdits trous, peu à peu, selon la volonté du Joueur.*)

It was not only by the partial opening and closing of the finger-holes, that the imperfect notes of the old flutes may have been rendered just: the power of changing the direction and force of the air-current, judiciously applied, no doubt exercised an ameliorating influence, for we have absolutely no right to assume that the ears of our forefathers were less acute than our own in the matter of intonation.

403. *Prætorius*, 1620. In the celebrated *Theatrum Instrumen-*

torum of Michael Prætorius (1620) four flutes are shown, which are at least as imperfectly drawn as the transverse pipe of Virdung or the four Swiss pipes of Agricola, but considerable interest attaches to the largest of the flutes given by Prætorius, inasmuch as it is probably the earliest representation extant of a flute made in two pieces. I have therefore thought it worth reproducing.

FIG. 41.

Facsimile of an engraving of a "Schweytzerpfeiff" from Michael Prætorius (1620).



There is a rough attempt to indicate, in Brunswick-feet, the sizes of the instruments delineated by Prætorius, but the scale is so imperfect, and the reference to it so obscure, that it is impossible to arrive at any definite conclusion as to the author's meaning.

404. *Marin Mersenne* (1637). The account of the flute given by Mersenne, in his great work so frequently cited in these pages, is very interesting, and his measurements, though they scarcely "*monstrent les endroits des trous diatoniques assez exactment pour en faire d'autres à l'imitation,*" are yet precise enough to show the dimensions of the tube of the instrument which he delineates. On the opposite page will be found an exact reproduction of his curiously rude wood-cut, with a translation of his accompanying explanation.

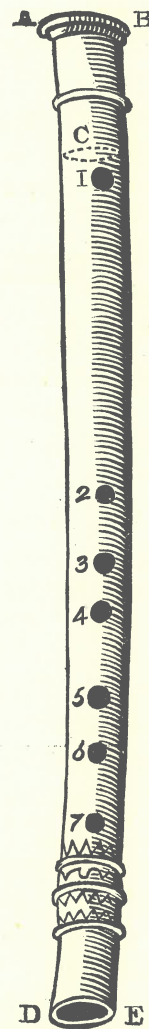
FIG. 42.

Facsimile of an engraving of a "German Flute," from the work of *Mersenne* (1637.)

"The part *A B C* serves only for ornament; *C* represents the place at which the cork determines the length of the instrument at the upper end: . . . . it is therefore evident that the length of the flute should be measured only from *C* to *E*. Now I have left the curvature in this figure because it has been taken from one of the best flutes in the world, which was bent: that is why I give here its length, which is one foot and five-sixths. [This refers to the old French-foot, or  *pied de roi*, of .3248394 *metre*. The length given would amount to 23.45 English inches.] The distance from *B* to the *embouchure* is three inches [3.2 English inches]. It is sounded by placing the lower lip on the edge of the first hole and blowing extremely softly. From the cork to the *lumière*, *1*, there is a distance of only eight lines [.71 English inch]. Its bore is of equal width throughout, . . . . and this width is also eight lines."

The size of the mouth-hole is not given. The finger-holes are described as varying from three to five lines (.266 to .444 English inches) in diameter.

The distances between some of the holes are given, but the distances from *1* to *2*, from *5* to *6*, and from *7* to the





no reason to believe that the bore was intended to be otherwise than cylindrical. Although keys appear to have been common on all other wind-instruments, during this century and a half, we have no direct evidence that they were then applied to flutes, though we may infer that certain large flutes mentioned by Mersenne were furnished with them, as otherwise it would have been impossible for the fingers to have covered the holes. There is, however, no proof that the flute was made with more than six finger-holes prior to the year 1660, either for the purpose of increasing its compass, or for the alteration of its original diatonic character, a defect much lamented by Mersepe.

410. Notwithstanding the rude construction of the early flutes and their extremely limited capabilities, the unrivalled charm of the tone peculiar to the instrument must always have been present in some degree, and to this great point of excellence, combined with the power of the skilful player to rectify imperfect notes, we may consider that the flute owed its popularity for so many years. It is not improbable that owing to the power above mentioned, the early flute, though actually one of the most imperfect of wind-instruments in construction, was more perfect in performance than any of its contemporaries.

411. There is no evidence, of which I have any knowledge, that the transverse flute was known in England at the period of which this chapter treats, we may therefore hope that William Prynne's denunciation of flute-players in 1633 was intended for the professors of the "English flute" or *flûte-à-bec*. "If," said that most intolerant divine, in his *Histrio Mastix*, "a stage player, be it a man or a woman, a charioteer, gladiator, race runner, a fencer, a practiser of Olympian games, a flute-player, a fiddler, a harper, a dancer, an alehouse keeper, come to turn Christian, either let him give over these professions, or else be rejected."

## CHAPTER XIV.

### THE HISTORY OF THE FLUTE FROM 1660 TO 1827.

§412. THE APPLICATION OF KEYS, 1660 *CIRCA*.—414. THE DIMINUTION OF THE FINGER-HOLES.—415. THE CONOIDAL BORE, 1680 *CIRCA*.—416. THE HOTTETERRES.—418. TABLE OF THE FINGERING OF THE ONE-KEYED FLUTE, 1699.—422. FILIPPO BONANNI, 1722.—423. THE "c' AND c'♯ KEYS."—424. A FLUTE BY F. BOIE, 1724 *ANTE*.—430. A FLUTE BY BIGLIONI, 1725, *ANTE*.—434. THE FLUTE OF QUANTZ, 1726.—435. QUANTZ'S FINGERING.—439. GERHARD HOFFMANN.—440. "THE MODERN MUSICK-MASTER," 1730.—441. AN EARLY "BASS FLUTE."—443. A "BASS FLUTE" IN g, 1751 *ANTE*.—445. THE ESSAY OF QUANTZ, 1752.—446. A FLUTE BY T. LOT, 1756 *CIRCA*.—449. SCALE OF FINGERING IN THE FRENCH ENCYCLOPÆDIA, 1756.—450. A "BASS FLUTE" BY DELUSSE, 1760 *CIRCA*.—451. THE "EXTRA KEYS" FOR f, g♯ AND bb, 1774.—454. REVIVAL OF THE "LOW c AND c♯ KEYS."—455. THE "c'" KEY.—457. THE FLUTE AS DESCRIBED BY LAMBERT, 1775.—464. THE STATE OF FLUTE-PLAYING IN ENGLAND IN 1776.—465. AN INSTRUCTION-BOOK BY ANTONIO LORENZONI, 1779.—466. DR. RIBOCK'S "BEMERKUNGEN," 1782.—471. THE FLUTES OF TROMLITZ, 1783.—473. RICHARD POTTER'S PATENTS, 1785.—474. THE FIRST WORK OF TROMLITZ, 1786. THE "LONG f KEY."—477. INSTRUCTIONS FOR THE FLUTE OF FLORIO AND TACET, 1789 *CIRCA*; WRAGG'S FLUTE PRECEPTOR, 1790 *CIRCA*.—478. THE SECOND WORK OF TROMLITZ, 1791.—479. JOHN GUNN'S "ART OF PLAYING THE GERMAN FLUTE," 1793.—480. MÉTHODE BY F. DEVIENNE, 1795.—481. THE THIRD WORK OF TROMLITZ, 1800.—487. MÉTHODE OF HUGOT AND WUNDERLICH, 1801.—488. ATTEMPT TO REMODEL THE FLUTE BY WM. CLOSE, 1802.—489. POTTGIESSER'S FIRST EFFORT TO IMPROVE THE FLUTE, 1803.—499. LAURENT'S GLASS FLUTES: "THE LONG c'" KEY," 1806.—500. A FLUTE BY MONZANI, 1807.—503. DR. J. H. LIEBESKIND,