

An abundant supply of water is essential to the healthy condition of bees. They consume a large quantity, and often stop to drink at the edge of stagnant pools, and seem even to prefer putrid and urinous waters to purer streams, as if their saline and pungent qualities were grateful to them.

Where the bee-keeper has the use of a honey-extractor, and a large produce of honey is his desideratum, the combs can be emptied as fast as they are filled; and at the close of the season the bees may be deprived of the whole of their honey if syrup be supplied to them in its place. This is of much less value, and answers every purpose for winter stores. No hive should be trusted to the exigencies of winter with a less weight of sealed comb than 15 lb. Honey may also be gathered into supers; and the bees in good seasons will readily build their combs there, but should be enticed to do so with a few pieces of nice white decoy-comb placed within. The management of the Stewarton hives may be described as follows:—Two of the breeding-boxes having had their bars furnished with guide-comb, are lashed together, the sliding-door of the upper one run in and the slides of the lower withdrawn, when the two boxes become virtually one; a prime swarm of bees is introduced, and eight or ten days thereafter, another prime swarm being hived in the third breeding-box, it is placed under the other two. The lower of the two first boxes, now the central, has its door run in and the slides of the lower withdrawn. The second swarm of bees will soon run up and fraternise with the others; and the next morning the lowermost box may be removed, and the entrance opened of the one above. The space provided by the two boxes will be found ample for breeding; and when full, the strong stock formed by the double swarm will's on be glad to occupy the super then to be added, to which communication should be afforded by withdrawing the outer side on each side only. Should the season prove favourable the super will soon be filled, and when nearly so another should be placed on the top, and the first may be removed as soon as the honey cells are sealed over. All supers must be warmly wrapped up or padded, or the bees will be found reluctant to occupy them.

By the judicious management of supers, and the use of the honey-extractor, swarming may be in a great measure controlled; for if many swarms issue, the result must be that little honey will be gathered, all the energies of the reduced population being exerted to procure food for and attend to the young. A super put on the hive before the bees have made preparations for swarming by the construction of queen cells, &c., will generally prevent swarming, but not invariably. The bee-keeper must, therefore, decide whether he prefers an increase of his stocks or a large honey harvest, and manage his bees accordingly.

Artificial  
swarming.

It often happens that bees give every indication of an intention to swarm, and cluster idly outside the hive in large numbers for days or even weeks before they really emigrate.—all this time keeping their owner in suspense and possibly the swarm comes off at last without being observed. This is very tantalising, but may all be prevented by means of artificial swarming, the mode of proceeding for which varies according to the kind of hive in use. Considering, first, straw skeps, the common hive of the country, the operation to be pursued is known as "driving." This is not new, having been described by Dr Warder in the last century. The mode usually adopted is as follows.—Towards noon, on a fine day, when many of the bees are abroad, inject at the hive's entrance a puff or two of tobacco smoke, and with the hands give a smart smack on each side. The effect is that the whole of the inhabitants are struck with extreme terror; and after, perhaps, an alarmed sally to the entrance, every bee rushes to the cells to fill itself with honey. Allowing two or three minutes for them to effect their

purpose, the hive is boldly inverted and an empty hive of the same size placed on it mouth to mouth. A long towel is now bound round the junction to confine the bees, and the operator, with two sticks or the palms of his hands, keeps up a continuous smart rapping on the sides of the full hive, and after a few minutes the bees will all stream up into the empty hive, generally not more than fifteen minutes having elapsed before the first hive is denuded of its inhabitants. It should now be placed on the stand of some other strong stock (previously removed), whose returning bees will form a population to nurse the young and rear a queen if one be not supplied by the apiarian. If the swarm is to be at once sent away to a distance exceeding  $1\frac{1}{2}$  miles, the hive may be returned to its old stand, and so be peopled by the remainder of its old inhabitants who were at work. But if the swarm is to remain near, it should be placed on the old stand, as the bees, on their next flight, will return to the locality they know so well. "Driving" should also be pursued in the autumn, when it is desired to appropriate the honey of the hive. The driven bees should then be added to another stock, which they will advantageously strengthen. Where frame hives are in use, the following method may be adopted:—First, lift out the frames and search until the queen be found, when she, with the frame she is on, must be placed in the centre of a new hive, and be flanked on both sides by another comb as full of sealed brood as can be obtained. Fill up both hives with new frames furnished with empty combs, or guide-combs only if the former be not available, and shake into (or before the entrance of) the hive where the queen is sufficient bees to form a large swarm. Many will fly back to their old home, but all the young bees will remain. This hive should then be removed to some distance and the old one replaced. If the swarm is to be sent to a distance, the bees may be simply shaken off the combs into (or in front of) a new hive (taking care the queen is with them), which should be temporarily placed on the spot where the old one has just stood. The bees will enter it, and when all is quiet it should be removed and the old one reinstated. The bees that return from the fields will form a population for the domicile which they will find in the familiar place. Before in any manner operating on bees, it is advisable to puff a little smoke into the hive. This alarms them and causes them to fill their honey-pouches, and a bee in this state never volunteers an attack; but it is always prudent to cover one's face and hands, as home-returning bees are sometimes inclined to resent the disturbance to their family. India-rubber gloves, with gauntlets and veil of leno, will afford ample protection; the latter should be a simple bag, open at top and bottom, but with half a yard of elastic sewn in the top, through which should be passed the crown of a broad-brimmed hat. The coat should be buttoned over the lower part. Bee-keepers who meddle much with their bees soon become accustomed to stinging and do not suffer much. Experiments have been made to ascertain the number of stings required to inoculate the blood, and it has been stated that about thirty, at the rate of three or four a day, will suffice, after which the effect of the bee-poison is trivial. Persons unaccustomed to the poison, however, often suffer severely.

We conclude by observing that the honey-bee (*Apis mellifica*) is supposed to be of Asiatic origin. It was imported from Europe to America, where it is now found wild in great numbers, and at a vast distance from human habitations. An excellent treatise, *The Honey-Bee, its Natural History, Physiology, and Management*, was published in 1827 by Dr Edward Bevan. It contains some of the best practical remarks on the subject that are anywhere to be met with, and gives a fair account of the labours of the author's predecessors, Reaumur, Hunter,

Huber, Keys, Vicat, and Dunbar. The Rev. L. L. Langstroth, of New York, has also written a very excellent volume on *The Hive and Honey-Bee*. To Pastor Dzierzon, the Baron von Berlepsch, and Von Siebold of Germany, we are indebted for many accurate and valuable observations on physiology and hive management; and a *Manual of Bee-keeping*, written in 1875 by Mr John Hunter,

BEECH, a well-known tree, the *Fagus sylvatica*. For the cultivation and properties of it see ARBORICULTURE, vol. ii. p. 317. The name beech is from the Anglo-Saxon *boc*, *bece*, or *beoce* (Ger. *Buche*, Swedish, *bok*), words meaning at once a book and a beech-tree. The connection of the beech with the graphic arts is supposed to have originated in the fact that the ancient Runic tablets were formed of thin boards of beech-wood. "The origin of the word," says Prior (*Popular Names of British Plants*), "is identical with that of the Sanskrit *bókā*, letter, *bókās*, writings; and this correspondence of the Indian and our own is interesting as evidence of two things, viz., that the Brahmans had the art of writing before they detached themselves from the common stock of the Indo-European race in Upper Asia, and that we and other Germans have received alphabetic signs from the East by a northern route, and not by the Mediterranean." Beech-mast, the fruit of the beech-tree, was formerly known in England as buck; and the county of Buckingham is so named from its fame as a beech-growing country. Buckwheat (*Buchweizen*) derives its name from the similarity of its angular seeds to beech-mast. The generic name *Fagus* is derived from *φάγω*, to eat; but the *φηγός* of Theophrastus was probably the sweet chestnut (*castulus*) of the Romans. Beech-mast has been used as food in times of distress and famine; and in autumn it yields an abundant supply of food to park-deer and other game, and to pigs, which are turned into beech-woods in order to utilize the fallen mast. In France it is used for feeding pheasants and domestic poultry. Well-ripened beech-mast yields from 17 to 20 per cent. of a non-drying oil, suitable for illumination, and said to be used in some parts of France and other Continental countries in cooking, and as a substitute for butter.

BEECHEY, FREDERICK WILLIAM, a distinguished naval officer and navigator, son of Sir William Beechey, R.A., was born in London, in 1796. In 1806, at the age of ten, he entered the navy, and was for several years engaged in active service during the wars with France and America. In 1818 he served under Franklin in Buchan's Arctic expedition, of which at a later period he published a narrative; and in the following year he accompanied Parry in the "Hecla." In 1821 he took part in the survey of the Mediterranean coast, under the direction of Captain, afterwards Admiral, Smyth. He and his brother, H. W. Beechey, made an overland survey of the north coast of Africa, of which a full and valuable account was published in 1827. In 1825 he was appointed to the "Blossom," which was intended to explore Behring's Straits in concert with Franklin and Parry. He passed Behring's Straits and penetrated as far as lat.  $71^{\circ} 23' 31''$  N., and long.  $156^{\circ} 21' 30''$  W., reaching a point only 146 miles west of that reached by Franklin's expedition from the Mackenzie River. The whole voyage lasted more than three years; and in the course of it Beechey discovered several islands in the Pacific, and an excellent harbour near Cape Prince of Wales. A full narrative of his voyage was published in 1825-28. From 1835 to 1847 Captain Beechey was employed on the coast survey of South America and Ireland. He was then appointed by Government to preside over the Marine Department of the Board of Trade. In 1854 he

secretary of the British Beekeepers' Association, contains much practical information on scientific and profitable bee-keeping. We may add that the above association, established in 1874 under the presidency of Sir John Lubbock, is the first vigorous effort made in England to extend and improve this neglected although valuable branch of rural economy. (J. H.)

was made rear-admiral, and in the following year was elected president of the Geographical Society. He died on the 29th Nov. 1856.

BEECHEY, SIR WILLIAM, R.A., a fashionable portrait-painter, born at Burford in December 1753, was originally bred as a conveyancer, but a strong love for painting induced him to become a pupil at the Royal Academy in 1772. Some of his smaller portraits gained him considerable reputation; he began to be employed by the nobility, and in 1793 became associate of the Academy. In the same year he was made portrait-painter to Queen Charlotte, an appointment which increased his celebrity. He painted the portraits of the members of the royal family, and of nearly all the most famous or fashionable persons of the time. What is considered his finest production is a review of cavalry, a large composition, in the foreground of which he introduced portraits of George III., the Prince of Wales, and the duke of York, surrounded by a brilliant staff on horseback. It was painted in 1798, and obtained for the artist the honour of knighthood, and the rank of R.A. The earlier portraits of Beechey were carefully drawn and well finished; but in his later days the extent of his employment rendered him less careful in his design. His works are generally vigorous, but are wanting in grace and dignity. He was a good, but not an eminent portrait painter. He died in January 1839, at the advanced age of eighty-six.

BEELZEBUB. The name of the supreme god among all the Syro-Phœnician peoples was Baal, i.e., *lord* or *owner*; and by adding to it *zebub*, insect, the proper name Baalzebub was formed, the god of Ekron according to 2 Kings i. 2, the fly-god, the averter of insects, similar to the *Zeus ἀπόμυος*, *μύταγρος*, and the Hercules *μύταγρος*; so that Clemens Alexandrinus speaks of a Hercules ἀπόμυος worshipped in Rome. Hug's hypothesis that this Phœnician god was the dung-beetle, the *Scarabæus pillularius*, worshipped in Egypt, cannot be accepted. Beelzebub was so named not from his form, but from his supposed power of driving away noxious flies. In the New Testament the word is applied to Satan, the ruler or prince of the demons (Matt. x. 25, xii. 24, 27; Mark iii. 22; Luke xi. 15, 18, 19). But the best Greek MSS. read *Beelzeboul*, Beelzebub, in the Gospels,—an orthography followed by the latest critical editions, though the Syriac and Vulgate versions have Beelzebub, which is also recommended by Jerome. What is the origin of Beelzebub? The most obvious derivation of it is *Beelzebub*, *Baal* (or *lord*) of the dwelling, a name of Saturn among the Phœnicians, according to Movers, synonymous with *Beelzebub*. So it may mean *Baal of the heavenly dwelling* or *habitation*, just as Satan is termed in the epistle to the Ephesians (ii. 2) "prince of the power of the air." Others suppose that Beelzebub arose from Beelzebub by a pun on the part of the later Jews, who wished to throw ridicule on idols by forming the appellation *lord of dung*,—*Beelzebub* or *Beelzebub* meaning *dung* in the Targumic and Talmudic dialects. This is improbable, because Beelzebub was not a current name in Jewish literature. Somewhat different is the opinion of Lightfoot, based upon various Talmudic passages, in which *zebub*,



*dung*, or a *dunghill*, is applied to an idol or idolatry and the verb *דָּבַל*, to *dung*, to sacrificing to an idol, so that *דָּבַל-בְּעֵזֶבֶל* is not a proper name, but a general and common one, equivalent to *the lord of idolatry, prince of the demons*, the most devilled of all devils = *ἄρχων τῶν δαιμονίων*. In this way the word *דָּבַל* has the secondary sense of *idol*, and Baalzebul has no connection with the proper name Beelzebul. The passages in question are far from supporting the hypothesis. *Zebul* is not a Hebrew word. It has not the sense of *idol* in Chaldee. In the Targums *zebel* has no other signification than *dung*. A nickname or opprobrious epithet is not a real name or the signification of a word properly so called. All that the quotations fairly imply is, that an ignominious name was sometimes given to idols or idolatry, *dung*, or a *thing of dung*. Hence Lightfoot and those who follow him, such as Gesenius and Schleusner, are in error. If *zebul* be a part of the name Beelzebul added to it designedly, it is more probable that it was meant to express contempt for a leading god of the heathen. But it is exceedingly doubtful whether it was common as early as the New Testament. According to the Gospels, the Jews attributed the power of expelling demons which Jesus possessed to his connection with Satan, the ruler of the demons; and their notions of Satanic influence forbid the idea of applying the name *dung-god* (if such was its meaning) to a being like the devil. We reject the two leading derivations of the word Beelzebul, whether that sanctioned by Lightfoot and Buxtorf, *lord of dung*, which is adopted by Fritzsche and De Wette; or *lord of the dwelling*, followed by Paulus, Jahn, and Hitzig. Meyer ingeniously supposes that the latter is favoured by the words of Matthew x. 25, where *οικοδεσποτης* is thought to be assigned to Jesus significantly, in allusion to *Βεελζεβούλ*; and as *δεσποτης* corresponds to *דָּבַל*, an analogous word must be found for *οίκος*, viz., *דָּבַל*. The reasoning, however, is fallacious. The reading in Matthew x. 25 is not certain,—Lachmann following the Vatican MS. in giving *τῷ οικοδεσποτῇ* instead of the usual *τὸν οικοδεσποτῆν*. Then, again, the passage is unique in saying that the Jews gave Jesus the surname Beelzebul. We learn from Matth. xii. 24 that they said he cast out demons "by Beelzebul, prince of the demons," which does not agree with x. 25, but is a more intelligible and likely statement. That they actually called Jesus Beelzebul is a doubtful assertion, notwithstanding Meyer's affirmation to the contrary. The change of the final letter from *b* to *l* seems to have been accidental. Such alterations are not unusual, as Bab-el-mandel from Bab-el-mandeb, Rabbuli from Rabbuni, Ambakum from Habakkuk. *L*, being a softer sound than *b*, was a natural change. Why the name Beelzebul was applied to Satan at the time of Christ is obscure. Probably it originated in no specific reason. The appellation of a leading god was readily transferred to the devil. It is therefore idle to inquire on what grounds the Jews assigned to the Beelzebul of Ekron the peculiar position of "prince of the demons." The Philistine god had become but a name.

Lightfoot's *Horæ Hebraicæ et Talmudicæ*, Works, vol. ii. pp. 188, 189, 429, ed. Strype, 1684; Selden, *De dis Syris*, Syntagma, ii. cap. vi. p. 301, &c., ed. Lugd. Bat. 1629; Gesenius, articles "Bel" and "Beelzebul" in *Ersch und Gruber's Encyclopædie*; Buxtorf, *Lexicon Chaldaicum Talmudicum et Rabbinicum*, pp. 333, 334; Winer's *Realwörterbuch*, s. vv. "Baal," "Beelzebul," Merx in *Schenkel's Bibel-lexicon*, vol. i. p. 329; De Wette's *Kritisch-exegetisches Handbuch ins N. T.*; Meyer's *Kommentar ueber das Neue Testament*; Movers's *Die Phœnizier*, i. p. 260. (S. D.)

BEER. See BREWING.

BEERSHEBA, now BIR-ES-SEBA, a place in the southern-

<sup>1</sup> See *Hierosol. Berachoth*, fol. 12, 13; and *Midrash Shir*, fol. 2. 1.

most part of Canaan, 27 miles S.E. from Gaza, celebrated for the sojourn of the patriarchs. The name, signifying the *well of the oath*, was bestowed in allusion to the covenant made there between Abraham and Abimelech, and is frequently referred to in the Scriptures in describing the extent of the country—"from Dan to Beersheba." The place is mentioned by Eusebius and Jerome in the 4th century as a large village, and the seat of a Roman garrison. At a later period it seems to have been one of the episcopal cities of Palestine, and some of its churches were standing in the 14th century. Hardly any remains of its buildings are now left, but its two wells are still open, and afford an abundant supply of pure water, which stands in the larger at a depth of 44½ feet, and in the smaller at a depth of 12. (See Robinson's *Researches*, i. 301.)

BEET. A considerable number of varieties of the genus *Beta* (Nat. Ord. *Chenopodiaceæ*) are cultivated for use on account of their large fleshy roots. The beets which are grown as root-plants, under the names of mangel-wurzel or mangold, field-beet, and garden beet, are generally supposed to be cultivated varieties of the sea-beet (*B. maritima*). The cultivation of beet as a field crop is treated under AGRICULTURE (vol. i. p. 381); and in relation to the production of sugar, for which purpose certain varieties of beet stand next in importance to the sugar cane, see SUGAR. The garden-beet has been cultivated from very remote times as a salad plant, and for general use as a table vegetable. The variety most generally grown has long, tapering, carrot-shaped roots, the "flesh" of which is of a uniform deep red colour throughout, and the leaves brownish red. It is boiled and cut into slices for being eaten cold; and it is also prepared as a pickle, as well as in various other forms. Beet is in much more common use on the Continent as a culinary vegetable than in Great Britain, where it has, however, been cultivated for upwards of two centuries. The leaves of the white Sicilian beet and the Swiss chard beet, both varieties of *Beta cicla*, are used for salads and otherwise as culinary vegetables.

BEETHOVEN, LUDWIG VAN, is in music what Shakespeare is in poetry, a name before the greatness of which all other names, however great, seem to dwindle. He stands at the end of an epoch in musical history, marking its climax; but his works at the same time have ushered in a new phase of progress, from which everything that is great in modern music has taken its rise. This historic side of his genius will have to be further dealt with when the progress of musical art is traced in its continuity. (See article MUSIC, historic section.) At present we have to consider Beethoven chiefly as a man and an individual artist, showing at the same time the reciprocal relations between his life and his work. For although the most ideal artist in that most ideal of arts—music—he is always inspired by the deepest sense of truth and reality. The grand note of sadness resounding in his compositions is the reverberation of personal suffering. He was a great artist only because he was a great man, and a sad man withal.

The family of Beethoven is traceable to a village near Lowen in Belgium, in the 17th century. In 1650 a member of this family, a lineal ancestor of our composer, settled in Antwerp. Beethoven's grandfather, Louis, owing to a quarrel with his family, left Belgium for Germany, and came to Bonn in 1732, where his musical talents and his beautiful voice did not long remain unnoticed. The archbishop of Cologne, an art-loving prelate, received him amongst his court-musicians; and the same position afterwards was held by Ludwig's son, Johann, our composer's father. The latter was married to Maria Magdalena Keverich, daughter of a cook, and widow of a *valet-de-chambre* of the elector of Trèves. The day of our composer's birth is uncertain: he was baptised Dec. 17, 1770, and received

the name of his paternal grandfather Louis, or, in its German form, Ludwig. Beethoven himself seems to have considered the 16th December of the said year his birthday, but documentary evidence is wanting. At one period of his life he believed himself to have been born in 1772, being most likely deceived on the point by his father, who tried to endow his son and pupil with the *prestige* of miraculous precocity. No less uncertain than the date is the exact place of the great composer's birth; two houses in Bonn claim the honour of having been the scene of the important event. The youth of Beethoven was passed under by no means happy circumstances. His father was of a rough and violent temper, not improved by his passion for intoxicating drink, nor by the dire poverty under which the family laboured. His chief desire was to reap the earliest possible advantage from the musical abilities of his son, who, in consequence, had at the age of five to submit to a severe training on the violin under the father's supervision. Little benefit was derived from this unsystematic mode of instruction, which, fortunately, was soon abandoned for a more methodical course of pianoforte lessons under a musician of the name of Pfeiffer. Under him and two other masters, Van der Eden and Neefe, Beethoven made rapid progress as a player of the organ and pianoforte; his proficiency in the theoretical knowledge of his art the aspiring composer soon displayed in a set of *Variations on a March* published in 1783, with the inscription on the title-page, "*par un jeune amateur, Louis van Beethoven, âgé dix ans*," a statement the inaccuracy of which the reader will be able to trace to its proper source. In 1785 Beethoven was appointed assistant of the court-organist Neefe; and in a *catalogue raisonné* of the musicians attached to the court of the archbishop, he is described as "of good capacity, young, of good, quiet behaviour, and poor." The elector of Cologne at the time was Max Franz, a brother of the Emperor Joseph, who seems to have recognized the first sparks of genius in the quiet and little communicative youth. By him Beethoven was, in 1787, sent for a short time to Vienna, to receive a few lessons from Mozart, who is said to have predicted a great future for his youthful pupil. Beethoven soon returned to Bonn, where he remained for the next five years in the position already described. Little remains to be said of this period of apprenticeship. Beethoven conscientiously studied his art, and reluctantly saw himself compelled to alleviate the difficulties of his family by giving lessons. This aversion to making his art useful to himself by imparting it to others remained a characteristic feature of our master during all his life. Of the compositions belonging to this time nothing now remains; and it must be confessed that, compared with those of other masters, of Mozart or Handel, for instance, Beethoven's early years were little fertile with regard either to the quantity or the quality of the works produced. Amongst the names connected with his stay at Bonn we mention only that of his first friend and protector, Count Waldstein, to whom it is said Beethoven owed his appointment at the electoral court, and his first journey to Vienna. To the latter city the young musician repaired a second time in 1792, in order to complete his studies under Haydn, the greatest master then living, who had become acquainted with Beethoven's talent as a pianist and composer on a previous occasion. The relation of these two great men was not to be fruitful or pleasant to either of them. The mild, easy-going nature of the senescent Viennese master was little adapted to inspire with awe, or even with sympathy, the fiery Rhenish youth. Beethoven in after life asserted that he had never learned anything from Haydn, and seems even to have doubted the latter's intention of teaching him in a proper manner. He seems to have had more confidence in the instruction of Albrechts-

berger, a dry but thorough scholar. He, however, and all the other masters of Beethoven agree in the statement, that being taught was not much to the liking of their self-willed pupil. He preferred acquiring by his own toilsome experience what it would have been easier to accept on the authority of others. This autodidactic vein, inherent, it seems, in all artistic genius, was of immense importance in the development of Beethoven's ideas and mode of expression.

In the meantime his worldly prospects seemed to be of the brightest kind. The introductions from the archbishop and Count Waldstein gave him admittance to the drawing-rooms of the Austrian aristocracy, an aristocracy unrivalled by that of any other country in its appreciation of artistic and especially musical talent. Vienna, moreover, had been recently the scene of Mozart's triumphs; and that prophet's cloak now seemed to rest on the shoulders of the young Rhenish musician. It was chiefly his original style as a pianist, combined with an astonishing gift of improvisation, that at first impressed the amateurs of the capital; and it seems, indeed, that even Haydn expected greater things from the executive than from the creative talent of his pupil. It may be added here, that, according to the unanimous verdict of competent witnesses, Beethoven's greatness as a pianoforte player consisted more in the bold, impulsive rendering of his poetical intentions than in the absolute finish of his *technique*, which, particularly in his later years, when his growing deafness debarred him from self-criticism, was somewhat deficient.

As a composer Beethoven appeared before the public of the Austrian capital in 1795. In that year his *Three Trios for Pianoforte and Strings* were published. Beethoven called this work his *Opus 1*, and thus seems to disown his former compositions as juvenile attempts unworthy of remembrance. He was at that time twenty-five, an age at which Mozart had reaped some of the ripest fruits of his genius. But Beethoven's works are not like those of the earlier master, the result of juvenile and all but unconscious spontaneity; they are the bitter fruits of thought and sorrow, the results of a passionate but conscious strife for ideal aims. Before considering these works in their chief features, we will add a few more remarks as to the life and character of their author. The events of his outward career are so few and of so simple a kind that a continuous narrative seems hardly required. The numerous admirers whom Beethoven's art had found amongst the highest circles of Vienna,—Archduke Rudolf, his devoted pupil and friend, amongst the number,—determined him to take up his permanent residence in that city, which henceforth he left only for occasional excursions to Baden, Mödling, and other places in the beautiful surroundings of the Austrian capital. It was here, in his lonely walks, that the master received new impulse from his admiring intercourse with nature, and that most of his grandest works were conceived and partly sketched. Except for a single artistic tour to Northern Germany in 1796, Beethoven never left Vienna for any length of time. A long-projected journey to England, in answer to an invitation of the London Philharmonic Society, was ultimately made impossible by ill-health. Beethoven's reputation as a composer soon became established beyond the limits of his own country, notwithstanding the charges of abstruseness, unpopularity, and the like, which he, like most men of original power, had to submit to from the obtuse arrogance of contemporary criticism. The summit of his fame, so far as it manifested itself in personal honours conferred upon him, was reached in 1815, when Beethoven celebrated by a *Symphony* the victories of the Allies over the French oppressor, and was rewarded by the applause of the sovereigns of Europe, assembled at the Congress of Vienna.



In the same year he received the freedom of that city, an honour much valued by him. After that time his immediate popularity began to some extent to decline before the ephemeral splendour of the composers of the day; and the great master seemed henceforth to speak more to coming generations than to his ungrateful contemporaries. When, however, on rare occasions he emerged from his solitude, the old spell of his overpowering genius proved to be unbroken. In particular, mention must be made of that memorable *Académie* (concert) in 1824, at which his 9th Symphony, and parts of the grand *Missa Solemnis*, were performed, producing a storm of applause—in audible, alas! to the composer, who had to be turned round by one of the singers to realize, from the waving of hats and handkerchiefs, the effect of his work on the excited multitude.

The last-mentioned incident leads us to one of the most tragic features of Beethoven's life. By the bitter irony of fate, he who had given to thousands enjoyment and elevation of the heart by the art of sound, was himself deprived of the sense of hearing. The first traces of beginning deafness showed themselves as early as 1797, and were perceived by the master with an anxiety bordering on despair. Physicians and quacks were consulted with eagerness, but all their efforts (partly impaired, it must be confessed, by the unruly disposition of the patient) proved unable to stem the encroaching evil. The Royal Library of Berlin possesses a melancholy collection of ear-trumpets and similar instruments, partly made expressly for Beethoven to assist his weakened sense, but all to no avail. In his latter years conversation with him could be carried on by writing only, and of the charms of his own art he was wholly deprived. But here, again, the victory of mind over matter,—of genius over circumstance,—was evinced in the most triumphant manner. It has been asserted, not without reason, that the euphonious beauty of some of Beethoven's vocal compositions has suffered through his inability to listen to them; but how grand is, on the other hand, the spectacle of an artist deprived of all intercourse with what to him in this world was dearest, and yet pouring forth the lonely aspirations of his soul in works all the more sublime as we seem to hear in them the voice of the innermost spirit of mankind, inaudible to the keen ears of other mortals. If in this manner the isolation of Beethoven further sublimated his efforts as an artist, it, on the other hand, poignantly intensified his sufferings as a man. His was a heart open to the impressions of friendship and love, and, in spite of occasional roughness of utterance, yearning for the responsive affection of his kind. It is deeply touching to read the following words in the master's last will, written during a severe illness in 1802:—"Ye men," Beethoven writes, "who believe or say that I am inimical, rough, or misanthropical, how unjust are you to me in your ignorance of the secret cause of what appears to you in that light. . . . Born with a fiery, lively temper, and susceptible to the enjoyment of society, I have been compelled early to isolate myself and lead a lonely life; whenever I tried to overcome this isolation, oh! how doubly bitter was then the sad experience of my bad hearing, which repelled me again; and yet it was impossible for me to tell people, 'Speak louder, shout, for I am deaf.'"

Domestic troubles and discomforts contributed in a minor degree to darken the shadow cast over our master's life by the misfortune just alluded to. Although by no means insensible to female beauty, and indeed frequently enraptured in his grand, chaste way, with the charms of some lady, Beethoven never married, and was, in consequence, deprived of that feeling of home and comfort which only the unceasing care of refined womanhood can bestow. His helplessness and ignorance of worldly matters

completely exposed him to the ill-treatment of servants, frequently, perhaps, excited by his own morbid suspicions and complaints. On one occasion the great master was discovered with his face bleeding from the scratches inflicted by his own valet. It was from amidst such surroundings that Beethoven ascended to the sublime elevation of such works as his *Missa Solemnis* or his 9th Symphony. But his deepest wounds were to be inflicted by dearer and nearer hands than those of brutal domestics. Beethoven had a nephew, rescued by him from vice and misery, and loved with a more than father's affection. His education the master watched with unceasing care. For him he hoarded with anxious parsimony the scanty earnings of his artistic labour. Unfortunately, the young man was unworthy of such love, and at last disgraced his great name by an attempt at suicide, to the deepest grief of his noble guardian and benefactor.

Beethoven died on March 27, 1827, during a terrible thunderstorm. It ought to fill every Englishman's heart with pride that it was given to the London Philharmonic Society to relieve the anxieties of Beethoven's deathbed by a liberal gift, and that almost the last utterances of the dying man were words of thanks to his friends and admirers in this country.

Beethoven's compositions, 138 in number, comprise all the forms of vocal and instrumental music, from the sonata to the symphony,—from the simple song to the opera and oratorio. In each of these forms he displayed the depth of his feeling, the power of his genius; in some of them he reached a greatness never approached by his predecessors or followers. His pianoforte sonatas have brought the technical resources of that instrument to a perfection previously unknown, but they at the same time embody an infinite variety and depth of emotion. His nine symphonies show a continuous climax of development, ascending from the simpler forms of Haydn and Mozart to the colossal dimensions of the *Choral Symphony*, which almost seems to surpass the possibilities of artistic expansion, and the subject of which is humanity itself with its sufferings and ideals. His dramatic works—the opera *Fidelio*, and the overtures to *Egmont* and *Coriolanus*—display depth of pathos and force of dramatic characterization. Even his smallest songs and pianoforte-pieces reflect a heart full of love, and a mind bent on thoughts of eternal things.

Beethoven's career as a composer is generally divided into three periods of gradual progress. We subjoin a list of his most important compositions, grouped according to the principle indicated.

The first period extends to the year 1800. At the beginning we see Beethoven under the influence of his great predecessors, Haydn and Mozart, but progressing in rapid strides towards independence of thought and artistic power. To this time belong Three Trios for Pianoforte and Strings, *Op. 1*; Sonata for Pianoforte in E flat, *Op. 7*; Trio for Pianoforte and Strings in B flat, *Op. 11*; *Sonate Pathétique*; First Concerto for Pianoforte and Orchestra in C, *Op. 15*; *Adelaide* (composed 1797); also the celebrated Septuor, *Op. 20*, and the First Symphony, *Op. 21* (the last two works published in 1800).

The second period, from 1800-1814, marks the climax of formal perfection. The works of this time show the highest efforts of which music as an independent art is capable. We mention the Mass in C, *Op. 86*; our master's only opera, *Fidelio*, and his overture and incidental music to Goethe's *Egmont*; the Symphonies, Nos. 2-8, amongst which those called the *Pastoral*, the *Eroica*,<sup>1</sup> and those

<sup>1</sup> This symphony was originally written in celebration of Napoleon, at that time consul of the French Republic. When Beethoven heard of his assuming the imperial title, he tore off the dedication and trampled it under foot.

in C minor and A major deserve special mention; Concerto for the Violin, *Op. 61*; Concerti for the Pianoforte, Nos. 3-5; Overtures to *Prometheus*, *Coriolanus*, *Fidelio*, and *King Stephen*; also numerous sonatas for the pianoforte, quartets, quintets, and other pieces of chamber music.

The third period may be described as that of poetic music,—a distinct poetic idea becoming the moving principle before which the forms of absolute music have to yield. Beethoven has, by the works belonging to this class, ushered in a new phase of music, as will be further shown in the historical sketch of the art. We name that unequalled master-piece of symphonic art, the Ninth *Choral Symphony*; the *Missa Solemnis*; the Sonatas for Pianoforte, numbered respectively *Op. 101*, *102*, *106*, *109*, *110*, *111*; the marvellous Quartets for Strings, *Op. 127*, *130*, *132*, *135*; also the 33 Variations on a Valse by Diabelli, *Op. 120*.

For fuller information on the great master's life and works than our limited space has permitted us to give, we refer the reader to the biographical and critical works of Schindler, Thayer, Nohl, Marx, and Nottebohm. (F. H.)

BEETLE, a name commonly applied to those insects which form the order *Coleoptera* ("sheathwinged"), and which are readily distinguished from all others by the nature of the two upper wings. These are formed of a hard, horny substance known as *chitin*; and, although useless in flight, they serve as shields for the protection of the delicate wings underneath, while in many cases their hardness protects the beetle itself from the attacks of insectivorous birds. In some instances the *elytra*, as those upper wings are called, are firmly soldered together, and such species are thus rendered incapable of flight. Owing to the beauty of many of the exotic species, and the ease with which they can be preserved, beetles have been collected with great diligence by entomologists, so that nearly 80,000 species, it is estimated, have already been described. Among the members of so large a group it need hardly be said that the greatest diversity exists in form and habits. They are all, however, provided with a masticatory mouth; and in such predatory species as the Tiger Beetles, the mandibles are largely developed, and often armed with acute teeth. Many of them are carnivorous, feeding on other insects, and on decaying animal matter; but the larger proportion live on the fruits, leaves, and stems of plants, in many instances doing great damage to cereal crops and forest trees. In Germany, in the year 1783, a million and a half of trees are said to have been destroyed in the Harz Forest alone by means of two small species of wood boring beetles; and in North America at the present time the potato crop is being annually blighted by the devastations of the larvæ of what is known as the Potato Beetle (*Doryphora decemlineata*). Beetles undergo complete metamorphosis, passing from the larva to the pupa stage, in which they sometimes remain for several years before emerging as full-formed insects; others, however, undergo all the changes from egg to beetle in a few months. Many of those insects, such as the Goliath and Hercules Beetles, attain gigantic proportions, measuring often 6 inches long, exclusive of antennæ, and 2 inches broad; and many bear on the upper surface of their bodies curious horn-like projections. Others, as the Diamond Beetle of Brazil, are adorned with the most brilliant colours, showing a beautiful metallic lustre; and the *elytra* of such species are now largely used by jewellers in the manufacture of personal ornaments. See *COLEOPTERA* and *INSECTS*.

BEGAS, KARL, a distinguished German historical painter, was born at Heinsberg in 1794, and died in 1854. His father, a retired judge, destined him for the legal profession, but the boy's tastes pointed definitely in another direction. Even at school he was remarked for his wonderful skill in

drawing and painting, and in 1810 he was permitted to visit Paris in order to perfect himself in his art. He studied for eighteen months in the atelier of Gros, and then began to work independently. In 1814 his copy of the Madonna della Sedia was bought by the king of Prussia, who was attracted by the young artist, and did much to advance him. He was engaged to paint several large Biblical pictures, and in 1825, after his return from Italy, continued to produce paintings which were placed in the churches of Berlin and Potsdam. Some of these were historical pieces, but the majority were representations of Scriptural incidents. Begas was also celebrated as a portrait painter, and supplied to the royal gallery a long series of portraits of eminent Prussian men of letters. At his death he held the post of court painter.

BEGBAZAAR, or BEIBAZAAR, a town of Asiatic Turkey, in the Anatolian province of Angora, situated on the Sangarius or Sakaria, about 52 miles W. of the provincial capital. Its houses are two stories in height, and roofed with shingles. Carpet-weaving is carried on in the town, and rice, cotton, and fruits are cultivated in the neighbourhood. The pears that are sold in Constantinople as the produce of Angora are really grown by the people of Begbazaar. Numerous remains of ancient works in marble are found throughout the town. Population, 4750.

BEGHARDS AND BEGUINES. The nature and history of the Beghards is one of the obscurest problems in mediæval times, and nothing very certain has been ascertained. During the Middle Ages there were formed, alongside of the regular orders, companies of men and women who devoted themselves to a religious life, but did not bind themselves by strict vows. The design was to enable men and women, who did not mean to separate themselves entirely from the world, to lead, nevertheless, what, in the Middle Ages, was esteemed the religious life. Such companies were the Tertiarii of the Dominican and Franciscan orders, and at first the Beghards and Beguines were similarly constituted. The first notices we have of them tell us that, in the end of the 12th century, in several of the towns of the Netherlands, companies of women formed themselves together, under a simple rule, for the purpose of taking care of the sick and for other charitable objects. They were generally widows and maidens of high rank, and were called Beghinae, or Beguinae, or Beguttæ. The origin of the word is very obscure. Some time later, companies of men were formed in a similar way, and under the same rule. They took no vows, and were at liberty to leave the company when they liked. The men were called Beghards. In the 14th century these Beghards seem to have attached themselves to the Franciscans, and to have been instrumental in exciting to revolt that portion of the order which rebelled against the Pope. For some period, indeed, the terms Fratricelli or Spirituales (the two names for the rebel Franciscans) are used synonymously with Beghards. It is believed that the Arabian pantheism of Averroes had become diffused among many of the mystical sects, and that societies, originally purely religious, had become partly political. We know, at all events, that, in the 14th century, the Beghards were in close alliance with the communistic and pantheistic "Brethren of the Free Spirit." Clement V. denounced them at the Council of Vienna, and launched two bulls against them; the Inquisition was ordered to suppress them; and Pope John XXII., while he protected the Beguines, persecuted the Beghards. Such Beghards as still remained were absorbed in the Tertiarii of the Franciscans in the 17th century; but small communities of Beguines—Beguinae, as they are called—still exist in the Netherlands, and in their organization are somewhat similar to many Anglican sisterhoods. (Cf. Mosheim, *De Beghards et Beguinabus*, the book upon the subject,