

Bugge's ingenious interpretation and grammatical treatment of some of the most remarkable inscriptions. Old Swedish literature has also been made the object of grammatical researches. A first outline of a history of the Swedish language is to be found in the work of N. M. Petersen (1830) mentioned above (p. 370), and a scheme of an Old Swedish grammar in P. A. Munch's essay, *Fornsvenskans och Fornnorskans språkbyggnad* (1849); but Old Swedish grammar was never treated as an independent branch of science until the appearance of J. E. Rydqvist's († 1877) monumental work *Svenska språkets lagar* (in 6 vols., 1850-83), which was followed in Sweden by a whole literature on the same subject. Thus phonetics, which were comparatively neglected by Rydqvist, have been investigated with great success, especially by L. F. Löffler and A. Kock; while the other parts of grammar have been treated of above all by K. F. Söderwall, the chief of contemporary Old Swedish scholars. His principal work, *Ordbok öfver Svenska medeltidsspråket* (1884 sq.), now in course of publication, gives the list of words in the later Old Swedish language, and—taken along with the *Ordbok till samlingen af Sveriges gamla lagar* (1877), by C. J. Schlyter, the well-known editor of Old Swedish texts, which contains the vocabulary of the oldest literature—it worthily meets the demand for an Old Swedish dictionary. An Old Swedish grammar, answering the requirements of modern philology, is still needed.¹

2. *Modern Swedish*.—The first complete translation of the Bible, edited in 1541 by the brothers Olaus and Laurentius Petri, and generally called the Bible of Gustavus I., may be regarded as the earliest important monument of this. Owing to religious and political circumstances, and to the learned influence of humanism, theological and historico-political works preponderate in the Swedish literature of the following period, which therefore affords but scanty material for philological research. It is not until the middle of the 17th century that Swedish literature adequately exemplifies the language, for at that period literature first began to be cultivated as a fine art, and its principal representatives, such as Stiernhielm, Columbus, and Spegel, were in reality the first to study it as a means of expression and to develop its resources. Amongst the authors of the 18th century we have to mention in the first place Dalin, who was to some extent the creator of the prose style of that epoch; while of the end of the century Kellgren and Bellman are the most noteworthy examples, representing the higher and the more familiar style of poetry respectively. The language of the 19th century, or at any rate of the middle of it, is best represented in the works of Wallin and Tegnér, which, on account of their enormous circulation, have had a greater influence than those of any other authors.

As to the language itself the earliest Modern Swedish texts, as Gustavus I.'s Bible, differ considerably from the latest Old Swedish ones.² We find a decided tendency to exterminate Danisms and reintroduce native and partially antiquated forms. At the same time there appear several traces of a later state of the language: all genitives (singular and plural), e.g., end in -s, which in earlier times was the proper ending of only certain declensions. In spite of the archaistic efforts of many writers, both in forms and in vocabulary, the language nevertheless underwent rapid changes during the 16th and 17th centuries. Thus *sj* and *stj* (original as well as derived from *sk* before a palatal vowel) assimilate into a simple *sh*-sound; *dj* (original as well as derived from *g* before a palatal vowel), at least at the end of the 17th century, dropped its *d*-sound (compare such spellings as *diufvoer*, *giätar*, *envoigt*, for *jufoer*, *uider*, *jättar*, *giants*, *envoigt*, *envoy*); *hj* passes into *j* (such spellings are found as *fort* for *hfort*, *hart*, and *hjärpe* for *järpe*, *hazel grouse*); *b* and *p* inserted in such words as *himblar*, *heavens*, *hambrar*, *hammers*, *jampn*, even *sampn*, together with (see above, p. 371), are dropped; the first person plural of the verb takes the form of the third person (as *vi fara*, *fero*, for *vi farom*, *forom*, we go, went); by the side of the pronoun *I*, you, there arises a secondary form *Ni*, in full use in the spoken language about 1650; the adjective gradually loses all the case-inflections; in substantives the nominative, dative, and accusative take the same form as early as the middle of the 17th century; in the declension with suffixed article the old method of expressing number and case both in the substantive and the article is changed, so that the substantive alone takes the number-inflection and the article alone the case-ending; neuter substantives ending in a vowel, which previously had no plural ending, take the plural ending -n, some -er,—as *bi-n*, *bees*, *bageri-er*, *bakeries*. About the year 1700 the Old Swedish inflexion may, in general, be considered as almost completely given up, although a work of such importance in the history of the language as Charles XII.'s Bible (so-called) of 1703 (edited by Bishop J. Svedberg), by a kind of conscious archaism has preserved a good many of the old forms. To these archaistic tendencies of certain authors at the end of the 17th century we owe the great number of Old Swedish and Icelandic borrowed words then introduced into the language,—

¹ A. Noreen has an Old Swedish grammar in preparation.

² The printed characters are also considerably changed by the introduction of the new letters *ä* (with the transl. of the New Testament of 1636), and *å*, *ö* (both already in the first print in Swedish of 1482) for *aa*, *o*, *o*.

as *fagor*, *fair*, *härja*, to ravage, *later*, manners, *snille*, genius, *lärna*, girl, *tima*, to happen, &c. In addition to this, owing to humanistic influence, learned expressions were borrowed from Latin during the whole 16th and 17th centuries; and from German, chiefly at the Reformation and during the Thirty Years' War, numberless words were introduced,—as *språk*, language, *tapper*, brave, *prakt*, magnificence, *hurtig*, brisk, &c.; among these may be noted especially a great number of words beginning in *an-*, *er-*, *för-*, and *ge-*. Owing to the constantly increasing political and literary predominance of France French words were largely borrowed in the 17th century, and to an equally great extent in the 18th; such are *affär*, business, *respekt*, respect, *talang*, talent, *charmant*, charming, &c. In the 19th century, again, especially about the middle of it, we anew meet with conscious and energetic efforts after purism both in the formation of new words and in the adoption of words from the old language (*id*, diligence, *måla*, to speak, *fylking*, battle-array, &c.), and from the dialects (*bliga*, to gaze, *flis*, flake, *skrabbig*, bad, &c.). Consequently, the present vocabulary differs to a very great extent from that of the literature of the 17th century. As for the sounds and grammatical forms, on the other hand, comparatively few important changes have taken place during the last two centuries. In the 18th century, however, the aspirates *dh* and *gh* passed into *d* and *g* (after *l* and *r* into *j*),—as *lag* for *lagh*, *law*, *bröd* for *brödh*, *bread*; *hw* passed into *v* (in dialects already about the year 1600),—as *valp* for *hvalper*, *whelp*; *lj* likewise into *j*,—thus *ljuster*, *leister*, occurs written *juster*. In our time *rd*, *rl*, *rn*, *rs*, and *rt* are passing into simple sounds ("supradental" *d*, *l*, *n*, *s*, and *t*), while the singular of the verbs is gradually supplanting the plural. A vigorous reform, slowly but firmly carried on almost uniformly during all periods of the Swedish language, is the throwing back of the principal accent to the beginning of the word in cases where previously it stood nearer the end, a tendency that is characteristic of all the Scandinavian languages, but no doubt especially of Swedish. In the primitive Scandinavian age the accent was removed in most simple words; the originally accented syllable, however, preserved a musically high pitch and stress. Thus there arose two essentially different accentuations,—the one, with unaccented final syllable, as in Icel. *stigr* (Gr. *στέλιος*), thou goest, the comparative *betre* (cf. Gr. *βέσσων* from *ταχός*), better, the other, with secondary stress and high pitch on the final, as in Icel. pret. plur. *buðom* (Sansk. *bubudhimā*), we bade, part. pret. *bilenn* (Sansk. *bhinnds*), bitten. The same change afterwards took place in those compound words that had the principal accent on the second member, so that such contrasts as German *irtheil* and *erthellen* were gradually brought into conformity with the former accentuation. At the present day it is quite exceptionally and chiefly in borrowed words of later date that the principal accent in Swedish is on any other syllable than the first, as in *lekamen*, *body*, *välsigna*, to bless.

The scientific study of Modern Swedish dates from Sweden's glorious epoch, the last half of the 17th century. The first regular study of Swedish grammar was written in 1684 (not edited till 1884) in Modern Latin by Er. Aurivillius; the first in Swedish is by N. Tiallman, 1696. Nothing, however, of value was produced before the great work of Rydqvist mentioned above, which, although chiefly dealing with the old language, throws a flood of light on the modern also. Among the works of late years we must call special attention to the researches into the history of the language by K. F. Söderwall,³ F. A. Tamm,⁴ and A. Kock.⁵ But little study, and that only in isolated parts, has been devoted to the grammar of the modern language, if the advanced state of philology is considered. A good though short abstract is given in H. Sweet's essay on "Sounds and Forms of Spoken Swedish" (*Trans. Phil. Soc.*, 1877-79). Attempts to construct a dictionary were made in the 16th century, the earliest being the anonymous *Variarum Rerum Vocabulacum Sueca Interpretatione*, in 1538, and the *Synonymorum Libellus* by Elavus Petri Helsingius, in 1587, both of which, however, followed German originals. The first regular dictionary is by H. Spegel, 1712; and in 1769 Joh. Ihre († 1780), probably the greatest philological genius of Sweden, published his *Glossarium Sotologicum*, which still remains the most copious Swedish dictionary in existence. In the present century the diligent lexicographer A. F. Dalin has published several useful works. At present the Swedish Academy has in preparation a gigantic dictionary on about the same plan as Dr Murray's *New English Dictionary*; there will also appear as soon as possible a complete list (with grammatical and etymological notes), drawn up by A. Andersson, Ad. Noreen, and F. A. Tamm, of the words in use in the present language. The characteristic differences between the Swedish literary language used in Finland and that of Sweden are exhibited in the *Finsk Tidsskrift*, vol. xix. pts. 5, 6, 1885 ("Studier på Svensk språkbotten i Finland," by Karl Lindström).

³ See A. Noreen, "Aperçu," &c.; H. Hermalund, *Förslag och åtgärder till Svenska skriftspråkets reglerande*, 1883.

⁴ *Häfningskerna af Svenska språkets utbildning*, 1870.

⁵ Several essays on the borrowed words in Swedish.

⁶ *Språkhistoriska undersökningar om Senast ärcnt*, I., 1878, II., 1884-5.

IV. DANISH, like Swedish, is divided into the two great Pre- and Post-Reformation epochs of Old and Modern Danish.

1. *Old Danish*.—The territory of Old Danish included not only the present Denmark, but also the southern Swedish provinces of Halland, Skåne, and Blekinge, the whole of Schleswig, and, as stated above, for a short period also a great part of England, and Normandy. The oldest monuments of the language are runic inscriptions, altogether about 250 in number.¹ The oldest of them go as far back as to the beginning of the 9th century, the Snoldelev-stone for instance on Sealand, and the Flemelse-stone on Fünen. From about the year 900 date the very long inscriptions of Tryggevalde (Sealand) and Glavendrup (Fünen); from the 10th century we have the stones of Jellinge (Jutland), in memory of two of the oldest historical kings of Denmark (Gorm and Harald); while from about 1000 we have a stone at Dannevirke (Schleswig), raised by the conqueror of England, Sven Tjungskegg. Relics of about the same age are the words that were introduced by the Danes into English, the oldest of which date from the end of the 9th century, the time of the first Danish settlement in England; most of these are to be found in the early English work *Ormulum*.² No Danish literature arose before the 13th century. The oldest manuscript that has come down to us dates from the end of that century, written in runes and containing the law of Skåne. From about the year 1300 we possess a manuscript written in Latin characters and containing Valdemar's and Erik's laws of Sealand, the Flensborg manuscript of the law of Jutland, and a manuscript of the municipal laws of Flensborg. These three manuscripts represent three different dialects,—that, namely, of Skåne, Halland, and Blekinge, that of Sealand and the other islands, and that of Jutland and Schleswig. There existed no uniform literary language in the Old Danish period, although some of the most important works of the 15th century, such as Michael's *Poems* and the *Rhymed Chronicle* (the first book printed in Danish, in 1495), on account of their excellent diction, contributed materially to the final preponderance of their dialect, that of Sealand, towards the Reformation.

Dialects.

Form of the language.

As to the form of the language, it hardly differs at all during the period between 800 and 1200 A.D. from Old Swedish. It is only in the oldest literature that we can trace any marked differences; these are not very important, and are generally attributable to the fact that Danish underwent a little earlier the same changes that afterwards took place in Swedish (e.g., *h* in *hw* and *hj* in Danish was mute as early as the end of the 14th century; cf. p. 372, above). The laws referred to above only agree in differing from the Swedish laws in the following points:—the nominative already takes the form of the accusative (as *kalf*, calf, but Old Sw. nom. *kilver*, acc. *kalf*); the second person plural ends in -s (as *køpa*, but Old Sw. *köpin*, you buy); in the subjunctive no differences are expressed between persons and numbers. Among themselves, on the contrary, they show considerable differences; the law of Skåne most nearly corresponds with the Swedish laws, those of Sealand keep the middle place, while the law of Jutland exhibits the most distinctive individuality. The Skåne law, e.g., retains the vowels *a*, *i*, *u* in terminations, which otherwise in Danish have become uniformly *æ*; the same law inserts *b* and *d* between certain consonants (like Old Sw.; see p. 371), has preserved the dative, and in the present tense takes the vowel of the infinitive; the law of Jutland, again, does not insert *b* and *d*, and has dropped the dative, while the present tense (undergoing an "Umlaut") has not always accepted the vowel of the infinitive; in all three characteristics the laws of Sealand fluctuate. After 1350 we meet an essentially altered language, in which we must first note the change of *k*, *p*, *t* after a vowel into *g*, *b*, *d* (as *tag*, roof, *løbe*, to run, *æde*, to eat); *th* passes into *t* (as *ting*, thing), *gh* into *v* (as *love* for *lagh*, guild) and into *i* (as *vet* for *vægh*, way); *ld*, *nd* are pronounced like *l*, *n*; *s* is the general genitive ending in singular and plural, &c. The vocabulary, which in earlier times only borrowed a few and those mostly ecclesiastical words, is now—chiefly owing to the predominant influence of the Hanse towns—inundated by German words, such as those beginning with *be-*, *bi-*, *ge-*, *for-*, and *und-*, and ending in *-hed*, and a great number of others, as *blive*, to become, *ske*, to happen, *fri*, free, *krig*, war, *buxer*, pantaloons, *ganske*, quite, &c.

An Old Danish grammar is still wanting, and the preparatory studies which exist are, although excellent, but few in number, being chiefly essays by the Danes K. J. Lyngby and L. F. A. Wimmer, with N. M. Petersen's treatise *Det Danske, Norske, og Svenske sprogs historie*, vol. i. (1829), one of the first works that paid any attention to Old Danish, which till then had been completely neglected. A dictionary on a large scale covering the whole of Old Danish literature, except the very oldest, by O. Kalkar, has been in course of publication since 1881; older and smaller is Chr. Molbech's *Dansk Glossarium* (1857-66).

¹ See P. G. Thorsen, *De Danske runenindskrifter*, I., 1864, II., 1870-81; L. F. A. Wimmer, "Runeskriftens Oprindelse" (*Aarbøger for Nordisk Oldkyndighed*, 1874).

² See E. Brate, "Nordische Lehnwörter im Ormulum" (*Paul-Braun's Beiträge*, 2., 1884).

2. *Modern Danish*.—The first important monument of this is the translation of the Bible, by Chr. Pedersen, Peder Palladius, and others, the so-called Christian III.'s Bible (1550), famous for the unique purity and excellence of its language, the dialect of Sealand, then incontestably promoted to be the language of the kingdom. The first secular work deserving of the same praise is Vedel's translation of Saxo (1575). The succeeding period until 1750 offers but few works in really good Danish; as perfectly classical, however, we have to mention the so-called Christian V.'s Law of Denmark (1683). For the rest, humanism has stamped a highly Latin-French character on the literature, striking even in the works of the principal writer of this period, Holberg. But about the year 1750 there begins a new movement, characterized by a reaction against the language of the preceding period and purist tendencies, or, at least, efforts to enrich the language with new-formed words (not seldom after the German pattern), as *omkreds*, periphery, *selvstændighed*, independence, *valgsprog*, devise, *digter*, poet. The leading representatives of these tendencies were Eilschow and Sneedorf. From their time Danish may be said to have acquired its present essential features, though it cannot be denied that several later authors, as J. Ewald and Ohlenschläger, have exercised a considerable influence on the poetical style. As the most important differences between the grammatical forms of the 18th and 19th centuries on one hand and those of the 16th and 17th centuries on the other may be noted the following:—most neuter substantives take a plural ending; those ending in a vowel form their plural by adding *-r* (as *riper*, for older *rige*, plural of *rige*, kingdom), and many of those ending in a consonant by adding *-e* (as *hus* for *hus*, of *hus*, house); substantives ending in *-ere* drop their final *-e* (as *dommer* for *dommere*, judge); the declension with suffixed article becomes simplified in the same way as in Swedish (see above, p. 372); the plural of verbs takes the singular form (as *drak* for *drukke*, we drank); and the preterite subjunctive is supplanted by the infinitive (as *var* for *være*, were). The first Modern Danish grammar is by E. Pontoppidan, 1688, but in Latin; the first in Danish is by the famous Peder Syv, 1685. The works of the self-taught J. Højsgaard (e.g., *Acentueret og raisonneret grammaticum*, 1747) possess great merit, and are of especial importance as regards accent and syntax. The earlier part of this century gave us Rask's grammar (1830). A thoroughly satisfactory Modern Danish grammar does not exist; perhaps the best is that by Th. Möbius (1871). The vocabulary of the 16th and 17th centuries is collected in Kalkar's *Ordbog*, mentioned above, that of the 18th and 19th centuries in the voluminous and as yet unfinished dictionary of Videnskaberens Selskab, and in C. Molbech's *Dansk ordbog* (2d ed. 1859).³

As already mentioned (p. 370), Danish at the Reformation became the language of the literary and educated classes of Norway and remained so for three hundred years, although it cannot be denied that many Norwegian authors even during this period wrote a language with a distinct Norwegian colour, as for instance the prominent prose-stylist Peder Claussøn Friis († 1614), the popular poet Peder Dass († 1708), and, in a certain degree, also the two literary masters of the 18th century, Holberg and Wessel. But it is only since 1814, when Norway gained her independence, that we can clearly perceive the so-called Dano-Norwegian gradually developing as a distinct offshoot of the general Danish language. The first representatives of this new language are the writer of popular life M. Hansen († 1842), the poet H. Wergeland († 1845), and above all the tale-writer P. C. Asbjørnsen († 1885). In our own days it has been further developed, especially by the great poets Ibsen and Bjørnson and the novelist Lie; and it has been said, not without reason, to have attained its classical perfection in the works of the first-named author. This language differs from Danish particularly in its vocabulary, having adopted very many Norwegian provincial words (6000 to 7000), less in its inflexions, but to a very great extent in its pronunciation. The most striking differences in this respect are the following:—Norwegian *p*, *t*, *k* answer to Danish *b*, *d*, *g* in cases where they are of later date (see above),—as *løpe*, Danish *løbe*, to run, *liten*, D. *liden*, little, *bak*, D. *bag*, back); to Danish *k*, *g* before palatal vowels answer Norwegian *kj*, *j*; *r* (point-trill, not back-trill as in Danish) is assimilated in some way with following *t* (*d*), *l*, *n*, and *s* into so-called supradental sounds (see p. 372); both the primitive Scandinavian systems of accentuation are still kept separate from a musical point of view, in opposition to the monotonous Danish. There are several other characteristics, nearly all of which are points of correspondence with Swedish.⁴ Dano-Norwegian is grammatically treated by J. Løkke (*Modersmalets formlære*, 1855), K. Knudsen (*Dansk-Norsk sproglære*, 1856), and K. Brekke (*Bidrag til Dansk-Norskens tydelære*, 1881), and others.

At the middle of this century, however, far more advanced pretensions were urged to an independent Norwegian language. By

³ See Ludvig Wimmer, "Det Danske Sprog" in *Nordisk Conversationslexikon*, 3d ed., 1883; T. Ström, *Dansk Litteraturhistorie*, 2d ed., 1878.

⁴ See J. A. Lundell, "Norsk språk" (*Nordiskt Tidkrift*, 1882).

the study of the Modern Norwegian dialects and their mother language, Old Norwegian, the eminent philologist J. Aasen was led to undertake the bold project of constructing, by the study of these two sources, and on the basis of his native dialect (Sjælland), a Norwegian-Norwegian ("Norsk-Norsk") language, the so-called "Landsmål." In 1853 he exhibited a specimen of it, and, thanks to such excellent writers as Aasen himself, the poets O. Vinje and K. Janson, and the novelist A. Garborg, as well as a zealous propagandism of the society "Det Norske Samlag" (founded in 1868), there has since arisen a valuable though not very large literature in the "Landsmål." But it is nowhere spoken.¹ Its grammatical structure and vocabulary are exhibited in Aasen's *Norsk grammatik*, 1864, and *Norsk ordbog*, 1873.

SCANDINAVIAN DIALECTS.—As above remarked, the Scandinavian dialects are not grouped, so far as their relationship is concerned, as might be expected judging from the literary languages. Leaving out of account the Icelandic dialects and those of the Faroes, each of which constitutes a separate group, the remainder may be thus classified:—

- (1) *West-Norwegian Dialects*,—spoken on the western coast of Norway between Christiansand and Molde.
- (2) *North-Scandinavian*,—the remaining Norwegian and the Swedish dialects of Vestmanland, Dalarna, Norrland, Finland, and Russia.
- (3) The dialects on the island of Gotland.
- (4) *Middle-Swedish*,—spoken in the rest of Sweden, except the southernmost parts (No. 5).
- (5) *South-Scandinavian*,—spoken in the greater part of Småland and Halland, the whole of Skåne, Blekinge, and Denmark, and the Danish-speaking part of Schleswig. This group is distinctly divided into three smaller groups,—the dialects of southern Sweden (with the island of Bornholm), of the Danish islands, and of Jutland (and Schleswig).

The study of the Modern Scandinavian dialects has been very unequally prosecuted. (Hardly anything has been done towards the investigation of the Icelandic dialects, while those of the Faroes have been studied chiefly by Hammershaimb. The Norwegian dialects have been thoroughly examined by Aasen, whose works give a general account of them; while in our own days Joh. Storm, above all, displays an unwearying activity, especially in the minute investigation of their phonetic constitution, to which Aasen had paid but scant attention. The substance of these researches in the Norwegian dialects has recently been presented in a magazine, called *Norvegia*, of which the first volume is in course of publication; it employs an alphabet invented by Storm. For the study of Danish dialects but little has been done, Molbeck's *Dialect-Lexicon* of 1841 being very deficient. The Schleswig dialect, on the contrary, has been admirably treated of by E. Hagerup (1854) and K. J. Lyngby (1858). At present two important works are in preparation,—H. F. Feilberg's great dictionary of the dialect of Jutland, and J. C. Espersen's of the dialect of Bornholm. There is no country in which the dialects have been and are studied with greater zeal and more fruitful results than in Sweden² during the last hundred and fifty years. Archbishop E. Benzelius the younger († 1743) made collections of dialect words, and on his work is based the dialectical dictionary of Ihre of 1766. An excellent work³ considering its age is S. Hof's *Dialectus Vestrogothica*, 1772. The energy and zeal of C. Sive (essays on the dialects of Gotland and Dalarna) inspired these studies with extraordinary animation at the middle of the 19th century; in 1837 J. E. Rietz published a voluminous dialect dictionary; the number of special essays, too, increased yearly. From 1872 so-called "landsmålsforeningar" (dia-

¹ See J. Storm, "Det Norske maalstræv" (*Nordisk Tidsskrift*, 1878).
² See J. A. Lundell, "Om de Svenska folkmålen frändskaper" (*Antropologiska Sektionens Tidsskrift*, 1880).
³ See J. A. Lundell, "Öfversikt af de senaste årtiondenas värksamhet för kännedom om folkmä" (*Svenska Landmålen*, i., 1880).

lect societies) were founded among the students at the universities of Upsala, Lund, and Helsingfors (at Upsala alone 13), for a systematic and thorough investigation of dialects. We find remarkable progress in scientific method—especially with regard to phonetics—in the constantly increasing literature; special mention may be made of the detailed descriptions of the dialects of Värmland, Gotland, and Dalarna by Ad. Norren, and A. F. Freudenthal's monographs on the Finnish and Esthonian Swedish dialects. Since 1879 the Swedish dialect societies have published a magazine on a comprehensive plan, *De Svenska Landsmålen*, edited by J. A. Lundell, who has invented for this purpose an excellent phonetic alphabet (partially based on C. J. Sundevall's work *Om fonetiska bokstäver*, 1855). (A. N.)

SCARBOROUGH, a parliamentary borough of England, frequently called "the Queen of Watering Places," situ-



Plan of Scarborough.

1. Old Town Hall.	5. News Room.	9. St Mary's Church.	13. Rom. Cath. Ch.	16. Savings Bank.
2. Custom House.	6. Theatre Royal.	10. Christ Do.	14. Post Office.	17. Sea-Bathing Infirm.
3. Old Post Office.	7. Police Station.	11. St Thomas' Do.	15. York City and County Bank.	18. Theatre.
4. Market Hall.	8. Museum.	12. Independ't Do.		

ated on the east coast of Yorkshire, in the North Riding, 40 miles from York, and between 54° 15' 0" and 54° 17' 15" N. lat. and 0° 22' 25" and 0° 26' 24" W. long. Its two parts, north and south, each with a fine stretch of sand and bay, are divided by a rocky promontory 300 feet above the sea, on which stand the remains of the castle. The cliff is much exposed to denudation by the sea, which has been proceeding during the present century at the rate of 1 yard in 17 years. The plateau forming the castle yard in 1190, according to William of Newburgh, comprised 60

acres, but it is not now more than 17 acres 10 perches, or 43 acres, including store yards, dykes, and holms. The first castle was built in the Anglo-Norman period, and is referred to as being in decay in 1154—a fact which throws back its origin earlier than 1136, the date assigned for its erection by William Le Gros, earl of Albemarle and Holderness, its first known governor. The list of its governors stretches from that date to 1832. The streets of the older part of the town, immediately south of the castle hill, come down to the sea, but the newer parts of the south as well as the north side are built upon rising ground. A deep valley (Ramsdale) which divides the south side is bridged from St Nicholas Cliff to the South Cliff. The approach by rail is through the upper part of this valley, by the side of which there is a marsh known as the Mere. The town is thus situated in a kind of basin, which opens out to the north towards extensive and lofty moorland ranges. The modern period of its history dates from 1620, when Mrs Farren, a lady resident, first discovered its mineral springs. The town contained 30,504 inhabitants in 1881, but during the season, which lasts from May to October, its population is augmented by from ten to twenty thousand visitors, for whose convenience there is increasingly ample accommodation. The Grand Hotel, fronting the sea on the south bay, stands on St Nicholas Cliff, at the north side of the Ramsdale valley, and is one of the largest in England. An aquarium (1877) stands beneath the Cliff Bridge, and close by is the museum, a Roman-Doric rotunda, built in 1828. The spa saloon, opened in 1800, contains a hall in the Italian-Renaissance style, a theatre, and refreshment rooms. There is a promenade in front protected by a sea wall. The south spring is aperient but contains some iron, while the north or chalybeate spring is more tonic in its properties. The waters, however, are seldom taken now, the town being mainly frequented for the sea-bathing. The grounds of the present spa are tastefully laid out. A foreshore road, made in 1878 by the corporation, and shortly to be extended round the castle cliff to the north side, makes an excellent drive or promenade. The north side has fine sands, a hoist, and a promenade pier, but is not so attractive as the south side, nor are the houses there of so good a character and style. The salubrity of Scarborough is attested by its vital statistics. The mean annual mortality from 1873 to 1882 was 18.4 per 1000. The death-rate from consumption in all England is 2.4 per 1000; amongst the indigenous population of Scarborough from 1873 to 1882 it was 1.7 per 1000. The mean annual temperature is 47.9 Fahr. In December, January, and February it is only 0.6° colder than Brighton, whilst in the summer months Brighton is 3.6 warmer.

The town is a royal borough, its charter of incorporation dating from 1161. It returned two members to parliament from 1283 to 1885, when one of the seats was taken away. The limits of the municipal and parliamentary boroughs coincide,—the area being 2348 acres, the population 24,259 in 1871 and 30,504 in 1881.

Shipbuilding, salt-manufacture, and knife-making were formerly common, but the only craft now remaining is jet-manufacture. The fishing trade is, however, very considerable. Disputes about dues for the old pier and the fish-tithe occupy a conspicuous place in the town records; the pier seems to have suffered greatly in the various sieges to which the town, after it was walled, became exposed. The old town-hall in St Nicholas Street, the new town-hall in Castle Road, the market-hall in St Helen's Square, in the Tuscan style, and the new post office in Huntress Row are conspicuous amongst the public buildings. There are two theatres. Of the monastic buildings belonging to the Grey Friars, Dominicans, and Carmelites there are no remains, but the parish church of St Mary, conspicuously situated on a mound to the south of Castle Hill, occupies the site of the old Cistercian monastery. The old church was made the site of a battery in the siege of the castle in 1644, and one of its towers fell in 1659. The

restoration of the present building took place in 1850. There are other churches and chapels of a much more recent date, including a Roman Catholic church. The racecourse is on the top of a hill, commanding fine views of the moors and of the sea.

The old name of the town was written Skardeborge. It is not mentioned in Domesday Book, but it was probably waste, as Tostig count of Northumberland, had ravaged and burnt it some time previously. Thorklen mentions it as having been ravaged by Adelbrecht, king of Northumberland, and by Harold Hardrada. Douglas, the Scottish chief, also burnt it in 1318. Henry II. compelled the count of Aumale to surrender the castle in 1155. King John visited the castle in 1206 and 1216, and the "house and castle of Scarborough" are mentioned in 1223. When not used as a temporary royal residence the castle was a royal prison. In 1312 the earl of Pembroke besieged it, and in the Pilgrimage of Grace insurrection (1536) it was unsuccessfully besieged by Sir Robert Aske. A detailed survey of it, made in 1538, is still extant, the castle yard and land therein described, with the buildings, corresponding with a survey made in 1839. It was again besieged in 1644–45 and in 1648. In 1655 George Fox the Quaker was imprisoned in the castle. In 1645 the town was captured by assault, and in later years its inhabitants were much impoverished by military exactions and expenses. A view of the town and castle in 1485 is still extant. The precise date when the town-walls were dismantled is not known. In 1730 Daniel Defoe, writing from the place, said: "The town is well-built, pleasant, and populous, and we found a great deal of company here, drinking the waters, who have not only come from the north of England but from Scotland."

See *History of Scarborough Spa*, 1670; *Gent's History of Scarborough*, 1735; *Hinderwell's History of Scarborough*, 1788; *Cole's Scarborough Worthies*, 1820; *Constitution and By-laws of the Corporation of Scarborough*, 1827; *Brief History of St Mary's, Scarborough*, 1845; *The Geology of Scarborough*, by C. Fox Strangways, 1880; *Flora of Scarborough*, by G. Masser, 1881; and *Scarborough as a Health Resort*, by A. Haviland, 1883.

SCARLATTI, ALESSANDRO (1659–1725), composer of sacred and dramatic music, was born at Trapani in Sicily in 1659, and became in early youth a pupil of Carissimi. In 1680 Queen Christina of Sweden appointed him her maestro di cappella, and commissioned him to write his first opera, *L'Onestà nell' Amore*, for performance at her palace in Rome. In 1693 he produced his first oratorio, *I Dolori di Maria sempre Vergine*. In the following year he was appointed maestro di cappella to the viceroy of Naples, and from that time forward his works multiplied with astonishing rapidity, his time being spent partly in Naples and partly in Rome, where he entered the service of Cardinal Ottoboni, as private maestro di cappella. His prodigious fertility of invention did not, however, tempt him to write carelessly. On the contrary he did his best to neutralize the evil caused by the founders of the monodic school, whose insane hatred of counterpoint and form reduced their dramatic music to the dreary level of monotonous declamation. He was by far the most learned contrapuntist of his age; and it was to this circumstance that his compositions owed their resistless power. Moreover, his sense of form was as just as his feeling for harmony, and to this he was indebted for the originality of many of his finest conceptions. He has been credited with two very important inventions—accompanied recitative and the *da capo*. That he really did invent the first there is very little doubt. Instances of the latter have been found of earlier date than most of his works, but he was certainly the first to bring it into general use. He also struck out ideas in his orchestral accompaniments which must have seemed bold indeed to the musicians of the period, using *obbligato* passages and other combinations previously unknown, and introducing *ritornelli* and *sinfonie* with excellent effect. In 1707 Scarlatti was appointed principal maestro di cappella at Santa Maria Maggiore, and soon afterwards he was invested by the pope with the order of the Golden Spur, with which Gluck and Mozart were afterwards honoured. He resigned his appointment after two years' service, and died at Naples October 24, 1725.

Very few of Scarlatti's works have been published. His compositions include 115 operas (41 only of which are now known to exist, and these only in MS.), 200 masses 9 oratorios, more than

600 cantatas, and innumerable smaller pieces, both sacred and secular. MSS. of three of his operas, *Gerone, Il Flavio Cumberto*, and *La Teodora Augusta*, are preserved in the library of Christ Church, Oxford; and *Il Prigioniero Fortunato* forms part of the "Dragonetti Collection" in the British Museum.

SCARLATTI, DOMENICO (1683-1757), son of the preceding, was born at Naples in 1683, and studied music first under his father and then under Gasparini. He began his career by composing a few operas, among them *Amleto*, produced at Rome in 1715, and remarkable as the earliest known attempt to pose Shakespeare's hero as the *primo uomo* of a *dramma per la musica*. But his real strength lay in the excellence of his performances on the harpsichord and organ. During Handel's first sojourn in Italy in 1708-9 D. Scarlatti was invited to a trial of skill with him on both instruments at the palace of Cardinal Ottoboni, and all present decided that the harpsichord performances terminated in a drawn battle, though Handel had a decided advantage on the organ. The justice of the verdict cannot be doubted; for, whenever Scarlatti was afterwards praised for his organ-playing, he used to cross himself devoutly and say, "You should hear Handel!"

On the death of Bai in 1715 D. Scarlatti was appointed maestro di cappella of St Peter's in Rome. In 1719 he conducted the performance of his *Narciso* at the King's Theatre in London, and in 1721 he played with great success in Lisbon. He then returned to Naples; but in 1729 he was invited to Madrid, with the appointment of teacher to the princess of Asturias, and remained there twenty-five years, returning in 1754 to Naples, where he died in 1757.

D. Scarlatti's compositions for the harpsichord are almost innumerable, and many of them have been published. In the character of their *technique* they are infinitely in advance of the age in which they were written and played; and many of them are difficult enough to tax the powers of the best performers of the present day.

SCARLET FEVER and **SCARLATINA** are names applied indifferently to an acute infectious disease, characterized by high fever, accompanied with sore throat and a diffuse red rash upon the skin. This fever appears to have been first accurately described by Sydenham in 1676, before which period it had evidently been confounded with small-pox and measles.

In connexion with the causation of this disease, the following points have been ascertained. (1) It is a highly contagious malady, the infective material being one of the most subtle, diffuse, and lasting known in fevers. It would seem that the disease is communicable from an early period of its occurrence, all through its progress, and especially during convalescence when the process of desquamation is proceeding, and when the shed-off epidermis which contains the germs of the disease in great abundance is apt to be inhaled, to become attached to articles of clothing, to find entrance into food, or to be transmitted in other ways to healthy persons. (2) It is a disease for the most part of early life, young children being specially susceptible; but adults may also suffer if they have not had this fever in childhood. (3) It occurs both in isolated cases (sporadically) and in epidemics. (4) One attack in general, although not always, confers immunity from a second. (5) Certain constitutional conditions act as predisposing causes favouring the development of the fever. Thus, where overcrowding prevails, and where the hygienic state of children is ill attended to, the disease is more likely to prevail and spread, and to assume unfavourable forms. Further, in the puerperal state in women there appears to be a special susceptibility to suffer in a dangerous manner should there be exposure to the infection of the fever. As to the nature of the infecting agent, nothing positive is known, although from the analogy of similar diseases it is

probable that specific micro-organisms or germs are concerned in its production.

The period of incubation in scarlet fever (that is, the time elapsing between the reception of the poison and the development of symptoms) appears to vary. Sometimes it would seem to be as short as one or two days, but in most instances it is probably about a week. The invasion of this fever is generally sudden and sharp, consisting in rigors, vomiting, and sore throat, together with a rapid rise of temperature and increase in the pulse. Occasionally, especially in young children, the attack is ushered in by convulsions. These premonitory symptoms usually continue for about twenty-four hours, when the characteristic eruption makes its appearance. It is first seen on the neck, chest, arms, and hands, but quickly spreads all over the body, although it is not distinctly marked on the face. This rash consists of minute thickly-set red spots, which coalesce to form a general diffuse redness, in appearance not unlike that produced by the application of mustard to the skin. In some instances the redness is accompanied with small vesicles containing fluid. In ordinary cases the rash comes out completely in about two days, when it begins to fade, and by the end of a week from its first appearance it is usually gone. The severity of a case is in some degree measured by the copiousness and brilliancy of the rash, except in the malignant varieties, where there may be little or no eruption. The tongue, which at first was furred, becomes about the fourth or fifth day denuded of its epithelium and acquires the peculiar "strawberry" appearance characteristic of this fever. The interior of the throat is red and somewhat swollen, especially the uvula, soft palate, and tonsils, and a considerable amount of secretion exudes from the inflamed surface. There is also tenderness and slight swelling of the glands under the jaw. In favourable cases the fever departs with the disappearance of the eruption and convalescence sets in with the commencement of the process of "desquamation" or peeling of the cuticle, which first shows itself about the neck, and proceeds slowly over the whole surface of the body. Where the skin is thin the desquamation is in the form of fine branny scales; but where it is thicker, as about the hands and feet, it comes off in large pieces, which sometimes assume the form of casts of the fingers or toes. The duration of this process is variable, but it is rarely complete before the end of six or eight weeks, and not unfrequently goes on for several weeks beyond that period. It is during this stage that complications are apt to appear, particularly those due to cold, such as inflammation of the kidneys; and all throughout its continuance there is the further danger of the disease being communicated to others by the cast-off epidermic scales.

Scarlet fever shows itself in certain well-marked varieties, of which the following are the chief:—

1. *Scarlatina Simplex* is the most common form; in this the symptoms, both local and general, are moderate, and the case usually runs a favourable course. It is always, however, to be borne in mind that the duration and the infectiveness of the disease, including its convalescence, are uninflected by the mildness of the attack. In some rare instances it would seem that the evidences of the disease are so slight, as regards both fever and rash, that they escape observation and only become known by the patient subsequently suffering from some of the complications associated with it. In such cases the name *latent scarlet fever* (*scarlatina latens*) is applied.

2. *Scarlatina Anginosa* is a more severe form of the fever, particularly as regards the throat symptoms. The rash may be well marked or not, but it is often slow in developing and in subsiding. There is intense inflammation of the throat, the tonsils, uvula, and soft palate being swollen and ulcerated, or having upon them membranous patches not unlike those of diphtheria, while externally the gland tissues in the neck are enlarged and indurated and not unfrequently become the seat of abscesses. There is difficulty in opening the mouth; an acrid discharge exudes from the nostrils and excoerates the lips: and the countenance is pale and waxy-

looking. This form of the disease is marked by great prostration of strength, and it is much more frequently fatal than the preceding.

3. *Scarlatina Maligna* is the most serious form of all. The malignancy may be variously displayed. Thus a case of *scarlatina anginosa* may acquire such a severe character, both as to throat and general symptoms, as rapidly to produce profound exhaustion and death. But the typically malignant forms are those in which the attack sets in with great violence and the patient sinks from the very first. In such instances the rash either does not come out at all or is of the slightest amount and of livid rather than scarlet appearance, while the throat symptoms are often not prominent. Death in such cases may take place in from twenty-four to forty-eight hours, and is frequently preceded by great elevation of the temperature of the body and by delirium, coma, or other nervous symptoms. A further example of a malignant form is occasionally observed in cases where the rash, which had previously been well-developed, suddenly recedes, and convulsions or other nervous phenomena and rapid death supervene.

The complications and effects of scarlet fever are, as already indicated, among the most important features in this disease, and, although their occurrence is exceptional, they appear with sufficient frequency, and are of such a nature, as ought to make the medical attendant carefully watch every case for any of their early indications. The most common and serious of these is inflammation of the kidneys, which may arise during any period in the course of the fever, but is specially apt to appear in the convalescence, while desquamation is in progress. Its onset is sometimes announced by a return of feverish symptoms, accompanied with vomiting and pain in the loins; but in a large number of instances it occurs without these and comes on insidiously. One of the most prominent symptoms is slight swelling of the face, particularly of the eyelids, which is rarely absent in this complication. If the urine is examined it will probably be observed to be diminished in quantity and of dark smoky or red appearance, due to the presence of blood; while it will also be found to contain a large quantity of albumen. This, together with the microscopic examination, which reveals the presence of tube casts containing blood, epithelium, &c., testifies to a condition of acute inflammation of the kidney (glomerular and tubal nephritis). In favourable cases these symptoms may soon disappear, but they may on the other hand prove extremely serious,—the risks being the suppression of urine, leading to uræmic poisoning and causing convulsions which may terminate fatally, or, further, the rapid development of general dropsy, and death from this cause. Although thus a very formidable complication, it is yet one which is amenable to treatment, and by the prompt and judicious application of remedies lives may often be saved, even in desperate circumstances. Occasionally this condition does not wholly pass off, and consequently lays the foundation for BRIGHT'S DISEASE (*q.v.*). Another of the more common complications or results of scarlet fever is suppuration of the ears, due to the extension of the inflammatory process from the throat along the Eustachian tube into the middle ear. This not unfrequently leads to permanent ear-discharge, with deafness from the disease affecting the inner ear and temporal bone, a condition implying a degree of risk from its proximity to the brain. Other maladies affecting the heart, lungs, pleura, &c., occasionally arise in connection with scarlet fever, but they are of less common occurrence than those previously mentioned. Apart, however, from such definite forms of disease there may remain as the result of scarlet fever simply a general weakening of health, which may render the patient delicate and vulnerable for a long time.

In the treatment of scarlet fever, one of the first requirements is the isolation of the case, with the view of preventing the spread of the disease. In large houses this may be possible, but in most instances it can only be satisfactorily accomplished by sending away those other members of the

family who have not suffered from the fever. The establishment in many large towns of hospitals for infectious diseases, which provide accommodation for patients of all classes, affords the best of all opportunities for thorough isolation. In large families, where few or none of the members have had the disease, the prompt removal of a case to such a hospital will in many instances prevent the spread of the fever through the household, as well as beyond it; and at the same time obviate many difficulties connected with the cleansing and purification of the house, which, however carefully done, may still leave remaining some risk in the case of a fever the contagious power of which is so intense.

When, however, the patient is treated at home, the sick room should contain only such furniture as may be required, and the attendants should come as little as possible in contact with other members of the household. Should other children be in the house, they should be kept away from school during all the time that the risk of infection continues. The possibility of the fever being communicated by letters sent from the sick room should not be forgotten by those in attendance. Disinfectants, such as carbolic acid, Condy's fluid, &c., may be used freely in the room and passages, and all body or bed clothes when removed should be placed at once in boiling water, or in some disinfecting fluid. In convalescence, with the view of preventing the transmission of the desquamated cuticle, the inunction of the body with carbolized oil (1 in 40) and the frequent use of a bath containing soda are to be recommended.

All books, toys, &c., used by the patient during the illness should be carefully destroyed or given to fever hospitals, as their preservation has frequently been known to cause an outbreak of the disease at a subsequent time. With respect to the duration of the infective period, it may be stated generally that it is seldom that a patient who has suffered from scarlet fever can safely go about before the expiry of eight weeks, while on the other hand the period may be considerably prolonged beyond this, the measure of the time being the completion of the process of desquamation in every portion of the surface of the body. As to general management during the progress of the fever,—in favourable cases little is required beyond careful nursing and feeding. The diet all through the fever and convalescence should be of light character, consisting mainly of milk food. Soups may be taken, but solid animal food should as far as possible be avoided. During the febrile stage a useful drink may be made by a weak solution of chlorate of potash in water (1 drachm to the pint), and of this the patient may partake freely. In the more severe forms of the disease, where the throat is much affected, the application with a brush of a strong solution of Condy's fluid or other disinfectant, such as boroglyceride, glycerine of carbolic acid, quinine, &c., may be required, or gargling with these substances when this can be done. In the malignant variety, where the eruption is not appearing, or is but ill developed, stimulants internally, and the hot bath or pack, may sometimes afford a chance, or the hypodermic use of pilocarpin,—although it must be confessed that in such cases little can be expected from any remedies. The treatment of the kidney complication and its accompanying dropsy is similar to that for acute Bright's disease. Depletion by leeching or cupping the loins, and the promotion of cutaneous action by a hot air bath or a hot wet pack, or by pilocarpin, are the most useful measures, and will often succeed in saving life. The abscesses of the neck which occasionally occur as complications should be opened antiseptically, while the ear disorders, which are apt to continue long after the termination of convalescence, will demand the special attention of the aurist. (J. O. A.)

SCARRON, PAUL (1610–1660), poet, dramatist, novelist, and husband of Madame de Maintenon, was born or at least baptized on the 4th July 1610. His father, of the same name, was a man of position, and a member of the parlement of Paris. Paul the younger (who is said to have quarrelled with his stepmother) became an abbé, was not ill-allowed, and travelled to Rome in 1634. He returned and became a well-known figure in literary and fashionable society. A wild story used to be told of his having (when in residence at his canonry of Le Mans) tarred and feathered himself as a carnival freak, of his having been obliged to take refuge from popular wrath in a swamp, and of his consequent deformity from rheumatism. The simple fact seems to be that in 1637 he had an attack of fever with the usual sequela of rheumatic attacks, and that he put himself into the hands of a quack doctor. This at least is how Tallemant tells the story, though he substitutes a less creditable disease for fever. What is certain is that Scarron, after having been in perfect health for nearly thirty years, passed twenty more in a state of miserable deformity and pain. His head and body were twisted, and his legs became useless. Nevertheless he bore up against his sufferings with invincible courage, though they were complicated by his inheriting nothing from his father, and by the poverty and misconduct of his sisters, whom he supported. For a few years he really held a benefice at Le Mans, but was then in no case to play pranks. It is said, however, that here he conceived the idea of the *Roman Comique* and wrote the drama of *Jodelet*, which gave a nickname to the actor who performed it. In 1646 he returned to Paris and worked hard for the booksellers, from the name of one of whom he is said to have called literature pleasantly his "marquisat de Quinet." He had also a pension from Mazarin and one from the queen, but lost both from being accused of "Frondeur" sentiments. The most singular action of his life remains to be told. In his early years he had been, as hinted, something of a libertine, and a young lady of some family, Céleste Palaiseau, had openly lived with him. But in 1652, sixteen years after he had become almost entirely paralysed, he married a girl of much beauty and no fortune, Françoise or Francine d'Aubigné, granddaughter of Agrippa d'Aubigné, afterwards famous as Madame de Maintenon. Scarron's house was, both before and after the marriage, a great centre of society, despite his narrow means. Yet only the most malignant and unscrupulous libellers of the future favourite accuse her of light conduct during the eight years of her marriage to this strange husband, and the well-informed author of the *Historiettes* distinctly acquits her of any such. But Scarron, who had long been able to endure life only by the aid of constant doses of opium, was at length worn out, and died on the 6th October 1660.

Scarron's work is very abundant, and, written as it was under pressure of want and pain, it is very unequal. The piece most famous in his own day, his *Vingtième Traicte* (1648–53), is now thought, and not unjustly, a somewhat ignoble and unprofitable waste of singular powers for burlesque. But the *Roman Comique* (1651) is a work the merit of which can be denied by no competent judge who has read it. Unfinished, and a little desultory, this history of a troop of strolling actors is almost the first French novel, in point of date, which shows real power of painting manners and character, and is singularly vivid. It furnished Théophile Gautier with the idea and with some of the details of his *Capitaine Fraaasse*. Scarron also wrote some shorter novels of merit, which are thought to have inspired Molière and Sedaine. Of his plays *Jodelet* (1645) and *Don Saphet d'Arménie* (1653) are the best. Both these and the others which he wrote are of course somewhat antiquated in style, but with Corneille's *Menteur* they stand above everything else in comedy before Molière. He also produced many miscellaneous pieces.

Scarron is generally spoken of and thought of as a representative writer of burlesque, but in reality he possessed in abundance the faculty of true comedy. The most complete edition of his works is

held to be that of 1737 (10 vols., Amsterdam), but his more celebrated pieces, including all those mentioned above, have been frequently reprinted.

SCAUP,—the wild-fowler's ordinary abridgment of SCAUP-DUCK, meaning a Duck so called "because she feeds upon *Scap*, i.e., broken shellfish," as may be seen in Willughby's *Ornithology* (p. 365); but it would be more proper to say that the name comes from the "Mussel-scaps," or "Mussel-scalps,"¹ the beds of rock or sand on which Mussels (*Mytilus edulis*, and other species) are aggregated,—the *Anas marila* of Linnæus and *Fuligula marila* of modern systematic writers, a very abundant bird around the coasts of most parts of the northern hemisphere, repairing inland in spring for the purpose of reproduction, though so far as is positively known hardly but in northern districts, as Iceland, Lapland, Siberia, and the fur-countries of America. It was many years ago believed (*Edin. N. Philos. Journal*, xx. p. 293) to have been found breeding in Scotland, but assertions to that effect have not been wholly substantiated, though apparently corroborated by some later evidence (*Proc. N. H. Soc. Glasgow*, ii. p. 121, and *Proc. Phys. Soc. Edinburgh*, vii. p. 203). The Scap-Duck has considerable likeness to the POCHARD (vol. xix. p. 252), both in habits and appearance; but it much more generally affects salt-water, and the head of the male is black, glossed with green, and hence the name of "Black-head," by which it is commonly known in North America, where, however, a second species or race, smaller than the ordinary one, is also found, the *Fuligula affinis*. The female Scap-Duck can be readily distinguished from the Dunbird or female Pochard by her broad white face. (A. N.)

SCEPTICISM signifies etymologically a state of doubt or indecision in the face of different mutually conflicting statements (*σκέπτομαι*, I consider, reflect, hesitate, doubt). It is implied, moreover, that this doubt is not merely a stage in the road to certainty and true knowledge. The provisional suspense of judgment recommended by Descartes and others as the true beginning of philosophy is no more than a passing phase of the individual's mind in his search for truth. But the doubt of the sceptic is professedly the last result of investigation; it is the renunciation of the search for truth on the ground that truth or real knowledge is unattainable by man. An account of the chief historical appearances of scepticism and its different motives will serve to illustrate and amplify this statement, and will lead up to any further considerations of a general nature. At the outset, and in general terms, scepticism may be summarily defined as a thorough-going impeachment of man's power to know—as a denial of the possibility of objective knowledge.

Trust, not distrust, is the primitive attitude of the mind. What is put before us, whether by the senses or by the statements of others, is instinctively accepted as a veracious report, till experience has proved the possibility of deception. In the history of philosophy, in the same way, affirmation precedes negation; dogmatism goes before scepticism. And this must be so, because the dogmatic systems are, as it were, the food of scepticism; without them it would be without motive, without a *basis operandi*. Accordingly, we find that sceptical thought did not make its appearance till a succession of positive theories as to the nature of the real, by their mutual inconsistency, had suggested the possibility that they might all alike be false. The Sophistic epoch of Greek philosophy was, in great part, such a negative reaction against the luxuriance of self-confident assertion in the nature-philosophies of the preceding age. Though scepticism as a definite school of opinion may be said, in accordance

¹ "Scalp" primarily signifies a shell; cf. Old Dutch *schelpe* and Old Fr. *escalope* (Skeat, *Etymol. Dictionary*, p. 528).

with old precedent, to date only from the time of Pyrrho of Elis, there can be no doubt that the main currents of Sophistic thought were sceptical in the wider sense of that term. The Sophists were the first in Greece to dissolve knowledge into individual and momentary opinion (Protagoras), or dialectically to deny the possibility of knowledge (Gorgias). In these two examples we see how the weapons forged by the dogmatic philosophers to assist in the establishment of their own theses are sceptically turned against philosophy in general. As every attempt to rationalize nature implies a certain process of criticism and interpretation to which the data of sense are subjected, and in which they are, as it were, transcended, the antithesis of reason and sense is formulated early in the history of speculation. The opposition, being taken as absolute, implies the impeachment of the veracity of the senses in the interest of the rational truth proclaimed by the philosophers in question. Among the pre-Socratic nature-philosophers of Greece, Heraclitus and the Eleatics are the chief representatives of this polemic against the "lying witness" of the senses. The diametrical opposition of the grounds on which the veracity of the senses is impugned by the two philosophies (viz., by Heraclitus because they testify to an apparent permanence and identity in things, by the Eleatics because they testify to an apparent multiplicity and change) was in itself suggestive of sceptical reflexion. Moreover, although these philosophers are not in any sense themselves sceptical, their arguments are easily susceptible of a wider application. Accordingly we find that the arguments by which Heraclitus supported his theory of the universal flux are employed by Protagoras to undermine the possibility of objective truth, by dissolving all knowledge into the momentary sensation or persuasion of the individual. The idea of an objective flux, or law of change constituting the reality of things, is abandoned, and subjective points of sense alone remain,—which is tantamount to eliminating the real from human knowledge.

Still more unequivocal was the sceptical nihilism expressed by Gorgias in his three celebrated theses:—(1) nothing exists; (2) if anything existed, it would be unknowable; (3) if anything existed and were knowable, the knowledge of it could not be communicated. The arguments of his book, "Concerning the Non-existent, or Nature," were drawn from the dialectic which the Eleatics had directed against the existence of the phenomenal world. But they are no longer used as indirect proofs of a universe of pure and unitary Being. The prominence given by most of the Sophists to rhetoric, their cultivation of a subjective readiness as the essential equipment for life, their substitution of persuasion for conviction, all mark the sceptical undertone of their teaching. This attitude of indifference to real knowledge passed in the younger and less reputable generation into a corroding moral scepticism which recognized no good but pleasure and no right but might.

What Socrates chiefly did was to recreate the instinct for truth and the belief in the possibility of its attainment. The scientific impulse thus communicated was sufficient to drive scepticism into the background during the great age of Greek philosophy (i.e., the hundred years preceding Aristotle's death, 323 B.C.). The "captious logic of the Megaric school,—in which the Eleatic influence was strong,—their devotion to eristic and the elaboration of fallacies, was indeed in some cases closely related to sceptical results. The school has been considered with some truth to form a connecting link with the later scepticism, just as the contemporary Cynicism and Cyrenaicism may be held to be imperfect preludes to Stoicism and Epicureanism. The extreme nominalism of some of the

Cynics also, who denied the possibility of any but identical judgments, must be similarly regarded as a solvent of knowledge. But with these insignificant exceptions it holds true that, after the sceptical wave marked by the Sophists, scepticism does not reappear till after the exhaustion of the Socratic impulse in Aristotle.

The first man in antiquity whose scepticism gave name to his doctrine was Pyrrho of Elis (about 360–270 B.C.). Pyrrho proceeded with the army of Alexander the Great as far as India, in the company of Anaxarchus, the Democritean philosopher. He afterwards returned to his native city, where he lived in poor circumstances, but highly honoured by his fellow-citizens. Pyrrho himself left no writings, and the accounts of his doctrine are mainly derived from his pupil Timon of Phlius (about 325–235 B.C.). Timon is called the Sillographist, from his satirical poem (*Σάλλος*), in which all the philosophers of Greece are held up to ridicule, with the exception of Xenophanes, who honestly sought, and Pyrrho, who succeeded in finding, the truth. Other disciples are mentioned besides Timon, but the school was short-lived, its place being presently taken by the more moderate and cultured doubt of the New Academy. Zeller sums up Pyrrho's teaching in three propositions:—We know nothing about the nature of things; hence the right attitude towards them is to withhold judgment; the necessary result of withholding judgment is imperturbability. The technical language of the school expresses the first position by the word *ἀκαταληψία*; things are wholly incomprehensible or inaccessible; against every statement the opposite may be advanced with equal justice (*ἰσοσθένεια τῶν λόγων*). The sceptical watchword which embodies the second position is *ἐποχή*, reserve of judgment, or, as it is put by Timon, *οἰδὲν μᾶλλον*, that is, no one assertion is truer than another. This complete suspense of opinion is also expressed by the terms *ἰσότης*, or equilibrium, and *ἀφασία*, or refusal to speak, as well as by other expressions. The Pyrrhonists were consistent enough to extend their doubt even to their own principle of doubt. They thus attempted to make their scepticism universal, and to escape the reproach of basing it upon a fresh dogmatism. Mental imperturbability (*ἀταραξία*) was the result to be attained by cultivating such a frame of mind. The happiness or satisfaction of the individual was the end which dominated this scepticism as well as the contemporary systems of Stoicism and Epicureanism, and all three philosophies place it in tranquillity or self-centred indifference. Scepticism withdraws the individual completely into himself from a world of which he can know nothing. It is men's opinions or unwarranted judgments about things, say the sceptics, which betray them into desire, and painful effort, and disappointment. From all this a man is delivered who abstains from judging one state to be preferable to another. But, as complete inactivity would have been synonymous with death, it appears to have been admitted that the sceptic, while retaining his consciousness of the complete uncertainty enveloping every step, might follow custom in the ordinary affairs of life.

The scepticism of the New Academy (or, to speak more strictly, of the Middle Academy, under Arcesilanus and Carneades, founders respectively of the so-called second and third Academies) differed very little from that of the Pyrrhonists. The differences asserted by later writers are not borne out on investigation. But the attitude maintained by the Academics was chiefly that of a negative criticism of the views of others, in particular of the somewhat crude and imperious dogmatism of the Stoics. They also, in the absence of certainty, allowed a large scope to probability as a motive to action, and defended their doctrine on this point with greater care and skill. The