In these symbols we may have an actual system of tachygraphic shorthand, and not a mere syllabary; but unfortunately they have not yet been interpreted.

The second group of examples of Greek shorthand is confined to a few fragmentary papyri and waxen tablets ranging from the 4th to the 8th century, chiefly among the Rainer collection at Vienna, to which Professor Wessely has devoted much labour.

After this there is a long period unrepresented by any remains, until we come to the period of the third group, which stands quite apart from the preceding groups, being representative of the medieval Greek tachygraphy of the 10th century. First stands the Paris MS. of Hermogenes, with some tachygraphic writing of that period, of which Bernard de Montfaucon *(Pal. Gr.,* p. 351) gives some account, and accompanies his description with a table of forms which, as he tells us, he deciphered with incredible labour. Next, the Add. MS. 18231 in the British Museum contains some marginal notes in shorthand, of A.D. 972 (Wattenb., *Script. Graec. specim.,* tab. 19). But the largest amount of material is found in the Vatican MS. 1809, a volume in which as many as forty-seven pages are covered with tachygraphic writing of the nth century. Cardinal Angelo Mai first published a specimen of it in his *Scriptorum veterum nova collectio,* vol. vi. (1832); and in his *Novae patrum bibliothecae tom. secundus* (1844) he gave a second, which, in the form of a marginal note, contained a fragment of the book of Enoch. But he did not quote the number of the MS., and it has only been identified in recent years. The tachygraphic portion of it has been made the subject of special study by Dr Gitlbauer for the Vienna Academy. It contains fragments of the works of St Maximus the Confessor, the confession of St Cyprian of Antioch, and works of the pseudo-Dionysius Areo- pagita. There are also certain MSS. written at Grottaferrata belonging to the group.

But here again this medieval shorthand is not a tachygraphic system in the true sense of the word, but a syllabic system having very little advantage over the ordinary system of contracted long- hand in respect to rapidity of writing, excepting that the scribe could pack more of the text into a given space. The medieval system therefore cannot be regarded as a development of any ancient system of Greek tachygraphy, but rather as a stunted descendant or petrified fragment, as it has been called, of an earlier and better system. Other medieval varieties or phases of Greek shorthand have also been traced in the 14th and even in the 15th century.

Evidence of the employment of tachygraphy among the Romans is to be found in the writings of authors under the empire. It appears to have been taught in schools, and, among others, the emperor Titus is said to have been skilled in this manner of writing. According to Suetonius the first introduction of shorthand signs or *notae* was due to Ennius; but more generally Cicero’s freedman Μ. Tullius Tiro is regarded as the author of these symbols, which commonly bear the title of *Notae Tironianae.* The Tironian notes belonged to a system which was actually tachygraphic; that is, each word was represented by a character, alphabetic in origin, but having an ideographic value. The notes, as we have them, have come down to us in a medieval dress, and are probably amplified from their shapes of early times with various diacritical additions which attached to them after the practice of the system had died out, and when the study of them had become an antiquarian pursuit, demanding a more exact formation of the symbols and their variants than was possible or necessary to a shorthand writer familiar with the system and writing at full speed. Such a system of shorthand, expressing words by comprehensive symbols or word-outlines, could be the only system possible for rapid reporting of human speech. But it seems that in instances where a symbol was not forthcoming to express an unusual word, such as a proper name, it was customary, at least in the written notes which have survived, to express it by a group of syllabic signs. A reporter, taking down a speech, could not have waited to express the unusual word or proper name by such a slow process; and no doubt in actual practice he would, in such an emergency, have invented on the spur of the moment some conventional sign which he would remember how to expand afterwards. But in the medieval inscriptions written in Tironian notes a syllabic system was made use of in such cases; and hence arose variations in different countries in the syllabic method of ex- pressing words; an Italian system, a French system and a Spanish system having already been identified. Such a syllabic system is comparable with the “ African ” and “ Italian ” varieties of the medieval Greek shorthand system noticed above.

There are no ancient documents written in Tironian notes. But the tradition of their employment survived, especially in the chanceries of the Merovingian and Carolingian dynasties of the Frankish empire; and a limited use of them was made by the officials who controlled the royal diplomas. Tn Merovingian documents they generally accompany the subscription of the referendary, the earliest instance being in a diploma of Chlothar II. a.d. 625. From the reign of Thierry III. they become fairly frequent. They give brief indications referring to the composition of the deed, the name of the person moving for it, that of the official revising it, &c. Such uses may be regarded as safeguards against forgery. A more extensive employment of the notes prevailed under the Carolingian monarchs. Official MSS. were written in these characters as, for example, the formulary of the chancery of Louis the Pious. They appear in subscriptions, often attached to the *ruches* (see Diplo­matic). Sometimes they accompany the monogrammatic invocation at the beginning of a deed ; sometimes they themselves contain the invocation or a pious formula. Such notes continued to appear in royal deeds down to the end of the 9th century; and so inveterate had their employment become in certain positions in the charters, that the scribes, after having forgotten their meaning, went on adding mere imitative signs. In the 1oth century they appear in ecclesiastical and even private deeds, but in the latter class of documents their use was probably only suggested by vanity and pretension to learning on the part of the scribes. Even in the 11th century a few notes lingered on, their meaning fast dying out.

In general literature Tironian notes were adopted in the 9th and 10th centuries by the revisers and annotators of texts. Of this period also are several MSS. of the Psalter written in these characters, which it has been suggested were drawn up for practice at a time when a fresh impulse had been given to the employment of shorthand in the service of literature. The existence also of volumes containing lexicons or collections of Tironian notes, of the same period, points to a temporary revival of interest in these symbols of Roman tachy- graphy. But such revival was short-lived; early in the 11th century it had expired.

Authorities.—J. Gomperz, *Über ein bisher unbekanntes griech. Schriftsystem* (Vienna Academy, 1884) and *Neue Bemerkungen* (1895); M. Gitlbauer, *Die drei Systeme der griech. Tachygraphie* (Vienna Academy, 1896); K. Wessely, *Ein System altgriech. Tachygraphie* (Vienna Academy, 1896); T. W. Allen, “ Fourteenth Century Tachygraphy,” *Journ. Hellen. Studies,* xii. (1890); F. W. G. Foat, “ On Old Greek Tachygraphy,” *J.HS.,* xx., giving a full biblio­graphy (1901) ; *Archiv für Stenographie* (new series, 1901); F. Ruess, *Über griech. Tachygraphie* (1882); J. W. Zeibig, *Geschichte und Literatur der Geschwindschreibekunst* (1878); V. Gardthausen, *Griech. Paläographie* (1879); P. Carpentier, *Alphabetum Tironianum* (1747); U. F. Kopp, *Palaeographia critica* (1827); J. Tardif, *Mém. sur les notes tironiennes* (1854); O. Lehmann, *Quaestiones de notis Tironis, &c. (1869);* A. P. Kühnelt, *Über die Geschwindschrift der Alten* (1872); F. Ruess, *Über die Tachygraphie der Romer* (1879); W. Schmitz, *Comment. notarum Tironiarum* (1893) and many other works; *Mélanges J. Havet* (1895); J. Havet, *Œuvres* (1896); E. Chatelain, *Introduction à la lecture des notes tironiennes* (containing a full bibliography, 1900). (E. M. T.)

In the 10th century all practical acquaintance with the shorthand systems of Greece and Rome faded completely away, and not till the beginning of the 17th can the art be said to have revived. But even during that interval systems of writing seem to have been practised which for speed approxi­mated to modem shorthand.@@1

*Shorthand in English-speaking Countries.—*England was the birthplace of modern shorthand. The first impulse to its cultivation may possibly be traced to the Reformation. When the principles of that movement were being promulgated from the pulpit, a desire to preserve the discourses of the preacher naturally suggested the idea of accelerated writing. It is certainly striking that in the early systems so many brief arbitrary signs are provided to denote phrases common in the New Testament and Protestant theology. In the early systems of Dr Timothy Bright@@2 and Peter Bales@@3 almost every word is provided with an arbitrary sign. Dr Bright (*c.* 1551-1615) was a doctor of medicine who afterwards entered the church. His *Characterie. An Arte of*

@@@1 For instances, see Zeibig’s *Geschichte u. Lit. der Geschwindschreibe­kunst* (Dresden, 1878), pp. 67-79. For John of Tilbury’s system *(c.* 1175), see especially *Shorthand,* No. 5, and *Hermes,* viii. p. 303.

@@@2 The Bodleian Library contains the only known copy of Bright’s book. For a description of the system, see *Phonetic journal* (1884), p. 86; *Circulars of Information of the Bureau of Education* (Washington, 1884), No. 2, p. 8; and *Notes and Queries,* 2nd ser., vol. ii. p. 394. *A* is represented by a straight line, the other letters of the alphabet by a straight line with a hook, circle, or tick added at the beginning. Each alphabetic sign placed in various positions, and having some additional mark at the end, was used to indicate arbi- trarily chosen words beginning with *a, b, c, d,* &c. There were four slopes given to each letter and twelve ways of varying the base, so that forty-eight words could be written under each letter of the alphabet if necessary. Thus the sign for *b* with different terminal marks and written in four different directions signified a number of words commencing with *b;* 537 such signs had to be learned by heart. By adding certain external marks these signs were applied to other words: thus by writing a dot in one of two positions with respect to a sign the latter was made to represent either a synonym or a word of opposite meaning. Under *air* are given as synonyms *breath, exhalation, mist, reek, steam, vapour.*

@@@3 Bales’s method was to group the words in dozens, each dozen headed by a Roman letter, with certain commas, periods, and other marks to be placed about each letter in their appropriate situations, so as to distinguish the words from each other.