changes are made. Initial vowels are written by their alphabetic signs, final vowels by dots in certain positions *(a, e* at the begin- ning; *i, y* at the middle; *a, u* at the end), and medial vowels by lifting the pen and writing the next consonant in those same three positions with respect to the preceding one. Mason employed 423 symbols and arbitraries. He was the first to discover the value of a small circle for *s* in addition to its proper alphabetic sign. Mason’s system was republished by Thomas Gurney in 1740, a circumstance which has perpetuated its use to the present day, for in 1737 Gurney was appointed shorthand writer to the Old Bailey, and early in the 19th century W. B. Gurney was appointed shorthand-writer to both Houses of Parliament. Gurney reduced Mason’s arbitraries to about a hundred, inventing a few specially suitable for parliamentary reporting. The Gurneys were excellent writers of a cumbrous system. Thomas Gurney’s *Brachygraphy* passed through at least eighteen editions.

In 1767 was published at Manchester a work by John Byrom, sometime fellow of Trinity College, Cambridge, entitled *The Universal English Shorthand,* distinguished for its precision, elegance, and systematic construction. Byrom had died in 1763. Having lost his fellowship by failing to take orders, he made a living by teaching shorthand in London and Manchester, and among his pupils were Horace Walpole, Lord Conway, Charles Wesley, Lord Chesterfield, the duke of Devonshire and Lord Camden. Shorthand, it is said, procured him admission to the Royal Society. He founded a stenographic club, to the proceedings of which his journal,@@1 written in short­hand, is largely devoted. In the strangers’ gallery of the House of Commons in 1728 Byrom dared to write shorthand from Sir R. Walpole and others. In 1731, when called upon to give evidence before a parliamentary committee, he took shorthand notes, and, complaints being made, he said that if those attacks on the liberties of shorthand men went on he “ must have a petition from all counties where our disciples dwell, and Man- chester must lead the way.’’ Thomas Molyneux popularized the system by publishing seven cheap editions between 1793 and 1825. Modifications of Byrom’s system were issued by Palmer (1774), Nightingale (1811), Adams (1814), Longmans (1816), Gawtress (1819), Kelly (1820), Jones (1832) and Roffe (1833). Byrom’s method received the distinction of a special act of parliament for its protection (15 Geo. II. c. 23, for twenty-one years from 24th June 1742). To secure lineality in the writing and facility in consonantal joinings he provided two forms for *b, h, j, w, x, sh, th,* and three for *l*. *A, e, i, o, u,* he represented by a dot in five positions with respect to a consonant. Practically it is impossible to observe more than three (beginning, middle and end). With all its merits, the system lacks rapidity, the continual recurrence of the loop seriously retarding the pen.

In 1786 was published *An Essay intended to establish a Standard for a Universal System of Stenography,* by Samuel Taylor (London).@@2 This system did more than any of its predecessors to establish the art in England and abroad. Equal to Byrom’s in brevity, it is simpler in construction. No letter has more than one sign, except *w,* which has two. Considering that five vowel places about a consonant were too many, Taylor went to the other extreme and expressed all the vowels alike by a dot placed in any position. He directs that vowels are not to be expressed except when they sound strong at the beginning and end of a word. Arbitraries he discarded altogether; but Harding, who re-edited his system in 1823, introduced a few. Each letter when standing alone represents two or three common short words, prefixes and suffixes. But the list was badly chosen: thus *m* represents *my* and *many,* both of them adjectives, and therefore liable to be confounded in many sentences. To denote *in* and *on* by the same sign is evidently absurd. Taylor’s system was republished

again and again. In Harding’s edition (1823) the vowels are written on an improved plan, the dot in three positions repre- senting *a, e, i,* and a tick in two positions *o, u.* Several other persons brought out Taylor’s system, in particular G. Odell, whose book was re-edited or reprinted not less than sixty-four times, the later republications appearing at New York. The excellence of Taylor’s method was recognized on the Continent: the system came into use in France, Italy, Holland, Sweden, Germany, Portugal, Rumania, Hungary, &c.

The *Universal Stenography* of William Mavor (1780) is a very neat system, and differs from Taylor’s in the alphabet and in a more definite method of marking the vowels. *A, e, i,* are indicated by commas, *o, u, y,* by dots, in three places with respect to a letter, namely beginning, middle and end. Other systems were introduced by J. H. Lewis (1812) and Moat (1833).

The vast mass of a, b', c systems are strikingly devoid of originality, and are mostly imitations of the few that have been mentioned. Nearly all may be briefly described as consisting of an alphabet, a list of common words, prefixes and suffixes, expressed by single letters, a list of arbitrary and symbolical signs, a table showing the best way of joining any two letters, a few general rules for writing and a specimen plate.@@3

Pitman’s phonography, on account of its enormous diffusion in Great Britain and the colonies, and in America, its highly organized and original construction, and its many inherent advantages, merits a more extended notice than has been given to the systems already mentioned. In 1837 Mr (afterwards Sir) Isaac Pitman (*q.v.*) com­posed a short stenographic treatise of his own, which Samuel Bagster published under the title of *Stenographic Sound-Hand.* The price was fixed at fourpence, for the author had determined to place shorthand within the reach of everybody. In 1840 a second edition appeared in the form of a penny plate bearing the title *Phonography,* the principal feature of the system being that it was constructed on a purely phonetic basis. In December 1841 the first number of what is now known as *Pitman’s Journal* appeared at Manchester in a lithographed form. It was then called the *Phonographic Journal,* and subsequently in turn the *Phonotypic Journal,* the *Phonetic News* and the *Phonetic Journal,* Pitman’s system was warmly taken up in America, where it was republished in more or less altered forms, especially by the author’s brother Benn Pitman, and by Messrs A. J. Graham, J. E. Munson, E. Longley, and Eliza B. Burns. A large number of periodicals lithographed in phonography are published in England and America. The *Shorthand Magazine,* monthly, was started in 1864. Of standard English books printed or lithographed in phonography may be mentioned, besides the Bible, New Testament, and Prayer Book, *The Pilgrim’s Progress, The Vicar of Wakefield, Pickwick Papers, Tom Brown’s School-Days,* Macaulay’s *Essays* and *Biographies, Gulliver’s Travels,* Blackie’s *Self-cutture,* Bacon’s *Essays,* and a long list of tales and selections. Numerous societies have been formed in all English-speaking countries for the dissemination of phonography, the largest being the Phonetic Society. Phono- graphy has been adapted to several foreign languages, but not so successfully as Gabelsberger’s German system. T. A. Reed’s *French Phonography* (1882) was intended only for English phonographers who wish to report French speeches. Other adaptations to French were by A. J. Lawson and J. R. Bruce. A society for the adaptation of phonography to Italian was organized at Rome in 1883 by G. Francini, who published his results (Rome, 1883, 1886). Phonography was adapted to Spanish by Parody (Buenos Aires, 1864), to Welsh by R. H. Morgan (Wrexham, 1876), and to German by C. L. Driesslein (Chicago, 1884).

The main features of Pitman’s system must now be described. The alphabet of consonant-sounds is—*p, b; t, d; ch* (as in *chip), j*; *k, g* (as in *gay); f, v; th* (as in *thing), th* (as in *them) ; s,* z; *sh.*

@@@1 Byrom’s private journal and literary remains have been published by the Chetham Society of Manchester. See, too, a paper by J. E. Bailey in the *Phonetic Journal* (1875), pp. 109, 121.

@@@2 Taylor, it was only lately discovered, died in 1811; see M. Levy in *The Times* (April 10, 1902), and *Notes and Queries* (May 24, 1902).

@@@3 For early English systems, see especially some careful papers by Mr A. Paterson in *Phonetic Journal* (1886).