



An Affiliate of the American Council of the Blind

## FACTS ON BRAILLE

### Background

Braille is the system of touch reading and writing for persons who are blind which utilizes raised dots to represent the letters of the print alphabet. The Braille system also includes symbols to represent punctuation, mathematic and scientific characters, music, computer notation, and foreign languages.

Through the use of Braille, people who are blind are able to review and study the written word. It provides a vehicle for literacy and gives an individual the ability to become familiar with spelling, punctuation, paragraphing, footnotes, bibliographies and other formatting considerations.

The braille cell, which is an arrangement of 6 dots--2 across and 3 down, is the basic unit for all braille symbols. Sixty-three patterns are possible from these six dots. For easier identification, these dots are numbered downward 1, 2, 3, on the left, and 4, 5, 6 on the right.

1 . . 4  
2 . . 5  
3 . . 6

The first 10 letters A-J use the dots in the first two rows of the braille cell.

a	b	c	d	e	f	g	h	i	j
⠁	⠃	⠉	⠇	⠑	⠖	⠎	⠈	⠊	⠋

The next 10 letters K-T are formed by adding dot 3 to each of the first 10 letters.

k	l	m	n	o	p	q	r	s	t
⠅	⠙	⠍	⠞	⠕	⠏	⠑	⠗	⠎	⠞

The remaining letters, excluding W, are formed by adding dots 3 and 6 to each of the first 5 letters. The letter W is an exception, because the French alphabet did not include a W when the code was created. The symbol for W was added later.

u	v	x	y	z	w
⠥	⠦	⠨	⠩	⠪	⠺

## History

A wide variety of methods were tried to enable blind people to read independently. Most were methods utilizing raised print letters. The prevailing belief for why the Braille system was successful, when other methods failed, was because Braille was based on a relational method of dots, specifically designed to be identified by the fingertip, rather than being based on symbols devised for visual recognition. The other advantage was that braille could be written by blind people independently.

Louis Braille was born in the village of Coupvray, near Paris, on January 4, 1809. At the age of 3, he was playing with a sharp awl in his father's harness making shop, when he accidentally poked his eye, and subsequently developed an eye infection causing total blindness. He attended the local school until 1819, when he was awarded a scholarship to the Royal Institution for Blind Youth in Paris where he was the youngest student. The small stone house where the Braille family lived still stands today and is now a museum, which is open to the public. Soon after enrolling at the Royal Institution for Blind Youth, he started working on his reading code with a special tool he developed called a slate and stylus. In 1824, Louis Braille, at the age of 15, invented the Braille system. In 1829, he published his work in "Method of Writing Words, Music and Plain Songs by Means of Dots for Use by the Blind." Louis Braille spent the majority of his life working to develop a useful system for blind people to read and write.

The initial idea for a raised system of dots to allow the blind to read came from a military code called "night writing" and was used by soldiers to communicate in darkness. It was based on a 12-dot cell, 2 dots wide and 6 dots high. Each dot, or combination of dots in the cell, stood for a letter. The problem with the military code was that the fingertip could not feel the entire raised symbol with a single touch. Braille adapted this system and based his method on a modified 6 dot cell. This improvement meant that the fingertip could cover the entire cell with one touch. This work also included a braille music code based on the same 6 dot cell.

Braille has undergone continuous modification over the years, particularly through the addition of contractions for words which appear frequently in English. The use of contractions allows for faster braille reading and helps to reduce the size of braille books.

Louis Braille spent most of his life at the Royal Institution as an instructor. Finally, tuberculosis forced him to return to Coupvray for rest. He died there on January 6, 1852, at the age of 43 and was buried in the family plot. In 1952, on the centennial of his death, his body was ceremoniously transferred to the Pantheon in Paris. A monument to Louis Braille stands in the main square of Coupvray.