## The Second Industrial Revolution

Biography

## C. F. Dowd

1825-1904



WHY HE MADE HISTORY C. F. Dowd proposed the creation of time zones that standardized time across the continent.



As you read the biography below, consider how people responded to Dowd's ideas about standardizing time. Why did some people disagree with him?



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In 1862 Congress authorized the building of the first transcontinental railroad. Soon a vast railroad network crossed the country. The railroads promoted trade, jobs, and westward expansion. They also led to the need for a standardized time system for the country. In response to this need, Charles F. Dowd proposed a revolutionary new idea—dividing the earth into time zones.

C. F. Dowd was born in 1825. After graduating from Yale, he and his wife ran a very progressive boarding school for young women in New York. Dowd served as principal of the school for 30 years. The school offered courses in science, psychology, and economics—all subjects that many considered too difficult for women. Studies also included physical education at a time when young women were not considered strong enough to take part. Several years before Dowd's retirement, the school began offering college prep courses.

Dowd's interests went beyond education. He was also interested in the issue of time. In the early 1800s time in the United States was determined by the position of the sun. In any given place, noon was the time when the sun was at its highest. This system worked well for individual communities, particularly when people lived their lives close to home. With the expansion of the railroads, though, people and goods could be moved across the country at greater speed. The result was confusion. A train crossing a single state might move through 20 or more local "official" times.

Dowd proposed his plan for standardizing time in 1869. The plan called for the creation of "time belts," or zones, that would standardize the time across the continent. Dowd suggested that the country be divided into four or five of these zones. Every place within a given zone would have the same time. Neither government nor the general public supported the idea.

In 1872 William Frederick Allen, a railroad engineer, took up Dowd's idea. Over the next 11 years, Allen worked with a group made up of

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railroad representatives known as the General Time Convention. This group was formed to study the issue of standardized time and find a solution that would work for the railroads. Allen made some changes to Dowd's plan, and then presented it to the group. The plan was accepted and put into practice in 1883. Railroad time—the four time zones we still have in the United States today—became the new standard.

Dowd retired in 1898, leaving his son in charge of his school. In the years that followed, the national debate about standardized time continued. Congress finally adopted standard time in 1918, 14 years after Dowd's death.

## **ACTIVITY**

Civilizations have measured time in different ways over the centuries. How were ancient calendars developed? What standards were used for time? And what implications did this have for a culture? Choose an ancient civilization and do research on how time was measured. Write a short essay on the subject.