

# Stop Lights



*We all sit at stop lights, but there's one particular intersection that I pass through, usually six times or more a workday, and I've been doing that for over 40 years, and it's a l-o-n-g light! I calculate that I have spent a total of 26.1 entire days of my life sitting at that traffic signal...so far!*

The first traffic light invented was in London in the 1860's, but it was hardly recognizable—or effective. It had been adapted from the railroad signal system by a railway manager, John Peak Knight, in 1868. The railroads used red gas lights at night to signal stops and green gas lights during the daytime. Knight installed a similar gas light, semaphore system near London's Westminster Bridge in December of 1868. The life of the first traffic light signal was short lived. A gas leak caused one of the signal lights to explode on its police officer operator within a month of being installed.

In the early 1900s, the rush for traffic signals blossomed again. Several patents were underway. As traffic and cities grew, so did the race to solve growing traffic problems. The first traffic signals were *semaphores*, towers with moving arms signaling for traffic to stop or go. They could be manual or automatic. There was no consistent design. Various models were invented and put into place in cities as the need arose.

In Chicago, automated signal signs were introduced in 1910. They didn't light up, but they did create clear indicators for traffic to “stop” or “proceed” according to the labeled arms. In 1912, Lester Wire was a police officer exhausted by traffic at Main Street and 200 South. He developed a manually switched stop light. The four-sided box, raised on a ten foot pole, was operated manually by an officer. The officer would flip a switch to change between the dipped red and green lights.



Like the 1910 semaphore, the first electric signal used words. The words “stop” or “move” were on lights. The posts lit up on each of four corner-posts around an intersection. It was not automated, though. A booth with an operator was required to flip the switches. If an emergency vehicle came, the officer could flip a switch and clear the intersection by triggering all red lights. Finally, in San Francisco the first red and green electric light system that could be operated automatically (or manually) was introduced in 1917.

In 1920, the first three-color light system was introduced in Detroit. The development of the modern traffic light may have started in London, but it grew up in the United States. In Cleveland, an African-American inventor named Garrett Morgan came up with an affordable, patented traffic signal. The yellow light made intersections safer than the old *stop* and *go* system. The new design was inexpensive enough that it allowed the installation of a lot more lights. Morgan sold the patent to General Electric. [<https://www.idrivesafely.com/defensive-driving/trending/history-and-meaning-colored-traffic-lights/>]

