

## 47 LOUIS DAGUERRE

1787 - 1851

Louis Jacques Mandé Daguerre was the man who, in the late 1830s, succeeded in developing the first practical method of photography.

Daguerre was born in 1787, in the town of Cormeilles, in northern France. As a young man, he was an artist. In his mid-thirties, he designed the Diorama, a spectacular array of panoramic paintings exhibited with special lighting effects. While engaged in this work, he became interested in developing a mechanism for automatically reproducing views of the world without brushes and paint—in other words, a camera.

His early attempts to devise a workable camera were unsuccessful. In 1827, he met Joseph Nicéphore Niepce, who had likewise been trying (and up till then with somewhat greater success) to invent a camera. Two years later they became partners.

In 1833, Niepce died, but Daguerre persisted in his efforts. By 1837, he had succeeded in developing a practical system of photography, called the daguerreotype.

In 1839, Daguerre made his process public, without patenting it; in return, the French government granted lifetime pensions both to Daguerre and to Niepce's son. The announcement of Daguerre's invention created a great public sensation. Daguerre was the hero of the day and was showered with honors, while the daguerreotype method rapidly came into widespread use. Daguerre himself soon retired. He died in 1851, at his country home near Paris.

Few inventions have as many uses as photography does. It is widely employed in virtually every field of scientific research. It has a wide variety of industrial and military applications. It is a serious art form for some people, and an enjoyable hobby for millions more. Photographs impart information (or misinformation) in education, journalism, and advertising. Because photographs are capable of vividly recalling the past, they have become the most common of all souvenirs and mementos. Cinematography, of course, is an important subsidiary development that—besides serving as a major entertainment medium—has virtually as many applications as still photography.

No invention derives entirely from the work of a single man, and certainly, the earlier work of many other men had prepared the way for Daguerre's achievement. The camera obscura (a device similar to a pinhole camera, but without any film) had been invented at least eight centuries before Daguerre. In the sixteenth century, Girolamo Cardano took the important step of placing a lens in the opening of the camera obscura. That made it an interesting preliminary to the modern camera; however, since the image it produced had no permanence at all, it can hardly be considered a type of photography. Another important preliminary discovery was made in 1727, by Johann Schulze, who discovered that silver salts were sensitive to light. Although he used this discovery to make some temporary images, Schulze did not really pursue the idea.

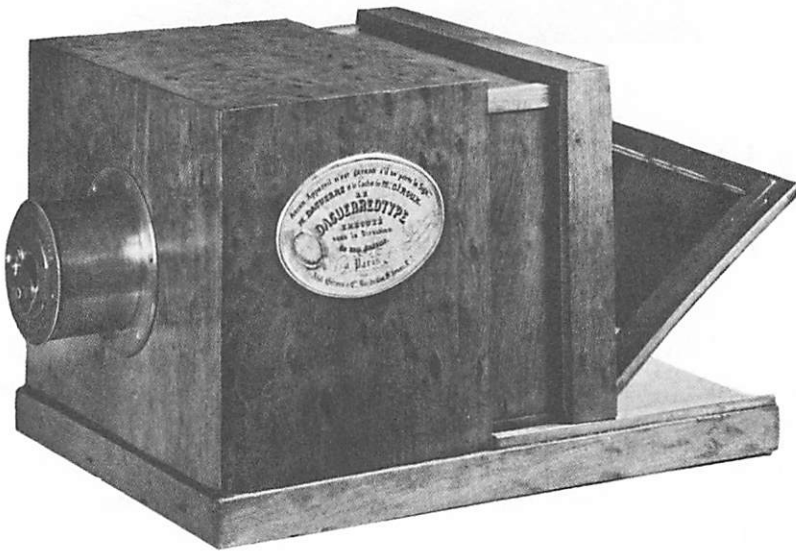
The predecessor who came closest to Daguerre's achievement was Niepce, who later became Daguerre's partner. About 1820, Niepce discovered that bitumen of Judea, a type of asphalt, was sensitive to light. By combining this light-sensitive substance with a camera obscura, Niepce succeeded in making the world's first photographs. (One that he took in 1826 still exists.) For that reason, some people feel that Niepce should rightly be considered the inventor of photography. However, Niepce's method of photography was totally impractical, since it required about eight hours' exposure time, and even then resulted in a rather fuzzy picture.

In Daguerre's method, the image was recorded on a plate coated with silver iodide. An exposure time of fifteen to twenty minutes was sufficient, which made the method, although cumbersome, of practical utility. Within two years after Daguerre made his method public, other persons proposed a slight modification: the addition of silver bromide to the silver iodide used as a light-sensitive material. This slight change had the important effect of greatly reducing the exposure time needed, and thereby making it practical to make portraits by photography.

In 1839, not long after Daguerre announced his invention of photography, William Henry Fox Talbot, an English scientist, announced that he had developed a different method of photography, one that involved making negative prints first, as is done today. It is interesting to note that Talbot had actually produced his first photographs in 1835, two years before the first daguerreotype. Talbot, who was engaged in several other projects, did not promptly follow up his photographic experiments. Had he done so, he would probably have developed a commercially feasible system of photography before Daguerre did, and would today be considered the inventor of photography.

In the years following Daguerre and Talbot, there have been enormous improvements in photography: the wet-plate process, the dry-plate process, modern roll film, color photographs, motion pictures, Polaroid photography, and xerography.

Despite the many persons involved in the development of photography, I feel that Louis Daguerre made by far the most important contribution. There was no feasible system of photography before him, whereas the technique that he devised was practical and soon became widely used. Furthermore, his well-publicized invention provided a great impetus to subsequent developments. It is true that the methods of photography that we use today are very different from the daguerreotype method; however, even had none of these later techniques ever been developed, the daguerreotype would provide us with a usable technique of photography.



*The official Daguerre camera produced by Daguerre's brother-in-law, Alphonse Giroux, carried a label that says: "No apparatus guaranteed if it does not bear the signature of M. Daguerre and the seal of M. Giroux."*