

Input 8 Victorian photography

The invention of photography revolutionized human activities in many spheres by providing a means of making a permanent and accurate image. Although priority goes to Niepce in 1816, his process was quite different from what was invented a little later by Fox Talbot and Daguerre. Niepce made the first recorded photograph by exposing a plate covered with a photosensitive polymer to an image of a roof. The method has now become universally adopted for etching patterns into silicon wafers, the basis of our own computer revolution.

The later processes were also different from one another. In 1831, Daguerre exposed a silver mirror plate sensitized with mercury vapour and iodine, and created an image. It was a direct positive, and crisp images were created using good lenses and large plates. Amazed owners would pore over their daguerreotypes with magnifying glasses to examine the detail recorded.

It was to Fox Talbot, however, that we owe the negative-positive process that enabled multiple reproduction of photographs. He patented his process in 1841, and it involved exposure of the image to silver chloride impregnated paper to create a negative. The negative could be re-exposed onto another sensitized sheet to make the positive print. The first such calotypes could not

record detail well owing to the coarseness of the paper. That problem was solved by the collodion process, where the silver was trapped in a wet collodion film cast onto a glass plate, but required considerable equipment for sensitizing and development.

It was not until 1878 that dry plates, which used gelatin as the matrix for the silver, were developed and made available to the public. Gelatin plates enhanced image quality and reduced exposure times, and it is probably this process that Valentines used for the Tay Bridge set of pictures. They were probably printed out onto albumen (egg white) printing paper, which is the form in which the prints exist today.

However, they could not be made widely available to the public because there was then no way of printing photographs in journals. Instead, artists would copy the photographs by engraving – as **Figure C13** shows.

The problem of printing photographs in newspapers was not to be solved until the invention – in the early 1900s – of the half-tone process, where the picture is broken up into a pattern of dots of different size. This is also the way photographs are now stored on compact discs, although the basic storage unit is called a pixel and is a square rather than a dot.

THE TAY BRIDGE; REMAINS OF PIERS Nos. 7 AND 9.

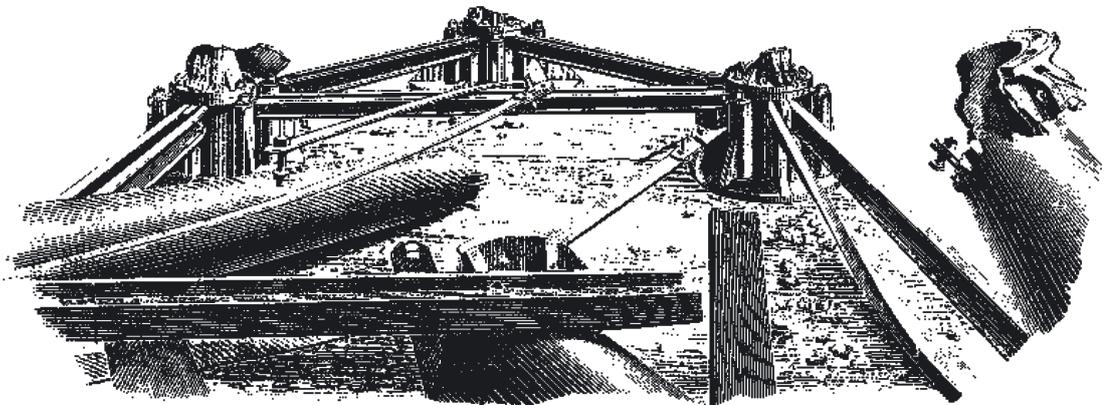


FIG. 16. No. 7 PIER, LOOKING WESTWARD.

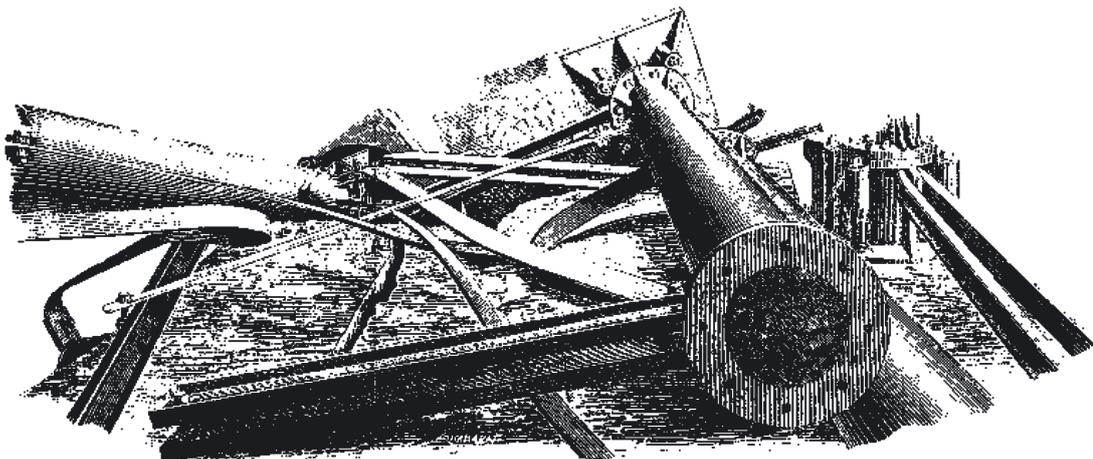


FIG. 17. No. 9 PIER, LOOKING WESTWARD.

Figure C13 Engraving of piers 7 and 9 from the Tay Bridge