



ANOTHER INSEPARABLE: First / Second (inventions) - 2015

The microscope slide [First]

shows an illustrated interior of Lincoln Cathedral.

In 1851 John Benjamin Dancer invented microphotographs using a collodion process and a microscope converted to a camera.

This resulted in a microphotograph about 3 square millimetres (0.0047 sq. inches) in area. The main disadvantage of Dancer's method was that the viewing of the microphotographs required a microscope which was at the time an expensive instrument.

The two Stanhopes and the third in the miniature mouth organ [Second] show 19th & 20th century erotic scenes. In 1857 René Dagron solved the problem by inventing a method of mounting the microphotographs at the end of a small cylindrical lens.

Dagron modified the Stanhope lens by sectioning the normally biconvex Stanhope lens and introducing a planar section so that the plane was located at the focal length of the convex side of the cylindrical lens. This produced a plano-convex lens, where Dagron was able to mount the microscopic photograph on the flat side of the lens using Canada balsam as adhesive. This arrangement enabled the picture to be focused.

The Stanhope lens was first conceived by Charles, 3rd Earl Stanhope (1753-1816). It was a rod-shaped hand viewer with two surfaces of unequal curvature, but later the design was adapted to incorporate a curved magnifying surface at one end, and a plane surface at the other. Lord Stanhope died many years before his invention was used in the manufacture of novelty souvenirs.

Urban_Archaeology collection of Malcolm Enright. P O A