






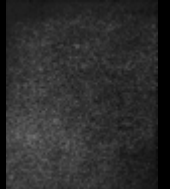
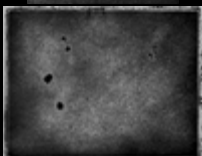










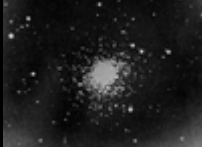
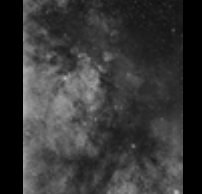
## Early Astronomical Photographs: 1840-1949

	Date	Imager	Object	Object Type	Constellation	Notes
	1840	John William Draper	Moon Full.	Moon	Zodiacal	On the 23rd of March 1840, after a number of unsuccessful attempts, the New York Professor of Chemistry, John William Draper (1811-1882) reported, at a meeting of the New York Lyceum of Natural History, later to become the New York Academy of Sciences, that he had been successful in utilizing a 6-inch (13cm) Reflector Telescope and a small Daguerreotype camera to photograph the Moon's surface on one inch diameter plates with a twenty minute exposure. This was the first successful photograph ever taken of an astronomical object.
	1845	Jean Bernhard Foucault	Sun.	Sun	Zodiacal	According to Francois Arago, a number of 'large scale' Daguerreotypes of the Sun were obtained by Armand Hippolyte Louis Fizeau (1819-1896) and Jean Bernard Léon Foucault (1819-1868) at the Paris Observatory. One of these photographs, taken on the 2nd of April 1845, still survives. This is the earliest surviving 'large scale' photograph ever taken of the Sun showing its spots as well. An earlier 'coin' sized photograph of the Sun by Fizeau and Foucault exists.
	1851	M. Berkowski	Sun.	Sun	Zodiacal	A Daguerreotype photograph of a total eclipse of the Sun which took place on the 28th of July 1851 Königsberg, Prussia (now Kaliningrad, Russia) was obtained by a Mr. Berkowski, recording the inner corona and several prominences. This is the first successful photograph ever taken of a Total Eclipse of the Sun.
	1852	John Adams Whipple	First Quarter.	Moon	Zodiacal	One of the earliest photographs of the Moon, taken by John Adams Whipple on the 26th February 1852 using the 15" 'Great Harvard Refractor'.
	1857	George Phillips Bond	ZetUMa.	Star.	Ursa Major	In 1857 George Phillips Bond (1825-1865) and the Boston photographer , John Adams Whipple (1824-1891) and his partner, James Wallace Black (1825-1896), produced wet collodion photographs of the double star Mizar (zeta Ursae Majoris) and its fourth magnitude companion Alcor (80 Ursae Majoris) using the 15-inch (38 cm) 'Great Harvard' Refractor.
	1865	Lewis Morris Rutherfurd	First Quarter.	Moon	Zodiacal	In 1865 Lewis Morris Rutherfurd obtains excellent images of the Moon using a specially corrected photographic 11.25-inch (290mm) lens; which were for many years the best ever taken, until the work of Pickering, Loewy and Puiseux.

## Early Astronomical Photographs: 1840-1949

	<b>1865</b>	Lewis Morris Rutherford	Moon Full.	Moon	Zodiacal	Another of Lewis Morris Rutherford's Lunar images taken from his Observatory in the centre of New York in 1865.
	<b>1877</b>	Pierre Jules Cesar Janssen	Solar Photosphere.	Sun	Zodiacal	In 1877 Jules Janssen obtains a number of solar photographs which shows the granulation of the solar photosphere) for the first time. However on the 11th of August 1871, Lewis Morris Rutherford obtains a photograph of the Sun which purports to show the granulation on its surface. He sends a copy of this photograph to the Royal Astronomical Society in a letter dated the 10th of May 1878, the year after Janssen's photographs of the solar granulation.
	<b>1877</b>	Pierre Jules Cesar Janssen	Solar Photosphere.	Sun	Zodiacal	In 1876 Janssen presents his first solar photographs to the French Academy of Sciences (10 to 70 cm diameter). These wet collodion images were obtained using a 140 mm refractor with exposures from 1/500 to 1/6000 of a second.
	<b>1880</b>	Henry Draper	M42 NGC1976	Nebulae	Orion	On the 30th of September 1880 the New York Doctor, Henry Draper (1837-1882), the son of John William Draper, photographed the 'Great Orion' nebula (M42) using his 11-inch Alvan Clark Refractor with an exposure of 51 minutes, from his Observatory at Hastings-on-Hudson, New York. This was the very first photograph ever taken of a Deep Space Object (DSO). In March 1881 he took an even better photograph of M42 with an exposure of 104 minutes, and a year later in March 1882 he produced a third photograph, extending the exposure of M42 to 137 minutes.
	<b>1881</b>	Pierre Jules Cesar Janssen	Comet.	Planets	Zodiacal	It used to be thought that Jules Janssen (1824-1907) was the first person to obtain a successful image of a comet, when he photographed the comet Tebbutt 1881 III, the 1st of July 1881. Janssen used a dry plate and an exposure of 30 minutes with a 50 cm f/3 instrument. However it is now known that this honour goes to William Usherwood who imaged Donati's Comet on the 27 September 1858.
	<b>1882</b>	David Gill	Comet.	Planets	Zodiacal	One of an excellent series of Photographs of Comet 1882 II at the Cape Observatory, South Africa during the October and November of 1882, using a portrait lens of 2 1/2 -inch aperture.
	<b>1883</b>	Andrew Ainslie Common	M42 NGC1976	Nebulae	Orion	37 minute exposure taken on the 30th January 1883.

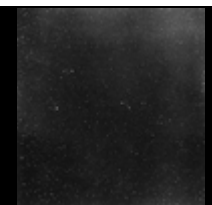


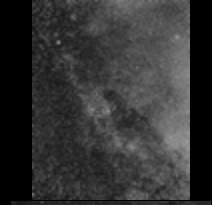
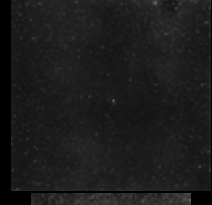

## Early Astronomical Photographs: 1840-1949

	<b>1886</b>	Henry Brothers	Jupiter.	Planets	Zodiacal	In the years 1885-86 the French astronomer brothers, Paul Henry (1848-1905) and Prosper Henry (1849-1903) took a series of photographs of the planets, when they imaged Jupiter and Saturn. These photographs were the first successful images ever taken of a planet. Prior to this time others had tried including contemporary pioneers like Warren de La Rue, but failed; his images of 1857 were only ½ mm across, and were therefore barely visible! 12.8" Photographic Refractor, Meudon, Paris
	<b>1886</b>	Henry Brothers	Saturn.	Planets	Zodiacal	12.8" Photographic Refractor, Meudon, Paris
	<b>1888</b>	Williamina Paton Stevens Fleming	B33 Horsehead	Nebulae	Orion	In 1888 Williamina Paton Stevens Fleming was to make a discovery which Astrophotographers all around the world will thank her for (and curse her just as much!). The dark nebula Barnard 33 was first noticed that year by her on photographic plate No. B2312; taken at the Harvard College Observatory by William Henry Pickering. It was afterwards to become universally known as the 'Horsehead' Nebula. Plate 2312 was taken with 90 minute exposure using the Harvard Observatory's 8-inch Bache Telescope. The plate covered an area of sky about 10 degrees square, of which the inner 7 degrees provides good definition. This was the first ever photograph taken of the most iconic all astronomical objects – the famous 'Horsehead' Nebula in Orion. 90 minute exposure taken by William Henry Pickering, using the 8-inch Bache Astrograph then at Harvard but later transferred to Arequipa, Peru. It has a focal length of 44-inches.
	<b>1890</b>	Henry Brothers	Theophilus.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1891</b>	Isaac Roberts	M2 NGC7089	Globular Cluster	Aquarius	30th October 1891; 88 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1892</b>	Edward Emerson Barnard	Aquila.	Constellation	Aquila	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.



Early Astronomical Photographs: 1840-1949

	<b>1892</b>	Edward Emerson Barnard	Auriga.	Constellation	Auriga	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	NGC7000 C20/ H V-37.	Nebulae	Cygnus	North American Nebula. Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	NGC6960 C34.	Supernova	Cygnus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Mel25 C41.	Open Cluster	Taurus.	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Cassiopeia.	Constellation	Cassiopeia	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Cepheus.	Constellation	Cepheus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.


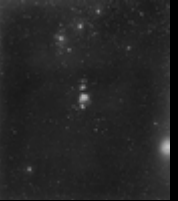
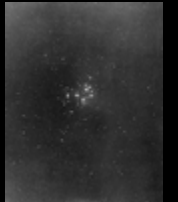
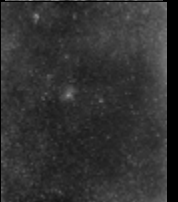
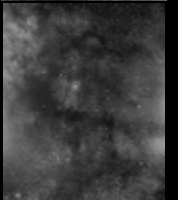
Early Astronomical Photographs: 1840-1949

	<b>1892</b>	Edward Emerson Barnard	Cetus.	Constellation	Cetus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Comet.	Planets	Zodiacal	Comet Holmes; 8th December 1892; Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Comet.	Planets	Zodiacal	Comet Swift; 4th April 1892, Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Cygnus.	Constellation	Cygnus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Eridanus.	Constellation	Eridanus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Gemini.	Constellation	Gemini	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.


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	<b>1892</b>	Edward Emerson Barnard	Rho Ophiuchii.	Star Field	Ophiuchus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Lyra.	Constellation	Lyra	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M11 NGC6705	Open Cluster	Scutum	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M24 NGC6603	Star Field	Sagittarius	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M31 NGC224	Galaxy.	Andromeda	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M35 NGC2168	Open Cluster	Gemini	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.

Early Astronomical Photographs: 1840-1949

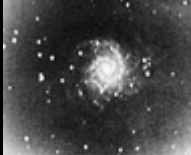

	<b>1892</b>	Edward Emerson Barnard	M41 NGC2287	Open Cluster	Canis Major	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M42 NGC1976	Nebulae	Orion	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M45 NGC1432	Open Cluster	Taurus.	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	M8 NGC6523	Nebulae	Sagittarius	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Monoceros	Constellation	Monoceros	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Ophiuchus.	Constellation	Ophiuchus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.

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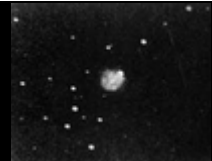
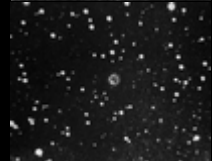

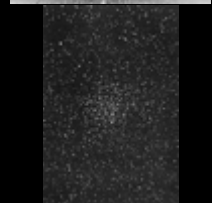



	<b>1892</b>	Edward Emerson Barnard	Orion.	Constellation	Orion	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Perseus.	Constellation	Perseus	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Sagitta.	Constellation	Sagitta	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Scorpius.	Constellation	Scorpius	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Taurus.	Constellation	Taurus.	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1892</b>	Edward Emerson Barnard	Vulpecula.	Constellation	Vulpecula	Exact Date Unknown sometime between 1892-95; 6" Crocker Telescope, Lick Observatory, Mount Hamilton, California.








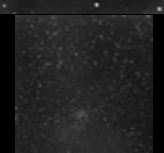
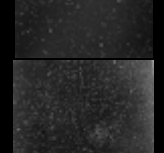
Early Astronomical Photographs: 1840-1949

	<b>1893</b>	Edward Emerson Barnard	Comet.	Planets	Zodiacal	Comet Brooks; 18th October 1893, Crocker Telescope, Lick Observatory, Mount Hamilton, California.
	<b>1893</b>	Isaac Roberts	NGC654 H VII-46.	Open Cluster	Cassiopeia	15th January 1893; 1 hour exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1893</b>	Isaac Roberts	M74 NGC628	Galaxy.	Pisces	9th December 1893; 3 hours 40 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1893</b>	Isaac Roberts	NGC1528 X25 H VII-61.	Open Cluster	Perseus	15th January 1893; 1 hour exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	NGC4631 C32 H V-42.	Galaxy.	Canes Venatici	29th March 1894; 3 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	NGC2506 C54 H VI-37.	Open Cluster	Monoceros	27th February 1894; 1 hour 30 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Edward Emerson Barnard	Comet.	Planets	Zodiacal	Comet Gale; 29th April 1894; Crocker Telescope, Lick Observatory, Mount Hamilton, California.


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	<b>1894</b>	Isaac Roberts	NGC4900 H I-143.	Galaxy.	Virgo	9th April 1894; 3 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	NGC2438 H IV-39.	Planetary Nebula	Puppis	24th February 1894; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	NGC4536 H V-2.	Galaxy.	Virgo	25th March 1894; 3 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	M46 NGC2437	Open Cluster	Puppis	24th February 1894; 1 hour 30 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	M65 NGC3623	Galaxy.	Leo Major	28th February 1894; 3 hours 40 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	M66 NGC3627	Galaxy.	Leo Major	28th February 1894; 3 hours 40 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Pierre Henri Puisseux	Mare Vaporum.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris

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	<b>1894</b>	Pierre Henri Puiseux	Maurolycus.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1894</b>	Isaac Roberts	NGC3628 X58 H V-8.	Galaxy.	Leo Major	28th February 1894; 3 hours 45 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1894</b>	Isaac Roberts	NGC4656 X67 H I-176.	Galaxy.	Canes Venatici	29th March 1894; 3 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	NGC2976 H I-285.	Galaxy.	Ursa Major	28th March 1895; 1 hour 30 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	NGC3079 H V-47.	Galaxy.	Ursa Major	14th April 1895; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	NGC7086 H VI-32.	Open Cluster	Cygnus	21st September 1895; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	NGC7142 H VII-66.	Open Cluster	Cepheus	25th September 1895; 3 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.

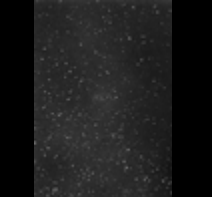

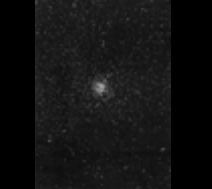




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	<b>1895</b>	Isaac Roberts	M1 NGC1952	Supernova	Taurus.	25th January 1895; 60 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M108 NGC3556	Galaxy.	Ursa Major	20th April 1895; 4 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M13 NGC6205	Globular Cluster	Hercules	28th May 1895; 60 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M24 NGC6603	Star Field	Sagittarius	14th August 1895; 2hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M31 NGC224	Galaxy.	Andromeda	17th October 1895; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M33 NGC598	Galaxy.	Triangulum.	14th November 1895; 2 hours 15 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1895</b>	Isaac Roberts	M97 NGC3587	Planetary Nebula	Ursa Major	20th April 1895; 4 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.


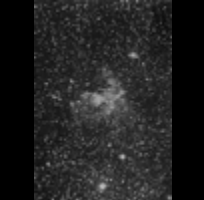

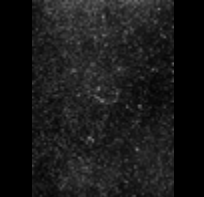



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	<b>1895</b>	Isaac Roberts	NGC6866 X100 H VII-59.	Open Cluster	Cygnus	12th September 1895; 60 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	NGC6946 C12 H IV-76.	Galaxy.	Cepheus	9th October 1896; 2 hours 55 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	NGC7000 C20 H V-37.	Nebulae	Cygnus	10th October 1896; 2 hours 55 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	NGC6992 C33.	Supernova	Cygnus	4th November 1896; 2 hours 55 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	NGC4565 C38 H V-24.	Galaxy.	Coma Berenices	11th May 1896; 2 hours 53 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Pierre Henri Puiseux	Clavius.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1896</b>	Isaac Roberts	NGC3631 H I-226.	Galaxy.	Ursa Major	29th April 1896; 2 hours 49 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.

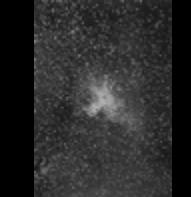

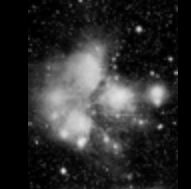

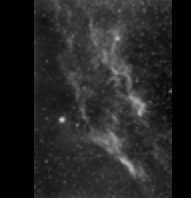


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	<b>1896</b>	Isaac Roberts	NGC7044 H VI-24.	Open Cluster	Cygnus	4th October 1896; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M100 NGC4321	Galaxy.	Coma Berenices	9th May 1896; 2 hours 57 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M11 NGC6705	Open Cluster	Scutum	10th August 1896; 1 hour 30 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M42 NGC1976	Nebulae	Orion	15th January 1896; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M51 NGC5194	Galaxy.	Canes Venatici	15th April 1896; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M63 NGC5055	Galaxy.	Canes Venatici	14th May 1896; 2 hours 55 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	M64 NGC4826	Galaxy.	Coma Berenices	10th May 1896; 2 hours 56 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.

Early Astronomical Photographs: 1840-1949

	<b>1896</b>	Isaac Roberts	M99 NGC4254	Galaxy.	Coma Berenices	4th May 1896; 2 hours 57 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1896</b>	Isaac Roberts	NGC281 X3.	Nebulae	Cassiopeia	6th November 1896; 2 hours 55 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Isaac Roberts	NGC4244 C26.	Galaxy.	Canes Venatici	28th April 1897; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Isaac Roberts	NGC6888 C27.	Nebulae	Cygnus	3rd September 1897; 2 hours 51 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Isaac Roberts	NGC2194 H VI-5.	Open Cluster	Orion	23rd February 1897; 1 hour exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Isaac Roberts	M104 NGC4594	Galaxy.	Virgo	27th April 1897; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Isaac Roberts	M14 NGC6402	Globular Cluster	Ophiuchus	2nd August 1897; 2 hours 18 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.

Early Astronomical Photographs: 1840-1949

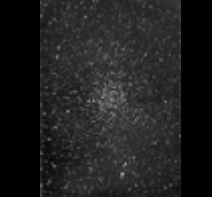




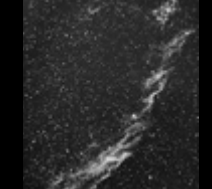
	<b>1897</b>	Isaac Roberts	M16 NGC6611	Nebulae	Serpens Cauda	4th August 1897; 2 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	William Edward Wilson	M42 NGC1976	Nebulae	Orion	Taken on the 22nd January 1897 with a 20 minute exposure; 24" Grubb Reflector, Daramona, Ireland
	<b>1897</b>	Isaac Roberts	M45 NGC1432	Open Cluster	Taurus.	22nd, 23rd, 25th December 1897; 610 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1897</b>	Moritz Loewy	Mare Fecundiatis.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1897</b>	Isaac Roberts	NGC1499.	Nebulae	Perseus	18th December 1897; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	NGC4449 C21 H I-213.	Galaxy.	Canes Venatici	24t April 1898; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	NGC7023 C4.	Nebulae	Cepheus	18th September 1898; 90 minutes exposure; 20" Reflector; 'Starfield Observatory', Crowborough, Sussex, England.








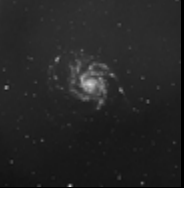
Early Astronomical Photographs: 1840-1949

	<b>1898</b>	Isaac Roberts	NGC2403 C7 H V-44.	Galaxy.	Camelopardalis	21st March 1898; 1 hour 30 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	Cygnus.	Constellation	Cygnus	10th September 1898; 2 hours 35 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	NGC3198 H I-199.	Galaxy.	Ursa Major	17th April 1898; 2 hours 20 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Pierre Henri Puisseux	Lacus Somniorum.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1898</b>	James Edward Keeler	M42 NGC1976	Nebulae	Orion	16th November 1898; 40 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1898</b>	Isaac Roberts	M57 NGC6720	Planetary Nebula	Lyra	10th July 1898; 20 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	M71 NGC6838	Globular Cluster	Sagitta	20th July 1898; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.

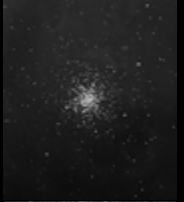



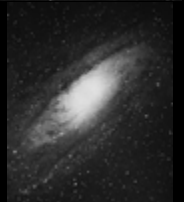
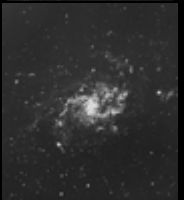
Early Astronomical Photographs: 1840-1949

	<b>1898</b>	Isaac Roberts	NGC7789 X108 H VI-30.	Open Cluster	Cassiopeia	7th December 1898; 90 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1898</b>	Isaac Roberts	NGC4490 X63 H I-198.	Galaxy.	Canes Venatici	23rd April 1898; 2 hours exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1899</b>	James Edward Keeler	NGC6946 C12 H IV-76.	Galaxy.	Cepheus	8th August 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	NGC891 C23 H V-19.	Galaxy.	Andromeda	6th November 1899; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	NGC7331 C30 H I-53.	Galaxy.	Pegasus	11th August 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	NGC6992 C33.	Supernova	Cygnus	29th August 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.

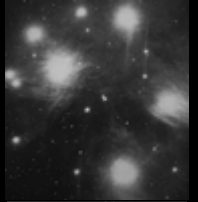

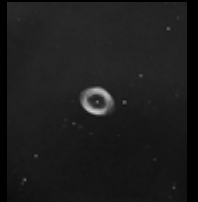
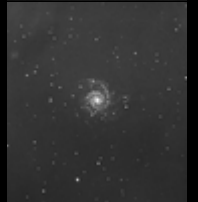

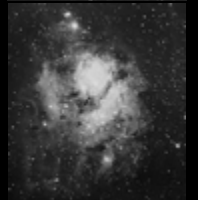
Early Astronomical Photographs: 1840-1949

	<b>1899</b>	James Edward Keeler	NGC7814 C43 H II-240.	Galaxy.	Pegasus	30th September 1899; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	NGC7479 C44 H I-55.	Galaxy.	Pegasus	9th August 1899; 2 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	Isaac Roberts	NGC2237 C49.	Nebulae	Monoceros	5th March 1899; 2 hours 45 minutes exposure; 20" Reflector; Starfield, Crowborough, Sussex.
	<b>1899</b>	James Edward Keeler	NGC7217 H II-207.	Galaxy.	Pegasus	12th August 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M1 NGC1952	Supernova	Taurus.	24th December 1899; 2 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M101 NGC5457	Galaxy.	Ursa Major	8th June 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California





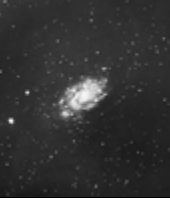

Early Astronomical Photographs: 1840-1949

	<b>1899</b>	James Edward Keeler	M12 NGC6218	Globular Cluster	Ophiuchus	11th July 1899; 2 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M17 NGC6618	Nebulae	Sagittarius	9th July 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M20 NGC6514	Nebulae	Sagittarius	6th July 1899; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M27 NGC6853	Planetary Nebula	Vulpecula	31st July 1899; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M31 NGC224	Galaxy.	Andromeda	September 7th 1899, 3 hours exposure; Orientation West at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M33 NGC598	Galaxy.	Triangulum.	12th September 1899; 3 hours exposure; Orientation West at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California


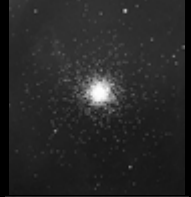
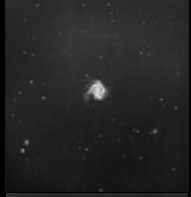


Early Astronomical Photographs: 1840-1949

	<b>1899</b>	James Edward Keeler	M45 NGC1432	Open Cluster	Taurus.	28th December 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M51 NGC5194	Galaxy.	Canes Venatici	10th May 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M57 NGC6720	Planetary Nebula	Lyra	14th July 1899; 10 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M74 NGC628	Galaxy.	Pisces	31st October 1899; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1899</b>	James Edward Keeler	M76 NGC651	Planetary Nebula	Perseus	11th September 1899; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1899</b>	James Edward Keeler	M8 NGC6523	Nebulae	Sagittarius	7th July 1899; 4 hours exposure; Orientation West at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.


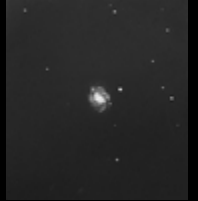



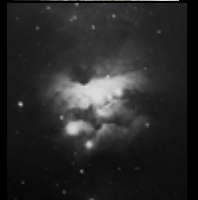
Early Astronomical Photographs: 1840-1949

	<b>1899</b>	Pierre Henri Puiseux	Mare Nectaris.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1899</b>	Pierre Henri Puiseux	Mare Tranquillatis.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1899</b>	Pierre Henri Puiseux	Tycho.	Moon	Zodiacal	10.5" Equatorial Coude Refractor, Meudon, Paris
	<b>1900</b>	James Edward Keeler	NGC4244 C26.	Galaxy.	Canes Venatici	March 30th 1900; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1900</b>	James Edward Keeler	NGC2403 C7 H V-44.	Galaxy.	Camelopardalis	27th February 1900; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1900</b>	Moritz Loewy	Furnerius.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris

Early Astronomical Photographs: 1840-1949







	<b>1900</b>	James Edward Keeler	NGC3198 H I-199.	Galaxy.	Ursa Major	24th March 1900; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1900</b>	James Edward Keeler	M13 NGC6205	Globular Cluster	Hercules	22nd June 1900; 2 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1900</b>	James Edward Keeler	M3 NGC5272	Globular Cluster	Canes Venatici	22nd May 1900; 1 hour 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1900</b>	James Edward Keeler	M61 NGC4303	Galaxy.	Virgo	27th April 1900; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1900</b>	James Edward Keeler	M64 NGC4826	Galaxy.	Coma Berenices	27th May 1900; 2 hours 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1900</b>	James Edward Keeler	M65 NGC3623	Galaxy.	Leo Major	23rd April 1900; 3 hours 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.

## Early Astronomical Photographs: 1840-1949







	<b>1900</b>	James Edward Keeler	M66 NGC3627	Galaxy.	Leo Major	23rd April 1900; 3 hours 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1900</b>	James Edward Keeler	M77 NGC1068	Galaxy.	Cetus	3rd December 1900; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. Taken after Keeler's Death.
	<b>1900</b>	James Edward Keeler	M81 NGC3031	Galaxy.	Ursa Major	21st March 1900; 3 hours 55 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1900</b>	James Edward Keeler	M97 NGC3587	Planetary Nebula	Ursa Major	28th March 1900; 4 hours exposure; Orientation South at top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California
	<b>1900</b>	Moritz Loewy	Mare Crisium.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1900</b>	James Edward Keeler	NGC1977 X32.	Nebulae	Orion	21st January 1900; 2 hours 50 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.









Early Astronomical Photographs: 1840-1949

	<b>1900</b>	James Edward Keeler	NGC2683 X47 H I-200.	Galaxy.	Lynx	23rd February 1900; 3 hours 20 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California.
	<b>1901</b>	Charles Dillon Perrine	NGC4559 C36/H I-92.	Galaxy.	Coma Berenices	9th May, 1901; 3 hours exposure; Orientation, South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1901</b>	Charles Dillon Perrine	NGC4565 C38 H V-24.	Galaxy.	Coma Berenices	21st April 1901; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1901</b>	Charles Dillon Perrine	NGC3115 C53 H I-163.	Galaxy.	Sextans	9th April 1901; 2 hours 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1901</b>	Charles Dillon Perrine	NGC3226 H II-28.	Galaxy.	Leo Major	10th April 1901; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1901</b>	Charles Dillon Perrine	M100/NGC4321	Galaxy.	Coma Berenices	19th April 1901; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.

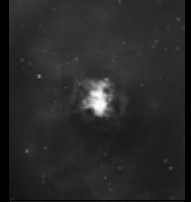





Early Astronomical Photographs: 1840-1949

	<b>1901</b>	Moritz Loewy	Mare Frigoris.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1901</b>	Pierre Henri Puiseux	Santbech.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris
	<b>1902</b>	Charles Dillon Perrine	NGC4631 C32 H V-42.	Galaxy.	Canes Venatici	6th June 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	NGC253 C65 H V-1.	Galaxy.	Sculptor	18th-20th December 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	M108 NGC3556	Galaxy.	Ursa Major	3rd May 1902; 4 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	M63 NGC5055	Galaxy.	Canes Venatici	5th July 1902; 3 hours 30 minutes exposure; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.

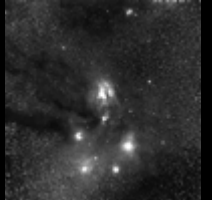
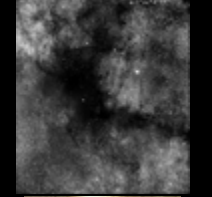




Early Astronomical Photographs: 1840-1949

	<b>1902</b>	Charles Dillon Perrine	M78 NGC2068	Nebulae	Orion	26th November 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	M94 NGC4736	Galaxy.	Canes Venatici	4th July 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. Taken after Keeler's death.
	<b>1902</b>	Charles Dillon Perrine	M99 NGC4254	Galaxy.	Coma Berenices	7th June 1902; 3 hours 19 minutes; Orientation South at top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	NGC2024 X34 H V-28.	Nebulae	Orion	28th January 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1902</b>	Charles Dillon Perrine	NGC4725 X69 H I-84.	Galaxy.	Coma Berenices	30th June - 2nd July 1902; 3 hours 32 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. Taken after Keeler's death.
	<b>1902</b>	Charles Dillon Perrine	NGC5866 X75 H I-215.	Galaxy.	Draco	28th July 1902; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.




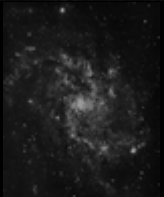



Early Astronomical Photographs: 1840-1949

	<b>1903</b>	Charles Dillon Perrine	NGC7023 C4.	Nebulae	Cepheus	19-20th August 1903; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1903</b>	Charles Dillon Perrine	NGC4536 H V-2.	Galaxy.	Virgo	27th May 1903; 3 hours 30 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1903</b>	Charles Dillon Perrine	M106 NGC4258	Galaxy.	Canes Venatici	23rd May 1903; 3 hours 53 minutes exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1903</b>	Pierre Jules Cesar Janssen	Sun.	Sun	Zodiacal	
	<b>1903</b>	Charles Dillon Perrine	NGC2264 X38 H VIII-5.	Open Cluster	Monoceros	23rd February 1903; 3 hours exposure; Orientation South at Top; 36" Crossley Reflector, Lick Observatory, Mount Hamilton, California. His Deep Space Object project was completed after Keeler's death by Charles Dillon Perrine.
	<b>1904</b>	Moritz Loewy	Mare Humorum.	Moon	Zodiacal	24" (60cm) Equatorial Coude Refractor, Meudon, Paris


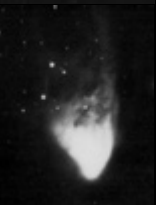
Early Astronomical Photographs: 1840-1949

	<b>1905</b>	Edward Emerson Barnard	Rho Ophiuchii.	Star Field	Ophiuchus	
	<b>1905</b>	Edward Emerson Barnard	Ophiuchus.	Constellation	Ophiuchus	
	<b>1910</b>	George Willis Ritchey	NGC6960 C34.	Supernova	Cygnus	60" Reflector, Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	NGC4565 C38 H V-24.	Galaxy.	Coma Berenices	60" Reflector; Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	NGC7814 C43 H II-240.	Galaxy.	Pegasus	60" Reflector; Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	Copernicus.	Moon	Zodiacal	60" Reflector, Mount Wilson, California

Early Astronomical Photographs: 1840-1949

	<b>1910</b>	George Willis Ritchey	M101 NGC5457	Galaxy.	Ursa Major	60" Reflector; Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	M20 NGC6514	Nebulae	Sagittarius	60" Reflector, Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	M3 NGC5272	Globular Cluster	Canes Venatici	9th April 1910; exposure 3 hours 30 minutes; 60" Reflector, Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	M33 NGC598	Galaxy.	Triangulum.	60" Reflector; Mount Wilson, California
	<b>1910</b>	George Willis Ritchey	M51 NGC5194	Galaxy.	Canes Venatici	60" Reflector, Mount Wilson; 7th and 8th April 1910; exposure of 10 hours 45 minutes.
	<b>1911</b>	Edward Emerson Barnard	Saturn.	Planets	Zodiacal	60" Reflector Mount Wilson Observatory 1911.
	<b>1915</b>	George Willis Ritchey	M31 NGC224	Galaxy.	Andromeda	60" Reflector; Mount Wilson, California

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	<p><b>1917</b></p>	<p>George Willis Ritchey</p>	<p>M81 NGC3031</p>	<p>Galaxy.</p>	<p>Ursa Major</p>	<p>60" Reflector, Mount Wilson, California; 3 hours exposure.</p>
	<p><b>1949</b></p>	<p>Edwin Hubble</p>	<p>NGC2261 C46.</p>	<p>Nebulae</p>	<p>Monoceros</p>	<p>200 inch Reflector; Mount Palomar Observatory, California; 26 January 1949</p>