"How Old Is That Microscope in the Window?"

By Herbert A. Gold

One of the first things a collector wants to know about his newly acquired prize is how old it is. Without the actual bill of sale or other reliable documentation it may be a difficult question to answer. There are many clues to age including configuration, materials of construction, provenance, signature and a serial number. Then there is the matter of the difference between when it was made and when it was sold. Serial numbers, when there are supporting records are a pretty good, albeit far less than perfect, indication of age. This article will be concerned with serial numbers found on stands of two American makers, Spencer and Bausch and Lomb, for which some reasonably authoritative documentation has been found.

Michael Benz of Benz Microscope Optics Center in Ann Arbor, MI is a third generation microscope dealer. He also happens to have a fine collection of microscopes and an overwhelming collection of microscopical literature. His family has represented Spencer and many other makers in their various incarnations over many years. Michael has been kind enough to share the following tabular material with us.

The Spencer Lens Company was acquired by American Optical in 1935. In 1962 AO formed a partnership with Reichert Scientific Instruments. Early in 1986 Reichert launched a sales promotion to find the earliest "Spencer" microscope. The grand prize was a weekend trip to Paris on the Concorde with dinner at Maxim's. I don't know what microscope was the winner or who ate the goose livers but Michael does have a copy of the documentation that was used to determine the winner.

Reichert published two tables of serial numbers. The first table showed the serial number range and date range associated with nine different models. It has been published in Dr. Brian Bracegirdle's 1996, *Notes on Modern Microscope Manufacturers*, page 70. What I believe to be of more interest is the second table which is shown below.

For Spencer/Spencer Lens Co./American Optical

Serial	Approx. Date	Serial	Approx. Date	Serial	Approx. Date
Number	of Shipment	Number	of Shipment	Number	of Shipment
10,000	About Jun. 1909	210,038	Sep. 14, 1944	410,000	Jan. 1959
20,000	Apr. 27, 1913	220,000	Nov. 20, 1945	420,000	Nov. 1959
30,000	About Jun. 1916	230,000	1946	430,000	Feb. 1960
40,000	Nov. 8, 1917	240,000	1946	430,010	Jan. 1958

50,000	Mar. 12, 1919	250,000	1947	439,954	Aug. 1958
60,000	Jun. 23, 1920	260,000	1947	448,000	Dec. 1957
70,000	May 23, 1921	1 7/2 702	1947 - Assigned in error. Ser. nos. duplicated in 1962	450,000	Mar. 1960
80,000	May 21, 1923	270,000	1948	458,000	Mar. 1960
90,000	Aug. 6, 1925	280,000	1948	460,000	Mar. 1962
100,000	Approx. 1932	290,000	1948	470,000	1962
110,000	Approx. 1933	300,000	1949	480,000	Feb. 1961
120,000	Approx. 1933	310,000	Sep. 1950	490,000	1961
130,000	Sep. 31, 1934	320,000	Sep. 1951	500,000	Jul. 1963
140,000	Apr. 12, 1937	330,000	Sep. 1952	510,000	May 1964
150,000	Sep. 22, 1938	340,000	Aug. 1953	520,000	May 1964
160,000	Nov. 29, 1940	350,000	Feb. 1954	530,000	1964
170,000	Sep. 12, 1941	360,000	Mar. 1955	540,000	Oct. 1964
180,000	1942	370,000	Sep. 1955	550,000	1964
190,000	Mar. 2, 1943	380,000	Jun.1956	560,000	1965
200,000	1944	390,000	Sep. 1957	570,000	Feb. 1965
210,000	1944	400,000	1957	580,000	Aug. 1965

Note the range from about 430,000 to 470,000 contains several unexplained sequencing anomalies. Perhaps these are a consequence of the numbering errors in 1947. Remember that the shipping date does not necessarily coincide with the date of manufacture. Number 10000 was the earliest stand shown as many records relating to the very early period of the company were destroyed in a factory fire.

On a B & L factory visit a number of years ago, Michael had the opportunity of going through their files and finding a copy of serial numbers and their date of manufacture. There is a note on the list indicating that these are approximate dates of manufacture and not necessarily dates of sale.

For Bausch & Lomb

Serial	Year of	Serial Year of		Serial	Year of
Number	Manufacture	Number	Manufacture	Number	Manufacture
1	1876	32000	1900	170000	1924
150	1877	33000	1901	175000	1924
350	1878	35000	1902	180000	1925

800	1879	40000	1903	185000	1926
1100	1880	45000	1904	190000	1926
1450	1881	52000	1905	195000	1927
1750	1882	57000	1906	200000	1928
2000	1883	63000	1907	205000	1929
2500	1884	69000	1907	215000	1929
3000	1885	76000	1909	225000	1930
3800	1886	82000	1910	230000	1931
4500	1887	86000	1911	235000	1932
5300	1888	89000	1912	240000	1934
6375	1889	95000	1913	244000	1935
7600	1890	98000	1914	247000	1935
9200	1891	104000	1915	250000	1936
10000	1892	110000	1916	260000	1937
11700	1893	120000	1917	270000	1938
13900	1894	129000	1918	280000	1939
17000	1895	135000	1919	290000	1940
20000	1896	140000	1920	300000	1940
25000	1897	148000	1921	310000	1941
28000	1898	155000	1922	320000	1942
30000	1899	160000	1923		

In 1941 it became a bit more complicated when B & L went from a numeric to a two letter designation. The first letter represented the year of manufacture and the second letter was the class designation. Class designation is the number used in the official B & L price list for roughly similar equipment. See the table below.

First Letter

Letter	Year	Letter	Year	Letter	Year	Letter	Year
A	1941	G	1963	N	1962	V	1944
В	1945	Н	1959	P	1958	W	1948
C	1949	J	1955	R	1954	X	1952
D	1953	K	1951	S	1950	Y	1956
Е	1957	L	1947	Т	1946	Z	1960
F	1961	M	1943	U	1942		

Second Letter

Letter	Class	Letter	Class	Letter	Class	Letter	Class
A	51 & 53	G	61 & 91	P	31 & 33 - Objectives only (3/17/53)	W	61 & 91
В	31 & 33	Н	71	R	41 & 42	Y	41 & 42
C	21	K	31 & 33	S	51 & 53	Z	51 & 53
D	31 & 33	L	31 & 33	Т	61 & 91		
Е	41 & 42	M	31 & 33 - Gratings only (1/2/53)	U	61 & 91		
F	51 & 53	N	31 & 33 - Micro	V	61 & 91		

Class Designation

21	??
31	Microscopes, microtomes, accessories
33	Colorimeters, refractometers, saccharimeters, spectroscopes, spectrometers
41	Balopticons (projectors)
42	Photomicrographic equipment, micro-projectors, accessories
51	Photographic lenses
53	??
61	Binoculars, spotting telescopes
71	??
81	Magnifiers
91	??

I'd like to thank Dale Beeks, collector, dealer and historian, for first making me aware of the Spencer list and MSSC giant, Jim Solliday, for his help in decoding the B & L two-letter code.