

Gallery 1

Floor-Standing Refracting Telescopes



Gallery 1

FLOOR-STANDING REFRACTING TELESCOPES (29)

The telescope signage (Column 2) is reproduced here to be as close to what is engraved on each signed telescope as my current computer font selection can approximate; see photos for actual signage. This Gallery indexing begins with FRA2.

The optical tube length (OTL) is a gauge for the reader to assess the size of the telescope from the photographs. For this Gallery it is the length of the largest diameter tube on the instrument and includes the end cap or sunshade (ss), if present, at the objective lens end, but it does not include any extensions at the eyepiece end of the telescope such as a rigid extension of the OTL, eyepiece tube, or a prism.

Coll. ID	Gallery 1 FLOOR-STAND REFRACTING TELESCOPES (29)	Circa	Obj. Diam. Nom. Actual*	Optical Tube length OTL FINDER	Tube Material	Mounting
FRA2	PAUL A. MEYROWITZ NEW YORK on faceplate "GB Trade-mark" & <i>Bardeu & Son Paris</i> (prev. owned by Dr. H. Paul)	1906	4"	55"	brass	altazimuth SM***
FRA3	BARDOU & FILS PARIS	1855-1884	3.63"	55"	walnut venier taper	altazimuth
FRA4	SECRETAN PARIS 2306	1910	3.63"	92mm	brass	altazimuth SM
FRA5	IRRGANG BERLIN-BAUMSCHULEN WEG	1900	3 1/4"	40 3/4" 5 1/4" ss	brass	equatorial SM
FRA6	SECRETAN PARIS 323	1870	3"	75mm	Brass	altazimuth SM
FRA7	DOLLOND * LONDON	1840	3.5"	90mm	2-piece brass	univ. equat. SM
FRA8	Grubb-Parsons Lens C.T.S. 4.5" O.G. 67.5" focus, No 5035	1930	4.5"	115mm	brass	altazimuth SM
FRA9	LEREBOURS et SECRETAN. A PARIS.	1860	3.63"	93mm	mahogany	altazimuth
FRA10	D*ADAMS CHARING CROSS	1788	2 3/4"	68mm	brass	altazimuth
FRA11	DOLLOND * LONDON	1820?	2 3/4"	69mm	solid mahogany taper	altazimuth
FRA12	Unsigned, probably Bardeu and Son?	1880	2 7/8"	72 mm	brass	altazimuth trough
FRA13	J.A. Brashear Co. Ltd Pittsburgh, Pa. U.S.A. 59	1909-1917	3 1/2"	90mm	brass	optional
FRA14	<i>Alvan Clark & Sons Cambridge, Mass 1867</i> (Earliest S&D Clark in priv. collect)	1867	4 3/16"	105mm		equatorial
FRA15	DOLLOND * LONDON (with large capital "W" below eyepiece)	1866-1871	3 7/8"	98mm	mahogany taper	altazimuth
FRA16	JAS. PARKES & SON, BIRMINGHAM.	1845-1862	4"	100mm	Brass	altazimuth SM
FRA17	<i>Utzschneider u. Fraunhofer in Munchen</i>	1819-1826	2.4"	62mm	mahogany taper	altazimuth
FRA18	JOHN BLOORE LONDON (John Bloor)	1799-1819	3 1/2"	90mm	brass, 3-sections	compass altazimuth
FRA19	SECRETAN PARIS N:9 236	1890	5.2"	130mm	brass	altazimuth SM
FRA20	CARL ZEISS YENA Nr. 10033	1918	3"	80mm	white paint over brass	equatorial
FRA21	Unsigned, probably SECRETAN?##	1890	3.5"	5-draw 90mm	brass/mahogany venier	altazimuth, trough
FRA22	CLARKSON'S HOLBORN	1906-25?	3.5"	90mm	brass	altazimuth
FRA23	DANCER MANCHESTER (SECRETAN, signed DANCER)	1851	3.63"	92mm	brass	altazimuth
FRA24	DOLLOND * LONDON	1790	2 3/4"	69mm	brass	altazimuth SM
FRA25	<i>Dollond</i> (first line) <i>Dollond</i> (second line: <i>L</i> flourish underlines London)	1770-1780	3 3/4"	69mm	mahogany taper	pivot altazimuth
FRA26	Made by E. NAIRNE London	1758-1774	3 5/8"	92mm	mahogany taper	altazimuth SM
FRA27	CARL ZEISS/JENA Nr. 10002 (a 60mm-Reisemodelle, Fig. 7, Astro 30)	1918	2 3/8"	60 mm	painted brass	altazimuth SM
FRA28	<i>G. & S. Merz vorm. Utzschneider & Fraunhofer in Munchen</i>	1890	4 1/4"	108 mm	mahogany taper	altazimuth SM
FRA29	Dollond LONDON (rare signature; u/l case letters, no symbol)	1761-1766	3 1/2"	90mm	2-piece mahogany taper	altazimuth
FRA30	ARMSTRONG & BRO: 88: DEANSGATE MANCHESTER	1885	2 3/4"	69mm	brass	"5-in. ball" equatorial

*Objective Diameter Actual is the clear glass diameter (+/-2mm); the physical lenses are obviously larger; there are baffles in some of the telescopes, which further limit the usable diameter of the objective lens.

** ss=sunshade and/or dew shield.

*** SM=slow motion using mahogany rods with brass swivels to move the telescope along the azimuth or altitude arcs or, if equatorially mounted, the right ascension and declination axes to compensate for earth's rotation.

FRA2 Bardeu eyepiece interchangeable.

Machining marks inside brass objective lens cap matches several signed SECRETAN telescopes; eyepiece design similar to SECRETANS.

Gallery 1

Floor-Standing Refracting Telescopes



Zeiss
FRA27



Bardou
FRA3



Secretan
FRA23



Bardou
FRA2



Secretan
FRA4



Dollond
FRA11



Unsigned Bardou
FRA12



D. Adams
FRA10



Clarkson's
FRA22



Irrgang
FRA5



Dollond
FRA7



Secretan
FRA19



Dollond
FRA24



Secretan
FRA6



Fraunhofer
FRA17



Nairne
FRA26



Armstrong
FRA30



Zeiss
FRA20



8-ft. Dollond
FRA25



Grubb-Parsons
FRA8



Parkes & Son
FRA16



Alvan Clark
FRA14



Bloore
FRA18



Unsigned Secretan
FRA21



Merz, vorm.
FRA28



12 ft. Dollond
FRA29



"W" Dollond
FRA15



Lerebours et Secretan
FRA9



Brashear
FRA13

Gallery 1

Floor-Standing Refracting Telescopes

These telescopes represent the state of the art for the amateur as well as for the professional user during the mid 1700s up to the 20th century. Floor-standing or large tripod-mounted refractor telescopes provided a necessary and convenient optimization; small enough for transportability, yet employing large enough objective lenses to do some serious viewing. Being able to take a tripod-mounted refractor to a planet transit or a solar eclipse site was important then and remains so to this day. Larger column- and pedestal-mounted telescopes were obviously confined to the location of their fixed mountings and while more powerful optically, they are not readily convenient for collecting. I chose not to collect or invest time in these larger commitments.

The flagship telescope in this gallery of 29 telescopes is really hard to select. The signed and dated 1867 4 1/8-inch Alvan Clark (FRA14) has to be the most important, but close behind are several big Dollonds, Secretans, and Bardous; as well as the mahogany tube Lerebours et Secretan. The Alvan Clark tapered solid mahogany telescope with air vents is the earliest signed and dated Alvan Clark telescope in a private collection, to my knowledge. But in this discussion I cannot overlook Dr. Henry Paul's 4-inch Bardou (FRA2) with "perfect" optics and fully accessorized with many lenses, and slow motion control. But then there is the 1853 'Dancer' Secretan (FRA23), as well as the big Dollond (FRA7) on the cover page, and what about the big Merz (FRA28), or the Edward Nairne refractor nearly identical to the scope Benjamin Franklin purchased for Harvard? In terms of sheer weight, the big Secretan's (FRA19) optical tube alone is an impressive 70 lbs. The 3.5 meter-long Dollond (FRA29) from the 1760s stands tallest within the collection, actually some 8 feet taller! Most of the telescopes in this gallery would look rather nice in any museum of science history. The objective lens diameter varies from 60 mm to 135 mm, more than two times in diameters and more than four times in light gathering. Tube length ranges from 24 inches to near 135 inches or about 11.5 feet. About sixty percent of the telescopes have finder scopes, about forty percent have slow motion control, but only one has a motor-driven declination motion, the 80-mm Zeiss, FRA20. The big Dollond (FRA7) weighs in excess of three hundred fifty pounds (about 165 kg), and is outfitted with a rare candle-illuminated Troughton & Simms 3-wire filar micrometer, a John Browning split-lens micrometer, a John Browning/McClean polarizer, and a mid-column oil lamp. The latter is original with the telescope and the two micrometers are from the same period. The small Utzschneider u. Fraunhofer in Munchen (FRA16) weighs less than 5 pounds (2.3 kg), and yet, is of historic importance. One rather large and extra long spyglass is included in this first gallery because it requires a floor-standing tripod for effective use. This is the unsigned FRA21 (Secretan telescope, possibly Bardou?), which is over 6 feet in length when fully extended and weighs in excess of a hefty 16 pounds. This is not a spyglass you can hold steady at arms length for any period of time.

Telescope Type: Floor-Standing Refracting	Country of Origin: France
Maker: A. Bardou and Sons	Signature on Faceplate: PAUL A. MEYROWITZ, NEW YORK
Date: c. 1890-1910	Signature on Eyepiece: GB trademark and <i>Bardou and Son, Paris</i>
	Objective Diameter: 4-inch (100-mm) OTL: 55"
	$\text{Ø}=100\text{mm}$, $F=1560\text{mm}$, $F/15.6$, slight astigmatism, stria in glass, good color. corr., ~ diffraction limited
Condition: Very Good	Accessories: 2 ter., 4 cel. lenses, SM altaz. mount, star diagonal, crank lift, and nice mahogany storage case
Comment: Note: Previously owned by Dr. Henry Paul	Wolf Collection ID: FRA2 Gallery: 1



Telescope Type:	Floor-Standing Refracting	Country of Origin:	France
Maker:	A. Bardou and Sons	Signature:	BARDOU & FILS, PARIS.
Date:	c. 1860	Objective Diameter:	3 5/8-inch (92-mm) OTL: 55"
Condition:	Very Good	Accessories:	1 terrestrial eyepiece, crank lift
Comment:	Early Bardou	Wolf Collection ID:	FRA3 Gallery: 1



worm gear lifts the center shaft to raise and lower telescope



Maker's imprinted signature



objective lens



eyepiece disassembled



eyepiece assembled but not inserted into eyepiece tube



Adapted finder and engraving perhaps of an early owner

Telescope Type: Floor Standing Refracting
Maker: SECRETAN
Date: c. 1915-1920
Condition: Very Good
Comment: Novel use of Al and Brass

Country of Origin: France
Signature: SECRETAN PARIS 2306.
Objective Diameter: 3 5/8-inch (92-mm) **OTL:** 50"
Accessories: 1 terr.; 6 celest. eyepieces; fix.&var. density solar filters; star diag; SM altazimuth mount
Wolf Collection ID: FRA4 **Gallery:** 1



Telescope Type: Floor Standing Refracting	Country of Origin: Germany
Maker: Irrgang	Signature: IRRGANG, BAUM-SCHULENWEG, BERLIN.
Date: c. 1890	Objective Diameter: 3 1/4-inch (83-mm) OTL: 40 3/4"
Condition: Very Good	Accessories: 1 ter; SM equatorial mount
Comment: Beautiful orange-peel lacquer	Wolf Collection ID: FRA5
	Gallery: 1



ivory adjusters and eyepiece cup



same objective lens different views

Telescope Type: Floor Standing Refracting	Country of Origin: France
Maker: George Emmanuel Secretan	Signature: SECRETAN PARIS, N ^o 323
Date: c. 1875	Objective Diameter: 3-inch (75-mm) OTL: 43 1/4"
Condition: Very Good	Accessories: 1 ter.; 3 cel.; solar filter; star diag.; obj. lens cap;
Comment: Celestial eyepieces mounted around center support; terrestrial eyepiece compression mounted in tripod leg	finder, SM altaz mount with crank elevator
Wolf Collection ID: FRA6	Gallery: 1



slow motion control rods and worm gear driven elevator for raising and lowering telescope



Terrestrial eyepiece mounted vertically on left



Secretan signature



lens cover



objective lens



terrestrial eyepiece (top); star diag. & 3 celestial eyepieces

Telescope Type: Floor Standing Refracting
Maker: George Dollond
Date: c. 1830
Condition: Very Good
Comment: Novel period accessories, Unique combinatory transit/universal equatorial mount with 32-inch trunnions. Obj. lens is a later replacement by BC&Co., Broadhurst, Clarkson and Company.

Country of Origin: England
Signature: DOLLOND * LONDON
Objective Diameter: 3 1/2-inch (90-mm) OTL: 60"
Accessories: Dollond lens sets; 1 star diag.; 1 Hersch. wedge; pancratic and fixed magnification terrestrial eyepieces; SM adjusters, finder; candle/oil lighted micrometers (filar & split lens); polarizer; massive mahogany storage case for telescope including the trunnions; 7" sunshade
Wolf Collection ID: FRA7 **Gallery:** 1



Massive mahogany case (6'x1'x1') stores telescope down to trunnion bottom of plate, lens set, spectroscope, oil lamp, and adjusters



Telescope weighs >350 lb.



Candle-illuminated Troughton & Simms filar micrometer



Face plate signature



Objective lens later replacement by BC&Co.



Dollond lenses & Herschel Wedge and a John Browning/McClellans Star Spectroscope



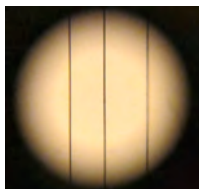
Oil lamp



Dollond 5-lens set with star diagonal with pancratic terrestrial lens

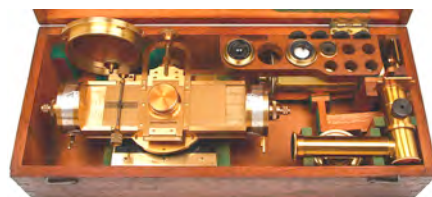


T&S 3-wire filar micrometer w/ candle illuminator 7-celestial and 1 terrestrial lenses w/adapters



John Browning split-lens micrometer

Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: Grubb Parsons	Signature: Lens label: Mounted by Grubb-Parsons, C.T.S. 4.5" O.G. 67.5" Focus, No. 5035
Date: c. 1925-26	Objective Diameter: 4 1/2-inch (114-mm) OTL: 60 3/4"
Condition: Very Good/Excellent	Accessories: 1 ter. 3 cel. in case; SM azimuthal control; rare Grubb multi-wire filar micrometer; lens case
Comment: Big, robust, nice accessories	Wolf Collection ID: FRA8 Gallery: 1



Unsigned Grubb multi-wire filar micrometer mounted in its case with several accessories as well as three celestial telescope eyepieces: F.L.= 2.7" Kellner and F.L.= 1.5" & 0.65" Huyghenian eyepieces

Telescope Type: Floor Standing Refracting
Maker: N.M. Lerebours and M. Secretan
Date: c. 1845-1854
Condition: Very Good
Comment: Beautiful mahogany tube

Country of Origin: France
Signature: LEREBOURS & SECRETAN. A. PARIS.
Objective Diameter: 3.63-inch (92-mm) OTL: 53 1/4"
Accessories: 3 ter.; 2 cel.; adapted 1915 Secretan tripod & pivot mount: custom brass trough mount
Wolf Collection ID: FRA9
Gallery: 1



Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: Dudley Adams	Signature: D * ADAMS, CHARING CROSS.
Date: c. 1790	Objective Diameter: 2 3/4-inch (70-mm) OTL: 44"
Condition: Very Good	Accessories: 1 terrestrial eyepiece
Comment: Novel little scope w/casters	Wolf Collection ID: FRA10 Gallery: 1



Telescope Type: Floor Standing Refracting
Maker: Peter and John Jr. Dollond
Date: c. 1775
Condition: Very Good
Comment: Original milk paint

Country of Origin: England
Signature:
Objective Diameter: 2 3/4-inch (70-mm)
Accessories:
Wolf Collection ID:

England
DOLLOND * LONDON
OTL: 43 1/4
Shaped tripod legs close to circle cross-section held together with brass band
FRA11 **Gallery: 1**



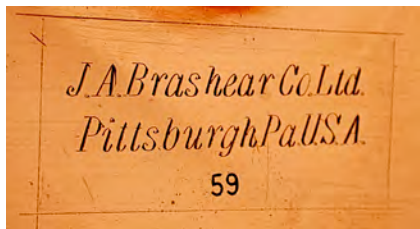
Telescope Type: Floor-Standing Refracting	Country of Origin: Probably France
Maker: Probably A. Bardou and Sons	Signature: UNSIGNED
Date: c. 1870	Objective Diameter: 2 3/4-inch (72-mm) OTL: 45 1/2"
Condition: Good	Accessories: 1 ter., 2 cel. eyepieces, brass end cap, case
Comment: Bardou hints; tripod, eyepiece finder construction	Wolf Collection ID: FRA12 Gallery: 1



Telescope Type:	Floor Standing Refracting	Country of Origin:	United States of America
Maker:	John Alfred Brashear	Signature:	<i>JA Brasher Co Ltd Pittsburgh Pa USA 59.</i>
Date:	c. 1909-1917	Objective Diameter:	3-inch (76-mm) OTL: 22 1/2"
Condition:	Very Good to Excellent	Accessories:	Custom KB black walnut tripod, green filter
Comment:	Superb spotting scope	Wolf Collection ID:	FRA13 Gallery: 1



Appearance much different from original olive drab Depression Position Finder (DPF) on a massive Warner & Swasey pier mounting



Telescope Type: Floor Standing Refracting
Maker: Alvan Clark and Sons
Date: 1867
Condition: Very good
Comment: Earliest known S&D Alvan Clark in a private collection; Novel obj. lens shock protection in case. See Restorations.

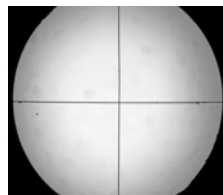
Country of Origin: United States of America
Signature: *Alvan Clark and Sons Cambridge, Mass. 1867.*
Objective Diameter: 4 3/16-inch (106-mm) **OTL:** 50"
Accessories: 1 ter.; 3 cel.; star diag w/xhairs; adapted No.5 Lundin mount; tapered mahog. tube has 4 air vents; storage case may be oldest Clark in a private collection?
Wolf Collection ID: FRA14 **Gallery:** 1



Signed and dated



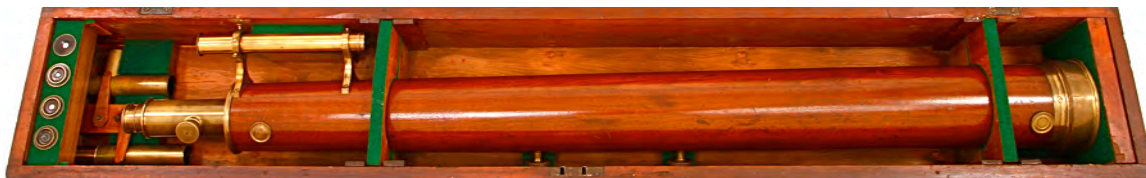
objective lens



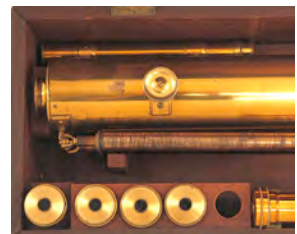
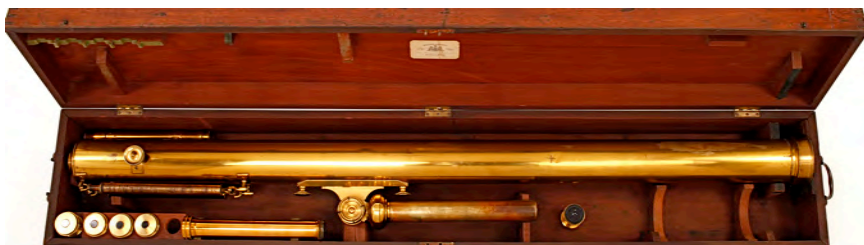
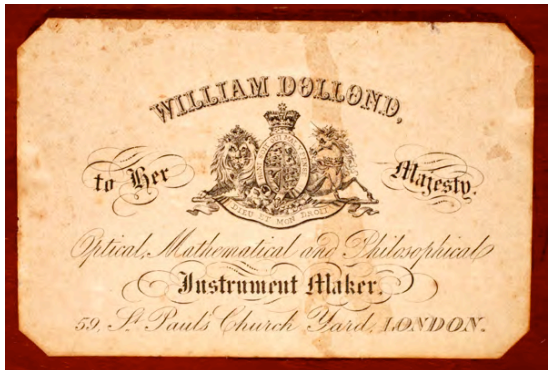
cross hairs in finder



Leather washer separates end boards for shock protection



Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: William Dollond	Signature: DOLLOND * LONDON W
Date: c. 1866-1871	Objective Diameter: 3 7/8-inch (98-mm) OTL: 63"
Condition: Very Good, except finishes (Needs restoration)	Accessories: Complete lens set, stabilizer rods, storage case
Comment: Large, beautiful scope	Wolf Collection ID: FRA15 Gallery: 1



Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: James Parkes & Son	Signature: JAS. PARKES AND SON, BIRMINGHAM
Date: c. 1845-1862	Objective Diameter: 4-inch (100-mm) OTL: 49"
Condition: Very Good	Accessories: 1 panratic ter., 6 cel (80-400x) lenses; Herschel wedge and star diag.,SM control, 4-inch sunshade, finder,oak case
Comment: Black lacquer painted optical tube	Wolf Collection ID: FRA16 Gallery: 1



Telescope Type: Floor-Standing Refracting	Country of Origin: Germany	
Maker: Joseph von Utschneider Joseph von Fraunhofer	Signature: <i>Utschneider u. Fraunhofer in Munchen</i>	
Date: c. 1819-1926	Objective Diameter: 2.4-inch (60-mm)	OTL: 28 1/2"
Condition: Very Good	Accessories: 1 terrestrial lens and brass end cap	
Comment: Early; novel tripod & mount	Wolf Collection ID: FRA17	Gallery: 1



Telescope Type: Floor-Standing Refracting
Maker: John Bloore

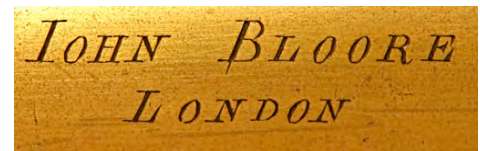
Country of Origin: England
Signature: IOHN BLOORE LONDON

Date: 1799-1819
Condition: Very Good

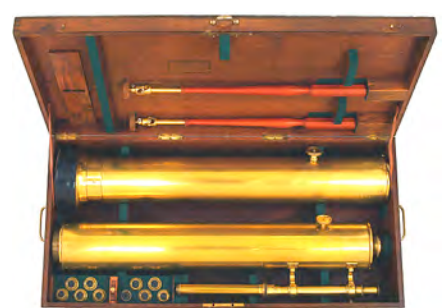
Objective Lens Signed: *L. Desormeau*
Objective Diameter: 3.5-inch (89-mm) **OTL:** 61 1/2"
Accessories: 1 ter, 2 cel lenses, apertured brass end cap, storage case, lock and key, wrench

Comment: Unique tripod; novel telescope self storage within largest OTA section.

Wolf Collection ID: FRA18 **Gallery:** 1



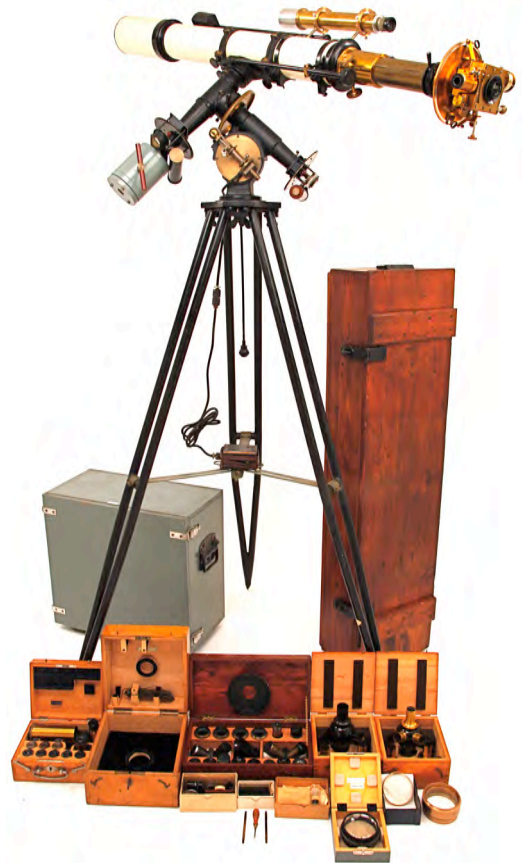
Telescope Type: Floor Standing Refracting	Country of Origin: France
Maker: Marc Secretan, son of Marc Francois Louis Secretan	Signature: SECRETAN A. PARIS N ^o . 236
Date: c. 1870-1880?	Objective Diameter: 5 1/5-inch (135-mm) OTL: 68 3/4"
Condition: Excellent	Accessories: 2 ter., 7 cel., SM altazimuth mount, large adapted Bardou tripod, storage case
Comment: Big, beautiful; <i>E. Vicmier</i> signed objective; 70lb. OTA	Wolf Collection ID: FRA19 Gallery: 1



Telescope Type: Floor Standing Refracting	Country of Origin: Germany
Maker: Carl Zeiss	Signature: CARL ZEISS/JENA Nr.10033
Date: c. 1918	Objective Diameter: 80-mm OTL: 40 3/4"
Condition: Very Good	Accessories: 3 obj. lens; 20 eyepieces; 3 3-lens turrets; 3 diag, finder; reticules/filters, Heyde filar micrometer, 32-volt motor drive & lamp illumination of grating circles, 9 storage cases/boxes for telescope and accessories.
Comment: Many accessories	Wolf Collection ID: FRA20 Gallery: 1



Heyde (Dresden) multi-wire filar micrometer



Zeiss objective AS 80 1200



modern coated objective



Un-mounted doublet obj.



Main lens case



3-lens turret



star diag. with Zeiss quick connect coupler

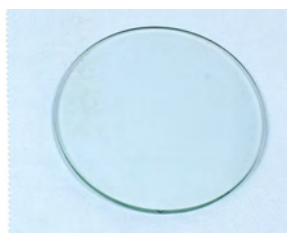


color filter wheel



32-volt drive&illumination system

Telescope Type: Floor Standing Refracting	Country of Origin: Probably France?	OTL: 70 1/2"
Maker: Probably SECRETAN?	Signature: Unsigned	
Date: c. <1890?	Objective Diameter: 3 1/2-inch (90-mm)	
Condition: Very Good	Accessories: Adapted French Bardou tripod	
Comment: >6-ft. long; wtg.>16lb. Secretan hints: eyepiece design, end cap tooling marks	Wolf Collection ID: FRA21	Gallery: 1



Brass objective lens caps with similar radial tooling marks on inside
 Unsigned: single scroll HRA30 Lerebours et Secretan
 Opposing double scroll

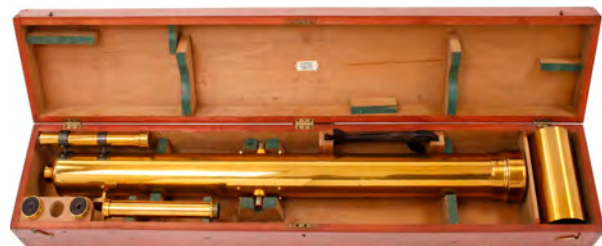
Objective: Separated doublet



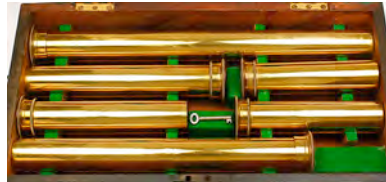
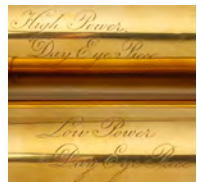
Eyepiece interchangeable with FRA2 Bardou

very similar in design and shape to all other eyepieces of signed Secretans and Bardous in the collection.

Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: Alexander Clarkson	Signature: CLARKSON'S HOLBORN
Date: c. 1873-92	Objective Diameter: 3 1/2-inch (90-mm) OTL: 44 3/4"
Condition: Very Good	Accessories: 1 ter, 3 cel., finder with cross-hairs, fitted case
Comment: Unique signature on scope	Wolf Collection ID: FRA22 Gallery: 1



Telescope Type: Floor-Standing Refracting	Country of Origin: France (English retailer)
Maker: Marc Francois Louis Secretan	Signature: DANCER MANCHESTER
Date: c. 1853	Objective Diameter: 3.63-inch (92-mm) OTL: 54 1/8"
Condition: Excellent	Accessories: 2 terrestrial eyepieces; 4 celestial eyepieces and brass end cap; finder; stabilizers; custom storage cases
Comment: Secretan masquerading as J. B. Dancer; novel sprocket lift (See 1851 Secretan Sales Cat.)	Wolf Collection ID: FRA23 Gallery: 1



Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: George Dollond	Signature: DOLLOND * LONDON
Date: c. 1819-1825	Objective Diameter: 2 3/4-inch (70-mm) OTL: 42 3/4"
Condition: Very Good except for brass; Case was in bad shape; it was repaired and refinished	Accessories: Complete lens sets, Kitchiner eyetube, Browning/McClean spectroscope, slow motion adjusters, floor standing & tabletop tripods, storage case
Comment: Early with many accessories	Wolf Collection ID: FRA24 Gallery: 1



Kitchiner's Pancratic Eye Tube



John Browning/McClean's Star Spectrometer



Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: Peter Dollond	Signature: <i>Dollond London</i>
Date: c. 1761-1766	Objective Diameter: 2 5/8-inch (70-mm) OTL: 85 3/4"
Condition: Good; some inter-lens discolor	Accessories: Custom mount provides horizontal to near zenith viewing; adapted tripod; custom spider
Comment: 8-ft. taper(1%); rare 5-lens eyepiece with 26" long eyepiece tube	Wolf Collection ID: FRA25 Gallery: 1



Overview



Viewing altitude angle set by tilting the tube to the desired angle and then tightening knurled compression thumbnut



objective lens



4 of the 5 eyepiece lenses are un-mounted and held in place by capture. Only the first lens is secured in a spun brass cell

Telescope Type: Floor Standing Refracting	Country of Origin: England
Maker: Edward Nairne	Signature: Made by E. NAIRNE, London
Date: c. 1765	Objective Diameter: 3 5/8-inch (92-mm) OTL: 43 1/4"
Comments: Cond. good; Custom tripod created from scaled dimensions taken from photo of similar Nairne in the Harvard Collection of Historical Scientific Instruments. Ben Franklin purchased nearly identical scope for Harvard prior to 1770. Harvard scope has no optics or finder, but tripod is vintage Nairne.	$\varnothing=88\text{mm}, F/13, F\approx 1200\text{mm}$, poor optics, bad color corr. [Edward Nairne known for nice furniture, poor optics!] Accessories: Terr. eyepiece holder for missing variable density filter, slow-motion altazimuth control with ivory-finned adjusters, custom cross-braced mahogany tripod. (See Restorations for tripod restoration.)
	Wolf Collection ID: FRA26 Gallery: 1



Telescope Type: Floor Standing Refracting
Maker: CARL ZEISS
Date: c. 1918
Condition: Very Good; paint chipped on underneath of sunshade
Comment: Complete w/ full set of accessories
Good provenance from Gans Estate

Country of Origin: Germany
Signature: CARL ZEISS/JENA Nr.10002
Objective Diameter: 60-mm
Accessories: 5 cel. eyepieces, storage case for telescope & tripod, prism Nr. 9172, SM control flex rods, Obj. baffle plate, and 30-cm tripod ext. post
OTL: 24 1/4"
Collection ID: FRA27
Gallery: 1



ZEISS - FERNROHRE

60 mm-Reisemodelle

für astronomische und terrestrische Beobachtungen



2472

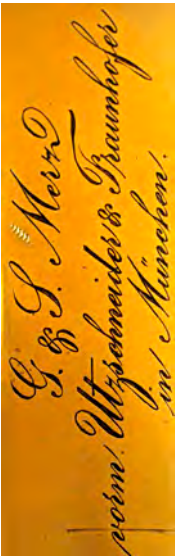
Kataloge über nachbenannte Gegenstände stehen kostenfrei zur Verfügung:

Gegenstand	Katalogbezeichnung
Zeiss-Aussichtsfernrohre	Astro 26
Astronomische Instrumente	Astro 30
Azimutale Fernrohre, Kometensucher	Astro 31
Parallaktische Fernrohre, Refraktoren, Spiegelteleskope	Astro 32
Astronomische Nebenapparate, Mikrometer, Astro-Kameras	Astro 33
Astro-Spektroskope und Spektrographen, Messapparate	Astro 33
Astronomische Optik	Astro 34
Sternwartenkuppeln, Beobachtungsleitern, Hebebühnen	Astro 35

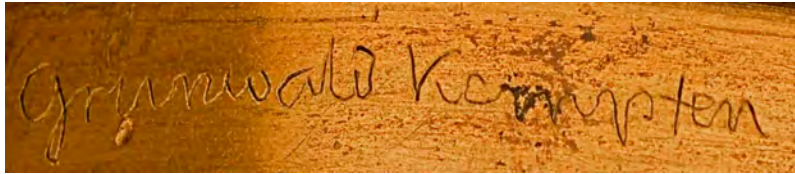
Preisliste über sämtliche astronomischen Instrumente liegt jeder Sendung von Astro-Katalogen bei.

Bezeichnung dieses Kataloges: „Astro 28“.

Telescope Type: Floor Standing Refracting	Country of Origin: Germany
Maker: George and Sigmund Merz	Signature: <i>G. & S. Merz uorn. Utzschneider & Fraunhofer in Munchen</i>
Date: c. 1885	Objective Diameter: 4 1/4-inch (108-mm) OTL: 56 1/2"
Condition: Excellent	Accessories: 2 star diag.; walnut optic. tube; SM control altazimuth mount; mahogany tripod w/casters; lens case w/tools
Comment: Obj. lens brass cell signed "Grunwald Kompten"	Wolf Collection ID: FRA28 Gallery: 1



Objective lens in brass cell



Signed objective lens cell

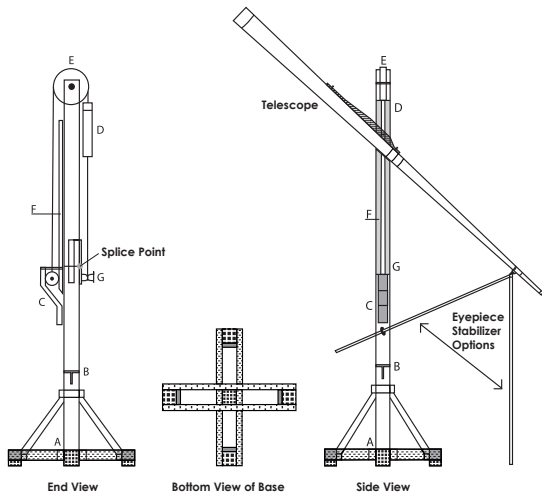


Telescope Type: Floor Standing Refracting
Maker: Peter Dollond
Date: c. 1761-1766

Country of Origin: England
Signature: Dollond *LONDON*
Obj. Diam.: 3 1/2-inch (92-mm) **OTL:** 135 1/2"
Accessories: Eyepiece tube 18 1/4": orig. brass hardware for a stabilizer staff near the eyepiece was strong evidence for a pole-and-rope mounting as were 3 mounting bolts with knurled tighteners on upper section of 2-piece OTA.
Wolf Collection ID: FRA29 **Gallery:** 1

Condition/Comments: Very good; rare 5-lens erecting eyepiece; objective lens is a later cemented doublet replacement.

Pole Mount for FRA29
 12-foot long 2-piece tapered Mahogany Tube
 Refracting Telescope by Dollond



(Scale 1 cm = 1 ft.)

- A = 3+ inch thick mahogany base and pole
- B = Upper pole rotation point
- C = Cradle for telescope and 6-foot high pivot mount
- D = Brass counter weight
- E = 8-inch diameter mahogany pulley
- F = 3/16-inch thick flat brass keeper/slider
- G = Tie point for tethered telescope



Author's design for pole mounting this 12-ft. long refractor. Pole Height = 12 ft.

Left: 360-deg. brass coupler
 Right: 30 lb. brass counterweight

Telescope objective is raised > 16ft. as the telescope travels up the tether guide on the pole [Author is 6' 1"]



Signature on eyepiece tube



92-mm objective lens
 later cemented doublet replacement



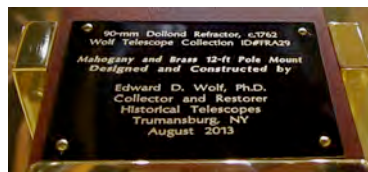
5-lens eyepiece made from 1761-1766
 by Peter Dollond



Eyepiece has orig. staff coupler
 and rack & pinion focus



Stabilized base with precise vertical adjustment using 4 compression plates



Restoration data plate on pole



Resting position at base of tether channel



Cable connect at pivot point



counter-weight resting platform with centering pin

Telescope Type:	Floor Standing Refracting	Country of Origin:	England
Maker:	Thomas Armstrong & Brother	Signature:	ARMSTRONG & BROS 88 DEANSGATE, MANCHESTER
Date:	c. 1885	Objective Diameter:	2 3/4-inch (80-mm) OTL: 37 3/8"
Condition:	Excellent	Accessories:	Many: 1 ter., 7 cel., star diagonal, wide angle comet eyepiece
Comment:	Novel slow-motion equatorial mount, beautiful telescope	Wolf Collection ID:	FRA30 Gallery: 1

