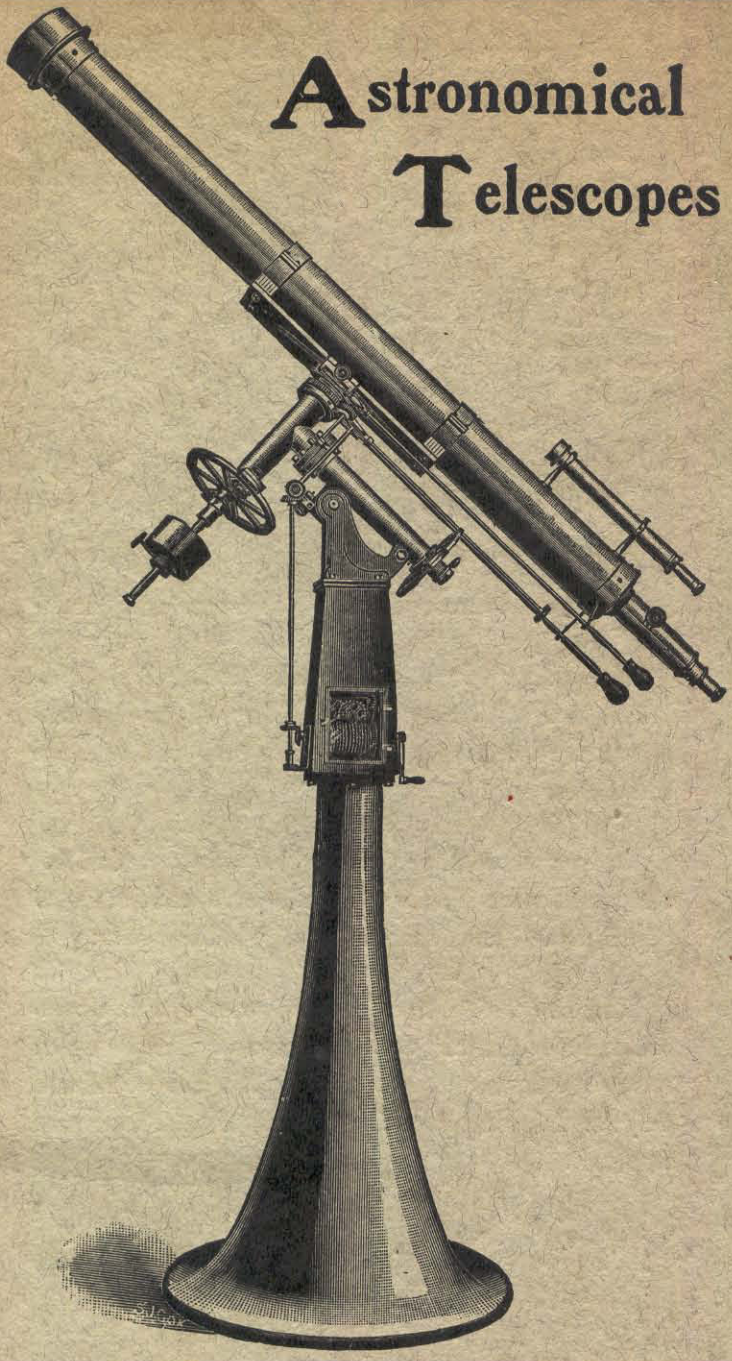
Astronomical Telescopes



WILLIAM MOGEY & SONS, INC.
Works and Observatory: Interhaven Avenue
PLAINFIELD, NEW JERSEY, U. S. A.

NOTICE



This catalogue supersedes all former editions.

The prices quoted are net F. O. B. Plainfield, New Jersey. Boxing and packing of our instruments are done with the utmost care and without extra charge.

Orders should preferably be accompanied by the remittance. We require a deposit of at least 25 percent with the balance payable on delivery.

Normally, the smaller instruments and accessories listed in this catalogue are carried in stock ready for immediate shipment. We can promise a definite shipping date for the larger telescopes not in stock.

Astronomical and Terrestrial

TELESCOPES

1882-1932

WILLIAM MOGEY & SONS, INC.
INTERHAVEN AVENUE : PLAINFIELD, NEW JERSEY

FIFTY YEARS OF TELESCOPE MAKING

In the year 1882, William Mogey proceeded to put his knowledge of optics and astronomy to practical use and devote his life to one of the most unusual of human attainments. He started as a pioneer in the manufacture of corrected photographic lenses and in his workshop at 418 West 27th Street, New York City, which was at the center of the optical business at that time, made the first camera objectives of repute produced in the United States. Business progressed and, as the demand arose, he went into reflecting telescopes, surveyors' transits, spectroscopes, and finally, refracting telescopes. In 1888 he took his brother, David Mogey, into the business and founded the firm of W. & D. Mogey which then specialized in the manufacture of refracting telescopes of the finest quality. The Messrs. Mogey were well acquainted with the leading telescope manufacturers of that time and were themselves regarded as ranking among the best.

In 1893 they moved to Bayonne, N. J. erecting a larger shop and an observatory, but the unfavorable atmospheric conditions of that city led them to make a final move, in 1911, to Plainfield where the firm has remained ever since. In the course of time David Mogey retired from the company leaving the original founder and his sons in the business. In 1927 the firm was incorporated as William Mogey & Sons, continuing under the personal direction of William Mogey, now for many years regarded as an authority on the manufacture of corrected telescopic objectives.

Fifty years of telescope production have had their effect on the astronomical world and it is with pride that the Mogey organization can point to the world wide circulation of its instruments and the accomplishments of the owners. Educational institutions of every grade, associations with various aims, and individuals in all walks of life possess Mogey telescopes. They are to be found in every corner of the United States, in Canada, in Central and South America, Asia, Africa, and even in Europe.

THE TELESCOPE

Mogey telescopes are made with that painstaking care that has characterized famous and highly reputable products. The optical parts of the instruments are precisely corrected and the mechanism made with an unusual accuracy. Experience has proven the models illustrated to be the most practical designs for astronomical and terrestrial purposes. The mountings are of such sturdiness and smoothness of action that vibration is reduced to a minimum. The materials used in their manufacture are such that our telescopes cannot be effected by either years of use or unusual weather conditions.

There are two classes of telescopes, the refracting and reflecting types. The reflector has a concave silvered mirror at the lower end which conveys the converging rays of light to a plane mirror or a totally reflecting prism and thence into the eyepiece. The refractor has a convex lens combination at the upper end which brings the rays of light to a focus at the lower end into which the eyepiece is fitted.

In America there is practically no demand for reflectors except in large sizes for photographic research. For schools and colleges and amateur astronomers the refractor is by all means to be preferred because of its compactness, portability, and efficiency. The reflector is a cumbersome telescope and requires a permanent outdoor mounting while a refractor of the same magnifying power may be kept indoors and set up in any location in a few minutes. The reflector, furthermore, depends upon the silvered surface of the mirror for its efficiency and, to get the best results, resilvering is frequently necessary. The refractor requires no attention and cannot be impaired by ordinary use.

THE OBJECT GLASS

The object glass of the refracting telescope consists of an achromatic crown and flint combination which is accurately corrected for figure and coma. The ratio of the aperture to the focal length is 14 to 1; that is, the focal length of the object glass is 14 times the diameter. The magnification is computed by dividing the focal length of the objective by the focal length of the eyepiece. For example, a four inch glass with a focal length of 56 inches when used with a ½ inch eyepiece has a linear magnification of 112x.

EYEPIECES

The eyepieces are the Huyghens and Ramsden celestial types and the terrestrial. The Huyghens eyepiece consists of two plano-convex lenses with focal lengths of a ratio of 3 to 1. They are mounted with the plane sides toward the eye with a separation of one-half the sum of their focal lengths. The Ramsden eyepiece consists of two plano-convex lenses of the same focal length mounted with the convex sides facing and with a separation of two-thirds the focal length of either lens. The terrestrial eyepiece is a positive combination and is, practically speaking, a double Huyghens eyepiece. It shows objects right side up.

ACCESSORIES

Other attachments are: the Diagonal prism eyepiece, the solar prism eyepiece, and the Barlow lens. The diagonal eyepiece enables the observer to view overhead objects without assuming awkward and uncomfortable positions. The solar eyepiece has a wedge shaped prism mounted in such a way that 97 percent of the excessive light of the sun is lost while only 3 percent enters the eyepiece. An eyepiece cap with a neutral tinted glass cuts down further the glare of the sunlight without interfering with definition. The Barlow lens is used to increase the power of a telescope when exceptionally good atmospheric conditions permit. It has a concave achromatic combination which increases the focal length of the objective thus amplifying the magnifying power.

DESIGN

The illustrations in this catalogue give a general idea of the construction and design of our telescopes. We frequently make changes in design and improvements which are not illustrated. For example, all of our clock driven telescopes are now equipped with a synchromous electric motor drive to replace the old type of weight driven clock. The newer equipment is included in the prices quoted and will be furnished unless otherwise specified.

TELESCOPIC OBSERVATION

Endless hours of astronomical explorations are at the command of the possessor of one of these instruments. The moon will appear as a new world with its volcanic craters, mountain ranges, peaks, and valleys. The planets and their satellites and the stars will be drawn from the realm of mystery in a way that must stir the most dormant imagination. Mars can be seen with its snow caps and markings, Jupiter with its moons and equatorial belts, Saturn with its satellites and the unique rings, nebulae, double stars, comets, in fact, the entire visible universe can be brought two or three hundred times closer.

The telescope has still another appeal at the country club where the golfers may be taken from the links and set in front of one's eyes. It is a decided asset at the seashore where yachts and fishing boats, ocean liners, and other distant vessels may be brought into range so that they seem only a few yards away; at the airport where planes and dirigibles can be plainly seen for miles; at the penthouse where guests can be amused by a sightseeing tour in a few minutes—in short—on land or sea, wherever there are distant objects of interest, the telescope has its place.

TELESCOPIC OBJECTIVES

There are two general types of telescopic objectives; the achromatic doublet for visual telescopes and the astro-photographic doublet. The achromatic object glass is corrected for the visual part of the spectrum and has an aperture ratio of f.14. whereas the astrophotographic glass is corrected for the photo-chemically active rays and has an aperture ratio of f.10.

ACHROMATIC OBJECT GLASS

Diameter or clear aperture	Focal length	Price
3 inches (76 mm.)	42 inches (106 cm.)	$ 60.00
3½ inches (89 mm.)	50 inches (127 cm.)	90.00
4 inches (102 mm.)	56 inches (142 cm.)	140.00
4½ inches (115 mm.)	63 inches (160 cm.)	205.00
5 inches (127 mm.)	70 inches (177 cm.)	265.00
6 inches (152 mm.)	90 inches (228 cm.)	500.00
7 inches (178 mm.)	105 inches (266 cm.)	735.00
8 inches (203 mm.)	120 inches (304 cm.)	1,000.00
9 inches (229 mm.)	135 inches (342 cm.)	1,500.00
10 inches (254 mm.)	150 inches (381 cm.)	2,000.00
12 inches (305 mm.)	180 inches (456 cm.)	3,000.00

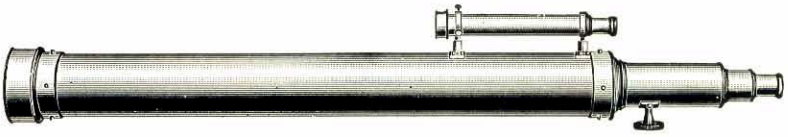
ASTRO-PHOTOGRAPHIC OBJECT GLASS

3 inches (76 mm.)	30 inches (76 cm.)	$ 75.00
3½ inches (89 mm.)	35 inches (89 cm.)	110.00
4 inches (102 mm.)	40 inches (102 cm.)	160.00
4½ inches (115 mm.)	45 inches (115 cm.)	235.00
5 inches (127 mm.)	50 inches (127 cm.)	300.00
6 inches (152 mm.)	60 inches (152 cm.)	540.00
7 inches (178 mm.)	70 inches (178 cm.)	800.00
8 inches (203 mm.)	80 inches (203 cm.)	1,100.00
9 inches (229 mm.)	90 inches (229 cm.)	1,650.00
10 inches (254 mm.)	100 inches (254 cm.)	2,200.00

SPECIAL OBJECT GLASSES

Prices of long and short focus objectives may be had on request.

ASTRONOMICAL TELESCOPE



Without Stand

TYPE A—The main tube and other parts of this telescope are of brass but, if lightness and portability are to be considered, the main tube may be had in aluminum. The tube is finished in a gray enamel lacquer and the other parts in polished brass. The finder is not included in this model.

TYPE B—The tube and all the other parts are of brass, polished and finished in a durable, transparent lacquer. The finder with the standards is included.

TYPE C—This model is exactly the same as the type B except that it is completely finished in chromium plate. This finish is particularly desirable if the telescope is carried about to any great extent and at the seashore for protection against the salt sea air.

TYPE D—Responding to the demand for a more portable and extremely light weight telescope, we have developed an instrument of the latest aluminum and magnesium alloys. Such a telescope has all the advantages and durability of brass but only one-third the weight. It is especially intended for lecturers and exhibitors who must transport their instruments frequently.

TYPE A

REFERENCE NO.	Diameter of objective	Eyepieces	Price
130	3 inches	2 celestial	$140.00
135	3½ inches	2 celestial	205.00
140	4 inches	3 celestial	290.00
145	4½ inches	4 celestial	400.00
150	5 inches	4 celestial	500.00
160	6 inches	5 celestial	830.00

TYPE B

230	3 inches	3 celestial	$ 180.00
235	3½ inches	3 celestial	245.00
240	4 inches	4 celestial	330.00
245	4½ inches	5 celestial	445.00
250	5 inches	5 celestial	555.00
260	6 inches	6 celestial	880.00
270	7 inches	6 celestial	1,230.00
280	8 inches	7 celestial	1,650.00

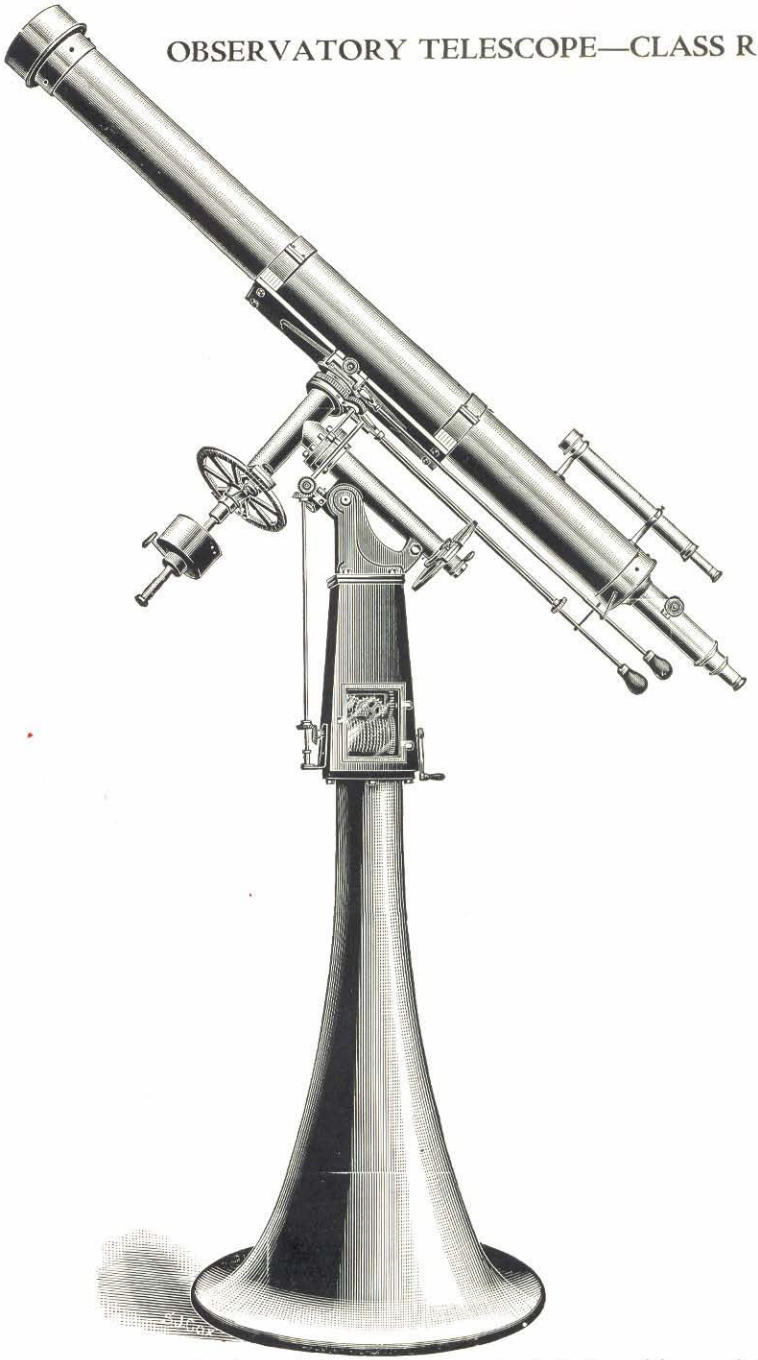
TYPE C

330	3 inches	3 celestial	$ 200.00
335	3½ inches	3 celestial	265.00
340	4 inches	4 celestial	355.00
345	4½ inches	5 celestial	475.00
350	5 inches	5 celestial	590.00
360	6 inches	6 celestial	925.00
370	7 inches	6 celestial	1,280.00
380	8 inches	7 celestial	1,725.00

TYPE D

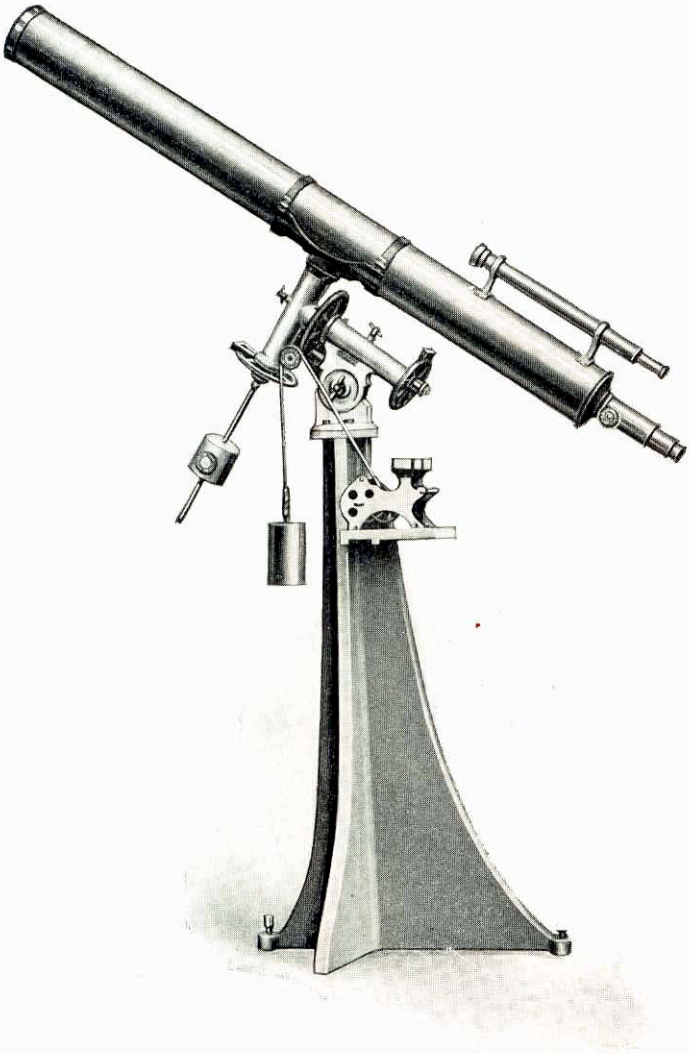
Prices of these telescopes from three to six inches aperture, with and without the finder, may be had on request.

OBSERVATORY TELESCOPE—CLASS R



Prices and specifications of these Telescopes, in six inch and larger sizes, on request.

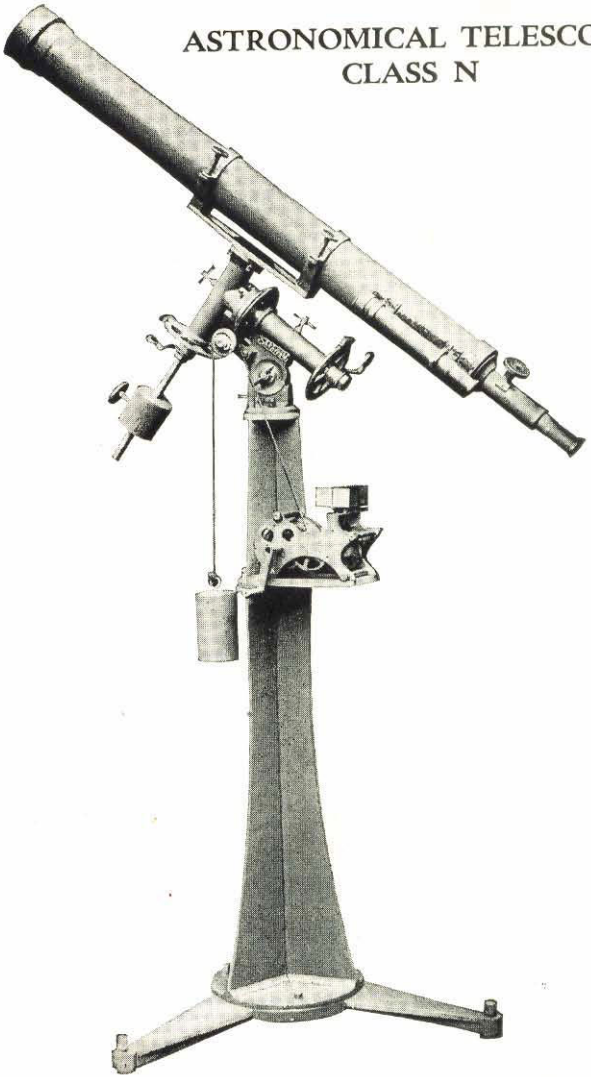
ASTRONOMICAL TELESCOPE—CLASS M



M-250—Telescope with object glass 5 inches clear aperture and 70 inches focus, fitted in brass tube with finder and 5 celestial eyepieces; mounted on equatorial with circles, iron pillar and electric driving clock. (Magnifications of eyepieces 93 to 350). Price $1,140.00

M-260—Telescope, as shown above, with object glass of 6 inches clear aperture and 90 inches focus; 6 celestial eyepieces from 120x to 450x.
Price $1,555.00

ASTRONOMICAL TELESCOPE
CLASS N



N-230—Telescope with object glass 3 inches in diameter and 42 inches focus, fitted in brass tube with finder and 3 celestial eyepieces. Equatorial mounting with circles and electric clock movement. (Magnifications from 50 to 210). Price $450.00

N-235—Telescope as described above with object glass 3½ inches in diameter and 50 inches focus; 3 celestial eyepieces from 65x to 250x. Price $515.00

N-240—Telescope as described above with object glass 4 inches in diameter and 56 inches focus; 4 celestial eyepieces from 75x to 280x. Price $670.00

N-245—Telescope as described above with object glass 4½ inches in diameter and 63 inches focus; 4 celestial eyepieces from 84x to 315x. Price $805.00

ASTRONOMICAL TELESCOPE—CLASS A



ASTRONOMICAL TELESCOPE

Mounted on Equatorial, Class A

A-230—Telescope with object glass 3 inches in diameter and 42 inches focal length, with finder and 3 celestial eyepieces; mounted on iron pillar with equatorial having finely divided circles (eyepieces from 50 to 210 diameters). Price $400.00

A-235—Telescope with object glass 3½ inches in diameter and 50 inches focal length, with finder and 3 celestial eyepieces; mounted as above (eyepieces from 65 to 250 diameters). Price $465.00

A-240—Telescope with object glass 4 inches in diameter and 56 inches focal length with finder and 4 celestial eyepieces; mounted as above (eyepieces 75 to 280 diameters). Price $620.00

A-245—Telescope with object glass 4½ inches in diameter and 63 inches focal length with finder and 4 celestial eyepieces; mounted as above (eyepieces from 84 to 315 diameters). Price $755.00

A-250—Telescope with object glass 5 inches in diameter and 70 inches focal length with finder and 5 celestial eyepieces; mounted as above (eyepieces 93 to 350 diameters). Price $1,010.00

A-260—Telescope with object glass 6 inches in diameter and 90 inches focal length with finder and 5 celestial eyepieces; mounted as above (eyepieces from 120 to 450 diameters). Price $1,435.00

ASTRONOMICAL TELESCOPE—CLASS B



ASTRONOMICAL TELESCOPE

Mounted on Equatorial Stand, Class B

B-230—Telescope with object glass 3 inches in diameter and 42 inches focal length, fitted in highly finished brass tube with finder and 3 celestial eyepieces; on equatorial stand with finely divided circles (eyepieces from 50 to 210 diameters).
Price $350.00

B-235—Telescope with object glass 3½ inches in diameter and 50 inches focal length, fitted in finished brass tube with finder and 3 celestial eyepieces; mounted as above (eyepieces from 65 to 250 diameters). Price $415.00

B-240—Telescope with object glass 4 inches in diameter and 56 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted as above (eyepieces from 75 to 280 diameters). Price $570.00

B-245—Telescope with object glass 4½ inches in diameter and 63 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted as above (eyepieces from 84 to 315 diameters). Price $685.00

B-250—Telescope with object glass 5 inches in diameter and 70 inches focal length, fitted in finished brass tube with finder and 5 celestial eyepieces; mounted as above (eyepieces from 93 to 350 diameters). Price $940.00

B-260—Telescope with object glass 6 inches in diameter and 90 inches focal length, fitted in finished brass tube with finder and 5 celestial eyepieces; mounted as above (eyepieces from 120 to 450 diameters). Price $1,355.00

ASTRONOMICAL TELESCOPE—CLASS C



ASTRONOMICAL TELESCOPE

Mounted on Equatorial Stand, Class C

C-230—Telescope with object glass 3 inches in diameter and 42 inches focal length, fitted in highly finished brass tube with finder and three celestial eyepieces; mounted on equatorial without circles (eyepieces 50 to 210 diameters). Price $295.00

C-235—Telescope with object glass 3½ inches in diameter and 50 inches focal length, fitted in finished brass tube with finder and 3 celestial eyepieces; mounted as above (eyepieces 65 to 250 diameters). Price $360.00

C-240—Telescope with object glass 4 inches in diameter and 56 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted as above (eyepieces 75 to 280 diameters). Price $485.00

C-245—Telescope with object glass 4½ inches in diameter and 63 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted as above (eyepieces 84 to 315 diameters). Price $600.00

C-250—Telescope with object glass 5 inches in diameter and 70 inches focal length, fitted in finished brass tube with finder and 5 celestial eyepieces; mounted as above (eyepieces 93 to 350 diameters). Price $790.00

C-260—Telescope with object glass 6 inches in diameter and 90 inches focal length, fitted in finished brass tube with finder and 5 celestial eyepieces; mounted as above (eyepieces 120 to 450 diameters). Price $1,175.00

ASTRONOMICAL TELESCOPE—CLASS D



ASTRONOMICAL TELESCOPE

Mounted on Alt-Azimuth Stand, Class D

D-230—Telescope with object glass 3 inches in diameter and 42 inches focal length, fitted in highly finished brass tube with finder and 3 celestial eyepieces; mounted on Alt-Azimuth stand as illustrated. The stand is finished in black enamel and polished brass. (Eyepieces 50 to 210 diameters). Price $230.00

D-235—Telescope with object glass 3½ inches in diameter and 50 inches focal length, fitted in finished brass tube with finder and 3 celestial eyepieces; mounted on Alt-Azimuth stand. (Eyepieces 65 to 250 diameters). Price $295.00

D-240—Telescope with object glass 4 inches in diameter and 56 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted on Alt-Azimuth stand. (Eyepieces 75 to 280 diameters). Price $400.00

D-245—Telescope with object glass 4½ inches in diameter and 63 inches focal length, fitted in finished brass tube with finder and 4 celestial eyepieces; mounted on Alt-Azimuth stand. (Eyepieces 84 to 315 diameters). Price $525.00

D-250—Telescope with object glass 5 inches in diameter and 70 inches focal length, fitted in finished brass tube with finder and 5 celestial eyepieces; mounted on Alt-Azimuth stand. (Eyepieces 93 to 350 diameters). Price $655.00

NOTE—The vertical slow motion shown in the illustration is not included in the above prices. It may be added at an extra cost of $30.00.

ASTRONOMICAL TELESCOPE—CLASS E



E-130—Telescope with object glass 3 inches in diameter and 42 inches focal length with one terrestrial eyepiece (65x) or two celestial eyepieces; mounted on an Alt-Azimuth type stand with tripod. Price $165.00

E-135—Telescope with object glass 3½ inches in diameter and 50 inches focal length with one terrestrial eyepiece (75x) or two celestial eyepieces; mounted on an Alt-Azimuth type stand and tripod. Price $225.00

NOTE—A finder can be attached to either of the above telescopes.

TERRESTRIAL TELESCOPE—CLASS F



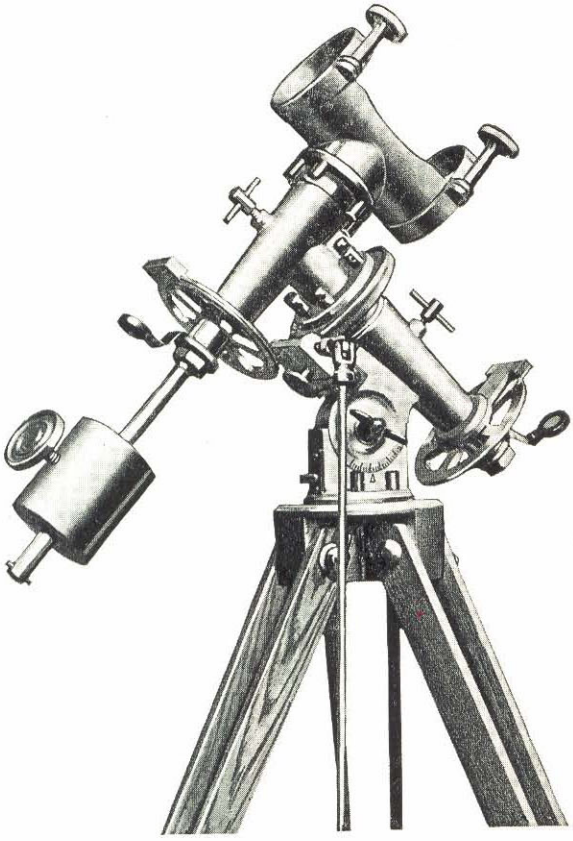
This telescope consists of an achromatic objective mounted in a brass tube with an enamel lacquer finish, with rack and pinion focusing motion and a terrestrial eyepiece for viewing land objects. The telescope is mounted on a beautifully finished metal stand with an Alt-Azimuth motion.

As a terrestrial telescope for viewing land objects, this instrument with rack adjustment is superior to the draw tube type in that objects are always in perfect center, thereby affording superior definition.

F-125—Telescope with 2½ inch object glass, 36 inches focus with a terrestrial eyepiece of 50x. Price $120.00

F-130—Telescope with 3 inch object glass, 42 inches focus with a terrestrial eyepiece of 65x. Price $160.00

CLASS B EQUATORIAL

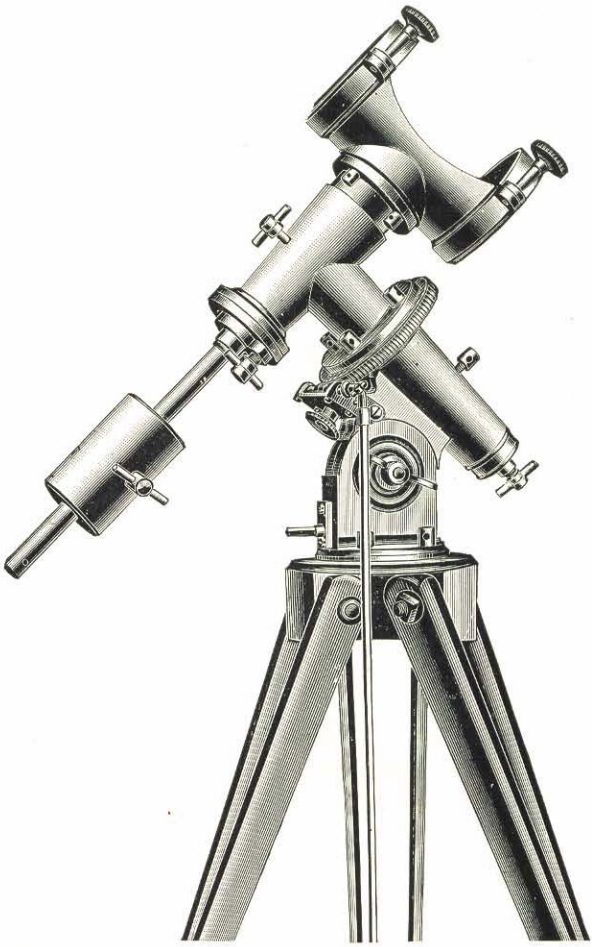


Our Class B equatorial is an extremely accurate instrument designed for the use of either the amateur or advanced astronomer. This stand has two finely divided circles, for right ascension and declination readings, each having a vernier and reading glass; a latitude movement which is adjusted by means of a key and tangent screw and gives the latitude reading on a divided quadrant. Each axis of the equatorial rests on two taper bearings which are ground in, insuring smooth motion and accuracy.

The right ascension axis has an independent slow motion governed by a friction disc. Quick motion can be obtained by moving the telescope tube and slow motion by turning a handle to which is attached a universal joint, without leaving the eye end of the telescope.

	Price
Equatorial for 3- and 3½-inch telescopes	$170.00
Equatorial for 4- and 4½-inch telescopes	240.00
Equatorial for 5- and 5½-inch telescopes	385.00
Equatorial for 6-inch telescope	475.00

CLASS C EQUATORIAL



The Class C equatorial is similar in design to the Class B, except that it has no circles. It is constructed and fitted with the same accuracy, has a latitude movement which is adjusted by a tangent screw, and has an independent slow motion on the right ascension axis which is controlled at the eye end of the telescope by means of a universal jointed rod.

This equatorial enables the observer to follow the movement of the celestial objects with one movement and greatly facilitates handling the telescope.

	Price
Equatorial for 3- and 3½-inch telescopes	$115.00
Equatorial for 4- and 4½-inch telescopes	155.00
Equatorial for 5- and 5½-inch telescopes	235.00
Equatorial for 6-inch telescope	295.00

ACHROMATIC OBJECTIVES

These objectives have the best possible correction for chromatic and spherical aberration; they are intended for Levels, Transits, Telescopes, and instruments requiring high magnifying power.

Diameter	Focus	Price
1 inch	6 to 14 inches	$ 8.00
1⅛ inches	8 to 16 inches	9.00
1¼ inches	10 to 18 inches	10.00
1½ inches	12 to 21 inches	12.00
1¾ inches	18 to 24 inches	18.00
2 inches	24 to 30 inches	25.00
2½ inches	30 to 36 inches	35.00

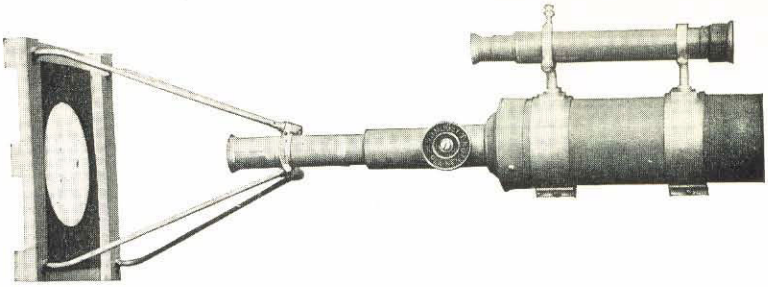
Lenses for eyepieces and other purposes; of any focal length

	Price
¼ to ¾ inch diameter plano-convex	$1.00
¾ to 1½ inch diameter plano-convex	1.50
¼ to ¾ inch diameter double-convex	2.50
¾ to 1½ inch diameter double-convex	3.00

BARLOW LENS

The Barlow lens is a concave achromatic objective which increases the magnifying power of the eyepiece. One end of the Barlow lens tube fits into the eye end of the telescope and the other end receives the eyepieces.

Price $15.00

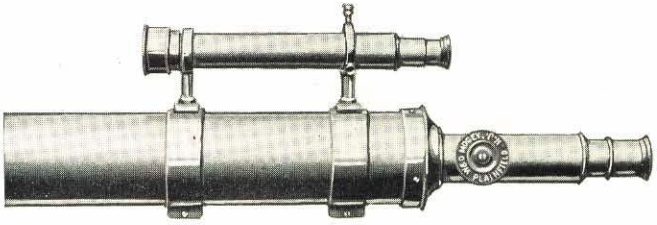


Sun Projector

The above cut illustrates our sun projector. The projector has a tube one end of which slides into the telescope and the other end receives the celestial eyepiece. The projecting frame accommodates a piece of white cardboard ten inches square on which the image of the sun is focused. The projector can be attached and detached as quickly as removing an eyepiece.

When the telescope, with an eyepiece in the adapter, is directed on the sun, it throws an image on the cardboard. This image can be made larger or smaller by using eyepieces of different powers. Sharpness of the sun spots is obtained by moving the eyepiece tube in and out.

Price $20.00



Attachable Finder

The above illustration shows a finder attached to a telescope by means of two brass bands which can be made to fit any size telescope tube. The finder can be attached to the telescope in a few minutes.

The finder has a 1¼-inch achromatic objective of 12 inches focus and a positive celestial eyepiece which gives a wide field of view. The finder and bands are of brass, polished and lacquered. The bands are lined with felt to prevent slipping or scratching the telescope tube.

Price $35.00

To get the size of your telescope tube, roll a strip of paper around the tube and cut the paper so that both ends meet. The strip serves as a gauge for the circumference of the tube.

EYEPIECES



CELESTIAL—Huyghens Type

Equivalent Focus Inches	Mm.	Price
1/5	5	$6.50
1/4	6.5	6.00
1/3	8.5	6.00
1/2	12.5	6.00
3/4	19	6.00
1	25.5	6.00
1 1/4	32	7.00
1 1/2	38	7.00
2	50.8	8.00
2 1/2	63.5	9.00

CELESTIAL—Ramsden Type

Inches	Mm.	Price
1/4	6.5	$6.00
1/3	8.5	6.00
1/2	12.5	6.00
3/4	19	6.00
1	25.5	6.00
1 1/4	32	7.00
1 1/2	38	7.00
2	50.8	8.00
2 1/2	63.5	9.00

Terrestrial

Inches	Mm.	Price
1/2	12.5	$10.00
3/4	19	12.00
1	25.5	14.00
1 1/4	32	14.00
1 1/2	38	14.00
2	50.8	15.00

SUN GLASS of dark neutral tint mounted in cap $3.00

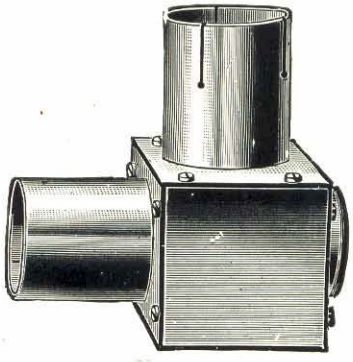
MOON GLASS of very light neutral tint, in cap 3.00

DIAGONAL EYEPIECE



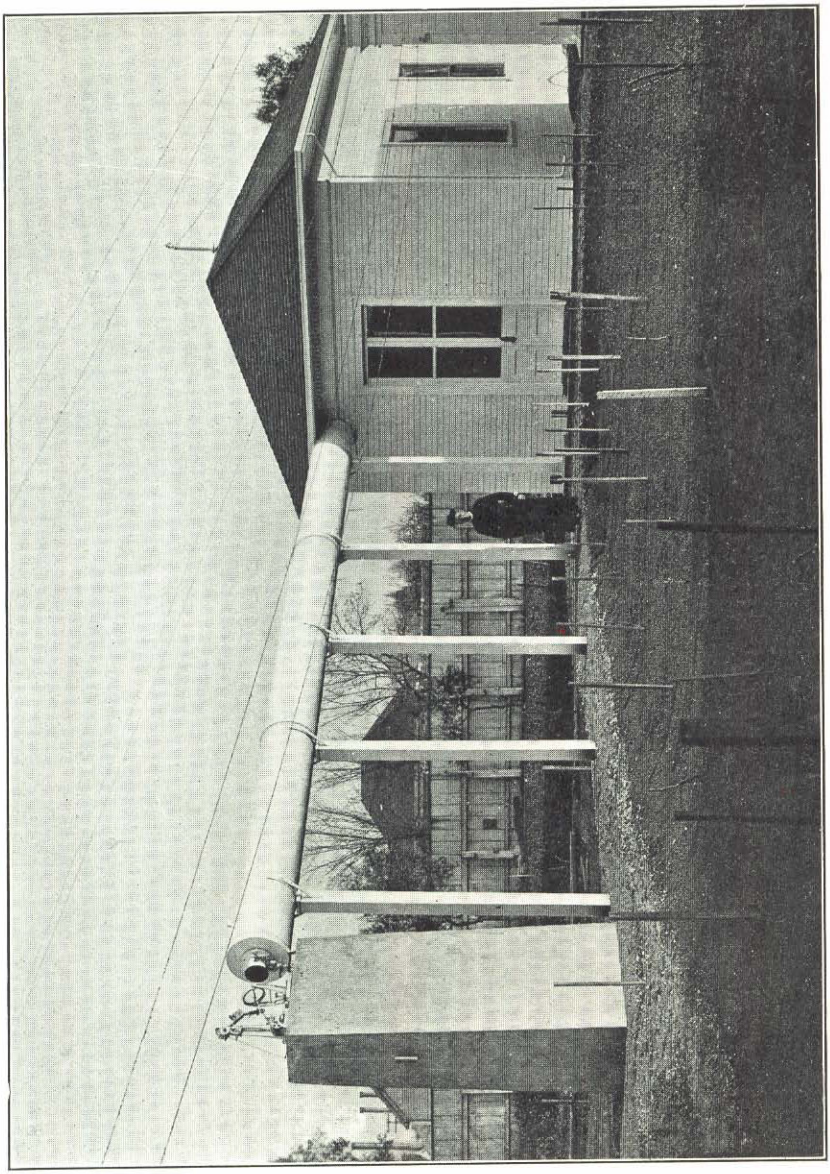
This eyepiece is intended for viewing celestial objects at a high altitude and increases the observer's comfort by eliminating awkward and impossible positions. The eyepiece consists of a right angle diagonal prism of the best crown optical glass, accurately ground and polished, and mounted in the best possible manner. Price $24.00

SOLAR EYEPIECE

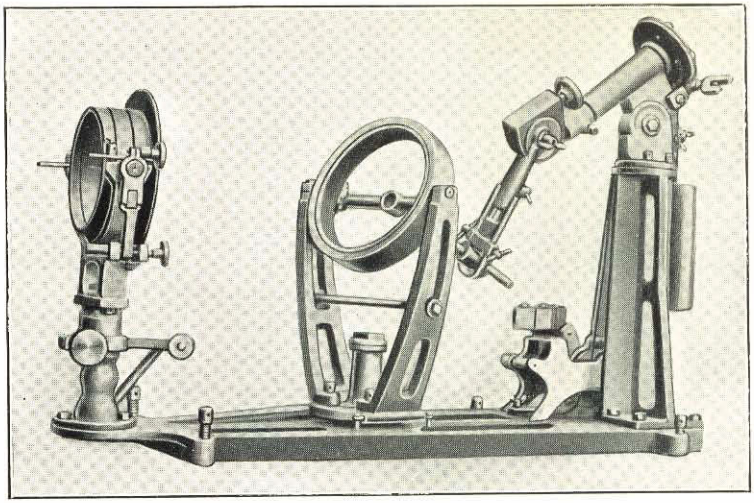


In viewing the Sun, to get the best possible definition, as little heat and intense light as possible should enter the eye. This solar eyepiece is constructed with a wedge prism so that only about 5% of the heat and light of the sun enters the eye. The other 95% is refracted away from the eye and leaves the eyepiece.

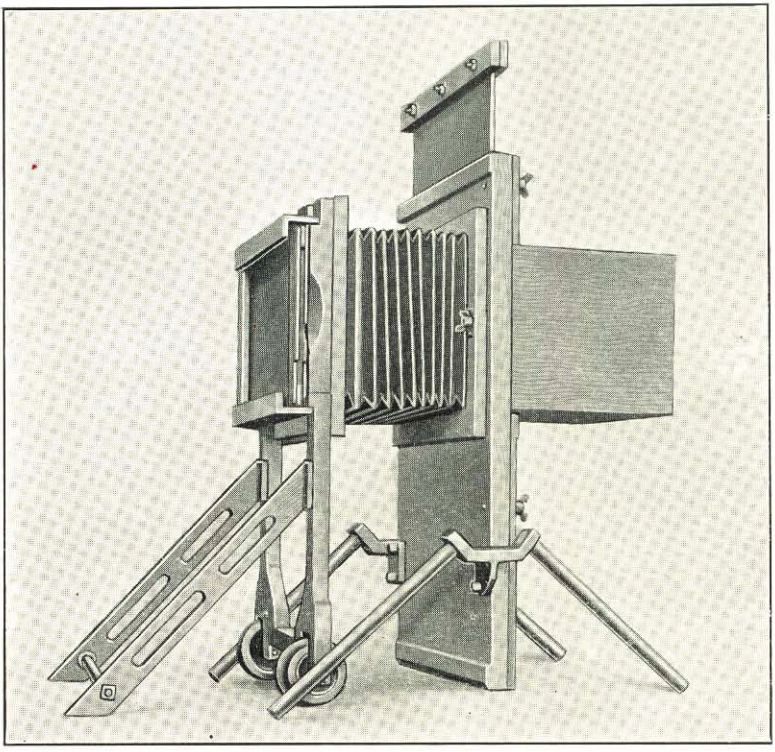
A cap with a colored sun glass to fit on the eyepieces is also supplied with the prism. Price $24.00



PHOTOHELIOGRAH AS MOUNTED AT SANTA CLARA COLLEGE, CALIFORNIA
Made by William Mogey



The optical end of this instrument has a flat surface reflector 8 inches in diameter and an achromatic object glass 6 inches in diameter and 37 feet focus.

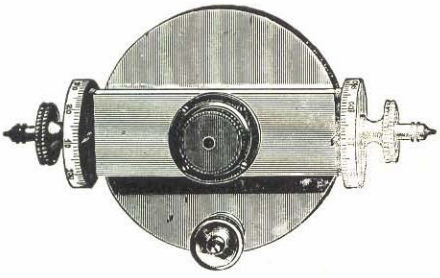


The camerama part of this instrument is made of two frames; one containing the shutter, giving an instantaneous exposure of the Sun; the other frame contains an 8x10 inch photographic plateholder; also an 8x10 inch ground glass for viewing Spots visually. These two parts of the instrument are connected by means of a bellows which can be moved back and forth for accurate focusing.

MICROMETERS



Filar Micrometer .....Price $150.00



Position Micrometer .....Price $200.00

The Micrometer is an instrument attached to the eye end of the telescope and is intended for measuring the diameter of the sun, moon, planets, the size of sun spots, and markings on the planets; the distance of the satellites from their primaries, between two contiguous stars, between a star and a planet, or between a comet and a contiguous star in order to determine its motion, etc.

These micrometers are constructed with a pair of fine wires moved by means of fine screws which have 100 threads to the inch, to which is attached a pair of drums graduated into 100 spaces. With one revolution of the drum, the wires are caused to move 1/100 of an inch and when turned one space on the graduated drum, the wires move 1/10,000 part of an inch; the value of the movements must be converted into seconds.

WILLIAM MOGEY & SONS, Inc.

SEMI-CENTENNIAL

1882 1932

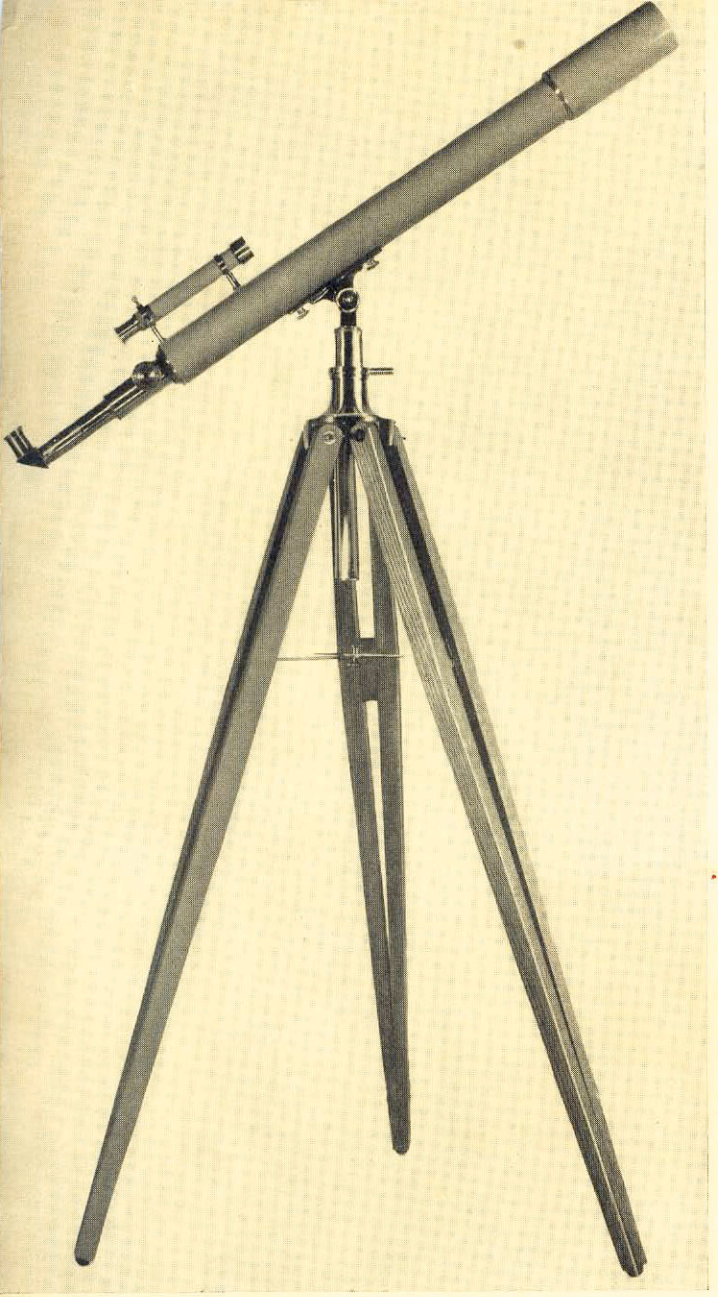
Supplementary

MODELS

MANUFACTURERS OF

Astronomical Telescopes

PLAINFIELD NEW JERSEY



DIAGONAL
EYEPIECE

FINDER

ADAPTOR
TUBE

are included in models shown on this page

Model
S. C. No. 99

3″ OBJECTIVE LENS
2 celestial eyepieces 60 and 135 power, 1 terrestial eyepiece 45 power, 1 sun glass.

PRICE $220

Model
S. C. No. 100

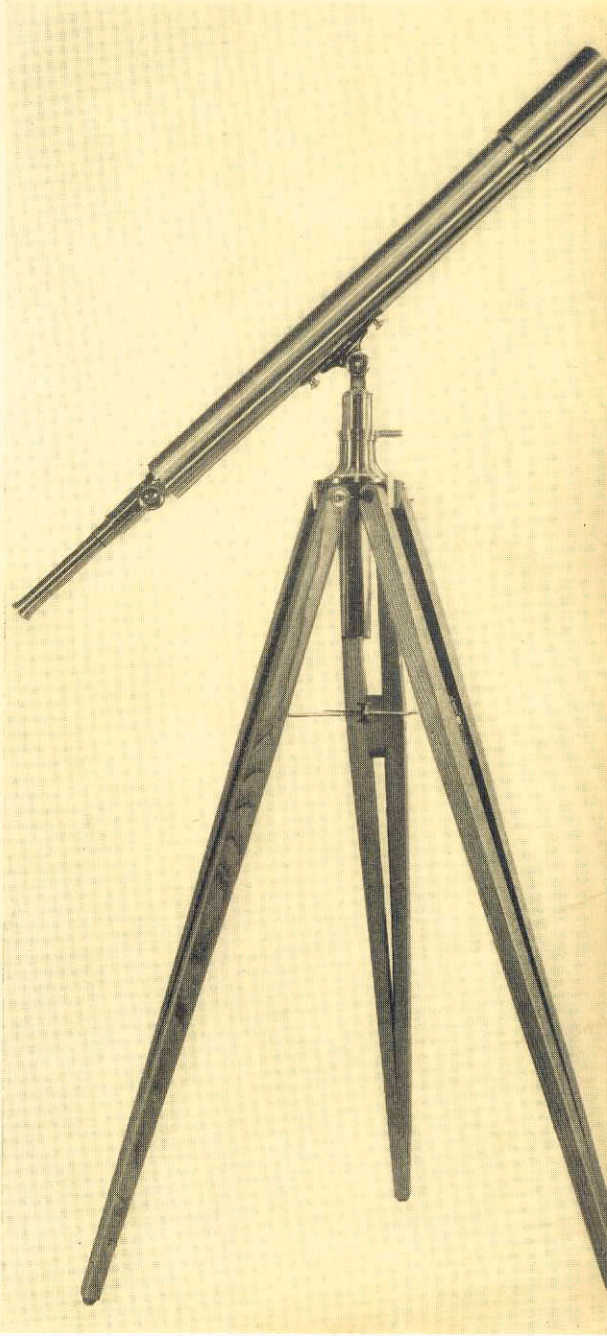
2½″ OBJECTIVE LENS
1 celestial eyepiece 72 power, 1 terrestial eyepiece 45 power, 1 sun glass.

PRICE $185

SPECIFICATIONS *for two models illustrated:*

LENGTH extended, 3″ model 60 inches, 2½″ models 52 inches. HEIGHT (to main tube) 56 inches. HEIGHT-ADJUSTMENT SHAFT permits raising to 68 inches insuring convenient use for individuals of different heights. MOUNTING: Alt-azimuth type. METAL PARTS: Machined brass tubing and instrument bronze. TRIPOD: Chestnut legs tipped with rubber to prevent marring tiles or finest wooden floors. FINISH: Brass with transparent lacquer (as shown on opposite page) or with French gray enamel (as illustrated on this page).

The unprecedently low prices quoted for the S. C. (Semi-Centennial) models illustrated here, are not to be taken as indicative of impaired quality or reduced optical efficacy. On the contrary, MOGEY QUALITY STANDARDS have been meticulously maintained. The optical accuracy, superior materials, and careful craftsmanship are of the same grade, kind and character used in our most costly instruments.



Model
S. C. No. 101

3″ OBJECTIVE LENS
2 celestial eyepieces 60 and 135 power, 1 terrestial eyepiece 45 power, 1 sun glass.

PRICE $160

Model
S. C. No. 102

2½″ OBJECTIVE LENS
1 celestial eyepiece 72 power, 1 terrestial eyepiece 45 power, 1 sun glass.

PRICE $115

PRICES: Quoted are F. O. B. Plainfield and include packing.

TERMS: Remittance with order. 2% cash discount.

DELIVERIES: Orders will be filled in sequence received, 2 to 6 weeks from day of receipt.

Our Telescopes are in use all over the United States and in Foreign Countries

A Partial List of Schools and College Using Our Instruments

State Normal School	Peru, Neb.
Portsmouth High School	Portsmouth, N. H.
Gethsemane College	Nelson Co., Ky.
Geneva College	Geneva, N. Y.
Territorial Normal School	Edmond, Okla.
Higgins Classical Institute	Charlestown, Me.
Muscatine High School	Muscatine, Ia.
Joliet High School	Joliet, Ill.
East Florida Seminary	Gainesville, Fla.
Mississippi Female College	Meridian, Miss.
Baron de Hirsch School	Woodbine, N. J.
Manhattan College	New York, N. Y.
Simpson College	Indianola, Ia.
Smith College	Northampton, Mass.
Mt. Holyoke College	South Hadley, Mass.
McPherson College	McPherson, Kan.
Briarcliff School	Briarcliff Manor, N. Y.
St. Ignatius College	Cleveland, O.
Newark High School	Newark, N. J.
Santa Clara College	Santa Clara, Cal.
Boston University	Boston, Mass.
Georgetown College	Georgetown, Ky.
Wilson College	Chambersburg, Pa.
Smith Observatory, Prof. Wm. R. Brooks	Geneva, N. Y.
Western Illinois State Normal School	Macomb, Ill.
Bloomsburgh State Normal School	Bloomsburgh, Pa.
Brooklyn Institute of Arts and Science	Brooklyn, N. Y.
Florida University	Gainesville, Fla.
Howard University	Washington, D. C.
St. Anselms College	Manchester, N. H.
Berkeley High School	Berkeley, Cal.
Wilson Memorial Academy	Nyack, N. Y.
Hunter College	New York, N. Y.
Delaware College	Newark, Del.
General Staff College	Washington, D. C.
Southwest Texas State Normal School	San Marcos, Texas
Lebanon Valley College	Annville, Pa.
Virginia Union University	Richmond, Va.
Asbury College	Wilmore, Ky.
West High School	Salt Lake City, Utah.
Southwestern College	Winfield, Kan.
Cheyenne Mountain School	Colorado Springs, Colo.
Louisiana Polytechnic Institute	Ruston, La.
Colorado State Teachers College	Greeley, Colo.
Presbyterian College of South Carolina	Clinton, S. C.
Chicora College	Columbia, S. C.
Girard College	Philadelphia, Pa.
Sarah Lawrence College	Bronxville, N. Y.
Washington & Jefferson College	Washington, Pa.
Hackley School	Tarrytown, N. Y.
Berea College	Berea, Ky.
Visitation Academy	Parkersburg, W. Va.
Bradley Polytechnic Institute	Peoria, Ill.
East Texas State Normal College	Commerce, Texas
State Normal School	Jersey City, N. J.
U. S. Government	Washington, D. C.