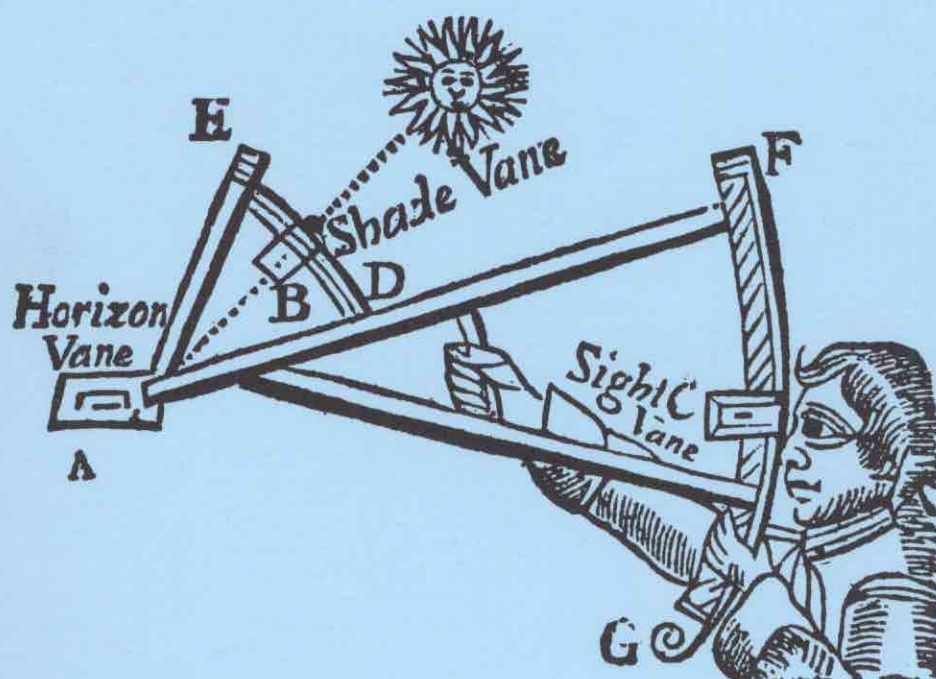


Historical Technology in America

Special Catalog 1



HISTORICAL TECHNOLOGY, Inc. (617) 631-2275
Saul Moskowitz, President
6 Mugford Street Marblehead, Massachusetts 01945

16. Thomas H. Sumner, "A NEW AND ACCURATE METHOD . . .", 3rd Ed, Groom, Boston, 1851. Original embossed cloth binding, as above, 9 1/2" h x 6" w; 92 pgs with the 5 plates and fold-out frontispiece. Contents fine with a tear in the last plate and a faulty rear fly-leaf, binding a bit more worn than the previous copy. (postpaid) \$ 75

From The Library of Samuel Thaxter, Jr., Boston Instrument Maker

17. "TURNER'S LONGITUDE TABLES FOR CORRECTING THE OBSERVED DISTANCE OF THE MOON AND SUN, OR MOON AND STAR, For The Effects Of PARALLAX AND REFRACTION," Richard Patten, New York, 1833. Original leather backed board covers 8 1/2" h, 5 1/2" w; 28 pgs, Samuel Thaxter, Jr.'s signature on the cover and several interior pages, and a Thaxter & Son sales handbill inserted between two pages. The leather backing is in poor condition, the contents of the book very good. There is a chronometer advertisement on the cover from Simon Willard, Jun. of Boston as well as several of Richard Patten throughout the book. An interesting little book of great significance because of its ownership. (postpaid) \$ 75

18. U. S. NAVY CHRONOMETER CORRESPONDENCE FOR THE YEAR 1833. Eight hand written letters between the U. S. Navy and London concerning the purchase of chronometers and other navigational instruments contained in a modern cloth bound folder. Four letters are office copies of originals sent to England including one to Parkinson and Frodsham complaining about the poor quality of workmanship in 24 quadrants purchased from them and another to Troughton & Simms noting the many defects in the sextants they sold to the U. S. Navy. It seems that the best London instrument makers were not above trying to put one over on the Americans. The 4 original letters from England include a quote on chronometers from Arnold and Dent and another from French, Royal Exchange, signed by French. These letters are unique and show an aspect of the instrument and chronometer business not generally known and yet which should be of major importance to any scholar of navigation in America or the commercial aspects of English chronometer making. (postpaid) \$ 120

PRESENTATION COPY FROM THE PRESIDENT OF THE UNITED STATES

19. Herbert C. & Lou H. Hoover, "Georgius Agricola DE RE METALLICA Translated From The First Latin Edition of 1556", The Mining Magazine, London, 1912. Inscribed "To H. A. Titcomb Esq with Compliments of H C Hoover". Original vellum binding 13 3/4" h x 8 1/2" w; pgs. xxxi, 640, with hundreds of text figures reproduced from the original woodcut illustrations. Extremely fine condition. Harold Titcomb was one of Hoover's fellow students of mining at Stamford. Hoover and his wife Lou worked five years on this translation into English of the greatest medieval treatise on mining and the metal working arts ever published. Indeed, because Hoover was a working mining engineer at the time and knew the subject as no pure scholar ever could, this translation is generally recognized as being superior to all others prepared in earlier times. The extensive added footnotes and explanations result in this translation actually being a critical study of medieval metalurgy, the like of which may never be equaled. The passage of time may yet result in Herbert Hoover's place in history being established by this work rather than his presidency. Let us hope so. (postpaid) \$ 350

LAND SURVEYING

20. Charles Davies, "ELEMENTS OF SURVEYING WITH THE NECESSARY TABLES", 1st Ed, J. & J. Harper, New York, 1830. Original leather binding (badly cracked at hinges) 8 3/4" h, 5 1/4" w; 147 pgs. text, 62 and 91 pgs tables, 8 large fold-out copperplate engravings (the 9th missing) 4 of instruments: the theodolite, plane table and alidade, surveyor's cross and compass, marking protractor. Front fly leaf missing, some tears in edges of plates, otherwise contents fine. Intended for use at West Point, this book gained general popularity and many editions were printed, Karpinski listing 15 issues through 1850. (postpaid) \$ 30
21. Charles Davies, "ELEMENTS OF SURVEYING AND NAVIGATION, With Descriptions of the Instruments and the Necessary Tables.", Revised Edition, Barnes & Burr, New York, 1864. Original leather binding 8 1/4" h x 5" w; pgs. viii, 9-222, 71, 2-100, 6 fold-out plates including the original 4 of instruments. Covers attached although hinges cracked, otherwise fine overall condition. The preface is dated 1851 suggesting that this ed. was last revised at that date. (postpaid) \$ 20
22. Abel Flint, "A SYSTEM OF GEOMETRY AND TRIGONOMETRY: Together With A TREATISE ON SURVEYING", 4th Ed, Cooke & Hale, Hartford, Connecticut, 1818. Original leather binding (minor rubbing) 8 1/2" h, 5 1/4" w; pgs. viii, 9-80, 88, 4 fold-out copperplate engravings, contents good with minor foxing and water stains, frayed edges to plates. A highly regarded American book (1st ed in 1804) which was published for over half a century. It is still possible to acquire a set of all editions of this book at reasonable cost. Thus for one interested in the progress of American surveying, these editions will prove of extreme interest. (postpaid) \$ 25

First New York Edition

23. Robert Gibson, "A TREATISE OF PRACTICAL SURVEYING;", 8th Ed (1st New York and 5th American), William A. Davis & Co, New York, 1798. Modern leather binding 8 1/2" h x 5 1/4" w; 452 pgs. and 13 plates. Minor foxing and staining of end pages, fine overall condition. Taylor 2 notes a 2nd ed of 1767 implying it was London published. The evidence suggests that Gibson was Irish and several of his editions of this work are known to have been published in Dublin. The 1st American edition (called the 4th) was published in 1785 and by 1839 there had been 22 editions in this country. (postpaid) \$ 85

24. Robert Gibson, "THE THEORY AND PRACTICE OF SURVEYING; . . . The Whole Corrected, Newly Arranged, and Greatly Enlarged, . . . BY D. P. ADAMS," Evert Duyckinck, New York, 1811. Original leather binding (somewhat primitively but satisfactorily rebacked) 8 3/4" h x 5 1/4" w; pgs. (4), 324, 184 (tables), 13 fold-out engraved plates. Very good overall condition with general foxing and browning of pages, tears in some of the plates and the front flyleaf lacking. Karpinski lists this as the 4th New York and 10th American edition. (postpaid) \$ 55

First Edition of Work Published for a Century

25. John Gummere, "A TREATISE ON SURVEYING, Containing The Theory and Practice: To Which Is Prefixed, A PERSPICUOUS SYSTEM OF PLANE TRIGONOMETRY.", Kimber & Richardson, Philadelphia, 1814. Modern leather binding 8 3/4" h x 5 1/4" w; pgs. v, (5), 9-202, 152 (tables with separate title page dated 1814, listed separately by Karpinski), 7 (of 8, no. 3 lacking) engraved plates. Very good condition although 2 plates with tears and heavy foxing throughout. Karpinski notes that there were editions as late as 1917 and lists 21 through 1849. This book obviously proved popular with the general surveyor and seems to have been particularly prepared for self-instruction. (postpaid) \$ 50
26. Heller & Brightly, (CATALOG) "REMARKS ON ENGINEERS' SURVEYING INSTRUMENTS", Philadelphia, 1880. Original cloth covered boards 9" h x 5 3/4" w; pgs. (4) 16, 42, (14) 5, several plates and inserted slips. Fine overall condition. (postpaid) \$ 20

Second American Edition

27. John Love, "GEODAESIA: OR, THE ART of SURVEYING AND MEASURING LAND made Easy. . . . AS ALSO To lay out New Lands in AMERICA, or elsewhere: . . .", The 13th Ed adapted to American surveyors, Samuel Campbell, New York, 1796. Modern leather binding 8" h x 4 1/2" w; pgs. (14), 189, 53 (tables), 8 (appendix on surveying by chain only) many text woodcut diagrams. Contents generally fine with minor stains. The first edition of this work was published in London in 1688 just after Love returned from surveying in America. There were (obviously) at least 13 English editions and 2 published in America. The first published here (in 1793) was based on the 12th London. (postpaid) \$ 105

First Good American Book on Surveying in America

28. Samuel Moore, "AN ACCURATE SYSTEM OF SURVEYING", T. Collier, Litchfield, Conn., 1796. Modern leather binding 9 1/4" h, 5 1/2" w; pgs. x, (6), 131, (1), diagrams within text. Some yellowing of pages, almost fine condition otherwise. An important book, probably the second one on surveying actually written and published in America; John Carter's work of 1774 having important deficiencies. The first part of the book presents a course in basic mathematics before going on to actual surveying; necessary because of the limited education of many of the men who were to use it. (postpaid) \$ 125
29. Warren-Knight Co., (CATALOG) "HOW TO USE STERLING CONVERTIBLE WYE LEVEL", Philadelphia, 1929. Original paper covers 7 1/4" h x 4 1/4" w; 52 pgs., some with illustrations. Fine condition. (postpaid) \$ 5

FIRST BOOK ON THE SLIDE RULE IN AMERICA

30. Thomas Abel, "Subtensial Plain TRIGONOMETRY, Wrought with a SLIDING-RULE, WITH GUNTER'S LINES: AND ALSO ARITHMETICALLY, In a very concise Manner. And this Method apply'd to Navigation and Surveying.", Andrew Steuart, Philadelphia, 1761. Original leather backed board covers 6 1/4" h x 4" w; pgs. (2), 86, 7 fold-out engraved plates. Normal wear to binding which is still quite sound, pages browned but otherwise fine, Plt 2 with repaired tear, corner of Plt 3 replaced, and outer 2/3 of Plt 6 lacking and provided in facsimile. This book is one of the first 20 in mathematics published in America in the English language, certainly the first on the Gunter and slide rules, and appears to have been written here as well even though the author identifies himself as "of Bourn in Lincolnshire, Old England". The last recorded sale of this book was in London, 1974 in Part 1 of the Horblit Library auction when it brought £180 (same general condition, plates complete but no. 6 partly defective). This is rather a rare book and it took us several years to locate the 2 copies offered in this catalog. (postpaid) \$ 165
31. Another Copy of the Above Book. Same overall description but with several plates lacking or defective as follows: Plts 1, 6, & 7 lacking and provided in facsimile, 1/2 of Plt 2 in facsimile, extreme edge of Plt 3 in facsimile. (postpaid) \$ 70

THE MICROSCOPE

32. William B. Carpenter, "THE MICROSCOPE AND ITS REVELATIONS", 5th Ed, Lindsay & Blakiston, Philadelphia, 1875. Original cloth binding 7 3/4" h x 5" w; pgs. xxxii, 843, 25 plates and 449 text illustrations. Fine overall condition with fading of the spine. This is an American edition of one of the two most comprehensive 19th c English sequence of works on the microscope (Hogg is the other). (postpaid) \$ 50

Items marked "postpaid" are so shipped within the U.S. only.
See Terms of Sale for complete details.



43. THE LARGEST OF THE PLAIN COMPASSES - American, late 19th c, signed "W. & L. E. Gurley, Troy, N. Y.". All brass in original green-black oxidized finish, 7" d silvered face compass with 6" needle on 15 1/2" long base, 7 5/8" h screw-on sight vanes for 10 1/4" overall ht, fitted with tally counter, ball & socket joint only partially complete and case seems to have position for 4-screw leveling base which is not present. Original dovetailed mahogany case 19 1/2" x 8 1/2" x 4 1/2" h with name plate of the Department Of Practical Military Engineering, U. S. M. A. (West Point). Case is sound but could stand refinishing, the surveyor's compass is in very fine condition. This is an impressive instrument and not often found in the oxidized finish (it is the only one we have ever had).

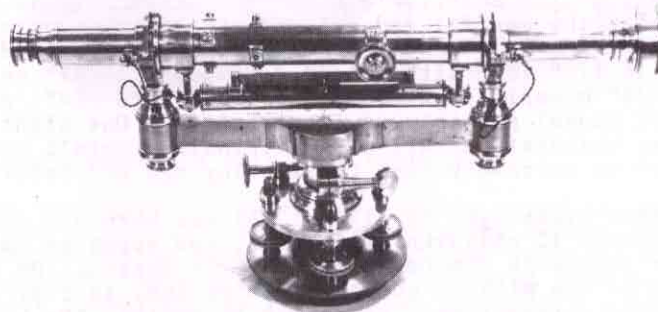
Gurley is one of the few remaining American surveying instrument makers of the hundreds founded in the 19th century. Jonas H. Phelps and William Gurley were partners from 1845-51 at which time Lewis E. Gurley joined the firm. Phelps & Gurleys lasted only 1 year to become (in 1852)

W. & L. E. Gurley, the name they have to this day. Throughout this time they produced instruments unique in appearance and of particular elegance as may be determined by an examination of their works which have been listed in these catalogs.

(22 lbs, UP, air freight)

\$ 275

44. ELEGANT WYE LEVEL - American, 2nd qtr 19th c, signed "H. M. Pool, EASTON, MASS.". Bright brass with restored lacquer finish, 9" h incl 4-screw leveling base, telescope with rack & pinion focus of 1 5/8" d objective and draw tube eyepiece focus is 17" long extending to 18 1/2", 7" bubble, 9 3/4" between wyes, tangent screw for fine azimuth motion. Original dovetailed double door stowage case 19 1/4" long, 11" h, 6" deep. Case is sound although surfaces show wear and repeated varnishing, instrument in extremely fine condition.

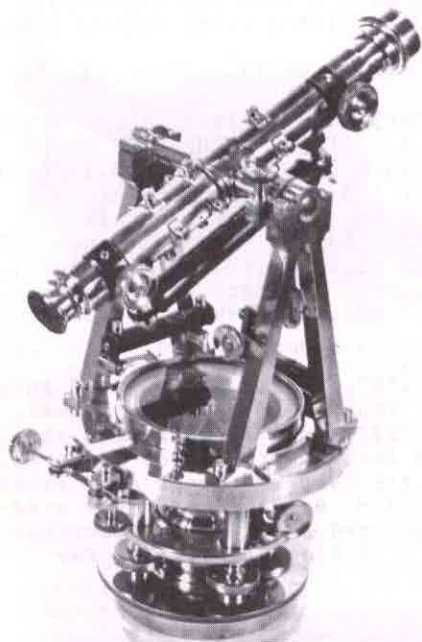


Horace M. Pool (1803-1879) established the firm in 1828 which eventually became J. & H. M.

Poole when his son John Murray (1824-1904) joined him (probably about 1855-60 although we have not been able to pinpoint this date). Machining details of this instrument have the same extra touches which seem to characterize much of Pool's work (see 110-165 and 111-99) making his instruments even more impressive than those of Gurley. This is a fine example of an uniquely American design.

(30 lbs UP, air freight)

\$ 325



45. TRANSIT BY THE MAYOR OF BOSTON, A GRANDSON OF PAUL REVERE - Obviously American, c. 1865, signed "F. W. Lincoln, Jr. & Co./ 933/Boston". Bright brass with some fittings and the bubble levels in black oxidized finish, 10 1/2" h (telescope horiz), telescope 9 1/2" long with rack & pinion focus of objective and eyepiece and 4 1/2" bubble level, 6" d base plate with 3 7/8" d compass, 2 7/8" needle, opposing 1/2 arcmin verniers on silver (not silvered) scales, compass face black with silvered outside scale. Very fine condition. Later (Buff & Buff) field case 9 1/2" x 10 1/2" x 14" h showing much use.

Frederick W. Lincoln (1817-1898), a grandson of Paul Revere, was apprenticed to Gedney King in 1830, setting up his own business in 1839. In 1858 one of his apprentices, Charles C. Hutchinson, became a partner, and the firm became F. W. Lincoln, Jr. & Co. Lincoln was president of the Massachusetts Charitable Mechanics Association and was elected Mayor of Boston in 1857 and each year thereafter until 1864. Lincoln retired in 1883 selling his share of the firm to Hutchinson at which time the name was changed to C. C. Hutchinson.

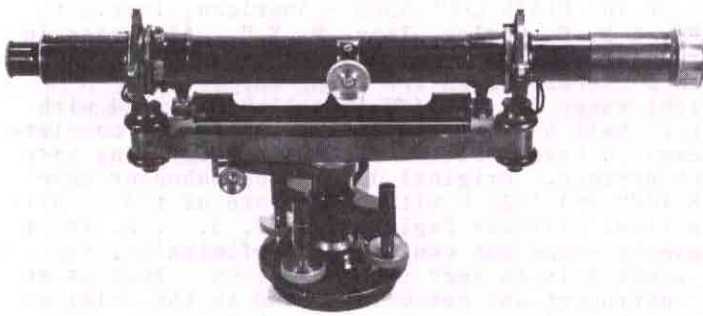
(30 lbs UP, air freight)\$ 445

46. 100 LINK SURVEYOR'S CHAIN - American, late 19th c, signed "YOUNG & SONS PHILADA.". Iron links brazed shut with brass handles (each signed as above) and 5 brass marker tags, 66 ft overall length. The chain has seen much use, a few of the links are replacements and there are the effects of corrosion. Overall condition rated good to very good considering application. According to Smart the firm of William J. Young (1800-1882) inventor of the American transit, had the following names: William J. Young (1825-1866) William J. Young & Co. (1867-70), William J. Young & Sons (1871-80), Young & Sons (1881-1918) The dating of this chain is based accordingly, although design details tend to place it earlier.



(7 lbs, UP, PS)

\$ 110



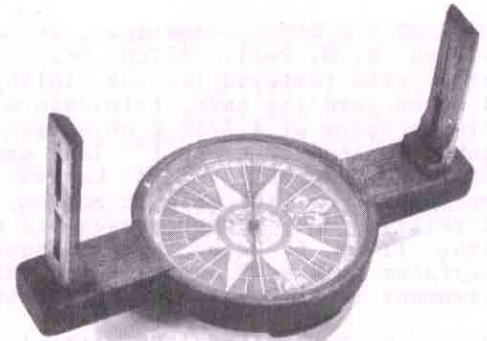
47. GOOD WYE LEVEL - American, c. 1900, possibly late 19th c, signed "EUGENE DIETZGEN CO./CHICAGO & N. Y./714". Brass construction in original black oxidized & black lacquered finish with some screws and fittings in bright lacquered brass, 8 1/4" h incl 4-screw leveling base, telescope 18" long with rack & pinion objective extension to 20", 8" bubble level, 10 1/2" between wyes, lens cap and sun shield, spring loaded tangent screw azimuth motion. Original dovetailed hard pine case 19 1/2" x 6" x 9 3/4" h. Case in very good, instrument in very fine condition with a few scratches on the lacquered surfaces and some fading or rubbing of the oxidized finish.

Eugene Dietzgen was born in Germany in 1862, came to America in 1880, and died in Chicago in 1929. The company was founded in 1885 as Luhring & Dietzgen, became Eugene Dietzgen & Co. in 1891 and Eugene Dietzgen Co. (the name on this instrument) in 1893. It, like K & E, is one of the remaining few companies in this country producing a range of engineering and surveying instruments and supplies. One may compare this wye level with the later one by the same firm (serial no. 9771) listed as Item 186 in our Catalog 109.

(26 lbs, UP, PS)

\$ 190

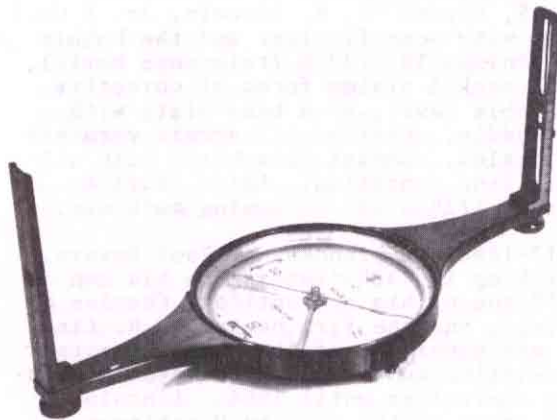
48. EARLY & RARE SURVEYOR'S COMPASS - American, mid 18th c, signed within the central red colored ring of the engraved compass card "Made by Thomas Greenough Boston N. England". Walnut frame 10 1/2" long with 5 1/4" d compass, 4 1/2" needle, slip-in 3 7/8" h maple sight vanes, overall ht 5 3/4", pine dial cover (not shown) possibly of later origin. One sight vane is a modern restoration, all else original. Overall condition is very to extremely fine considering age and material. No case.



Thomas Greenough, Sr (1710-1785) was born and died in Boston, fathered 12 children by 2 wives, and seems to have been a major figure in the commerce of early Boston. He was member of one of the militia companies in Boston, in 1747 he was listed as 3rd sergeant and, according to Bedini, "He was a firm patriot, held a town office, and was a founder and deacon of the New Brick Church in Boston." The compass card here is identical to the 5 described in Bedini, of a design for use in marine compasses (a decorated east to the east). Within the signature ring a naval officer in the dress of about 1740 stands on the shore using a Davis quadrant. Offshore in the harbor is a schooner of the 1750 period. Minor features of the scene are touched up in red. This is Greenough's second design. See Item 251 of our Catalog 108 for a comparison of the two, the first with a ship and lighthouse. The body of this compass is similar in design to that of Fig 44 of Bedini with a cross rather than longitudinal bracket on the bottom.

(6 lbs UP, \$ 8.00 registered mail)

\$ 685



49. THE MODEL 5302 SURVEYOR'S COMPASS - American, 1918 (based upon the 36,000's serial no.). Signed "KEUFFEL & ESSER CO/NEW YORK". Cast and machined brass in bronzed lacquer finish, silvered dial compass 5 3/4" d with 5" needle, 14" long base with 5" h screw-on sight vanes. Half the ball swivel joint is missing. Original mahogany case 15" x 7 1/4" x 2 1/2" h with name plates of K + E and the U. S. M. A., Department of Practical Military Engineering at West Point. Case in very good, compass in extremely fine condition.

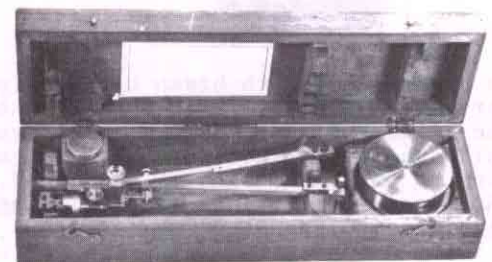
Keuffel & Esser, founded in 1867, first manufactured surveying instruments in 1885. Their 1913 catalog states: "The Surveying Compasses No. 5300 to 5310 represent the latest construction of these instruments, which we have improved in many features. The compass box is sunk flush with the plate instead of projecting above it. The grad-

uations, to half degrees, are on a raised ring and the needle is of our improved pattern, as described on page 327. One of the detachable sights is graduated and provided with a sliding cross-piece for measuring vertical angles.

(12 lbs, UP, PS)

\$ 190

50. CASED MAP-MAKER'S PLANIMETER - Probably American, c. 1890, signed and numbered "KEUFFEL & ESSER Co. N. Y. 102". Planimeter in German silver 8 1/2" long, 2 5/8" d brass pivot base, original mahogany case 12 1/2" x 3 3/4" x 2 1/2" h. Instrument and case in very fine condition. Original instruction book dated 1887 included, but in poor condition. This instrument, later designated the "Improved Polar Planimeter" model 4230, is used to obtain the area of an irregular plane figure by tracing about its perimeter. It is continuously variable in adjustment so that it may be use to obtain a direct reading over a range of metric and English measure mapping scales.



(8 lbs, UP, PS)

\$ 75



51. A SIMPLE BUT EFFECTIVE THEODOLITE - American, signed and dated "Yankee No. 294/FROST & ADAMS CO./BOSTON, MASS./PAT. DEC. 17, '12". Black oxidized brass with bright brass fitting and silvered scales, telescope 9 1/2" long with rack & pinion focusing objective, 3 3/4" bubble level, 7 1/4" overall ht incl 4-screw leveling base. Vertical readout to degrees on 1 1/2" rad sector, horizontal to 5 arcmin by vernier on 3 1/2" d scale. Original wooden tripod (not shown) 58" long. Original mahogany carrying case 14" x 6" x 9" h contains sunshield and plumb-bob. Instrument very fine, tripod and case very good to fine condition. Smart notes that on June 1, 1931 the Makepeace Co. of Boston bought the Frost & Adams Co., an old established Boston firm which was founded in 1835 and incorporated in 1895. This

is a nice example of a relatively simple instrument which was probably adequate for much building contractor's work.

(2 UP packages of 10 & 15 lbs) \$ 145

52. EARLY INSTRUMENT MAKING IN NEW YORK STATE - Surveyor's compass signed and dated, "C. Hurtin; Goshen: No: 34. AD:1809.". Bright brass with restored lacquer finish, 6 1/4" d compass with 5 1/4" needle on 13" long base, 4 5/8" h slip-on sight vanes for 6 1/4" h overall. Made without bubble levels on the English (colonial export?) style. The engraved and silvered compass dial is the most elaborate and elegant we have ever seen. Unusually shaped oval hard pine stowage case 14" x 7 1/4" x 3 1/2" h which appears to be original because some of the paper lining is from a Goshen newspaper of April, 1809. There are places in the case for a small protractor and a ball & socket joint which are now lacking. The case is in relatively fine and the compass in very fine condition.



Christian Hurtin (c. 1743-1830) born in either New York City or Newark, New Jersey moved to Goshen, New York sometime before the Revolution. In the Jan 15, 1793 "Goshen Repository and Weekly Intelligencer" he listed himself as a Clock and Watch-Maker noting that he also made and repaired surveying compasses. His output of these was very limited, Smart listing his no. 8 dated 1788 and his no. 39 dated 1811. It is probable that his greatest output was at the rate of but 2 or 3 a year. This is a rare, historically significant, and extremely attractive instrument and not at all similar in design to most American instruments.

(12 lbs UP, air freight)

\$ 445



53. WOOD & BRASS SURVEYOR'S COMPASS - American, early 19th c, signed "G. KING. BOSTON". Walnut frame and base 14" long with 6 1/2" d compass, 5 1/4" compass needle, screw on brass sight vanes 4 1/2" h, brass bottom mounting plate, brass ball & socket leveling joint. A needle lifter for the compass appears to be of later origin. The partly stained engraved paper compass card is of the same type used for marine compasses (east to the east) and is signed "Wightman Scu". The lacquer finish on the brass is a modern restoration as is the compass glass. Early (original?) painted wooden case 15 1/4" x 7 1/2" x 3 1/4" h in good condition. The compass is in very fine condition; the combination of wood and brass is particularly interesting.

Gedney King, born in Salem in 1777 (d. 1839), apprenticed to his uncle Benjamin King (of Salem). Brewington states: "By 1800, he was an instrument maker first in Fore Street, later in Fish Street, Boston: 1805, 10 North Row, Fish Street; 1820, 29 State Street; . . .". His son, Charles Gedney, became his partner in 1837. The compass card was engraved by Thomas Wightman, born in England, emigrated to Massachusetts about 1800. He was in Salem 1802-05 and in Boston 1805-06, but disappears thereafter. This, together with design considerations probably places this very rare compass in the first 5 or 6 years of the 19th century.

(12 lbs UP, air freight)

\$ 625

54. BUFF TRANSIT PLAQUE - American, early 20th c. Nickel plated brass oval plaque 4" x 3" showing typical surveyor's transit made by Buff & Buff Mfg. C. of Boston. An excellent display item for any collection of American surveying instruments; a necessity for the collector of any Buff instruments. Mint condition.

(2 lbs, UP, PS)

\$ 25



PLEASE REFER TO "TERMS OF SALE" BEFORE ORDERING



55. THE 4" NEEDLE SINGLE VERNIER SURVEYOR'S TRANSIT - American, 1870-80, signed "W. & L. E. Gurley, Troy, N. Y./F. W. Lincoln Jr. & Co. Agents, Boston, Mass.". Brass in original black oxidized finish with various fittings in bright lacquered brass, 12 1/2" h (telescope horiz), telescope 10" long with 6 1/4" bubble and rack & pinion objective focusing, 6 3/4" d base plate with 4 3/4" d silvered face compass, silvered readout scale with single 1 arcmin vernier. The 4-screw leveling base separates from the basic instrument. The compass dial is adjustable, by vernier, for the magnetic variation. Fine to very fine overall condition with some fading and rubbing of the oxidized surfaces, some of the bright brass parts have been cleaned and relacquered and the telescope level is of Gurley origin but fitted from another instrument. No case.

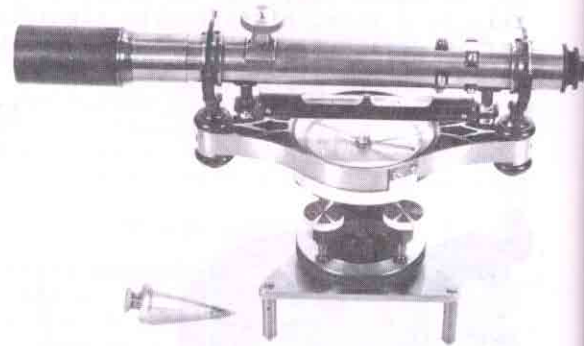
The Gurley catalog of 1869 illustrates this instrument with a price of \$ 156. In their 1880 catalog it has been reduced to \$ 128, a sign of hard times. Quoting from the earlier catalog, "In this instrument, as just described, the surveyor will recognize advantages not possessed by any other instrument with which we are acquainted. Combining the capabilities of a needle instrument, with a fine telescope, and the accuracy of a divided limb and verniers, and having also the means for turning off the variation of the needle; it is for a mixed practice of accurate surveying and engineering, such indeed as is required by most city engineers, the best instrument ever constructed. The peculiar construction of the sockets and plates of this instrument is entirely our own invention, and we feel the utmost confidence in recommending it to all whose practice is such as to require the use of

the needle combined with that of the divided circle and verniers.

56. ARCHITECTS Y LEVEL WITH COMPASS - American, c. 1890, signed "KEUFFEL & ESSER CO. NEW YORK 1863". Bright lacquered brass with black lacquered fittings, silvered compass dial and azimuth readout scale, telescope 11" long with rack and pinion focusing of 7/8" d objective and 5" bubble level, 7 1/4" between wyes, compass 3 1/2" d with 2 3/4" needle, azimuth readout by vernier to 5 arcmin. 8 1/2" h as shown incl 4-screw leveling base and triangular mounting plate with 1 1/2" h legs for plane table application. Cutout pattern in wye frame discontinued relatively early, probably because of cost considerations. Original dovetailed mahogany case 12 1/2" x 5" x 8" h. Case in almost fine, wye level in near mint condition. The contrasting golden brass, black and silvered finishes of this instrument together with the cutout frame make this the most attractive of this class of instrument we have ever had. Indeed, it practically sparkles.

(20 lbs UP, air freight)

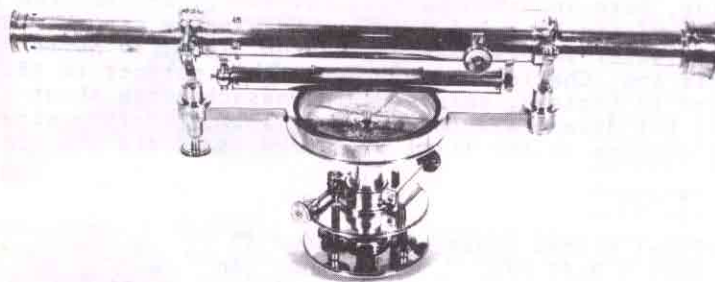
\$ 425



(16 lbs, UP, PS)

\$ 225

(A fitting tripod in sound but used condition can be provided for an additional \$ 20.)



57. EARLY LARGE & IMPRESSIVE WYE LEVEL - American, c. 1830, signed "Megarey New York". Brass construction; telescope 20" long; rack focusing of 1 1/4" d objective; wyes 10" apart; 4 1/4" d silvered compass dial; 8" long bubble level; 8 1/2" overall ht including 4-screw leveling base. Compass needle and glass and tangent ring clamping screw are modern replacements, all else original. Original dovetailed mahogany case (not shown) 22 1/2" long, 6 1/2" w, 9 1/4" h. Original tripod 57" h (bottom 14" of one leg missing). Thus tripod in poor condition but case is very good to fine and the level is very fine.

condition but case is very good to fine and the level is very

Alexander Megarey (1790-1850) was born in Ireland, died in Brooklyn and was listed in the New York City directories as a mathematical instrument maker from 1827 to 1850. This, certainly one of his highest quality instruments, is somewhat unusual in design showing significant "English" characteristics, yet also "American" in many details. It is not a commonly found instrument. Although Mr. Smart locates 6 instruments by Megarey, none are stated to combine a wye level with bearing compass. It is probable that it was used for canal construction as later instruments of similar design were used on the railroads.

(2 pieces UP, 25 and 12 lbs, air freight)

\$ 565

58. UNUSUAL SURVEYOR'S COMPASS - American, possibly mid or 3rd qtr 19th c, signed "H. W. Loring BOSTON". Bright brass with restored lacquer finish, 4" d silvered face compass with 3 1/2" needle on 12 1/4" long base, 6 1/8" h screw-on sight vanes with unusual tapered sides, 7 3/4" h overall. No ball & socket joint nor case. Very to extremely fine condition although the thumb screws seem to be early 20th c replacements.

Henry William Loring (1807-1885) was listed in the Boston directories from 1831 to 1858 as a jeweler, watch maker and mathematical instrument maker, 1859-60 as Loring & Churchill mathematical instruments, and 1863-65 back to Henry W. Loring, mathematical instruments. Loring may have been employed at some time by Charles G. King (at 7 Broad Street, Boston) because both had the same address (residency in West Newton) from 1850 to 1857. Few instruments by Loring seem to have survived.

(10 lbs UP, air freight) \$ 260

59. MINERS DIP NEEDLE - American, 2nd half 19th c, unsigned. Bright lacquered brass cylinder 3 5/8" d x 3/4" h, glass plates on both sides, silvered readout scale graduated to degrees, 2 3/4" needle suspended on a horizontal axis between radial pr of brackets. 3 3/4" d folding hoop handle. Original octagonal sided mahogany case 4 3/4" across flats x 1 1/4" h. Case and instrument in fine to very fine condition.

This instrument was intended for use in mines to trace veins of magnetic iron ore. They were offered for sale by many of the surveying instrument makers including Gurley, K + E, Buff & Berger, etc. In Catalog 102 we had an extremely similar instrument in an identical case, also unsigned, but with the trade label of James W. Queen & Co of Philadelphia in the case. One of the pieces of paper used in lining the case of the instrument offered here is dated 1863. It is not certain, however, when this was put in the case and a rather broad dating (as above) must be used.

(4 lbs, UP, PS)

\$ 140

60. NEW YORK CITY SURVEYOR'S COMPASS - probably 2nd qtr 19th c, signed "E. & G. W. Blunt/New York". Bright brass with restored lacquer finish, 6" d compass with silvered dial and 5" needle on 15 3/4" long base. 6 3/8" h screw-on sight vanes give 8 3/4" overall ht. Original brass compass cover. Ball and socket joint and mounting post screw lacking. Original dovetailed walnut case 16" x 7 1/2" x 4" h has trade card of John Kehew of New Bedford pasted in cover as well as his signed bill of sale when he resold the instrument. The bill of sale for this compass, a tripod and a 4 pole chain for \$ 32 is dated March 28, 1861. Instruments such as this tended to remain in use for many years, sometimes passing through several hands in the process. Case is in fine, compass in very fine condition.

George William (1802-1878) Blunt were the sons of Edmund M. Blunt of Newburyport, and then New York City, best remembered as the original publisher of the "American Coast Pilot" and Bowditch's "New American Practical Navigator". The partnership of the brothers was established in 1824, becoming Blunt and Nichols in 1866, Blunt & Co in 1868. Brewington remarks, "The firm was possibly the most progressive in the United States, thanks perhaps to George joining the U. S. Coast Guard Survey as First Assistant in 1833. They were among the first to handle new developments in the trade. By 1833 they were American agents for the foremost English chronometer makers; about 1836 they had their own observatory in Brooklyn; ... By 1850 they were publishing a nautical almanac and had agents in twenty East and Gulf Coast cities.

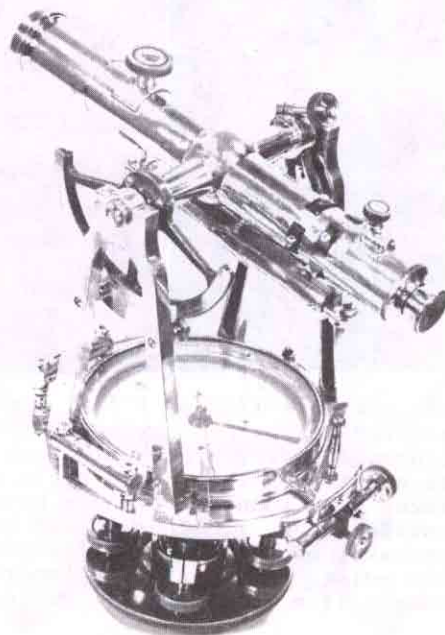
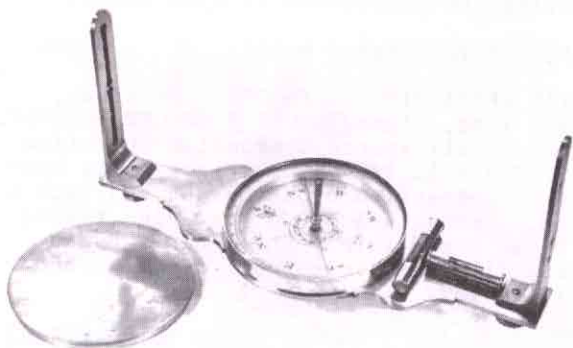
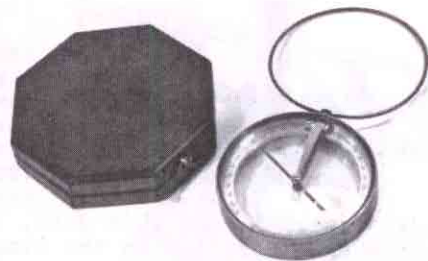
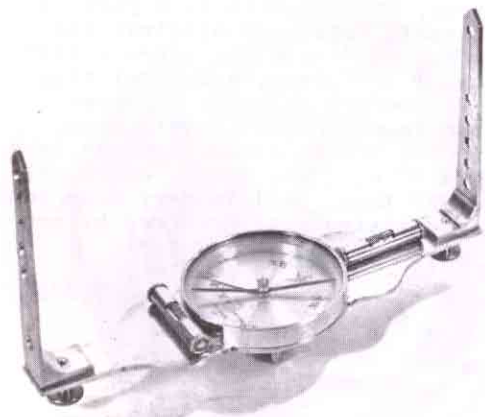
(17 lbs UP, air freight)

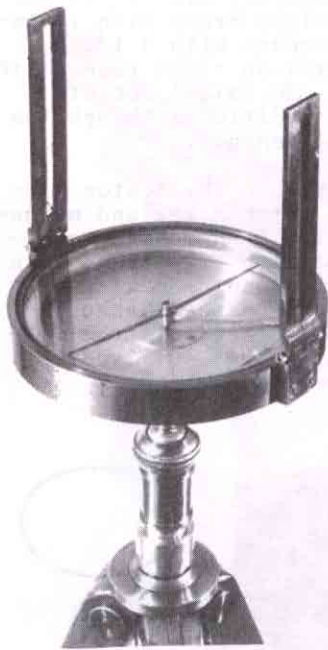
\$ 295

61. FINE BRASS TRANSIT - American, 1910, signed "KEUFFEL & ESSER CO./NEW YORK" with serial no. 21167. Bright brass with inset silver scales, 5 1/4" d silvered compass dial, some fittings in black oxidized finish, standing 12 1/4" h with telescope horizontal (incl 4-screw leveling base). The telescope is 11" long with rack & pinion focusing of objective and a screw driven short lever mechanism for eyepiece focusing, 5" bubble. Vertical readout is 1 arcmin by means of vernier and 2 1/2" rad vertical sector. Horizontal readout by opposing verniers to 1 arcmin on 6 1/2" d azimuth circle mounted within 7 1/4" d base plate. One of the two small bubble levels is a modern replacement as is the objective lens. Very fine overall condition. No case.

(22 lbs UP, air freight)

\$ 325





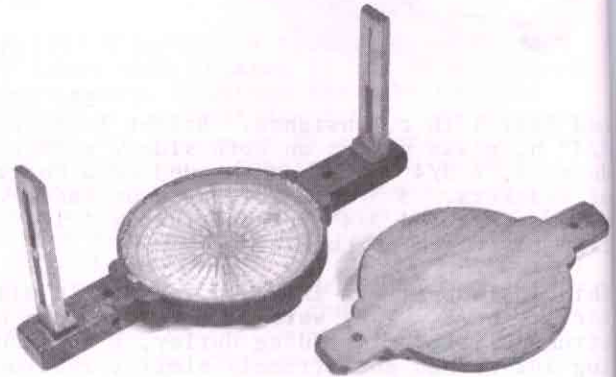
62. SURVEYOR'S POCKET VERNIER COMPASS - American, 4th qtr 19th c, signed "W. & L. E. Gurley, Troy, N. Y.". All brass, still retaining original lacquer finish, compass 5 3/4" d, 4 1/2" needle, folding sight vanes 4 1/2" h. Silvered dial, with inset bubble levels 1 1/4" long, and outer ring (divided by half degrees). Outside edge of compass cylinder engraved with scale and 1 arcmin vernier for setting in the magnetic variation. Universal ball joint. All original except for tripod coupling which is a modern replacement. Original mahogany case 8" w, 2" h, 6 1/2" deep. Also the original tripod with mahogany legs 38" long. All in very fine condition. This is another example of the fine instruments produced by probably America's best known maker of surveying instruments.

(15 lbs UP, air freight)

\$ 225

63. 18th CENTURY WOODEN SURVEYOR'S COMPASS - American, probably 3rd qtr 18th c, signed "Wm. H(AR)T FECIT/PORTSMOUTH" on one arm. Walnut frame 11 3/8" long, central compass 5 3/8" d with 4 7/8" d engraved compass card (east to the right) and 4 1/2" needle. Maple sight vanes 4 1/2" h for overall ht of 6 1/4". Pine cover plate of early 19th c origin. Generally very fine condition for a

wooden instrument of this date, the major imperfection being two holes drilled in the arms (one through the letters "AR" of the signature) for the pegs of the later cover plate. No case or tripod.



Little is known about William Hart (1734-1812) of Portsmouth, New Hampshire except that he was one of the town's earliest, if not first, mathematical instrument makers and is buried in the old North Cemetery. Smart lists two other instruments by him, a wooden semi-circumferenter dated 1753 and an undated brass and wood surveyor's compass. A Davis quadrant by him predating the Revolution is also known.

(6 lbs UP, \$ 7 registered mail)

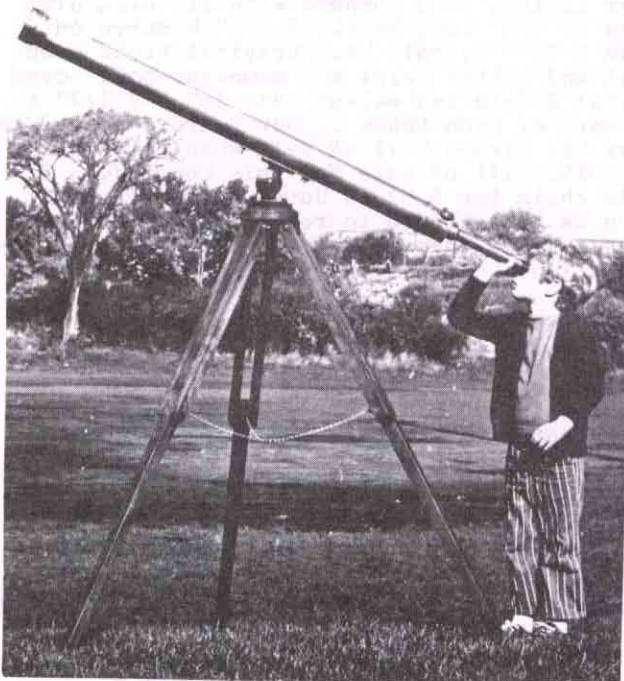
\$ 545

64. FINE TERRESTRIAL REFRACTING TELESCOPE - American, between 1871 and 1898, signed "BUFF & BERGER BOSTON". 3" d clear aperture air-spaced achromatic objective mounted in 3 5/8" d x 52 1/2" long bright brass barrel with up to 24" extension by draw tube and rack & pinion focusing. Brass lens cap. Hard pine tripod with 53 1/2" legs, brass safety chain newly added, iron tripod head fitted to telescope. Optical and physical condition very fine.

George L. Buff (1837-1923) and C. Lewis Berger (1842-1922) formed their partnership on Oct. 28, 1871 and dissolved it on Oct. 18, 1898, each then forming his own company; Buff & Buff Mfg. Co. and C. L. Berger & Sons. We have not been able to find any note of this instrument in Buff & Berger catalogs. The lack of a serial number and the fact that the tripod head was not made specifically for this telescope suggests that this was a special order item; possibly one of a kind. The telescope tube is quite heavy brass, not the light gauge rolled sheet used by the makers of such telescopes in production quantities, again suggesting the uniqueness of the instrument.

(air freight)

\$ 750



65. 18th CENTURY SUNDIAL - American, unsigned. Cast pewter 4 1/2" d, 1 7/8" h gnomon of approx 41 degree angle. Somewhat battered condition showing extended outdoor use and then some cracking and deformations which probably took place in the process of removing it from its mounting. The gnomon angle, allowing a variation of + or - 1/2 degree, places this sundial anywhere between the latitudes of New York City and Providence, R. I. Thus it may be the work of Miller, a colonial Connecticut maker of similar pewter sundials although there is no certainty on this point. Even with the imperfections, it is an interesting (and rare) example from 18th century America.

(5 lbs, UP, PS)

\$ 120

