

# SEARS, ROEBUCK AND CO. CHICAGO



**MB**

## Surveying Instruments, Optical Goods

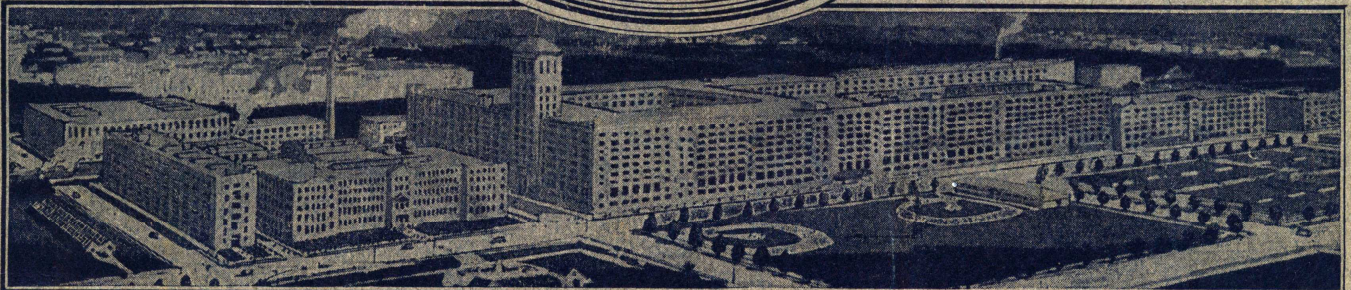
Drawing Instruments, Artists' Materials,  
Transits, Levels, Tapes, Mirrosopes, Con-  
versation Tubes, Hearing Horns, Flash  
Lights, Batteries and Lamps, Opera  
Glasses, Reading Glasses, Magnify-  
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2





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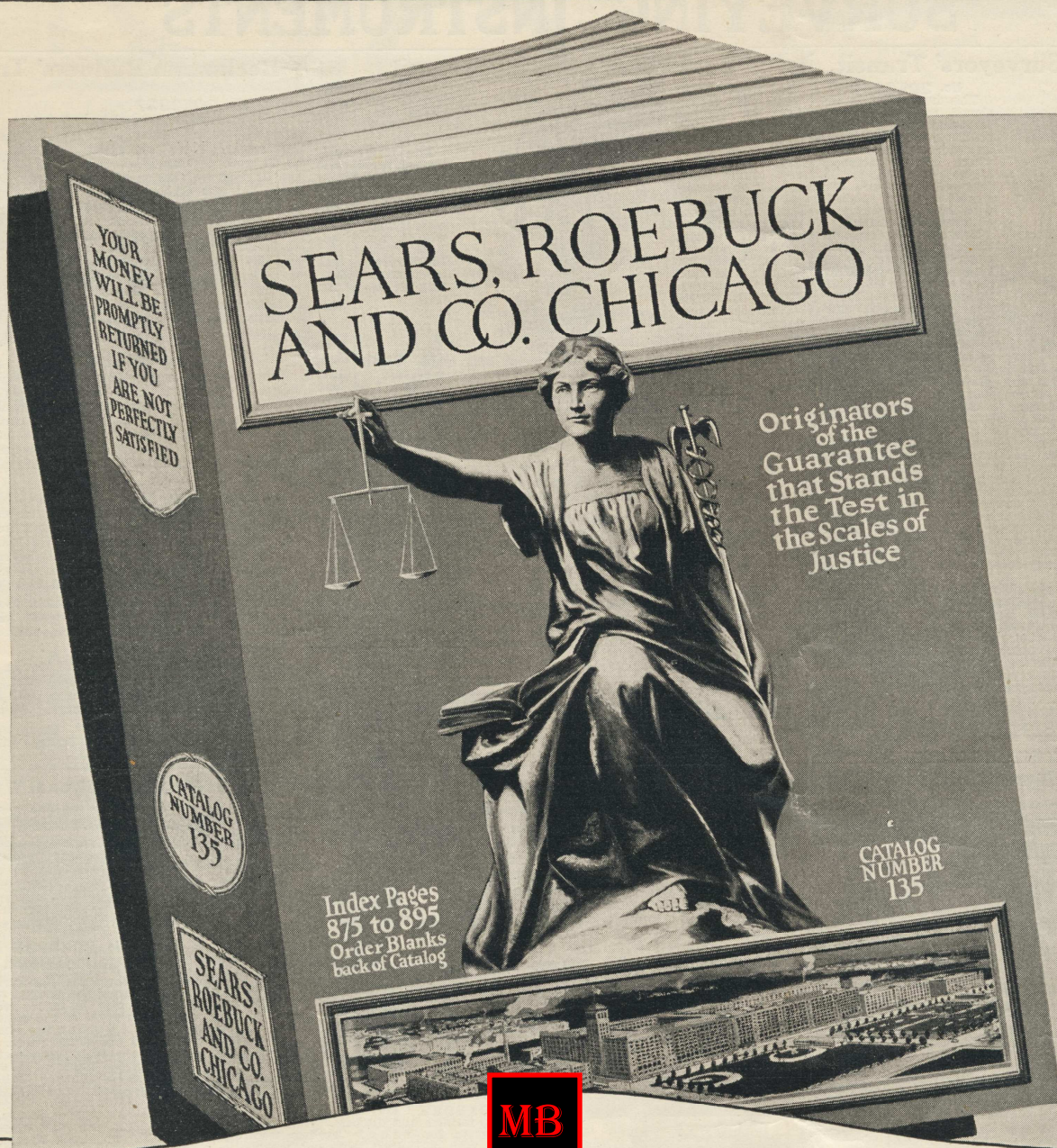
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Sears, Roebuck and Co., Chicago

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## THE Pages of This Special Catalog of Surveying Instruments and Optical Goods Are a Part of Our Big 1630-Page General Catalog Here Illustrated.

*For your convenience we have printed and bound the Surveying Instruments and Optical Goods section of our big General Catalog separate from the other pages of the Big Book. This explains why certain lines at the bottom of some of the pages or elsewhere in the catalog refer to pages not found in this special catalog.*

☐ The pages which precede and the pages which follow the Surveying Instruments and Optical Goods section in our big General Catalog comprise a great many other lines of merchandise—dry goods, wearing apparel, home furnishings, jewelry, musical instruments, toys, household supplies, hardware and farm supplies. If you have not a copy of our big General Catalog be sure to write for one and make it a rule to consult its pages whenever you need supplies of any kind.

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☐ But just as the farm yields most bountifully by intensive cultivation, so this catalog offers its greatest benefits when constantly referred to as each need arises. This is YOUR OPPORTUNITY TO SAVE MONEY.

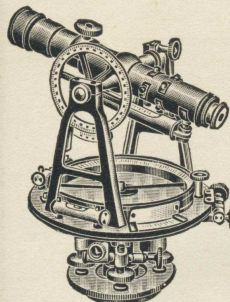
### Our Terms

We require cash with order. The best ways to send money are in the form of an express money order, postoffice money order, a bank draft, your personal check, or currency in a registered letter. Parcel post, express and freight rates are shown on pages 11, 12 and 13 of this book.



# SURVEYING INSTRUMENTS

## Beckmann Surveyors' Transit.



**No. 20K3942**  
This instrument is designed for general land surveying and on account of its low price, makes an admirable instrument where extreme accuracy is not required, has a long sensitive needle and therefore very popular with land surveyors.

**SPECIFICATIONS.**  
**Telescope**—Achromatic erecting. Length, 9 inches; magnifying power, 28 diameters; good definition, reverses at both ends. Clamp and tangent movement to telescope axle. Object glass has 1 1/2-inch aperture, with dust protector and cap. Rack and pinion movement to telescope slide. Eyepiece has improved screw motion for focusing of cross hairs and stadia wires. Level to telescope is graduated on the glass.

**Vertical Circle**—3 1/2 inches in diameter, silver plated, graduated to degrees and numbered in quadrants, 0 to 90 each way, reading by vernier to five minutes.

**Compass**—Needle circle. Graduated to 1/2 degrees and numbered from 0 to 90 each way. Needle is 5 inches long, of hardened and tempered steel. Variation plate is set by capstan head pinion; compass box silver plated.

**Horizontal Limb**—4 1/2 inches in diameter, silver plated, graduated to 1/2 degrees and numbered with two rows of figures reading in opposite directions from 0 to 360. One double vernier reading to single minutes, vernier located 30 degrees from line of sight, covered with polished glass and provided with shade for illuminating vernier. Clamp and tangent movement. Two sensitive plate levels.

**Leveling Head** is of phosphor bronze. Solid construction, four substantial leveling screws, with ball and socket cups. Shifting plate, 1/2-inch shift.

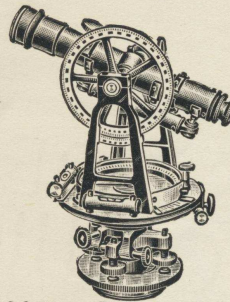
**Finish**—Gold and gunmetal, lacquered.

Instrument is packed whole, in an upright position in a mahogany box. Sun shade, plumb bob, magnifying glass, wrench and adjusting pins are furnished with each instrument. Shipping weight, 42 pounds.

**No. 20K3942** Surveyors' Transit with solid leg tripod. Price.....\$118.00

**No. 20K3943** Surveyors' Transit. Same as No. 20K3942, but fitted with 4 1/2-inch Vertical Circle, divided to 1/2 degrees, with vernier reading to one minute. Price.....\$120.00

## Beckmann Locating Transit.



**No. 20K3945**  
The ideal instrument for railroad and city work. May be used in all kinds of railroad construction, mining and tunnel work, as well as municipal engineering. Its accuracy, combined with its convenient size and weight, makes it an excellent instrument where a large transit is not desired.

**SPECIFICATIONS**  
**Telescope**—Achromatic terrestrial. Length, 9 1/2 inches; magnifying power, 30 diameters good definition. Reverses at both ends. Stadia wires have a clamp and tangent movement to telescope axle. Object glass has 1 1/2-inch aperture, with dust protector and cap. Rack and pinion movement to telescope slide. Eyepiece has improved screw motion for focusing of cross hairs and stadia wire. Level to telescope is graduated on the glass.

**Vertical Circle**—4 1/2 inches in diameter, silver plated, graduated to 1/2 degrees, and numbered in quadrants, 0 to 90 each way, reading by one double vernier to one minute.

**Compass**—Needle circle graduated to 1/2 degrees and numbered from 0 to 90 each way. Needle is 3 3/8 inches long, of hardened and tempered steel. Variation plate is set by capstan head pinion, compass box silver plated.

**Horizontal Limb**—5 1/2 inches in diameter, silver plated, graduated to 1/2 degrees and numbered with two rows of figures reading in opposite directions from 0 to 360. Two opposite double verniers, reading to single minutes, verniers located 30 degrees from line of sight, covered with polished glass and provided with shades for illuminating vernier. Clamp and tangent movement. Two sensitive spirit levels, graduated on the glass.

**Center**—Independent, extending from vernier plate to the bottom of leveling head. Composition, spindle metal.

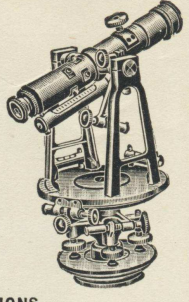
**Leveling Head** is of phosphor bronze. Solid construction, four substantial leveling screws, with ball and socket cups. Shifting plate, 1/2-inch shift.

**Finish**—Gunmetal, lacquered.

**No. 20K3945** Locating Transit with split leg tripod. Price.....\$142.00

**EXTRAS FOR TRANSITS.**  
Extension Leg Tripod in place of regular hardwood tripod furnished with instrument.....\$9.50  
Gradienter Screw.....5.00  
Stadia Wires.....5.00

## Beckmann Builders' Transit.



**No. 20K3937**  
This instrument is designed especially for the builder, architect, contractor, etc., who wishes to do more accurate work than can be done with the Architects' Level, but who does not wish to go to the expense of purchasing a regular Surveyors' Transit. It may be used in taking angles, leveling foundations, giving lines and elevations for buildings and in all kinds of structural work. Especially valuable in reinforced concrete work and in bridge construction where a compass is not needed.

**SPECIFICATIONS.**  
**Telescope**—Achromatic terrestrial. Length, 9 inches; magnifying power, 25 diameters; good definition, reverses at both ends. Clamp and tangent movement to telescope axle. The object glass has 1 1/2-inch aperture, with dust protector and cap. Rack and pinion movement to telescope slide. Eyepiece has improved screw motion for focusing of cross hairs. Level to telescope is graduated on the glass.

**Horizontal Limb**—5 1/2-inch diameter, silver plated, graduated to 1/2 degrees, and numbered with two rows of figures reading in opposite directions from 0 to 360. One double vernier reading to single minutes, vernier located 30 degrees from line of sight, covered with polished glass and provided with vernier shade. Clamp and tangent movement. Two sensitive plate levels.

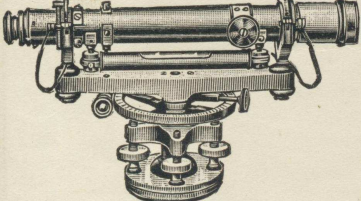
**Leveling Head** is of phosphor bronze. Solid construction, four substantial leveling screws, with ball and socket cups. Shifting plate, 1/2-inch shift.

**Finish**—Gunmetal, lacquered.

Instrument is packed whole and lies in a horizontal position in our new low mahogany box. Sun shade, plumb bob, magnifying glass, wrench, and adjusting pins are furnished with each instrument. Shipping weight, 38 pounds.

**No. 20K3937** Builders' Transit with solid leg tripod. Price.....\$81.50

## Beckmann Architects' Level.



**No. 20K3927**  
These instruments are especially designed for architects and contractors and may be used in leveling walls, laying out angles, giving lines and levels for buildings, grading streets, drains, etc. The lens system is exceptionally fine for this style of instrument, so that it may be used in all kinds of leveling work where the stations are not too far apart. Constructed throughout of the best quality phosphor bronze and bell metal.

**No. 20K3926** Architects' Level. Equipped with 12-inch telescope with magnifying power of 25 diameters and rack and pinion movement. Dust guard, sun shade and dust cap to telescope. Improved spiral motion to eyepiece for focusing cross wires. Level vial graduated on the glass. Horizontal circle divided to degrees and reading to five minutes, with cap attached to spindle. This circle is reversible for setting it to zero at any point. Instrument complete in handsome mahogany finished box with plumb bob, metal trivet (for foundation work), adjusting pins and hardwood tripod. Shipping weight, 25 pounds. Price.....\$40.50

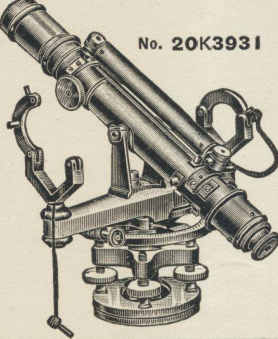
**No. 20K3927** Architects' Level, same as No. 20K3926, but fitted with improved clamp and tangent screw. Shipping wt., 25 lbs. Price.....\$45.00

**No. 20K3928** Architects' Level, same as No. 20K3926, but with special lever bar holding 3 1/2-inch compass reading to half degrees (compass needle 3 inches) and improved clamp and tangent screw. Shipping wt., 28 lbs. Price.....\$58.50

## Architects' Convertible Level

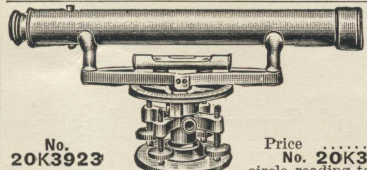
**No. 20K3930** Architects' Convertible Level. Constructed the same as No. 20K3926, but with special improved device by which vertical sights may be taken to the extent of 45 degrees in either direction. Horizontal angles may thus be read between points not in the same plane and transit work may be done where great accuracy is not required. The convertible attachment is constructed with an adjustable horizontal bearing, which makes it rigid and accurate and also prevents the telescope from overbalance. It is a distinct improvement over many instruments of its kind. Shipping weight, 28 pounds. Price, complete with tripod.....\$49.30

**No. 20K3931** Architects' Convertible Level, same as No. 20K3930, but fitted with improved clamp and tangent screw. Shipping weight, 28 pounds. Price.....\$54.00



**Beckmann Drainage Level.**  
**No. 20K3922** For use of landscape gardeners, farmers and ditchers. Well made and accurate for rough leveling work. Equipped with a 12-inch telescope; magnifying power, 18 diameters. Level variation of 1/4 inch in 100 feet distance. Instrument revolves on spindle. Bronze metal. Complete with tripod. Shipping weight, 19 pounds. Price.....\$24.70

**No. 20K3923** Same as No. 20K3922, with horizontal circle reading to degrees, for turning angles. Price.....\$29.50



**Plumb Bob, \$1.20.**  
**No. 20K4015** Plumb Bob. Brass finish. Very carefully made and absolutely accurate. Weight, 8 ounces. Length, 3 1/4 inches. Shipping wt., 12 oz. Price.....\$1.20

**Leveling Rods and Poles.**  
**No. 20K4025** Philadelphia Rod, heavy hardwood, divided into feet and 10ths, vernier reading to 100ths, with target, vernier and clamp. 7 feet long, sliding out to 13 feet. Shipping weight, 10 lbs. Price.....\$9.90

**No. 20K4028** Architects' Rod, hardwood, divided into feet, inches and 1/2 inches; with target, vernier and clamp, 5 1/2 feet long, sliding out to 10 feet. Shipping weight, 6 pounds. Price.....\$5.10

**No. 20K4031** Ranging Pole, best seasoned wood; octagonal, painted red and white, alternating every foot. Price, 10 feet (Shpg. wt., 7 lbs.)...\$2.12  
Price, 8 feet (Shpg. wt., 6 lbs.)...1.92  
Price, 6 feet (Shpg. wt., 3 1/2 lbs.)...1.70

**Fulton Quick Reading Steel Tapes.**  
\$2.15 to \$3.90.

High grade well finished tapes No. 20K4001 and No. 20K4002 in solid leather, metal lined case; No. 20K4003 and No. 20K4004 in solid steel nickel plated case. Automatic handles. Quick reading scale marked in feet, tenths and hundredths of a foot.

**No. 20K4001** 50-Foot Tape. Shipping weight, 12 ounces. Price.....\$2.65

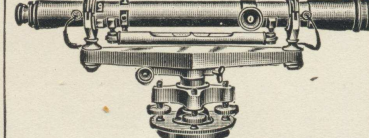
**No. 20K4002** 100-Foot Tape. Shipping weight, 1 1/2 pounds. Price.....\$3.90

**No. 20K4003** 50-Foot Tape. Shpg. wt., 15 ounces.....\$2.15

**No. 20K4004** 100-Foot Tape. Shpg. wt., 1 1/2 pounds.....\$3.25



## Beckmann Railroad Wye Level.



**No. 20K3933**  
**SPECIFICATIONS.**  
**Telescope**—Achromatic terrestrial. Length, 18 inches; magnifying power, 30 diameters; provided with stop to insure true horizontal and vertical position of the cross hairs. The object glass is 1 1/2 inches in diameter, focused with rack and pinion movement. Object slide is provided with dust protector, sun shade and cap. Eyepiece has improved screw motion for accurate focusing of cross hairs. Level to telescope is graduated on the glass, adjustable horizontally and vertically.

**Crossbar** is of phosphor bronze, designed to combine strength with least weight. The telescope rests in two strong wyes, one of which is adjustable.

**Center**—Extends from the crossbar to the bottom of the leveling head, and is made of bell metal.

**Tangent Movement**—Attached to bar and revolves with it, always keeps same relative position to the telescope on right hand side of operator.

**Leveling Head** of solid construction. Four leveling screws, provided with ball and socket cups.

**Finish**—Gunmetal, lacquered.

**Weight**—Instrument, 10 1/2 lbs; tripod, 10 lbs. Instrument packed in upright position in mahogany box, which contains sun shade, wrench and adjusting pins. Shipping weight, 28 lbs.

**No. 20K3933** Railroad Wye Level with solid leg tripod. Price.....\$95.00

**No. 20K3934** Railroad Wye Level. Same as No. 20K3933, but fitted with 20-inch telescope. Price.....\$99.00

**No. 20K3935** Railroad Wye Level. Same as No. 20K3933, but fitted with 18-inch telescope. Price.....\$81.00

## Folding Sight Compass at \$8.90.

**\$8.90**  
**No. 20K3900**  
Surveyors' Compass with folding sights, fine English bar of steel, jewel mounted, with sliding stop, full circle divisions engraved on silver plated metal dial, raised to level of needle. This compass is fitted with two spirit levels, greatly increasing the accuracy and efficiency. Length of needle, 2 1/2 inches. Shipping weight, 1 lb. 11 oz. Price, complete, including Jacob Staff mounting with ball and socket joint, as shown in illustration.....\$8.90

**No. 20K3902** Compass, same as No. 20K3900, but larger. Length of needle, 3 inches. Shipping weight, 2 pounds 3 ounces. Price, complete.....\$10.70

## Marking Pins, 95 Cents per Set.

**No. 20K4010** Arrows or Marking Pins, steel, best grade, 14 inches long, in sets of eleven. Shipping wt., 1 1/2 lbs. Price, per set.....95c

## Hand Level, \$3.50

**No. 20K3940** Surveyors' Hand Level for preliminary or estimate leveling. Can also be used for drainage work. Made of fine grade materials and fitted with an accurately ground level bubble. Length, 5 inches. Shipping weight, 5 ounces. Price.....\$3.50

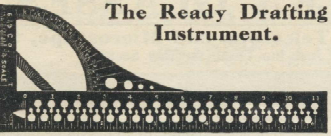
## Fulton Engineers' Steel Tape Chain.

**No. 20K4008** For general engineering, mining and railroad work. Polished blued steel tape, 1/4 inch wide. Graduated every foot by brass rivets. Every 5 feet marked by numbers, with each end foot in tenths. Easily detached from reel.

Without reel. Shpg. wt., 1 lb. 9 oz. Price.....\$2.35  
With reel. Shpg. wt., 2 1/2 lbs. Price.....\$2.75



**No. 20K4145**  
This instrument can be used as a rule, T square, triangle, square, protractor or compass. With it you can draw anything from an ordinary straight line to the parts of a machine or the plan of an entire factory. Full directions with each one. Made of aluminum, 6 3/4 inches long and 2 3/4 inches wide. Light in weight; slips handy into the pocket. Invaluable for emergencies, practically taking the place of a full set of instruments. Shipping weight, 3 ounces. Price.....**53c**



**The Ready Drafting Instrument.**

**Richardson's Direct Reading Slide Rule.**



**The Only Rule That Will Add and Subtract, as Well as Multiply and Divide.**

Richardson's Direct Reading Slide Rule is made with the sine, log and tangent scales all on one face. It is constructed entirely of metal, no wood whatever being used, and is therefore unaffected by moisture or atmospheric changes. The scales are of aluminum with pure white celluloid faces, black lines and plain figures, very easily read and will stand washing. It is provided with a square celluloid runner which permits unobstructed vision of the scales. Length, 11 inches; width, 1 3/4 inches. This slide rule is one of the most easily operated calculators ever made. It helps to solve the most intricate mathematical problems. With it you can add, subtract, multiply or divide, solve proportions, extract square or cube roots and calculate interest or percentage.

With each of these rules is included Richardson's 64-page book of instructions, "The Slide Rule Simplified." The book is a complete guide. It contains over 100 illustrations and more than 100 actual settings of the scale.

**No. 20K4252** Richardson's Direct Reading Slide Rule, with ordinary case. Shpg. wt., 14 oz. Price.....**\$2.50**

**No. 20K4254** Richardson's Direct Reading Slide Rule, with flexible genuine leather case. Shipping weight, 12 ounces. Price.....**\$3.00**

**Union Slide Rule.**



**No. 20K4256** The Union is a smooth working slide rule, durably made of mahogany with white ivory facings and frameless indicator (all figures always visible). For anyone whose work involves problems in multiplication, division, powers and roots, it is a time and labor saving device, 10 inches long. Shipping weight, 10 oz. Price, in cloth covered case, with instructions.....**\$2.48**

**Mannheim Slide Rule, \$3.90.**



**No. 20K4257** This well known slide rule is very accurately made from mahogany, divisions on white ivory, glass indicator and improved automatic adjustment. It is applicable to nearly all forms of calculation and is in very general use by engineers and professional men as well as students. 10 inches long. Shipping weight, 10 ounces. Price, in case, with complete instructions.....**\$3.90**

**Multiplex Slide Rule.**

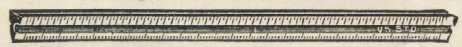


**No. 20K4258** The principles upon which the Multiplex Rule is based are identical to those underlying the action of the ordinary Mannheim Rule. It solves all problems possible with the Mannheim Rule and further possesses the following advantages:

It multiplies three numbers in one setting. Divides one number by two numbers in one setting. Solves inverse proportion more conveniently. Solves in a single setting a series of divisions having a constant dividend. Gives cubes and cube roots directly. Gives three-halves and two-thirds powers directly. Solves in a single setting many combined operations which require the shifting of the slide of a Mannheim rule.

Made from mahogany with divisions on white ivory, glass frameless indicator, and improved automatic adjustment. 10 inches long. Shipping weight, 10 oz. Price with morocco case and book of instructions.....**\$4.45**

**Triangular Boxwood Scales.**



**No. 20K4275** Architects' Triangular Boxwood Scale, divided 32, 1/8, 3/16, 1/4, 5/16, 3/8, 1/2, 3/4, 1, 1 1/2, 3 inches to the foot, 3/16 inch. High grade seasoned boxwood, engine divided, U. S. standard, 12 inches long. Price.....**45c**

**No. 20K4277** Architects' Triangular Boxwood Scale, same as No. 20K4275, but with white edges, 12 inches long. Price.....**\$1.65**

**No. 20K4280** Engineers' Triangular Boxwood Scale, divided 10, 20, 30, 40, 50 and 60 parts to inch, high grade seasoned boxwood, engine divided, U. S. standard, 12 inches long. Price.....**45c**

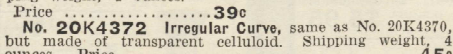
**No. 20K4282** Engineers' Triangular Boxwood Scale, same as No. 20K4280, but with white edges, 12 inches long. Shipping weight, any scale, 6 ounces. Price.....**\$1.65**

**India Ink.**

**No. 20K4390** Lion Brand India Ink, first quality, black. Shpg. wt., 1 oz. Price, small size, 13c; large, 19c

**Protractors.**  
Used for dividing circles into any number of equal parts and determining angles. Shipping weight, any protractor, 3 ounces.  
**No. 20K4261** Brass Protractor. Diameter, 3 3/4 inches; half circle; 1 degree graduations. A high grade instrument. Price. **21c**  
**No. 20K4264** Celluloid Protractor. Transparent half circle; diameter, 6 inches; 1/2 degree graduations. Price.....**38c**

**Irregular Curves.**  
**No. 20K4370** Irregular Curve, accurately made of black Ambo and invaluable for drawing in irregular curves. Shipping weight, 4 ounces. Price.....**39c**  
**No. 20K4372** Irregular Curve, same as No. 20K4370, but made of transparent celluloid. Shipping weight, 4 ounces. Price.....**45c**



**Wooden Triangle.**  
**No. 20K4300** Cherry Triangles, 30 by 60 degrees, mortised joints. State size.  
Size, inches..... 8 10 12 14  
Shipping weight, oz., 4 5 8 10  
Price.....**9c 11c 13c 19c**  
**No. 20K4301** Cherry Triangles, 45 degrees, mortised joints. State size.  
Size, inches..... 6 8 10 12  
Shipping weight, oz., 4 5 8 10  
Price.....**9c 11c 13c 19c**

**Transparent Celluloid Triangles.**  
These triangles allow more rapid and accurate work owing to their transparency, do not collect dust, and keep their edges almost like metal tools.  
**No. 20K4305** Transparent Celluloid Triangles, 30 by 60 degrees, open center. State size.  
Size, inches..... 4 6 8 10 12 14  
Shipping wt., oz., 2 3 4 5 8 8  
Price.....**12c 20c 30c 41c 59c 85c**  
**No. 20K4306** Transparent Celluloid Triangles, 45 degrees, open center. State size.  
Size, inches..... 4 6 8 10 12 14  
Shpg. wt., oz., 2 3 4 5 8 8  
Price.....**19c 30c 41c 59c 86c \$1.20**

**T Squares.**  
**No. 20K4315** T Square, with cherry blade and fixed head. State length.  
Length, inches..... 15 18 24 30 36 42  
Price.....**15c 17c 22c 30c 37c 45c**  
Weight of 15, 18 and 24-inch, packed, 14, 15 and 33 oz.  
**No. 20K4318** T Square, maple blade and black walnut fixed head. State length.  
Length, inches..... 24 30 36 42  
Price.....**32c 38c 48c 56c**  
Weight of 24-inch, packed, 33 ounces.

**No. 20K4321** T Square, cherry blade and movable head, with improved clamping swivel. State length.  
Length, inches..... 24 30 36 42  
Price.....**60c 68c 74c 80c**  
Weight of 24-inch, packed, 33 ounces.

**No. 20K4324** T Square, mahogany, ebony lined blade and fixed head. A very fine square. State length.  
Length, inches..... 24 30 36 42 48  
Price.....**56c 68c 78c 86c 94c**  
Weight of 24-inch, packed, 33 ounces.

**Drawing Boards.**  
**No. 20K4335** Drawing Board, made of pine with two drawing surfaces and side ledges. State size.  
Size, inches..... 12x17 16x22 20x24 23x31  
Shipping weight..... 3 1/2 lbs. 4 3/4 lbs. 8 3/4 lbs. 11 lbs.  
Price.....**58c 83c \$1.00 \$1.45**

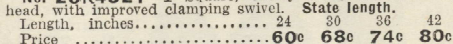
**No. 20K4337** Drawing Board, made of thoroughly seasoned pine with hardwood ledges dovetailed into the board to allow contraction and expansion. State size.  
Size, inches..... 20x24 23x31 31x42  
Shipping weight..... 12 lbs. 19 lbs. 33 lbs.  
Price.....**\$1.47 \$2.20 \$3.90**  
Cannot Be Shipped by Parcel Post.

**Thumb Tacks.**  
**No. 20K4360** Steel Thumb Tacks, stamped from one piece of steel. Have finely tempered and finished needle point. An excellent tack at a very low price. Put up only in boxes of 50. State size. Shipping weight, 1 box, 3 oz.  
Diameter, inch..... 3/16 1/4 5/16 3/8 1/2  
Price, per box of 50.....**12c 15c 18c**

**Brass or German Silver Thumb Tacks.**  
**No. 20K4362** First quality Tacks made with either German silver or brass heads. Cannot push through nor pull out. Put up in cork. State kind and size. Shipping weight, one dozen, 2 ounces.  
Diameter, inch..... 3/16 1/4 5/16 3/8 1/2  
Brass. Price, per dozen.....**7c 8c 9c**  
German silver. Price, per dozen.....**10c 11c 12c**

**Liquid Drawing Inks.**  
**No. 20K4380** Higgins' Black Waterproof Ink. Put up in 3/4-ounce bottles. Stopper fitted with quill for filling pen. Shipping weight, 7 ounces.  
Price, per bottle.....**\$0.19**  
Doz. bottles. (Shpg. wt., 4 1/2 lbs.).....**2.25**  
**No. 20K4385** Dietzgen's Black Waterproof Ink. Meets all requirements of the most particular draftsman.  
Price, per bottle (3/4 oz. bottle).....**\$0.20**  
Shipping wt., 7 oz.  
Doz. bottles. (Shpg. wt., 4 1/2 lbs.).....**2.30**

**No. 20K4386** Dietzgen's Colored Drawing Inks. Indelible, put up in the same style bottles as No. 20K4385, with quill for filling pen; yellow, orange, scarlet, carmine, blue, green or brown. Be sure to state color wanted.  
Price, per bottle.....(Shpg. wt., 7 oz.).....**\$0.20**  
Per doz. bottles, assorted colors, Shpg. wt., 4 1/2 lbs. **2.30**



**Venus Pencil, 8 Cents.**

**THE VENUS PENCIL CO. AMERICAN PENCIL CO. N. Y.**  
**No. 20K4405** Venus Pencils, furnished in twelve degrees of hardness: 1-B, 1B, F, 1-H, 2-H, 3-H, 4-H, 5-H, 6-H, 7-H, 8-H and 9-H. State kind wanted. Shipping weight, 1 dozen, 5 ounces.  
Price, each, 8c; per dozen, 90c; per gross.....**\$9.80**

**Dixon's Eldorado Pencil.**

**DIXON'S ELDERADO - the master drawing pencil - 41**  
**No. 20K4470** Dixon's Eldorado Pencil. Called "the master drawing pencil." Has a perfect balance of smoothness, strength and wearing quality in relation to each degree of hardness or softness. Wood is soft, straight grained cedar, easy to cut in sharpening. Furnished in twelve degrees of hardness: B, 1B, F, H, 2H, 3H, 4H, 5H, 6H, 7H, 8H and 9H. State kind wanted. Shpg. wt., 1 doz., 5 oz.  
Price, each, 8c; per dozen, 90c; per gross.....**\$9.80**

**Palette Drawing Pencil, 4 Cents.**

**No. 20K4403** Palette Drawing Pencil, hexagon shape. This pencil is of superior quality, correctly and uniformly graded, free from grit, does not smear, and holds its point well. Furnished in seven degrees of hardness: 2B, 1B, 1B, F, 1H, 2H, 3H. State kind wanted. Shpg. wt., 1 dozen, 5 oz.  
Price, each, 4c; per dozen, 46c; per gross.....**\$5.35**

**Dixon's White Pencil.**

**No. 20K4472** Dixon's White Pencil. Standard length, 7 3/4 inches. Writes in white on all dark, rough surfaces, including blue prints, photo albums, photo mounts, black, brown or gray drawing paper or dark cloth. Shipping wt., 1 dozen, 5 ounces. Price, each, 8c; per dozen.....**85c**

**Genuine Gillott's Crow Quill Pens.**

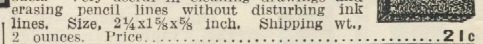
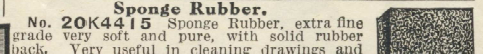
**No. 20K4410** Crow Quill Pens, very fine and stiff, put up on cards of one dozen, with hard rubber holder. Genuine Gillott's. Shipping wt., 3 oz.  
Price, per dozen pens, with one holder.....**52c**

**Artgum.**  
**No. 20K4407** Artgum. Invaluable to draftsmen, artists, photographers and show card writers. It cleans well without wearing the surface. State size wanted.  
Size, 1 1/2 x 1 1/2 inch. Shpg. wt., 2 oz. **4c**  
Size, 2 x 1 inch. Shpg. wt., 2 oz. **3c**

**Venus Eraser.**  
**No. 20K4408** Venus Eraser. Made of soft, pliable, live rubber. Especially suited to the exacting draftsman. Size, 1 1/2 x 2 1/2 inch. Shipping weight, 2 oz. Price.....**9c**

**Sponge Rubber.**  
**No. 20K4415** Sponge Rubber, extra fine grade, very soft and pure, with solid rubber back. Very useful in cleaning drawings and erasing pencil lines without disturbing ink lines. Size, 2 1/2 x 1 1/2 x 5/8 inch. Shipping wt., 2 ounces. Price.....**21c**

**Erasing Shield, 12 Cents.**  
**No. 20K4417** Metal Erasing Shields, 2 3/4 x 3 3/4 inches, fourteen openings of various shapes. Shpg. wt., 2 oz. Price **12c**



**For Other Pencils and Erasers See Pages 929 and 930.**

**Union Drawing Paper.**

**No. 20K4425** This Union Drawing Paper is an excellent white paper with a slightly grained surface. It is strong, stands pencil erasing well and is suitable for work in pencil, ink or color. State size.  
Size, 10x13 1/2 inches. Shipping wt., per quire, 2 lbs. 5 oz. Price, per quire, 24 sheets.....**24c**  
Size, 13x20 inches. Shipping weight, per quire, 4 1/2 lbs. Price, per quire, (24 sheets).....**48c**

**Whatman's Drawing Paper.**

**No. 20K4430** We believe Whatman's Drawing Paper is one of the very finest drawing papers in the world. We furnish this paper in two styles, the hot pressed and the cold pressed. The hot pressed paper has a smooth surface and is suitable for very fine line drawings in either pencil or ink. The cold pressed paper has a finely grained surface and is suitable for general drawing and water color painting. Be sure to state size and whether hot or cold pressed is wanted. Size Shipping Wt. Price  
Cap 13x17 in. 1 lb. 5 oz. Per quire (24 sheets).....**\$0.60**  
Demy 15x20 in. 2 lbs. 1 oz. Per quire (24 sheets).....**1.00**  
Royal 19x24 in. 2 lbs. 15 oz. Per quire (24 sheets).....**1.85**  
Imperial 22x30 in. 4 lbs. 6 oz. Per quire (24 sheets).....**3.10**

**"Saxon" Cream Drawing Paper.**

**No. 20K4435** Saxon Cream Drawing Paper is of a light cream color with a smooth and hard drawing surface. It is extremely tough and suitable for detail drawings, both pencil and ink. Stands rough handling well. State width.  
Width, inches..... 36 42  
Shipping wt., per yard..... 1 lb. 5 oz. 1 lb. 10 oz. 2 lbs. 15 oz.  
Price, per yard..... **11c 13c 15c**

**"Lion" Tracing Cloth.**

**No. 20K4440** Lion Brand Vellum Tracing Cloth is a fine imported cloth made under the Dowse patent, one side glazed and the other side dull. State width.  
Width, inches..... 36 42  
Shipping wt., per yard, 1 lb. 2 oz. 1 lb. 7 oz. 1 lb. 9 oz.  
Price, per yard..... **40c 45c 60c**  
Shpg. wt., per 24-yd. roll, 4 lbs. 15 oz. 5 lbs. 11 oz. 6 lbs. 7 oz.  
Price, per 24-yd. roll.....**\$8.00 \$9.20 \$11.50**

**"Bond" Tracing Paper.**

**No. 20K4445** Bond Tracing Paper is pure white, very thin, tough and transparent with dull finish. It takes either pencil or ink well and stands erasing. Put up only in 20-yard rolls. 42 inches wide. Shipping weight, 2 pounds 13 ounces. Per roll.....**\$1.28**

**"Triumph" Tracing Paper.**

**No. 20K4450** Triumph Tracing Paper is of medium thickness and is finished making it very transparent, and is a fine paper for making blue prints from or for making tracings from blue prints. Takes either ink or pencil and stands erasing well. Comes only in 20-yard rolls, 39 inches wide. Shipping weight, 3 pounds. Price, per roll.....**98c**

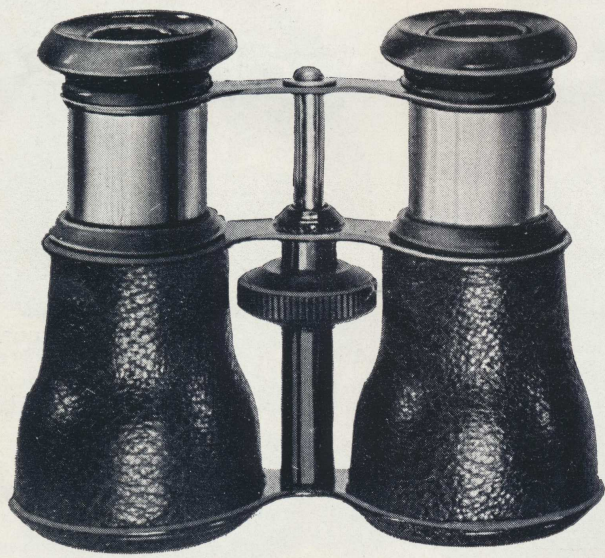
**"Union Satin" Blue Print Paper.**

**No. 20K4455** Union Satin Blue Print Paper is of medium thickness and especially suited to architects' use. It gives a rich deep blue color and clear white. Furnished in 10-yard and 50-yard rolls only. State width.  
Width, inches..... 36 42  
Shpg. wt., per 10-yd. roll, 2 lbs. 1 oz. 2 lbs. 30 oz. 2 lbs. 15 oz.  
Price, per 10-yd. roll..... **72c 80c 86c**  
Shpg. wt., per 50-yd. roll, 7 lbs. 12 oz. 9 lbs. 5 oz. 11 lbs. 5 oz.  
Price, per 50-yd. roll..... **\$2.35 \$2.68 \$2.90**





## POPULAR PRICED FIELD, OPERA AND SPORT GLASSES



**JOCKEY SIZE FIELD GLASS**  
Non-Achromatic

17-ligne size with 1 1/2" objective lenses. Reinforced light weight metal body. Bars, eyecups and mountings in smooth black Japanned finish. Body covered with standard grain leather. Magnifying power 3 diameters. Complete with velvet draw string bag in assorted colors.

No. 57B—Black Japanned tubes.

No. 57N—Nicked tubes.

Price per dozen ..... **\$10.80**



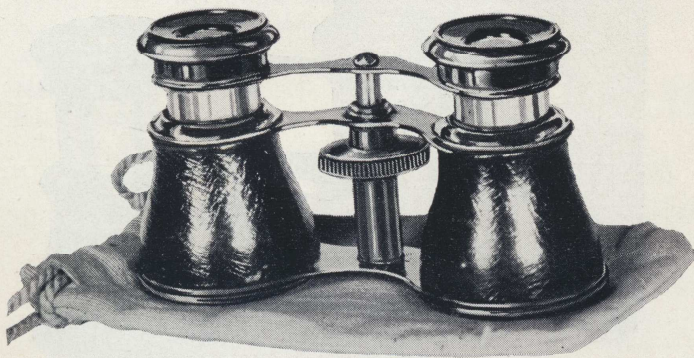
**ALL SPORT FIELD GLASS**  
Non-Achromatic

17-ligne size with 1 1/2" objective lenses. All metal body covered with cowhide leather. Bars and mountings black Japanned finish. Reinforced center screw adjustment. Fine medium power and wide view; glass complete with pouch type leatherette case and long cowhide shoulder straps.

No. 42B—Black Japanned tubes.

No. 42N—Nickel Plated tubes.

Price per dozen ..... **\$10.80**

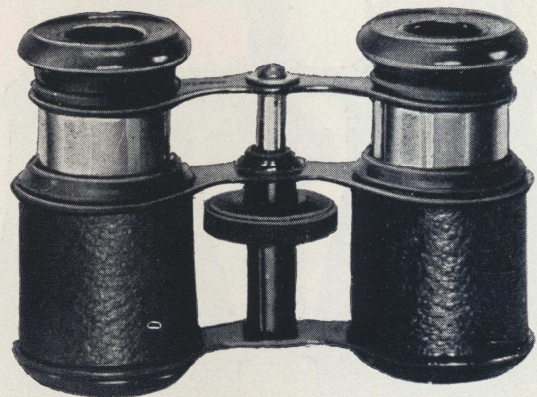


**13-LIGNE OPERA GLASS**  
Non-Achromatic

1-inch objective lens, all metal body covered with cowhide leather, vici kid finish. Eyecups, bars and mountings black Japanned, nickel plated tubes. Hard rubber center screw focusing. 4-inches width, height opened 2 1/2 inches, closed 1 3/4 inches. Complete with draw string velvet bag.

No. 321—Opera Glass.

Price per dozen ..... **\$4.50**



**MODEL 44 — SPORT AND OPERA GLASS**

Tubular shaped body of light weight metal, 3 3/4 inches wide; 2 1/2 inches height opened; closed 2 inches. Grained leather covered body. Metal parts and eyecups black Japanned. Complete with velvet draw string bag.

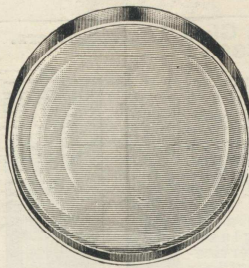
No. 44B—Black Japanned tubes.

No. 44N—Nickel plated tubes.

Price per dozen ..... **\$8.40**



## Reading Glasses and Burning Glasses.



**READING GLASSES** make it easy to read the smallest type and are very desirable when looking at pictures. They add greatly to the beauty of photographs, bringing out the details in a wonderful manner. They are also very convenient for examining any small object for which a magnifying glass is ordinarily used. The smaller sizes have the highest magnifying power, but with the large sizes a greater area can be seen at one time.

**AS BURNING GLASSES** these instruments are very powerful, readily setting fire to light materials like paper, shavings and dry leaves. The larger the glass the more powerful it is as a burning glass.

**EXTRA QUALITY.** We are handling only one grade of reading glasses this season, the best quality we can secure. They are finely made and beautifully finished throughout. The extra powerful lenses are ground from a high quality of colorless optical glass. The rims are extra strong and heavily nickel plated. The handles are of black ebony finish wood.

Catalog No.	Diameter	Shipping Wt.	Price
20K3301	2 in.	5 oz.	\$0.75
20K3302	2½ in.	7 oz.	.83
20K3303	3 in.	10 oz.	.97
20K3304	4 in.	1 lb.	1.33
20K3305	5 in.	1½ lbs.	1.98

## Magnifying Glasses.

All of these magnifiers are made by Bausch & Lomb, the leading manufacturers of magnifiers, and practically every kind of optical goods, in this country.

Magnifiers of high power are necessarily made with lenses of small diameters and short focal lengths. This gives a narrow field of view and close working distance. The purchaser must choose between a low power with wide field and ample working distance or a high power with narrow field and short working distance. The choice will usually be

governed by the character of the work for which the glass will be used, but consideration should also be given to the fact that magnifiers with large lenses and of low power are easier to use, and generally prove more satisfactory to those who do not use a glass often enough to become expert.

### Single Lens Rubber Case Magnifiers.

These Magnifiers are mounted in hard rubber, bellows shape folding pocket cases. Very powerful. Shipping weight, any size, 2 ounces.

Catalog No.	Diam. of Lens	Magnifying Power	Price
20K3366	¾ in.	7 times	38c
20K3367	¾ in.	4 times	42c
20K3368	1 in.	4 times	48c

### Double Lens Rubber Case Magnifiers.

Two lenses of different focal lengths mounted in rubber oval folding pocket cases. The lenses may be used separately or combined, thus affording three degrees of magnifying power. Shipping weight, any size, 3 oz.

Catalog No.	Diameter of Lenses, Inch	Magnifying Power, Times	Price
20K3369	¾ and ¾	5 to 12	56c
20K3370	¾ and 1	4 to 9	70c
20K3371	1 and 1¼	3½ to 8	85c

### Coddington Magnifiers.

Coddington Magnifiers consist of a cylinder of glass with the ends ground spherically and polished to form the lens surfaces. A deep groove is cut around the cylinder to serve as a diaphragm. They give extra good definition and a wide field. Mounted in nickel plated folding cases. Shipping weight, 2, 3, 4 and 5 ounces, according to size.

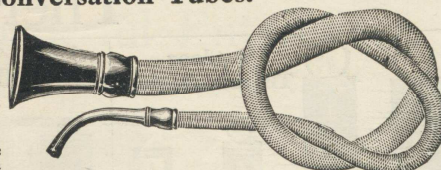
Catalog No.	Diameter Lens, In.	Focal Length, In.	Working Distance, In.	Magnifying Power, Times	Price
20K3390	¾	1½	¾	20	\$1.60
20K3391	¾	1½	¾	14	1.65
20K3392	1	1½	¾	10	1.70
20K3393	1	1½	1	7	1.75

### Acme Health Saving Lung Protecting Respirator.

No. 20K3202 No foundryman, thresherman, tobacco worker, miller or farmer should be without one of these respirators. Filters and cleans the air you breathe. Keeps dust, smoke and poisonous gases out of the throat and lungs. Light and comfortable in use, makes breathing no harder. Made of high grade white rubber. Complete with sponge and elastic band to hold it on. Weight, about 6 ounces. Price.....65c



## Conversation Tubes.



While many new and unusual forms of hearing instruments have been introduced within recent years, the familiar conversation tube still remains the most popular and the most widely used instrument for the aid of hearing. The tubes here listed are extra high grade instruments, made with metallic spiral spring lining, which insures a free opening throughout the tube in any position, and complete flexibility. The mouthpiece and earpiece are made of polished hard rubber. The covering is a good grade of black mohair or silk, as specified. The hard rubber ear piece or tip at the smaller end of the tube fits the ear closely. The person with whom you are talking speaks directly into the large end of the tube, as though talking into a telephone. All our conversation tubes are 40 inches in length over all, and with the exception of the Midget tube, are tapered from one end to the other, gradually decreasing in diameter from the mouthpiece to the earpiece.

### Midget Conversation Tubes.

The small size of these tubes makes them very convenient to carry. For that reason they are popular even with those who may prefer a larger tube for home use. Length, 40 inches. Diameter of mouthpiece, 2 inches. Diameter of tube throughout, 7/16 inch. Weight, only 3½ ounces.

No. 20K3240	Black mohair covered.	Shipping weight, 9 ounces.	Price, \$1.15
No. 20K3241	Black silk covered.	Shipping weight, 9 ounces.	Price.....1.35

### Medium Size Conversation Tubes.

Length, 40 inches. Diameter of mouthpiece, 2½ inches. Diameter of tube, ¾ inch at the larger end, tapered to ½ inch at the smaller end. Weight, 8 ounces.

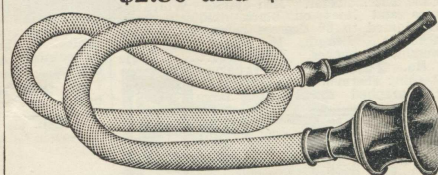
### Large Conversation Tubes.

Length, 40 inches. Diameter of mouthpiece, 2¾ inches. Diameter of tube at large end, 1 inch, tapering to ½ inch at the smaller end. Weight, 10½ ounces.

No. 20K3242	Medium size Conversation Tube, black mohair covered.	Shipping weight, 1 pound.	Price.....\$1.68
No. 20K3243	Medium size Conversation Tube, black silk covered.	Shipping weight, 1 pound.	Price.....\$1.90

**NOTE**—Our No. 20K3245 is the most popular size and style that we carry, the large diameter making it very effective and the silk covering giving it a handsome appearance.

## Dr. Fossgate's Vibro-Phones, \$2.50 and \$2.98



Dr. Fossgate's Vibro-Phone is an improved form of conversation tube which is provided with an internal diaphragm for dividing and intensifying the sound wave. We know of no other conversation tube that magnifies sound to such a degree. These Vibro-Phone Conversation Tubes are very finely made throughout, fitted with spiral spring lining, hard rubber earpiece and special metallic mouthpiece finished in black enamel. Length over all, 40 inches. Diameter of tubing at large end, 7/8 inch, tapering to ½ inch at the smaller end. Diameter of mouthpiece, 2½ inches. Weight, 9 ounces.

No. 20K3246	Vibro-Phone Conversation Tube, covered with black mohair.	Shipping weight, 1¼ pounds.	Price.....\$2.50
No. 20K3247	Vibro-Phone Conversation Tube, covered with black silk.	Shipping weight, 1¼ pounds.	Price.....\$2.98

## London Hearing Horns, \$1.35 and \$1.45

The London Horn is made throughout of metal and finished in dead black. The peculiar shape and special design is such that even sounds coming from a distance may be heard and understood. These instruments are small, and while in use may be concealed in the hand, making them particularly desirable for use in public places. It is one of the few hearing instruments with which one can hear public speaking, and is used a great deal in church, public meetings, concerts and theaters. The London Hearing Horn is particularly adapted to those who are only moderately deaf, but to those who are very deaf we recommend the conversation tubes.

No. 20K3265 London Hearing Horn, small size, black finish, 2½ inches high. Shipping weight, 6 ounces. Price.....\$1.35

No. 20K3267 London Hearing Horn, large size, black finish, 4 inches high. Shipping weight, 8 ounces. Price.....\$1.45



### Triple Lens Rubber Case Magnifiers.

Three lenses of different focal lengths mounted in hard rubber bellows shape folding pocket cases. The lenses may be used singly or in various combinations, thus affording seven different magnifications. Shipping weight, any size, 3 oz.

Catalog No.	Diameter of Lenses, Inch	Magnifying Power, Times	Price
20K3375	¾, ¾ and ¾	7 to 30	72c
20K3376	¾, ¾ and ¾	4 to 20	85c
20K3377	¾, ¾ and 1	4 to 20	95c

### Triple Lens Metal Case Magnifiers.

Three lenses, each of the same diameter but of different magnifying powers, mounted in a nickel plated case. By using the lenses singly or in various combinations, seven different magnifications may be obtained. Shipping weight, any size, 4 ounces.

Catalog No.	Diameter of Lenses, Inch	Magnifying Power, Times	Price
20K3384	¾	4 to 20	\$1.60
20K3385	1	3½ to 17	1.80
20K3386	1	2½ to 19	2.10

### Doublet Magnifiers.

These Magnifiers consist of two separate lenses mounted in a nickel plated metal case of the Coddington style. No. 20K3388 has folding case like No. 20K3390. No. 20K3387 has straight handle. Very efficient instruments. Shipping weight, either style, 4 ounces.

Catalog No.	Diameter of Lenses, Inch	Magnifying Power, Times	Price
20K3387	¾	14	\$0.83
20K3388	¾	14	1.12

### Dust Protector, 85 Cents.

No. 20K3201 Against dust it is one of the greatest protectors ever made. For threshers, grain men, millers, farmers and everyone whose duties call him into dusty places. It is a protection to the lungs to the general health and comfort. The use of this protector is one of the means of preventing consumption. It protects the nose and mouth from the intrusion of dust which is so injurious to the head and lungs. No miller, grain buyer, thresher or farmer should be without one. It affords perfect protection with perfect ventilation. Made of fine metal, handsomely nickel plated, bound with sheepskin chamois, adjustable to anyone by strong elastic band, practically indestructible and worth many times its cost as a safeguard to health. Each protector comes packed in a neat box with full instructions for use. Shipping weight, 5 oz. Price...85c



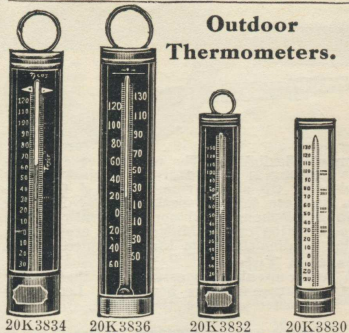
For Parcel Post Shipment, Include Amount of Charges Extra. See Page 896.

SEARS, ROEBUCK AND CO.  
1209 CHICAGO, ILL.



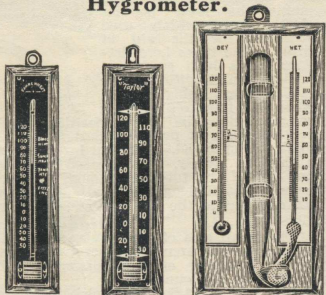
# Thermometers—Compasses

## Outdoor Thermometers.



No. 20K3834 20K3836 20K3832 20K3830  
**No. 20K3830** Japanned Tin Case Thermometer. Spirit. Ordinary grade. Black figures on light metal scale. Length, 7 1/2 inches. Shipping wt., 9 oz. Price, 15c  
**No. 20K3832** Japanned Tin Case Thermometer. Spirit. Extra quality. Heavier, better made and more accurate than No. 20K3830. Seasoned tubes of standard size. White figures and graduations on black oxidized scale. Length, 7 1/2 inches. Shipping wt., 13 oz. Price, 42c  
**No. 20K3834** Japanned Tin Case Thermometer. Mercury. Guaranteed. White figures and graduations on black oxidized scale. Thoroughly seasoned tubes of large size. A high grade, guaranteed thermometer bearing the trade mark "Accuracy." Length, 9 1/2 inches. Shipping wt., 1 lb. 1 oz. Price, 98c  
**No. 20K3836** Polish Copper Case Thermometer. Red spirit. White figures and lines on black oxidized scale. Graduated to 60 degrees below zero. Very accurate. Length, 10 inches. Shipping weight, 15 ounces. Price, 70c  
**No. 20K3837** Distance Reading Thermometer. Red spirit. Lithographed metal case, large black figures on light scale; easily read at a distance of 15 feet. Length, 7 3/4 in. Shipping wt., 9 oz. Price, 17c  
**No. 20K3838** Distance Reading Thermometer. Same as No. 20K3837, but larger, easily read at a distance of 25 feet. Length, 9 1/2 inches. Shipping weight, 12 ounces. Price, 21c  
**No. 20K3840** Aluminum Window Thermometer. Spirit tube. Silver finished face. Red figures. This thermometer is intended to be mounted on the window frame outside, so that it can be read from within the house. Two metal brackets are furnished for attaching. Length, 10 in. Shipping wt., 15 oz. Price, 90c

## House Thermometers and Hygrometer.



No. 20K3856 20K3855 20K3865  
**No. 20K3856** Cabinet Thermometer. Red spirit. Wood back, birch finish. Black oxidized scale with white figures and lines. Length, 7 inches. Shipping weight, 13 oz. Price, 30c  
**No. 20K3858** Cabinet Thermometer. Mercury. Oak back. Black oxidized scale with white figures and lines. Length, 8 3/4 inches. Shipping wt., 15 oz. Price, 69c  
**No. 20K3865** Hygrometer. This instrument consists of one wet bulb thermometer, one dry bulb thermometer and glass syphon water bottle mounted on polished oak back, 4 3/4 x 10 1/4 inches. It is for determining the relative and absolute humidity and dew-point and foretelling frosts, with ready reference relative humidity tables and complete U. S. Government tables. In the household it enables the user to maintain a healthful degree of humidity. Shipping wt., 1 lb. Price, \$2.30  
**No. 20K3866** Extra Silk Wicks for hygrometer. Shipping wt., 1 oz. Each, 10c

## Dairy Thermometers.

The glass dairy thermometers which we have always carried were made in Germany. It is impossible for us to get them at this time. The flange dairy thermometers are taking their place and are giving very satisfactory results. We recommend any of those listed below, particularly No. 20K3881, which is one of the finest instruments made for this purpose.

No. 20K3876 Flange Dairy Thermometer. Spirit. Nickel plated brass scale with stamped figures and lines. Sliding guard for bulb. Length, 8 inches. Shipping weight, 10 ounces. Price, 38c  
**No. 20K3879** Flange Dairy Thermometer. Mercury tube. Black oxidized brass scale. Stamped white figures and lines; easily read. Sliding guard for bulb. This thermometer is warranted to be correct and carries Taylor's guarantee of accuracy. Length, 10 inches. Shipping weight, 1 pound. Price, 80c  
**No. 20K3881** Flange Dairy Thermometer. Mercury tube. Aluminum finish scale, with figures and lines plainly stamped in black. May be read at a glance. The sliding guard for the bulb is of bright polished copper. Fully guaranteed by Taylor, the maker, as well as ourselves. An accurate, reliable and durable instrument. Shipping weight, 1 lb. Price, \$1.15

## Storm Glass Thermometers.

No. 20K3852 Storm Glass and Thermometer. Polished copper case. Black oxidized scale with white figures. Good grade mercury thermometer and medium size storm glass. Very serviceable for outdoor use. Length, 7 1/2 inches. Shipping weight, 14 ounces. Price, 59c  
**No. 20K3854** Storm Glass and Thermometer. Carved oak back 8 1/4 x 4 3/4 inches, with fancy beaded edge. Good spirit thermometer with black oxidized scale. Extra large storm glass with etched lettering. Shipping wt., 1 1/4 lbs. Price, 98c

## Candy Thermometer.

No. 20K3880 Home Candy Making Thermometer. Mercury. The most important feature of candy making is the boiling of the syrup, one degree more or less making or spoiling it. Book of latest candy recipes with each thermometer. Copper case. Black figures on silver plated brass scale. Scale range, approximately, 80 degrees to 350 degrees. Length, 8 inches. Shipping weight, 14 ounces. Price, 98c

## Oven Thermometer.

No. 20K3882 Good results in cooking depend very largely upon the temperature of the oven, and this can be ascertained only by the use of a reliable thermometer. This instrument is placed directly in the oven, thus giving more accurate results than the thermometers sometimes built into oven doors. Directions are sent with each thermometer showing proper temperatures for bread, roasts, pastry, custards, etc. Length, 5 inches. Shipping weight, 10 ounces. Price, \$1.30

## Certified Fever Thermometers

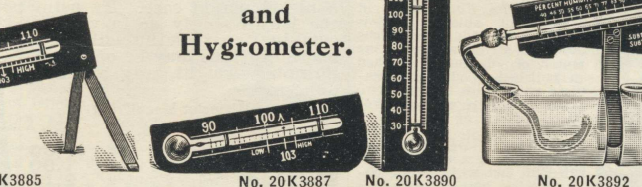
Maker's certificate of accuracy with each one.

A fever thermometer to have any practical value must be accurate and thoroughly dependable. It must register quickly and exactly. It must be easily read. The mercury should shake down readily. These thermometers are certified by the makers and further guaranteed by us to be of this high quality.

No. 20K3895 Fever Thermometer. Magnifying tube. Length, 4 inches. Hard rubber case. Very accurate. Registers in two minutes. Price, 88c  
**No. 20K3896** Fever Thermometer. Same as No. 20K3895, but registers in one minute. Price, \$1.10  
**No. 20K3897** Fever Thermometer. Same as No. 20K3895, but registers in one-half minute. Price, \$1.25  
**No. 20K3899** Fever Thermometer. Same as No. 20K3895, but in twisted aluminum case with chain and clasp. Registers in two minutes. Price, 95c  
 Shipping weight, any fever thermometer, 10 ounces.

## Incubator Thermometers and Hygrometer.

No. 20K3885 Incubator Thermometer, with folding brass legs. Mercury. Extra large bulb. White graduations on black oxidized plate. Very sensitive. Length, 4 in. Shipping weight, 10 ounces. Price, 49c  
**No. 20K3887** Incubator Thermometer. Same quality as No. 20K3885, without legs. Length, 4 inches. Shipping weight, 9 oz. Price, 46c  
**No. 20K3888** Standard Incubator Thermometer, same style as No. 20K3887, but more accurate. Graduations engraved on tube. Certificate of accuracy with each one. Length, 4 inches. Shipping weight, 9 oz. Price, 95c



No. 20K3892 Incubator Hygrometer. A wet bulb thermometer, graduated with humidity percentages. Shows exact humidity by direct reading and is scientifically correct. The common moisture gauge is not dependable. This instrument enables the user to maintain the proper degree of moisture in incubator with absolute accuracy. Shipping weight, 12 ounces. Price, including one wick, \$1.10  
**No. 20K3893** Extra Silk Wicks for Incubator Hygrometer. Shipping weight, 1 ounce. Price, 10c  
**No. 20K3890** Brooder Thermometer. Upright pattern. Mercury. Large bulb. White figures on black scale. Length, 4 inches. Shpg. wt., 9 oz. Price, 38c

## Jeweled Compass, \$1.08.

No. 20K3809 This Watch Style Jeweled Pocket Compass is made with finely finished strong brass case with hinged cover, heavy beveled edge glass, silver finish metal dial with full circle divisions and sliding stop. The needle is very sensitive and mounted with jeweled cap. Diameter, 2 inches. A compass that should last a lifetime and give perfect satisfaction under any conditions. Shipping wt., 5 ounces. Price, \$1.08

## Fine Jeweled Compass, \$1.80.

No. 20K3813 An extra high grade pocket compass, made throughout in the most careful and accurate way. Strongly made lacquered brass case, 2 3/8 inches in diameter with cap cover, extra heavy beveled glass, automatic stop and best grade jewel mounted English bar needle. Bottom of compass is oxidized in black, with white lettering, and the full circle divisions are engraved on a silver finish metal dial raised to level of needle. Shipping weight, 6 ounces. Price, \$1.80

## TELAWAY. Our 45-Cent Special Compass.

No. 20K3790 This Pocket Compass is made with finely finished bronze case. Blued steel needle. Enameled card dial. Needle is jewel mounted. This is a compass of exceptional value. Diameter, 1 1/2 inches. Made in U. S. Shipping weight, 3 ounces. Price, 45c

No. 20K3791 This Compass is made with non-magnetic nickel plated dustproof case, and high grade jewel mounted blued steel needle. Full circle divisions are engraved on a silver finish metal dial. The needle is regulated by turning screw stop at the top of case. Diameter 1 3/8 inches. Made in U. S. Shipping weight, 4 oz. Price, 85c

## Competitor Compass, 60 Cents.

No. 20K3803 This Pocket Compass is made with silver finish metal dial protected by heavy beveled edge glass, substantial brass case and provided with sliding stop. Diameter, 1 3/8 in. Price, 60c

## Leedawl Compass, 85 Cents.

No. 20K3804 This Compass is made with silver finish metal dial, full circle divisions, and sliding stop. Diameter, 1 3/8 inches. Shipping weight, 4 ounces. Price, \$1.40

## High Grade Compass, \$2.35.

No. 20K3816 This is a very fine compact compass, very convenient for carrying in pocket, made like a watch with nickel plated dustproof case, spring hinged cover, opened by pressing on stem, best grade jewel mounted English bar needle, automatic stop and heavy beveled glass. The full circle divisions are engraved on a silver finish metal dial. Diameter, 1 3/8 inches. Shipping weight, 4 ounces. Price, \$2.35

## Explorers' Compass, \$1.40.

No. 20K3824 This Compass, is made with a special hand which, by rotating the bottom of the compass, can be caused to point in any direction. The user, after getting his bearings, revolves the bottom of the compass until the hand points exactly in the direction which he desires to go, making it a very practicable and efficient instrument in every way. The case is made of solid brass, very strong and substantial, fitted with a heavy beveled edge glass, silver finish metal dial, with full circle divisions. Jeweled cap to needle and sliding stop. Diameter, 1 3/8 inches. Shipping weight, 4 ounces. Price, \$1.40





# The Mirroscope A Wonderful Entertainer for the Entire Family

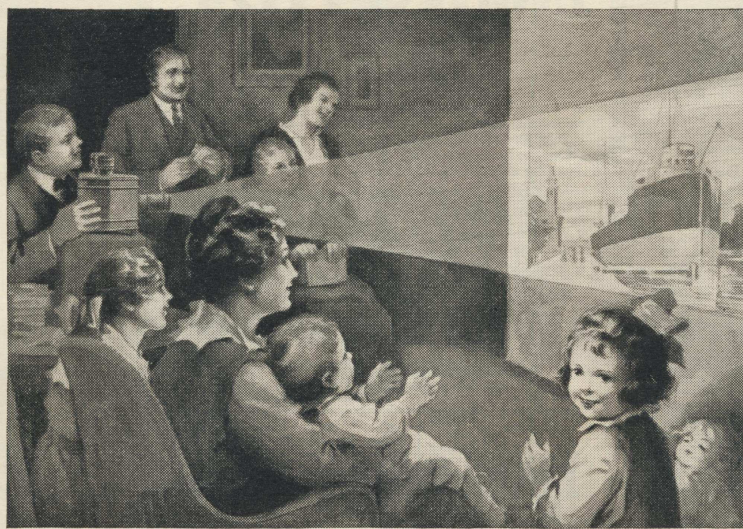
The Mirroscope is the latest improved form of the familiar post card projector, and is a most delightful entertainer for young and old alike. It throws on a screen, greatly enlarged, pictures of any kind, such as post cards, photographs, newspaper or magazine illustrations, your own drawings; or any small flat object, such as butterflies, pressed flowers, leaves, stamps or coins. All colors are brightly reproduced and every detail is clear and distinct. You can give regular entertainments for your friends with a Mirroscope, play games with it, and educate the children as well as amuse them. Suggestions for its many uses go with each machine.

**Scientifically Correct.**

Miroscopes are designed and built on absolutely scientific principles. The boxes are of metal, die formed, machine made, rigid and substantial. They are well ventilated. All seams are curled to avoid the use of solder.

The arrangement of lights and reflectors is such as to give the greatest possible amount of illumination. Highly polished reflectors concentrate every ray of light upon the object, whence it is reflected through powerful lenses. In every way the results are more satisfying than those given by any similar machine we have ever seen.

The adjustable card holders, with which all but Model I are equipped, will take in objects up to 5 3/4 inches wide by 6 inches high. A slight turn of a milled knob on the back shifts the top and bottom guides.



**Size of Picture.**  
The size of the picture thrown on the screen varies from 2 feet in diameter to 7 feet, according to the distance between the instrument and the screen. This may be regulated at will to suit conditions and the objects to be shown.

**Electric or Acetylene.**

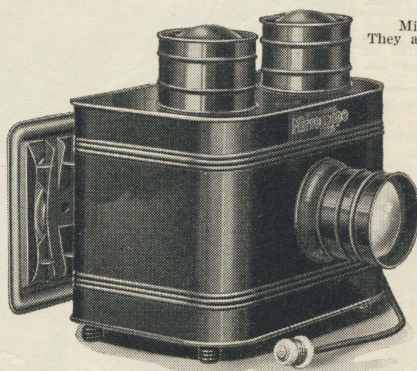
Miroscopes are made to be used with electric light or with acetylene gas light. They are not convertible from electricity to gas, or the reverse. High candle power

electric lamps are included with the electric models, to be used with any regular 105 to 115-volt lighting current. A reinforced insulated lamp cord and standard plug furnish the connection with any standard electric light socket. These lamps are standard type. New ones may be purchased, if necessary, from any dealer in electrical supplies. The acetylene machines are equipped with an improved generator and connecting hose, and fitted with acetylene burners of high candle power.

We recommend the electric machine wherever it is possible to use it, because it is more convenient than the gas. But the acetylene gives just as good a picture and it takes but a moment to prepare it for use. Insurance regulations prevent us from handling carbide, but this may be obtained at small cost from any dealer in automobile or bicycle accessories.

**As a Gift.**

We believe no gift for birthday or holiday occasion can be more highly appreciated and enjoyed than a Mirroscope, because it pleases every member of the family; because it is novel and unusual; because it gives a new interest to thousands of things which ordinarily seem, perhaps, commonplace and uninteresting; because it is highly educational, not only for the youngsters, but for their elders as well.



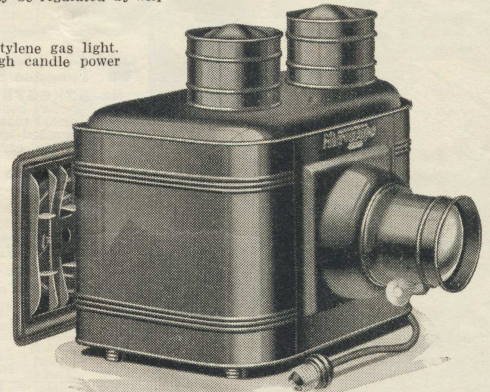
**Model IV  
Mirroscope,  
\$9.00.**

Length, 12 inches; width, 13 inches; height, 10 in. Oxidized copper finish. Two direct draft top ventilators and bottom vents. 2 plano-convex lenses, 3 3/4 in. in diameter, mounted in gunmetal plated adjustable tube.

**Illumination:** Electric, two high efficiency lamps, with cord and plug; acetylene, special generator and two

high power burners. Two parabolic reflectors, brass, heavily nickel plated and polished, giving strong concentration of the light. Two adjustable card holders are attached to self closing doors mounted on a double compartment, sliding carriage. While one subject is being shown another may be inserted without detaching the carriage from the instrument. Shipping weight, 12 1/2 pounds.

- No. 20K2866 For electricity, 105-115 volts. Price.....\$9.00
- No. 20K2867 For acetylene gas. Price..... 9.00



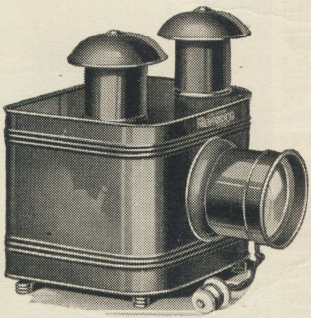
**Model V  
Mirroscope,  
\$13.50.**

Length, 15 inches; width, 14 inches; height, 11 in. Oxidized copper finish, neatly striped. Double top and sides, forming an air chamber all around, which provides ideal heat insulation. Double top ventilators, aided by bottom vents, draw off heat directly from lamps.

2 plano-convex lenses, 3 3/4 in. in diameter, mounted in heavily nickel plated lens tube, fitted with rack and pinion for easy focusing.

**Illumination:** Electric, two high power incandescent lamps, with cord and separable plug; acetylene, special generator and two burners of high candle power. Two parabolic reflectors of brass, heavily nickel plated and polished, converging the light rays with great intensity. Two adjustable card holders are attached to self closing doors mounted on a double compartment, sliding carriage. This permits one subject to be inserted while another is being shown. Shipping weight, 16 pounds.

- No. 20K2868 For electricity, 105-115 volts. Price.....\$13.50
- No. 20K2869 For acetylene gas. Price..... 13.50



**Model I Mirroscope, \$2.25.**

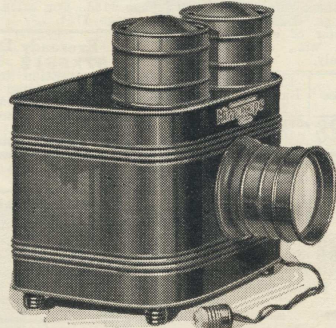
Length, 10 1/2 in.; width, 10 in.; height, 8 in. Matt black enamel finish. Two direct draft top ventilators and bottom vents.

Single plano-convex lens, 3 1/4 inches in diameter, mounted in matt black enamel adjustable tube.

**Illumination:** Electric, two carbon lamps, with cord and plug; acetylene, special generator and two burners. Two curved, polished metal reflectors.

Hinged door in back carries rigid card holder, 5 1/2 x 5 1/2 in. Shipping weight, 5 pounds.

- No. 20K2860 For electricity, 105-115 volts. Price.....\$2.25
- No. 20K2861 For acetylene gas. Price..... 2.25



**Model II Mirroscope, \$4.50.**

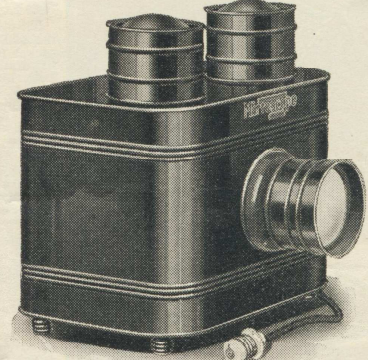
Length, 11 1/2 inches; width, 11 1/2 inches; height, 9 inches. Oxidized copper finish. Two direct draft top ventilators and bottom vents.

2 plano-convex lenses, 3 3/4 inches in diameter, mounted in gunmetal plated adjustable tube.

**Illumination:** Electric, two special incandescent lamps, with cord and plug; acetylene, special generator and two burners. Two parabolic reflectors, brass, nickel plated and buffed.

Self closing hinged door in back carries single adjustable card holder. Shipping weight, 8 1/2 pounds.

- No. 20K2862 For electricity, 105-115 volts. Price.....\$4.50
- No. 20K2863 For acetylene gas. Price..... 4.50



**Model III Mirroscope, \$6.75.**

Length, 12 inches; width, 13 inches; height, 10 inches. Oxidized copper finish. Two direct draft top ventilators and bottom vents.

2 plano-convex lenses, 3 1/4 inches in diameter, mounted in gunmetal plated adjustable tube.

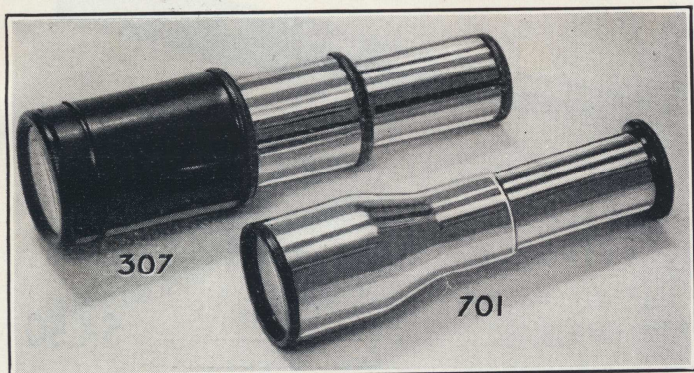
**Illumination:** Electric, two high power lamps, with cord and plug; acetylene, special generator and two powerful burners. Two parabolic reflectors, brass, heavily nickel plated and buffed.

Self closing hinged door in back carries single adjustable card holder. Shipping weight, 10 1/2 pounds.

- No. 20K2864 For electricity, 105-115 volts. Price.....\$6.75
- No. 20K2865 For acetylene gas. Price..... 6.75



## LOW PRICED TELESCOPES

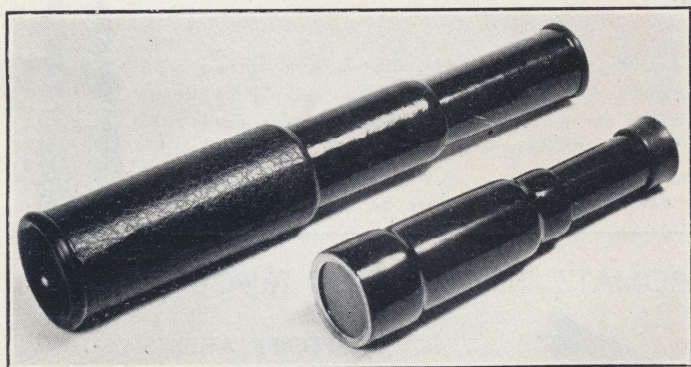


No. 307—Trooper 6X—3 section pocket telescope. Length open 4½ inches, closed 2½ inches. All brass, tubes nickel plated. 1⅛ inch objective lens.

Price per dozen ..... **\$2.50**

No. 701—2 section 6X telescope. Heavy brass construction. All chromium plated. 1 inch highly polished objective lens; lens mounted in screw-on caps.

Price per dozen ..... **\$3.00**



No. 905

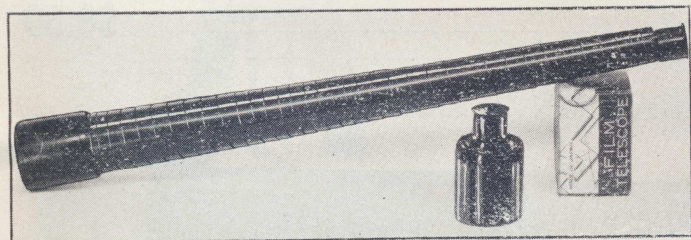
No. 360

No. 905—3 section fibre telescope. Length open 8¼ inches, closed 5 inches. Leatherette paper covered, lens in rubber mountings.

Price per dozen ..... **\$1.80**

No. 360—2 section fibre telescope, length open 5½ inches, closed 4 inches. 1 inch objective; lens in metal holders. Lacquered a glossy black.

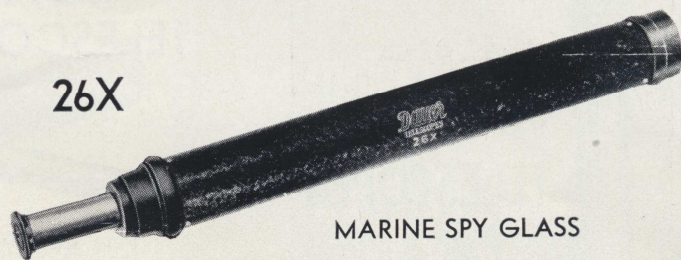
Price per dozen ..... **\$1.50**



### KING FILM TELESCOPE

18 inches when extended, closed 2 inches. Latest novelty telescope 6X. A practical pocket telescope. 1 inch objective; lenses set in rubber mounting; body of rolled surplus motion picture film.

No. 907—Film telescope. Price per dozen ..... **\$1.00**

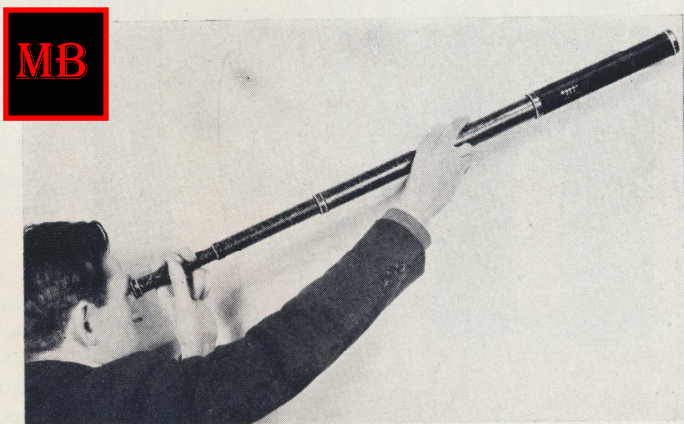


26X

### MARINE SPY GLASS

No. 306—26 power Marine Spy Glass. For all outdoor uses. Metal body; black crystalline finish; 14 inches closed; 16 inches opened. 4 polished lenses in nickel plated draw tube; 1 inch objective lens in turned wood mountings.

Price per dozen ..... **\$10.80**



No. 58—5 tube Brass Telescope; outer section heavy fibre, 10X, objective lens—1½ inches; 5 polished lenses. Tubes finished all brass and all nickel plated.

Price each ..... **\$1.50**

No. 906—5 tubes cardboard tube telescope. Over 36 inches length; 10 power; 5 polished lenses; 1½ inch objective in brass mounting; first section covered with leatherette cloth.

Price per dozen ..... **\$7.20**

### MONOX

A practical monocular for field work and bird study. 19 ligne, 1½ inch objective lens set in brass mounting. Heavy metal body with leather design. Single draw tube nickel plated. Smooth draw. Eyecups and mountings black Japanned finish. Complete in velvet draw string bag.

No. 308—Monox Price per dozen ..... **\$6.00**







# SHURLITE ELECTRIC FLASH LIGHTS

### Miners' Type SHURLITE Flash Light.

Black fiber case with nickel plated trimmings. Large reflector and good lens, measuring 2 1/2 inches in diameter. Gives excellent light and spreads it over a large area. Two lengths. Shipping weights, 1 pound 9 ounces and 1 1/2 pounds, respectively.

Catalog No.	Diam. In.	Lgth. In.	Battery	Price	Extra Battery No.	Extra Lamp No.
57K6568	1 1/2	6 3/4	2-cell	\$0.95	57K6890	57K6907
57K6570	1 1/2	9	3-cell	1.10	57K6805	57K6905

Extra batteries and lamps on page 1154.

### Fiber Case SHURLITE Flash Light

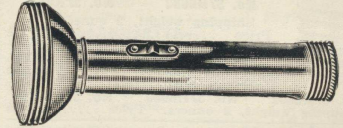
Non-short circuit black fiber case with nickel plated trimmings. Popular style. Three sizes. Shipping weights, 1 pound, 1 pound 3 ounces and 1 1/2 pounds, respectively.

Catalog No.	Diam. In.	Lgth. In.	Battery	Price	Extra Battery No.	Extra Lamp No.
57K6560	1 1/4	5 1/2	2-cell	59c	57K6891	57K6906
57K6562	1 1/2	6 3/4	2-cell	75c	57K6890	57K6907
57K6564	1 1/2	9	3-cell	83c	57K6805	57K6905

Extra batteries and lamps on page 1154.

Our own brand of high grade tubular flash lights. Non-short circuiting fiber and nickel plated cases. High grade material and workmanship throughout. Satisfaction guaranteed. Besides these we also carry a line of GENUINE EVEREADY DAYLOS, a widely advertised line.

### Extra Large Lens SHURLITE Flash Light.



**No. 57K6590** A large flash light giving a powerful light. Nickel plated polished case, with lens 3 inches in diameter. Case, 1 1/2 inches in diameter by 9 inches long. Triple cell battery. Shipping weight, about 3 lbs. Price, complete with Shurlite battery.....\$2.25  
**No. 57K6592** Same as above, but made with black fiber case and nickel plated trimmings. Price, complete with Shurlite battery.....\$1.95  
 For extra batteries and lamps see Nos. 57K6805 and 57K6905 on page 1154.

### Large Lens SHURLITE Flash Light.

Miners' Type Nickel Plated Tubular Light. Same as No. 57K6578 below, but made with extra large reflector and lens measuring 2 1/2 inches in diameter, which spreads the light over a greater area. Two lengths. Shipping weights, 2 pounds and 2 1/4 pounds, respectively.

Catalog No.	Diam. In.	Lgth. In.	Battery	Price	Extra Battery No.	Extra Lamp No.
57K6586	1 1/2	6 3/4	2-cell	\$1.19	57K6890	57K6907
57K6588	1 1/2	9	3-cell	1.43	57K6805	57K6905

Extra batteries and lamps on page 1154.

### Nickel Plated SHURLITE Flash Light.

Non-Short Circuit Tubular Light, made with brass case, nickel plated and polished. A very handsome flash light, much used around motor cars, motor boats and shops where the hands of the user are likely to be oily or wet. Three sizes. Shipping weights, 14 ounces, 1 1/2 pounds and 1 3/4 pounds, respectively.

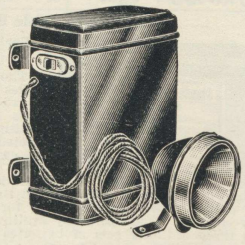
Catalog No.	Diam. In.	Lgth. In.	Battery	Price	Extra Battery No.	Extra Lamp No.
57K6576	1 1/4	5 1/2	2-cell	\$0.74	57K6891	57K6906
57K6578	1 1/2	6 3/4	2-cell	.89	57K6890	57K6907
57K6580	1 1/2	9	3-cell	1.05	57K6805	57K6905

Extra batteries and lamps on page 1154.

## High Grade Electric Lanterns, Vehicle Lights, Flash Lights, Attachments and Clocks

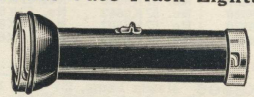
### Electric Vehicle Light.

When driving at night see the road ahead and warn those behind. Outfit consists of steel battery case and high grade lamp, having 3 1/4 inch reflector, 1 3/4 inch deep, red lens in rear. Black enamel finish, nickel plated trimmings. Switch controls light. Brackets for mounting. Case, 7 x 5 1/2 x 2 1/2 inches. Will hold two No. 6 dry cells. Ten feet of wire furnished.  
**No. 57K6699** Vehicle Light. Complete, without batteries. Shipping weight, 5 pounds. Price, \$1.80  
**No. 57K6678** Vehicle Light. Complete, with two Stand-By dry batteries. Shpg. wt., 9 lbs. Price, \$2.38  
 For extra batteries see No. 57K6086 on page 1154.  
 For extra lamps see No. 57K6915 on page 1154.



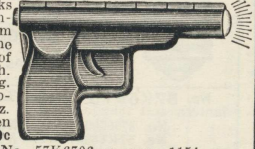
### Metal Case Flash Lights.

Black enameled metal case, non-short circuit flash light, nickel plated trimmings. Well made and gives good light. Diameter, 1 1/2 inches; length over all, 6 inches. Large lens measures 2 inches in diameter. Shipping weight, about 1 1/2 pounds.  
**No. 57K6667** Price, complete with double cell Shurlite battery.....70c  
 For extra batteries and lamps see Nos. 57K6890 and 57K6907 on page 1154.  
**No. 57K6642** Straight tubular shown below. Shipping weight, about 1 pound. Price, complete with Shurlite battery.....55c  
 For extra batteries and lamps see Nos. 57K6890 and 57K6903 on page 1154.

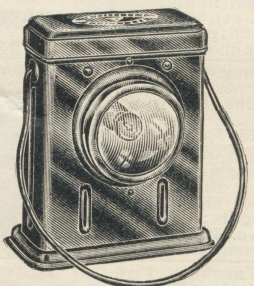
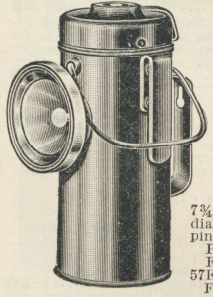


**No. 57K6681** Looks like a pistol. When contact is made a bright beam of light is thrown from the muzzle. Strongly made of brass, black enamel finish. Barrel is 5 1/2 inches long. Double cell battery. Shipping weight, about 8 oz. Price, with Tungsten battery.....50c  
 For extra batteries see No. 57K6706 on page 1154.  
 For extra lamps see No. 57K6900 on page 1154.

### Pistol Flash Light. Great Gift for Boys.



**The "Utility" Light.**  
**No. 57K6690** Strong metal case, black japanned, with metal handle and wire bail. Switch enables you to use this lantern as a flash light, or if switch is turned to one side lantern will give continuous light. Flat steel strip on one side of lantern when inserted into steel slip furnished enables you to secure lantern to any convenient place in barn or outbuilding, or on the side of your wagon or buggy. Height, 7 1/2 inches; diameter, 3 1/4 inches; diameter of lens, 2 inches. Shipping weight, 1 1/2 pounds. Price, without battery.....80c  
 For extra batteries see No. 57K6086 on page 1154.  
 For extra lamps see No. 57K6910 on page 1154.



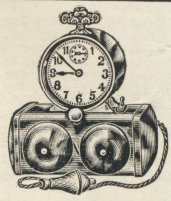
**Popular Double Cell Lantern.**  
 Made of steel formed to give great strength. Has both bail and grip handles. Litter fold flush with body in back. Heavy lens gives bulbseye effect. Reflector is silver plated and polished. Switch located conveniently in back. Black enamel finish with nickel plated trimmings. 7 1/2 inches high, 5 1/2 inches wide and 4 inches thick. Requires two standard 2 1/2 x 6 inch dry cells. We list below an attachment to this lantern for testing eggs.  
**No. 57K6693** Popular Double Cell Lantern, complete, without batteries. Shipping weight, 2 1/4 pounds. Price.....\$1.40  
**No. 57K6694** Popular Double Cell Lantern, complete, with two dry cells. Shipping weight, 7 pounds. Price.....\$1.98  
 For extra batteries see No. 57K6086 on page 1154.  
 For extra lamps see No. 57K6915 on page 1154.

**No. 57K6698** Black Enameled Attachment to use with Lantern No. 57K6693 for testing eggs. A very convenient device. We have sold hundreds. Two eggs may be tested at one time. Shipping weight, about 8 ounces. Price.....10c



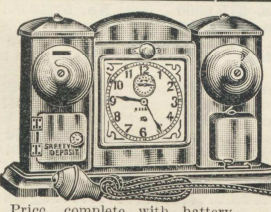
### Electric Alarm Clock.

**No. 57K6077** Good clock on metal base containing ordinary dry cell battery. Alarm set usual way rings till switched off. Push button at end of long cord lights smaller electric lamp in front of clock. Copper oxidized finish. Shipping weight, 6 pounds. Price, complete with battery, \$3.64  
 For extra batteries see No. 57K6086 on page 1154.  
 For extra lamps see No. 57K6910 on page 1154.



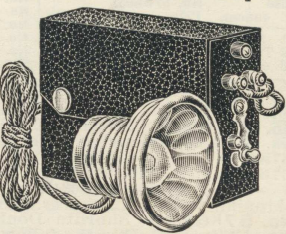
### Electric Alarm Clock.

**No. 57K6078** Compartment to right contains battery. Left side is savings bank with combination lock. Push button for light like clock No. 57K6077. Polished nickel plated case, 12 1/2 inches wide by 7 1/4 in. high. Shipping wt., 11 pounds. Price, complete with battery.....\$5.65  
 Extra batteries and lamps same as for No. 57K6077.



### Tungsten Cap Lights.

**No. 57K6606** Especially adapted for hunters, miners, inspectors and all who need a strong, concentrated light, that will not blow out or cause fires under any circumstances and permits both hands to be free. Consists of a reflector, nicely nickel plated, with lens 2 1/2 inches in diameter. Can be ment pins. Has 5 feet of flexible connecting cord, and a battery box which holds the five-cell battery, operated by the switch. Shipping weight, about 4 pounds. Price, complete with five-cell Tungsten battery.....\$4.40  
 For extra batteries see No. 57K6731 on page 1154.  
 For extra lamps see No. 57K6916 on page 1154.  
**No. 57K6607** Same as No. 57K6606, but equipped with a three-cell battery. Shpg. wt., about 2 1/2 lbs. Price, complete.....\$4.00  
 For extra batteries see No. 57K6734 on page 1154.  
 For extra lamps see No. 57K6909 on page 1154.



**Standard Hand Lantern.**  
**No. 57K6696** An extra insurance against fire in your barn and outbuildings. No smoke, no dirt, no wicks to trim. Switch lever turns light on or off. Battery easily replaced. Height, 9 1/4 inches; diameter of base, 5 in. Shipping weight, 5 pounds. Price, complete with triple cell Tungsten battery.....\$1.75  
 For extra batteries see No. 57K6734 on page 1154.  
 For extra lamps see No. 57K6909 on page 1154.  
**No. 57K6679** Same as No. 57K6696, but with large base to carry five-cell battery which, on account of its large size, will furnish current for lamp of greater candle power. Price, complete with five-cell battery.....\$2.25  
 For extra batteries see No. 57K6719 on page 1154.  
 For extra lamps see No. 57K6916 on page 1154.

### Coat Lapel Light.

**No. 57K6608** Similar to the cap light listed at left, but smaller and does not have a lens. About 3 feet of flexible cord is furnished which connects to the battery, and a switch on the light controls the current. Battery enclosed in a cardboard box of convenient size to carry in pocket. Shipping wt., about 1 pound. Price, complete with three-cell Tungsten battery.....\$1.60  
 For extra batteries see No. 57K6752 on page 1154.  
 For extra lamps see No. 57K6909 on page 1154.





# Batteries and Lamps

## Flash Light Batteries.

You will find listed below genuine EVEREADY TUNGSTEN batteries. These are high grade batteries, which are widely advertised. We also call your attention to the Shurrite batteries listed at the bottom of this page. These are our own brand, high grade batteries. Satisfactory service guaranteed. For flash lights see pages 1152 and 1153.

**No. 57K6705** Tungsten Three-Cell Tubular Battery. Diameter, 1 1/8 inches; length, 7 inches. Fits the following flash lights:

No. 57H6635	No. 57K6668	No. 57K6655
No. 57K6590	No. 57K6662	No. 57K6653
No. 57K6570	No. 57K6592	No. 57K6646
No. 57K6656	No. 57K6564	No. 57K6588
	No. 57K6580	

Shipping weight, 12 oz. Price...**30c**

**No. 57K6706** Tungsten Double Cell Tubular Battery. Diameter, 9/16 inch; length, 4 inches. Fits Flash Lights:

No. 57H6682	No. 57K6681
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Shipping weight, 3 oz. Price...**20c**

**No. 57K6753** Tungsten Three-Cell Tubular Battery. Diameter, 1 inch; length, 7 inches. Fits Flash Light Candle No. 57K6614.

Shipping weight, 9 ounces. Price...**34c**

**No. 57K6790** Tungsten Double Cell Tubular Battery. Diameter, 1 1/8 inches; length, 4 3/4 inches. Fits the following flash lights:

No. 57H6634	No. 57K6664	No. 57K6578
No. 57H6638	No. 57K6643	No. 57K6650
No. 57K6667	No. 57K6568	No. 57K6660
No. 57K6562	No. 57K6654	No. 57K6642
	No. 57K6586	

Shipping weight, 8 ounces. Price...**23c**

**No. 57K6791** Tungsten Double Cell Tubular Battery. Diameter, 1 inch; length, 3 3/4 inches. Fits the following flash lights:

No. 57K6658	No. 57K6612	No. 57K6640
No. 57K6560	No. 57K6576	

Shipping weight, 4 ounces. Price...**23c**

**No. 57K6700** Tungsten Double Cell Battery, 9/16 inch thick, 1 1/2 inches wide, 1 1/4 inches high. Fits the following flash lights:

No. 57K6601	No. 57K6615
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Shipping wt., 2 oz. Price...**23c**

**No. 57K6703** Tungsten Triple Cell Battery, 3/4 inch thick, 2 1/8 inches wide, 2 3/8 inches high. Fits the following flash lights:

No. 57K6685	No. 57K6628
-------------	-------------

Shipping weight, 6 ounces. Price...**27c**

**No. 57K6715** Tungsten Five-Cell Battery. Diameter, 1 3/8 inches; length, 11 3/4 inches. Fits Flash Light No. 57K6657.

Shipping weight, 1 1/4 pounds. Price...**60c**

**No. 57K6731** Tungsten Five-Cell Battery, 1 3/8 inches thick, 3 inches high, 6 5/8 inches wide. To be used with Cap Light No. 57K6606.

Shipping weight, 1 1/2 pounds. Price...**65c**

**No. 57K6734** Tungsten Triple Cell Battery, 1 3/8 inches thick, 4 inches wide, 3 inches high. Fits Lantern No. 57K6696 and Cap Light No. 57K6607.

Shipping weight, 1 pound. Price...**34c**

**No. 57K6750** Tungsten Double Cell Battery, 5/8 inch thick, 1 1/8 inches wide, 2 1/4 inches high. Fits the following flash lights:

No. 57H6680	No. 57K6616	No. 57K6602
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Shipping weight, 3 ounces. Price...**23c**

**No. 57K6751** Tungsten Triple Cell Battery, 1 1/8 inch thick, 2 inches high, 2 1/4 inches high. Fits the following flash lights:

No. 57K6617	No. 57K6603
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Shipping weight, 4 ounces. Price...**27c**

**No. 57K6710** Tungsten Five-Cell Battery. Diameter, 3 3/8 inches; height, 3 inches. Fits Tungsten Search Lantern No. 57K6675.

Shipping weight, 1 1/2 pounds. Price...**65c**

**No. 57K6719** Tungsten Five-Cell Battery, 2 3/4 inches thick, 3 inches high, 4 inches wide. Fits Lantern No. 57K6679.

Shipping weight, 2 pounds. Price...**65c**

**No. 57K6752** Three-Cell Tungsten Battery, 1 3/8 inches thick, 4 inches wide, 3 3/8 inches high. Fits Flash Light No. 57K6608.

Shipping weight, 1 pound 1 ounce. Price...**40c**

**No. 57K6775** Tungsten Three-Cell Battery, 2 1/2 inches thick, 3 inches high, 2 3/4 inches wide. Fits Flash Light No. 57K6676.

Shipping weight, about 2 pounds. Price...**40c**

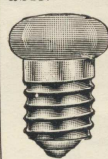
**No. 57K6093** Stand-By Dry Battery. Fits the following lanterns, flash lights, battery attachments and clocks:

No. 57K6693	No. 57K6678	No. 57H6688
No. 57K6694	No. 57H6683	No. 57H6684
No. 57K6699	No. 57H6689	No. 57K6690
No. 57K6077	No. 57K6078	

Shipping weight, 2 3/4 pounds. Price, each...**31c**

## Flash Light Lamps.

We offer genuine MAZDA Flash Light Lamps, which are very high grade. Mazda lamps give a white light and consume far less current than a carbon lamp, giving a greater amount of light from one battery. If your flash light does not work, do not lay all the blame on the battery, as the lamp may be broken or burned out. The actual candle power of the lamp, as stated below, is greatly magnified by the reflector and lens when used in the flash light. It is advisable to have an extra lamp available.



**No. 57K6900** Mazda Lamp, 2.5 volts, 3/4-candle power. Fits the following flash lights:

No. 57K6601	No. 57K6615
No. 57H6682	No. 57K6681

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6901** Mazda Lamp, 2.5 volts, 1-candle power. Fits the following flash lights:

No. 57K6602	No. 57H6680	No. 57K6616
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Shipping weight, 2 ounces. Price...**10c**

**No. 57K6902** Mazda Lamp, 5.8 volts, 1 1/2-candle power. Fits the following flash lights:

No. 57K6603	No. 57K6617
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Shipping weight, 2 ounces. Price...**10c**

**No. 57K6903** Mazda Lamp, 2.7 volts, 1-candle power. Fits the following flash lights:

No. 57K6642	No. 57E6625	No. 57K6612
No. 57E6624	No. 57K6612	

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6904** Mazda Lamp, 3.8 volts, 1 1/2-candle power. Fits the following flash lights:

No. 57K6628	No. 57K6685
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Shipping weight, 2 ounces. Price...**10c**

**No. 57K6905** Mazda Lamp, 3.8 volts, 1 1/2-candle power. Fits the following flash lights:

No. 57H6635	No. 57K6668	No. 57K6655
No. 57K6590	No. 57K6662	No. 57K6653
No. 57K6570	No. 57K6592	No. 57K6646
No. 57K6656	No. 57K6564	No. 57K6588
	No. 57K6580	

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6906** Mazda Lamp, 2.7 volts 1-candle power. Fits the following flash lights:

No. 57K6650	No. 57K6560
No. 57K6640	No. 57K6576

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6907** Mazda Lamp, 2.9 volts, 1-candle power. Fits the following flash lights:

No. 57H6634	No. 57K6643	No. 57K6650
No. 57K6562	No. 57K6664	No. 57K6654
No. 57K6586	No. 57K6660	No. 57H6638
No. 57K6568	No. 57K6578	No. 57K6667

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6909** Mazda Lamp, 4 volts, 1 1/2-candle power. Fits the following flash lights and lantern:

No. 57K6607	No. 57K6676
No. 57K6608	No. 57K6696

Shipping weight, 2 ounces. Price...**10c**

**No. 57K6910** Mazda Lamp, 1 1/2 volts, 3/4-candle power. Fits the following flash lights and clocks:

No. 57H6688	No. 57K6077
No. 57H6683	No. 57K6078
No. 57H6684	No. 57H6689
No. 57K6690	No. 57F6692

Shipping wt., 2 oz. Price...**10c**

**No. 57K6914** Gas Lighter Tip for No. 57H6638 range lighter. Shipping weight, 2 ounces. Price...**16c**

**No. 57K6915** Mazda Lamp, 3 volts. For lantern and vehicle light:

No. 57K66931	No. 57K66991
No. 57K66941	No. 57K66781

Shipping weight, 3 ounces. Price...**10c**

**No. 57K6916** Mazda Lamp, 6.2 volts. Fits lantern and flash light:

No. 57K6679	No. 57K6675
No. 57K6606	No. 57K6637

Shipping weight, 3 ounces. Price...**35c**

**No. 57K6917** Mazda Lamp, 4 volts, 1 1/2-candle power. Fits Tungsten Candle No. 57K6614.

Shipping weight, 3 ounces. Price...**35c**

## Standard Dry Cells, Multiple, Wet and Gravity Batteries.

### Red Label Dry Battery.

Our Red Label Dry Battery is suitable for telephone use, door bell, annunciators, burglar alarms, medical batteries, small motors or other similar work. It is made with high internal resistance and low amperage, averaging from 10 to 13 amperes. Owing to its high internal resistance it has unusual lasting qualities. Size, 2 1/2 inches diameter by 6 inches high.

Price, each.....	(Shipping wt., 2 3/4 lbs.)	\$ 0.29
Per dozen.....	(Shipping wt. 30 lbs.)	3.36
Per barrel (125 batteries).	(Shpg. wt., 265 lbs.)	32.38



### Stand-By Dry Battery.

A battery of medium internal resistance. Suitable for all work to which the Red Label Dry Battery is adapted and may also be used for ignition purposes, although for this work it is not equal to the Stand-By "Special" described below. The amperage of the Stand-By battery averages from 16 to 20 amperes. Size, 2 1/2 inches in diameter, 6 inches high.

Price, each.....	(Shipping wt., 2 3/4 lbs.)	\$ 0.31
Per barrel (125 batteries).	(Shpg. wt., 300 lbs.)	37.50

### Stand-By "Special" Dry Batteries.

The Stand-By "Special" is a dry battery of low internal resistance and is designed especially for ignition work. This battery gives an unusually heavy discharge and a correspondingly hotter and fatter spark. It is suitable for use with stationary gasoline engines, automobiles and launches. It may also be used for operating toy motors, lighting miniature incandescent lamps, etc. The Stand-By "Special" is without question a very satisfactory high grade battery. Each cell is guaranteed to test from 20 to 25 amperes.

No. 57K6094	Size, In.	Wt., Lbs.	Each
No. 57K6098	2 1/2 x 6	2 3/4	35c
	3 1/2 x 8	4 1/2	88c

### Special Prices in Barrel Lots.

	Quantity	in Shipping	Price, Per	
	Size, In.	Barrel Wt., Lbs.	Barrel	
No. 57K6094	2 1/2 x 6	125	300	\$42.50
No. 57K6098	3 1/2 x 8	50	315	43.25



### Stand-By Multiple Batteries.

For Automobile or Stationary Engine Ignition.



The Stand-By Multiple Batteries consist of a number of 2 1/2 x 6-inch Stand-By "Special" cells connected in series and multiple. The cells, all connected up, are placed in a wooden case, which is then completely filled with a paraffin-like wax, thus hermetically sealing the batteries, which greatly prolongs their life. We furnish these Stand-By Multiple Batteries in two styles, either of which is suitable for either automobiles or stationary engines. One Stand-By Multiple Battery will outfit from two to three ordinary sets of batteries connected in series.

**No. 57K6087** Stand-By Multiple Battery, consisting of ten cells, connected five in series, two multiples. This battery is suitable for all ignition systems using standard coils and timers, or using five or six cells to a set. Dimensions over all: 6 3/4 inches wide, 14 3/8 inches long, 9 1/2 inches high. Net weight, 27 pounds. Price...**\$4.95**

**No. 57K6089** Stand-By Multiple Battery, consisting of fifteen cells, connected five in series, three multiples. Suitable for any ignition system now using five cells in series. Dimensions over all: 8 3/4 inches wide, 14 3/8 inches long, 9 1/2 inches high. Net weight, 42 pounds. Price...**\$6.50**

### Gravity Battery.

The Gravity Battery is a closed circuit battery used almost entirely for telegraph work. The 5x7 battery requires 1 1/2 pounds blue vitriol for a charge, the 6x8 battery requires 3 pounds. High grade batteries, satisfactory service guaranteed.

**No. 57K6060** Gravity Battery. Size, 5x7 inches, consisting of jar, copper and zinc. Shipping weight, 6 pounds. Price, without blue vitriol...**\$1.05**

**No. 57K6061** Gravity Battery. Size, 6x8 inches, consisting of jar, copper and zinc. Shipping weight, 9 3/4 pounds. Price, without blue vitriol...**\$1.30**

NOTE—Blue Vitriol is not furnished with these batteries. It is always sold extra. See statement above regarding quantity of blue vitriol required.

**No. 57K6062** Battery Jar, glass, 5x7 in. Shpg. wt., 4 lbs. **30c**

**No. 57K6063** Battery Jar, glass, 6x8 in. Shpg. wt., 6 1/2 lbs. **32c**

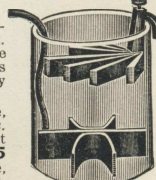
**No. 57K6064** Zinc, for 5x7 battery. Shpg. wt., 2 1/2 lbs. **78c**

**No. 57K6065** Zinc, for 6x8 battery. Shpg. wt., 4 1/2 lbs. **\$1.10**

**No. 57K6066** Copper, for 5x7 battery. Shpg. wt., 3 oz. **18c**

**No. 57K6067** Copper, for 6x8 battery. Shpg. wt., 4 oz. **16c**

**No. 57K6068** Blue Vitriol. Price subject to market changes. Shpg. wt. of 1 pound, 1 1/2 lbs. (Not mailable.) Per lb. **20c**



## SHURLITE FLASH LIGHT BATTERIES.

Our Own Brand of High Grade Batteries.

**No. 57K6805** Shurrite Triple Cell Battery. Diameter, 1 1/8 inches; length, 7 inches. Fits the following flash lights:

No. 57K6570	No. 57K6592	No. 57H6635	No. 57K6668	No. 57K6564
No. 57K6588	No. 57K6662	No. 57K6653	No. 57K6590	No. 57K6580
	No. 57K6646	No. 57K6656	No. 57K6655	

Shipping weight, 12 ounces. Price...**24c**

**No. 57K6890** Shurrite Double Cell Tubular Battery. Diameter, 1 1/8 inches; length, 4 3/4 inches. Fits the following flash lights:

No. 57K6568	No. 57K6578	No. 57H6634	No. 57K6643	No. 57K6562
No. 57K6642	No. 57K6660	No. 57K6664	No. 57K6586	No. 57K6667
	No. 57K6654	No. 57H6638	No. 57K6650	

Shipping weight, 8 ounces. Price...**20c**

**No. 57K6891** Shurrite Double Cell Tubular Battery. Diameter, 1 inch; length, 3 3/4 inches. Fits the following flash lights:

No. 57K6560	No. 57K6658	No. 57H6576	No. 57K6640	No. 57K6612
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Shipping weight, 4 ounces. Price...**20c**









# FREIGHT RATES

Tables showing the freight rates per 100 pounds on goods shipped from Chicago to a number of cities in each state, these cities being used by the railroads as a basis for figuring rates for all the towns in the immediate vicinity of each city.

**RAILROAD COMPANIES FIGURE FREIGHT RATES WITH THE LARGER CITIES IN EACH STATE AS A BASIS.** All other towns located in the same part of the state as any one of these cities take practically the same rate or only a few cents per 100 pounds more or less than the rate to the larger city.

Please consult the following Table of Rates, considering it in connection with the classification of merchandise, and you will be able to determine easily, almost exactly, what the freight will amount to on any goods. If your station is not named in these tables, the rate to your station will be very nearly the same as the rate to the nearest city named, or you may ask your freight agent.

**HOW TO SAVE ON FREIGHT CHARGES.** In having goods shipped by freight, it pays you to make up an order of 100 pounds or more, because railroad companies usually charge as much for a shipment weighing less than 100 pounds as they do for one weighing 100 pounds.

If there is no freight agent at your shipping point you must send money to prepay freight charges. If there is an agent you can pay the freight charges when shipment reaches you. It is necessary to prepay only when there is no agent at your station.

**WHEN YOU LEAVE THE METHOD OF SHIPMENT TO US** we always choose the cheapest method.

## CLASSIFICATION OF MERCHANDISE FOR FREIGHT SHIPMENTS.

You will notice in the Freight Rate Tables below there are four different rates quoted to each city, first class, second class, third class and fourth class. This is because the railroad companies base their rates on the kind of merchandise to be carried. In order, therefore, to give you an idea as to the rate which any kind of merchandise will take to your nearest city, we tell you here the kind of merchandise which takes the different classes of rates.

- FOUR TIMES FIRST CLASS**  
Row Boats
- THREE TIMES FIRST CLASS**  
Drums (musical)  
Reed Chairs (East and West)
- DOUBLE FIRST CLASS**  
Buggies (54-in. crates) (East)  
Cameras (West)
- 1 1/2 TIMES FIRST CLASS**  
Baby Carriages (East and West)
- FIRST CLASS**  
Ammunition (South)  
Automobile Repairs  
Awnings  
Baby Carriages (South)  
Bathtubs  
Bob Sleds  
Books  
Boots and Shoes  
Brooders  
Buggies (34-in. crates) (South)  
Cameras (East and South)  
Camera Supplies  
Carpets  
Chinaware  
Cigars  
Clocks  
Clothing  
Concrete Block Machines (East)
- FIRST CLASS**  
Gasoline Engines (West)  
Graphophones  
Harness and Saddlery  
Horse Clipping Machines (South)  
Incubators  
Ladders (West and South)  
Lamps  
Loaded Gun Shells (South)  
Matting  
Milk Cans (West and South)  
Morris Chairs  
Notions  
Oil Stoves (East and West)  
Pianos and Organs  
Pictures  
Rubber Goods  
Rugs  
Sewing Machines (West and East)  
Sporting Goods  
Stationery  
Tents  
Tinware  
Toys  
Trunks (West and South)  
Valises

- FIRST CLASS**  
Wagons, Children's (East and South)  
Wagons, Farm (East and West)  
Wagon Wheels (East and West)  
Washing Machines
- SECOND CLASS**  
Ammunition (West and East)  
Animal Traps  
Bedsteads  
Concrete Block Machines (West)  
Cream Separators  
Crockery (West)  
Extension Tables  
Feed Troughs, Cast or Wrought Iron  
Forges (East and South)  
Gasoline Engines (East)  
Glassware (East R25)  
Graniteware  
Grindstones with Frames (West)  
Hardware (West and South)  
Horse Clipping Machines (West and East)  
Ladders (East)  
Linoleum
- SECOND CLASS**  
Loaded Gun Shells (West and East)  
Oilcloth  
Oils (East)  
Oil Stoves (South)  
Plumbing Material  
Pulleys  
Refrigerators  
Sewing Machines (South)  
Tools (West and South)  
Vacuum Cleaners  
Vises (West and South)  
Wagons, Children's (West)  
Wall Paper  
Woodenware  
Wringers  
Wheelbarrows
- THIRD CLASS**  
Church, School and Farm Bells (East R25)  
Crockery (East R26)  
Farm Implements (East R25)  
Gasoline Engines (South)  
Grindstones with Frames (East R26)  
Hand Pumps (East R25)  
Hardware (East)
- THIRD CLASS**  
Iron Pots and Kettles  
Iron Safes  
Oils (West and South)  
Paints (East)  
Stoves and Ranges (Cast Iron)  
Stump Pullers (East R25)  
Tools (East)  
Vises (East R26)  
Windmills (East R25)  
Wire Fencing (East R26)
- FOURTH CLASS**  
Concrete Block Machines (South)  
Crockery (South)  
Grindstones with Frames (South)  
Paints (West and South)  
Poultry Food  
Prepared Roofing (East R26)  
Steel Roofing  
Steel Sidings  
Stock Food  
Wagons, Farm (South)  
Wagon Wheels (South)  
Wire, Plain or Barbed

## HERE ARE THE RATES PER 100 POUNDS TO DIFFERENT TOWNS IN EACH STATE.

From Chicago to	From Chicago to				From Chicago to	From Chicago to								
	1st Class Freight, per 100 Pounds.	2d Class Freight, per 100 Pounds.	3d Class Freight, per 100 Pounds.	4th Class Freight, per 100 Pounds.		1st Class Freight, per 100 Pounds.	2d Class Freight, per 100 Pounds.	3d Class Freight, per 100 Pounds.	4th Class Freight, per 100 Pounds.					
<b>ALABAMA—</b>					<b>KENTUCKY—</b>					<b>NORTH DAKOTA—</b>				
Birmingham .....	\$1.32	\$1.12	\$0.93	\$0.75	Frankfort .....	\$0.63	\$0.54	\$0.42	\$0.32	Bismarck .....	\$1.60	\$1.35	\$1.07	\$0.76
Brewton .....	1.48	1.22	1.00	.82	Hopkinsville .....	.80	.65	.55	.46	Fargo .....	1.17	.99	.77	.54
Mobile .....	1.10	.90	.75	.58	Louisville .....	.43	.37	.27	.19	Grand Forks .....	1.24	1.04	.83	.58
Montgomery .....	1.33	1.17	1.00	.77	Morehead .....	.81	.68	.53	.37	Minot .....	1.75	1.49	1.20	.87
<b>ARIZONA—</b>					<b>LOUISIANA—</b>					Williston .....	1.99	1.66	1.36	.99
Phoenix .....	2.90	2.51	2.09	1.75	Lake Charles .....	1.56	1.32	1.07	.92	<b>OHIO—</b>				
Tucson .....	2.90	2.51	2.09	1.75	New Orleans .....	1.10	.90	.75	.58	Cincinnati .....	.42	.36	.26	.18
<b>ARKANSAS—</b>					Shreveport .....	1.45	1.22	1.00	.85	Columbus .....	.43	.37	.27	.19
Arkansas City .....	1.20	1.01	.77	.59	<b>MAINE—</b>					Toledo .....	.39	.34	.25	.17
Port Smith .....	1.30	1.11	.87	.69	Bangor .....	.97	.85	.65	.46	<b>OKLAHOMA—</b>				
Hot Springs .....	1.55	1.32	1.05	.81	<b>MARYLAND—</b>					Oklahoma City .....	1.50	1.29	1.07	.87
Little Rock .....	1.20	1.01	.77	.59	Baltimore .....	.87	.76	.57	.39	<b>OREGON—</b>				
Texarkana .....	1.47	1.27	1.08	.96	<b>MASSACHUSETTS—</b>					Portland .....	3.40	2.95	2.45	2.07
<b>CALIFORNIA—</b>					Boston .....	.97	.85	.65	.46	<b>PENNSYLVANIA—</b>				
Bakersfield .....	3.40	2.95	2.45	2.07	<b>MICHIGAN—</b>					Harrisburg .....	.87	.76	.57	.39
Los Angeles .....	3.40	2.95	2.45	2.07	Bessemer .....	.65	.55	.44	.28	Philadelphia .....	.88	.77	.58	.40
San Francisco .....	3.40	2.95	2.45	2.07	Detroit .....	.39	.34	.25	.17	Pittsburgh .....	.47	.41	.32	.22
<b>COLORADO—</b>					Grand Rapids .....	.35	.30	.23	.16	<b>RHODE ISLAND—</b>				
Denver .....	1.80	1.45	1.10	.85	Traverse City .....	.52	.44	.34	.25	Providence .....	.97	.85	.65	.46
Durango .....	3.20	2.70	2.15	1.60	<b>MINNESOTA—</b>					<b>SOUTH CAROLINA—</b>				
Grand Junction .....	2.65	2.23	1.85	1.49	Aitkin .....	.93	.78	.62	.42	Charleston .....	1.30	1.10	.97	.85
Julesburg .....	1.68	1.41	1.07	.85	Crookston .....	1.19	.99	.79	.55	Greenville .....	1.40	1.24	1.06	.83
Leadville .....	2.65	2.23	1.85	1.49	Duluth .....	.65	.55	.44	.28	Sumter .....	1.42	1.24	1.06	.83
<b>CONNECTICUT—</b>					Grand Rapids .....	.98	.82	.66	.44	<b>SOUTH DAKOTA—</b>				
Hartford .....	.97	.85	.65	.46	Minneapolis .....	.60	.50	.40	.25	Aberdeen .....	1.14	.95	.67	.50
<b>DELAWARE—</b>					Winona .....	.50	.42	.33	.23	Bellefourche .....	1.94	1.62	1.35	1.10
Dover .....	.91	.80	.61	.43	<b>MISSISSIPPI—</b>					Sioux Falls .....	.83	.68	.47	.34
<b>DIST. OF COLUMBIA—</b>					Hattiesburg .....	1.29	1.09	.93	.78	Watertown .....	.96	.82	.64	.45
Washington .....	.87	.76	.57	.39	Jackson .....	1.26	1.06	.90	.76	<b>TENNESSEE—</b>				
<b>FLORIDA—</b>					Natchez .....	1.10	.90	.75	.58	Jackson .....	1.06	.87	.71	.58
Jacksonville .....	1.30	1.10	.97	.85	<b>MISSOURI—</b>					Knoxville .....	1.11	.95	.79	.62
Miami .....	2.27	1.97	1.74	1.55	Kansas City .....	.80	.65	.45	.32	Memphis .....	.85	.65	.55	.43
Pensacola .....	1.10	.90	.75	.58	St. Louis .....	.46	.37	.29	.23	Nashville .....	.82	.68	.53	.43
Tallahassee .....	1.82	1.57	1.35	1.08	Springfield .....	.82	.72	.50	.37	<b>TEXAS—</b>				
Tampa .....	1.80	1.53	1.31	1.17	<b>MONTANA—</b>					El Paso .....	2.20	1.86	1.52	1.30
<b>GEORGIA—</b>					Billings .....	2.25	1.92	1.55	1.18	Fort Worth .....	1.67	1.41	1.16	1.06
Atlanta .....	1.42	1.22	1.03	.83	Glasgow .....	2.50	2.14	1.74	1.36	Houston .....	1.67	1.41	1.16	1.06
Macon .....	1.42	1.22	1.03	.83	Havre .....	2.65	2.26	1.85	1.49	<b>UTAH—</b>				
Savannah .....	1.30	1.10	.97	.85	Helena .....	2.75	2.35	1.93	1.57	Marysvale .....	3.15	2.71	2.31	1.93
Waycross .....	1.70	1.46	1.29	1.07	Kalispell .....	2.25	1.92	1.55	1.18	Salt Lake City .....	2.65	2.23	1.85	1.49
<b>IDAHO—</b>					Miles City .....					<b>VERMONT—</b>				
Boise .....	2.81	2.41	2.00	1.65	<b>NEBRASKA—</b>					Montpelier .....	.97	.85	.65	.46
Pocatello .....	2.65	2.23	1.85	1.49	Lincoln .....	.85	.70	.49	.36	<b>VIRGINIA—</b>				
<b>ILLINOIS—</b>					North Platte .....	1.46	1.30	.99	.78	Marion .....	.99	.86	.65	.45
Cairo .....	.47	.38	.31	.24	Omaha .....	.80	.65	.45	.32	Richmond .....	.87	.76	.57	.39
Joliet .....	.21	.17	.15	.14	<b>NEVADA—</b>					Rocky Mount .....	1.03	.86	.67	.48
Rock Island .....	.38	.30	.23	.19	Austin .....	3.65	3.28	2.89	2.41	<b>WASHINGTON—</b>				
Springfield .....	.39	.31	.24	.20	Carson City .....	3.15	2.76	2.34	2.00	Seattle .....	3.40	2.95	2.45	2.07
<b>INDIANA—</b>					<b>NEW HAMPSHIRE—</b>					Spokane .....	2.90	2.51	2.09	1.75
Evansville .....	.42	.36	.26	.18	Concord .....	.97	.85	.65	.46	<b>WEST VIRGINIA—</b>				
Fort Wayne .....	.30	.26	.21	.14	<b>NEW JERSEY—</b>					Charleston .....	.47	.41	.32	.22
Indianapolis .....	.33	.28	.23	.15	Atlantic City .....	.96	.85	.66	.48	Elkins .....	.72	.63	.48	.34
Richmond .....	.38	.33	.24	.17	Trenton .....	.90	.79	.60	.42	Wheeling .....	.47	.41	.32	.22
South Bend .....	.23	.21	.18	.14	<b>NEW MEXICO—</b>					<b>WISCONSIN—</b>				
<b>IOWA—</b>					Gallup .....	2.90	2.51	2.09	1.75	Ashland .....	.65	.55	.44	.28
Des Moines .....	.60	.48	.36	.27	Santa Fe .....	2.20	1.86	1.50	1.25	La Crosse .....	.50	.42	.33	.23
Fort Dodge .....	.65	.52	.39	.29	Silver City .....	2.60	2.21	1.82	1.56	Madison .....	.39	.34	.26	.18
Sioux City .....	.80	.65	.45	.32	<b>NEW YORK—</b>					Marinette .....	.43	.36	.29	.23
<b>KANSAS—</b>					Albany .....	.87	.76	.58	.41	Milwaukee .....	.25	.20	.15	.14
Dodge City .....	1.62	1.39	1.08	.83	Buffalo .....	.47	.41	.32	.22	<b>WYOMING—</b>				
Great Bend .....	1.45	1.22	.95	.77	New York .....	.90	.79	.60	.42	Cheyenne .....	1.80	1.45	1.10	.85
Kansas City .....	.80	.65	.45	.32	Syracuse .....	.72	.63	.48	.34	Green River .....	2.55	2.15	1.78	1.43
Topeka .....	1.00	.82	.59	.43	<b>NORTH CAROLINA—</b>					Lander .....	2.80	2.33	1.85	1.48
Wichita .....	1.30	1.11	.86	.65	Asheville .....	1.29	1.14	.97	.75	Shelidan .....	2.50	2.09	1.69	1.36
					Raleigh .....	1.17	1.01	.78	.56					
					Wilmington .....	1.17	.98	.75	.56					



# Rates for Parcel Post Shipments

MB

Your postmaster will tell you the parcel post zone in which your postoffice is located, measuring from Chicago

All merchandise shipped by mail takes parcel post rates. Packages up to 4 ounces in weight are carried at the rate of 1 cent an ounce, regardless of distance. Packages over 4 ounces are charged for by the pound. The rate per pound varies according to the distance, which is measured by the Government zone system, each zone covering a certain number

of miles from point of shipment. Distances and rates are shown in the table below. Packages carried by parcel post are handled just like any other mail matter. They are delivered to your box by your rural mail carrier if you live on a rural route, or delivered to your door if you live in a city where there is carrier service, or delivered to your local postoffice if you live where there is no carrier service.

## RATE TABLE FOR PARCEL POST SHIPMENTS

Weight of Package	LOCAL ZONE	ZONES 1 AND 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8
	For Shipments From Our Store in Chicago to Customers Within Chicago	Not Over 150 Miles From CHICAGO	151 to 300 Miles From CHICAGO	301 to 600 Miles From CHICAGO	601 to 1,000 Miles From CHICAGO	1,001 to 1,400 Miles From CHICAGO	1,401 to 1,800 Miles From CHICAGO	Over 1,800 Miles From CHICAGO
	Charges Required	Charges Required	Charges Required	Charges Required	Charges Required	Charges Required	Charges Required	Charges Required
Over 4 oz. up to 1 lb....	5c	5c	6c	7c	\$0.08	\$0.09	\$0.11	\$0.12
Over 1 lb. up to 2 lbs....	6c	6c	8c	11c	.14	.17	.21	.24
Over 2 lbs. up to 3 lbs....	8c	7c	10c	15c	.20	.25	.31	.38
Over 3 lbs. up to 4 lbs....	7c	8c	12c	19c	.26	.33	.41	.48
Over 4 lbs. up to 5 lbs....	7c	9c	14c	23c	.32	.41	.51	.60
Over 5 lbs. up to 6 lbs....	8c	10c	16c	27c	.38	.49	.61	.72
Over 6 lbs. up to 7 lbs....	8c	11c	18c	31c	.44	.57	.71	.84
Over 7 lbs. up to 8 lbs....	9c	12c	20c	35c	.50	.65	.81	.96
Over 8 lbs. up to 9 lbs....	9c	13c	22c	39c	.56	.73	.91	1.08
Over 9 lbs. up to 10 lbs....	10c	14c	24c	43c	.62	.81	1.01	1.20
Over 10 lbs. up to 11 lbs....	10c	15c	26c	47c	.68	.89	1.11	1.32
Over 11 lbs. up to 12 lbs....	11c	16c	28c	51c	.74	.97	1.21	1.44
Over 12 lbs. up to 13 lbs....	11c	17c	30c	55c	.80	1.05	1.31	1.56
Over 13 lbs. up to 14 lbs....	12c	18c	32c	59c	.86	1.13	1.41	1.68
Over 14 lbs. up to 15 lbs....	12c	19c	34c	63c	.92	1.21	1.51	1.80
Over 15 lbs. up to 16 lbs....	13c	20c	36c	67c	.98	1.29	1.61	1.92
Over 16 lbs. up to 17 lbs....	13c	21c	38c	71c	1.04	1.37	1.71	2.04
Over 17 lbs. up to 18 lbs....	14c	22c	40c	75c	1.10	1.45	1.81	2.16
Over 18 lbs. up to 19 lbs....	14c	23c	42c	79c	1.16	1.53	1.91	2.28
Over 19 lbs. up to 20 lbs....	15c	24c	44c	83c	1.22	1.61	2.01	2.40
Over 20 lbs. up to 21 lbs....	15c	25c						
Over 21 lbs. up to 22 lbs....	16c	26c						
Over 22 lbs. up to 23 lbs....	16c	27c						
Over 23 lbs. up to 24 lbs....	17c	28c						
Over 24 lbs. up to 25 lbs....	17c	29c						
Over 25 lbs. up to 26 lbs....	18c	30c						
Over 26 lbs. up to 27 lbs....	18c	31c						
Over 27 lbs. up to 28 lbs....	19c	32c						
Over 28 lbs. up to 29 lbs....	19c	33c						
Over 29 lbs. up to 30 lbs....	20c	34c						
Over 30 lbs. up to 31 lbs....	20c	35c						
Over 31 lbs. up to 32 lbs....	21c	36c						
Over 32 lbs. up to 33 lbs....	21c	37c						
Over 33 lbs. up to 34 lbs....	22c	38c						
Over 34 lbs. up to 35 lbs....	22c	39c						
Over 35 lbs. up to 36 lbs....	23c	40c						
Over 36 lbs. up to 37 lbs....	23c	41c						
Over 37 lbs. up to 38 lbs....	24c	42c						
Over 38 lbs. up to 39 lbs....	24c	43c						
Over 39 lbs. up to 40 lbs....	25c	44c						
Over 40 lbs. up to 41 lbs....	25c	45c						
Over 41 lbs. up to 42 lbs....	26c	46c						
Over 42 lbs. up to 43 lbs....	26c	47c						
Over 43 lbs. up to 44 lbs....	27c	48c						
Over 44 lbs. up to 45 lbs....	27c	49c						
Over 45 lbs. up to 46 lbs....	28c	50c						
Over 46 lbs. up to 47 lbs....	28c	51c						
Over 47 lbs. up to 48 lbs....	29c	52c						
Over 48 lbs. up to 49 lbs....	29c	53c						
Over 49 lbs. up to 50 lbs....	30c	54c						

### About Transportation Charges.

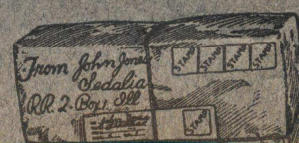
When goods are to be shipped by parcel post, it is not necessary to send stamps to pay the postage for shipping package. Simply add the amount for charges to the amount of the merchandise and include in the money order, check or currency you send us. This charge for mailing must be paid in advance, as no provision has been made for the collection of mailing charge on delivery.

When goods are to be shipped by freight or express and there is no freight or express agent at your shipping point, you must send money to prepay the transportation charges. If there is an agent you can pay the transportation charges when shipment reaches you. It is only necessary to prepay freight or express charges when there is no agent at your station. Read pages 897 and 898 for complete information about freight and express rates and charges.

Throughout our catalogs you will find the shipping weight is given in the description of merchandise. Occasionally, according to the nature of the merchandise, we are obliged to give the actual weight. In such cases a few ounces extra in weight must be allowed for wrapping and packing, according to the nature of the goods.

**Books.** Parcel post rates apply to books as follows: All books up to and including 8 ounces in weight will be carried at the rate of 1 cent for 2 ounces to any part of the United States, regardless of distance, and all books over 8 ounces in weight will take the regular parcel post rates according to weight and zone.

### How to Return Goods to Us by Parcel Post



When you return goods by parcel post, put the letter you write and the bills for the goods (if you have the bills) in an envelope and paste or tie the en-

Within Local Zone and Zones 1 and 2 packages up to



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