

Scientific Laboratory

INSTRUMENTS APPARATUS SUPPLIES CHEMICALS

... over 100 years
of Service
to Science

Established 1852

*ultra
west Chicago*

E. H. SARGENT & CO.

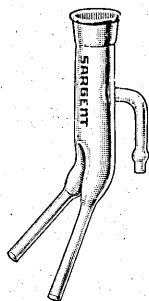
CHICAGO 4647 West Foster Avenue, Chicago 30, Illinois
Telephone—Spring 7-2700
Teletypewriter—CG 849
Cable Address—Elmer Chicago

DETROIT 1959 East Jefferson, Detroit 7, Michigan
Telephone—Lorraine 8-1050
Teletypewriter—DE 742

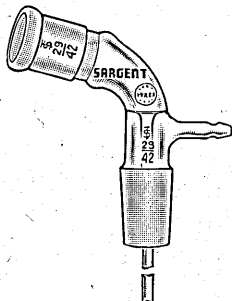
DALLAS 5915 Peeler Street, Dallas 9, Texas
Telephone—Dixon 8411
Teletypewriter—DL 478

Bill Walsh

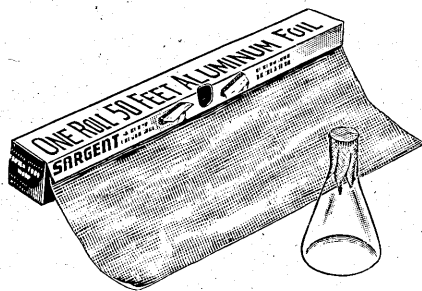
WF 36983



S-595



S-600



S-610

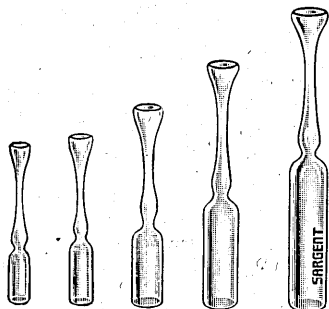
595 ADAPTER—Vacuum, Fractionating, Cork Tapered, PYREX Brand Glass, Sargent.
 Heavy glass, with reinforced lip and tooled top for regular length cork No. 11. With tubature for connection to pump and two outlets with dividing ridge directing flow to either by rotation of the adapter. Length, 180 mm; outside diameter of outlets, 8 mm. 2.00

600 ADAPTERS—Vacuum, Grindings, PYREX Brand Glass. With grinding, outer part, at inlet and grinding, inner part, for connection to receiver and side tube for vacuum.

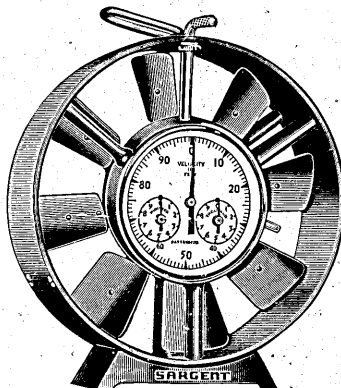
Grinding, outer part, No.	24/40	29/42
Grinding, inner part, No.	24/40	29/42
No. per pkg.	6	6
Each	3.55	3.86
*Per pkg.	19.17	20.84

610 ALUMINUM FOIL—In Rolls. For wrapping and closure. In "tear off" carton.

Size	A	B
Thickness, inches	0.0007	0.0015
Width, inches	12	18
Length per roll, feet	25	50
Per roll . . . . .	.55	2.25



S-616



S-645

616 AMPOULES—Flared Tops, Non-Corrosive, Borosilicate Glass. With enlarged filling sections and constricted stems.

Capacity, ml. . . . .	.1	.2	.5	10	20
Per dozen . . . . .	.30	.32	.48	.60	.90

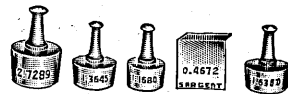
Per gross, 10% discount.

645 ANEMOMETER—Taylor, Biram Pattern. For measurement of air velocities from 200 to 3000 feet per minute with three dials, one sweep and two integrating, with 10,000 feet total registration. The frame diameter is 4 inches and a disconnecter and automatic zero setting attachment are provided. The movement is jeweled. In leather case with correction chart. 75.00

*Discounts: 20 pkgs. —5%; 50 pkgs. —10%; 100 pkgs. —15%. Assortable with items marked *. See page V.



S-4455



S-4505

4455 BALANCE WEIGHTS—Apothecary, Dram, Scruple and Grain, Technical Laboratory Grade, Set. This set consists of dram, scruple and grain weights, dram and scruple weights being constructed of brass in coin shape, while grain weights are made of aluminum wire. The set includes weights from 1/2 grain to 2 drams. **2.50**

4505 BALANCE WEIGHTS—Analytical, Factor, Class S. Held to accuracy tolerances strictly in accordance with National Bureau of Standards Class S specifications. When samples are weighed in these amounts, percent of constituent in sample is determined by merely relocating the decimal point in the number representing the weight of the substance weighed. The masses are based on weighing carbon dioxide, silicon dioxide and ammonium phosphomolybdate respectively.

Factor	Carbon	Half Carbon	Quarter Silicon	One-Tenth Silicon	Phosphorus
Material	Brass	Brass	Brass	Platinum	Brass
Weight, grams	2.7289	1.3645	1.1680	0.4672	1.6300
Each	2.20	2.20	2.20	8.00	2.20

BAROMETERS

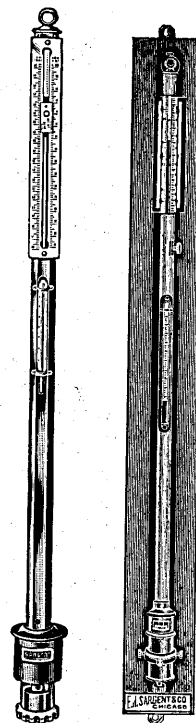
520 BAROMETER—Mercurial, English and Metric Scales.

A very serviceable mercurial barometer of special design developed to secure simplicity of manipulation and a high degree of safety in shipment. The barometer tube, selected with a full 4 mm bore, is rigidly mounted in a hexagonal oxidized and lacquered brass enclosing tube.

in both scales. The inch scale is graduated from 24.5 to 31.5 inches direct reading by vernier to 0.005 inch, while the metric scale is graduated from 600 to 800 mm direct reading by vernier to 0.1 mm.

A suspension ring is provided at the top of the brass tube by means of which the barometer may be hung from a hook, this practice being recommended to ensure vertical alignment. A thermometer with both Fahrenheit and Centigrade scales is permanently attached to the front of the brass tube. This barometer is suitable for use at elevations from sea level to 4000 feet.

Complete with hook screw and metal bracket with screws for attachment to wall. **46.17**



S-4520

S-4565

565 BAROMETER—Mercurial, U. S. Army Signal Corps Type, English and Metric Scales.

This barometer is of the finest construction, recommended for making accurate barometric pressure measurements in laboratories and weather observatories, and suitable for use at altitudes up to 3000 feet. The glass barometer tube is mounted in a bronze metal case and the cistern is adjustable, with zero position indicated by an ivory point in the cistern. A glass section in the cistern wall permits ready observation of the position of the mercury surface relative to the ivory point. The scales are

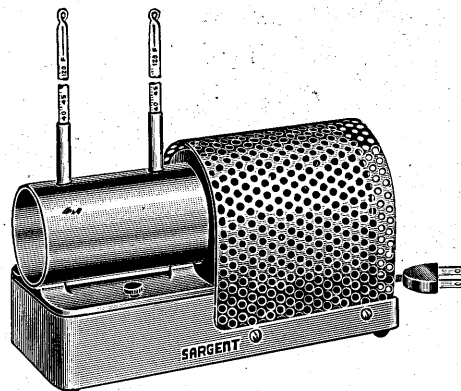
equipped with verniers operated by a knurled knob through a smoothly working rack and pinion movement. An accurate thermometer is attached to the case and is readily demountable for checking.

The instrument is graduated from 25.5 to 31 inches and from 650 to 800 mm. The vernier plate has double scales which are direct reading to 0.01 inch and 0.1 mm.

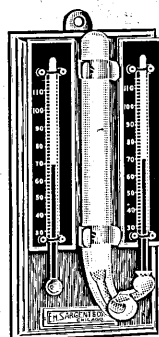
Mounted on polished hardwood board measuring 4 1/2 x 4 3/4 inches, equipped with white opal glass reflectors to facilitate observation of the cistern and meniscus, and with suspension bracket and ring clamp for cistern. . . **100.00**

BAROMETERS WITH HIGHER ALTITUDE RANGES CAN BE SUPPLIED TO ORDER. FOR ANEROID BAROMETERS, SEE PAGE FOLLOWING.

HYGROMETERS



S-42610



S-42635

S-42610 HYGROMETER—Wet and Dry Bulb, Motor Ventilated, Precision Model, Continuous Indicating Electric, Sargent.

A continuous indicating wet and dry bulb instrument with the precision of a sling psychrometer provided by an ample continuous supply of air across the bulbs. This hygrometer is recommended as preferable to any other type of humidity indicator for laboratory use since it requires no manipulation to secure a reading and is self-contained with respect to both air supply and water supply.

It consists of a cast aluminum base with rubber feet, containing a water reservoir with a capacity of 200 ml, and supporting a silent shaded pole induction motor driving a ventilating fan and an aluminum wind tunnel in which are removably inserted a pair of precision thermometers 300 mm long, graduated from 0° to 120°F in intervals of 0.5°. Thermometers are easily removable and replaceable.

Water is fed from the reservoir to the wet bulb by means of a replaceable silk wick.

Due to a correct adjustment of ventilating speed, which is between 600 and 1000 feet per minute, and a large reservoir capacity, the motor may be kept in continuous twenty-four hour operation and requires refilling under the circumstances only at intervals of approximately one week. A line switch permits intermittent operation if continuous operation is not desired. The motor and fan are protected by a removable perforated metal guard.

Length, 9¼ inches; width, 4⅛ inches; total height, including thermometers, approximately 15 inches.

Complete with thermometers, wick, relative humidity table and cord and plug for attachment to standard outlets. For operation from 115 volt, 60 cycle A.C. circuits..... 45.

S-42615 Thermometer, Only. Of S-42610 hygrometer, for use either as wet or dry bulb thermometer. Precision grade, graduated from 0° to 120°F in intervals of 0.5°. Length, 300 mm..... 4.

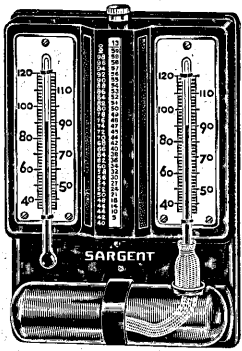
S-42625 Wick, Only, Silk. Of S-42610 hygrometer, for replacement. Length, 5½ inches; diameter, 5/16 inch. Per dozen..... 1.

S-42635 HYGROMETER—Wet and Dry Bulb, Mason. Consisting of two thermometers with water reservoir and scales mounted on a mahogany panel suitable for suspension on a wall. The thermometers have magnifying fronts and are graduated from approximately 30° to 120°F in intervals of 2°. The water reservoir is supported in spring clips to permit convenient refilling. Thermometers are mercury filled and mounted on engraved metal scales accurately fixed in position and insulated from the panel. The panel is 8½ inches in height and 4½ inches wide and is provided with suspension eyelets. Complete with extra wick and chart for determining relative humidity..... 9.

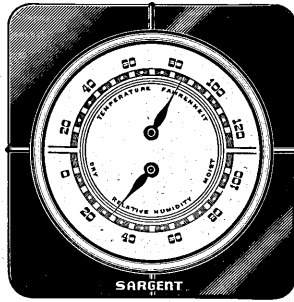
S-42645 Thermometer, Only. Of S-42635 hygrometer, for replacement of either the wet bulb or the dry bulb thermometer..... 3.

S-42655 Water Reservoir, Only. Of S-42635 hygrometer..... 1.

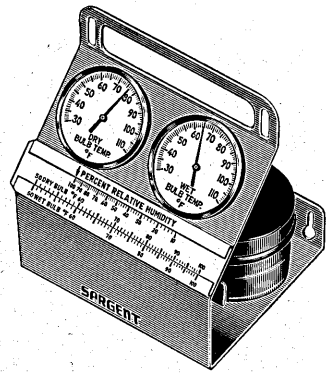
S-42665 Wick, Only. For wet bulb of S-42635 and S-42675 hygrometers. Length, 3½ inches; diameter, 5/16 inch. Per dozen..... 1.



S-42675



S-42710



S-42720

S-42675 HYGROMETER—Wet and Dry Bulb, Taylor Humidigide, Stewart Form.

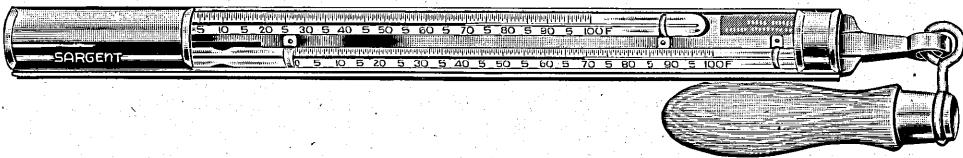
A convenient wet and dry bulb hygrometer equipped with a centrally located integral revolving computation table for direct reading of relative humidities from observed temperature differences without reference to separate tables. Adjustment of the knob to show observed wet bulb depression at the top of the chart brings the correct relative humidity figure on the chart directly opposite the observed dry bulb temperature.

The thermometers are equipped with magnifying lens fronts and attached to metal scales with a range approximately 50° to 110°F in intervals of 2°. The mounting is of molded plastic. The reservoir is a removable glass vessel and is held in a horizontal position beneath the thermometer bulbs.

Overall dimensions, 5 3/4 x 3 7/8 inches. For replacement wicks, see S-42665. Complete with extra wick and set of instructions. **7.50**

S-42710 HYGROMETER-THERMOMETER—Dial Type, Direct Reading, Desk Type. A convenient temperature and humidity indicator in a molded plastic case with glass covered dial graduated from 20° to 120°F and from 0% to 100% relative humidity. Both active elements are spiral, the temperature element being bi-metallic while the humidity element is coated composition. Reliable for approximate readings. Diameter of dial, 3 inches; size of case, 4x4 inches. With support bracket. **3.50**

S-42720 HYGROMETER—Portable, Bi-Metallic, Weston. A compact wet and dry bulb instrument using the convenient and reliable Weston bi-metallic thermometers and incorporating a large water reservoir and slide calculator in a metal case which can be mounted or carried by hand and swung to produce ventilation of the wet bulb. The dial type thermometers are graduated from 30° to 110°F in intervals of 1° and constructed of stainless steel. Length, 6 1/8 inches; width, 4 1/4 inches; height, 5 inches; net weight, 1 1/4 pounds. **30.00**



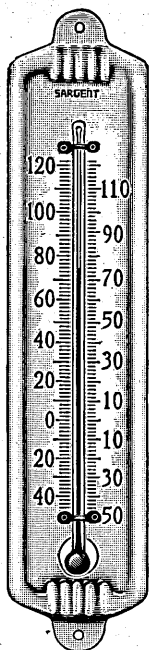
S-42755

S-42755 HYGROMETER—Sling Psychrometer. The standard instrument for accurate determination of water concentration in air or relative humidity by means of wet and dry bulb temperature difference. It consists of a cast aluminum frame in which are rigidly mounted two matched 12 inch thermometers graduated from 20° to 110°F in intervals of 0.5°, one of which is equipped with a tubular silk wick S-42775. The frame is attached by a swiveled joint to a polished wood handle in such a way as to permit its rapid rotation about the handle as a pivot, so providing ventilation for the wet bulb. Complete with protective metal case, extra wick and calculating tables. **15.00**

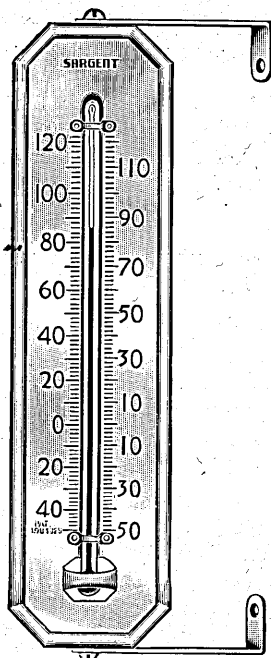
S-42765 Thermometer, Only. For replacement either as wet or dry bulb thermometer in S-42755 sling psychrometer. With projection at top to fit positioning hole. **3.75**

S-42775 Wick, Only. For use with S-42755 sling psychrometer. Length, 2 1/2 inches; diameter, 5/16 inch. Per dozen. **1.50**

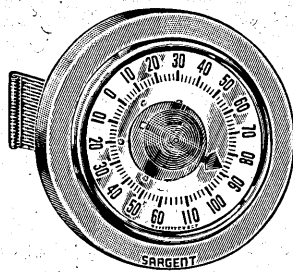
Wall Type Thermometers



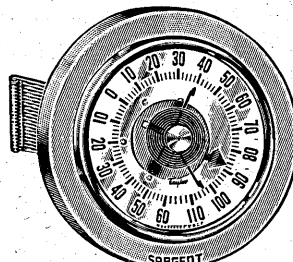
S-81465



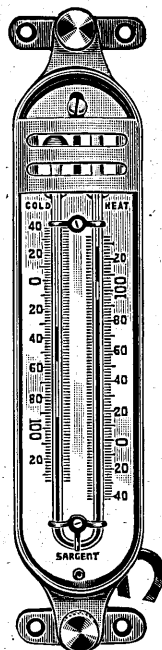
S-81475



S-81480



S-81490



S-81505

S-81465 THERMOMETER—Wall Form, 120°F. Finely finished, with enameled metal plate with screw holes and red filled thermometer tube with magnifying front. Range, from approximately minus 50° to plus 120°F in intervals of 2°; length, 8½ inches; width, 2 inches **2.00**

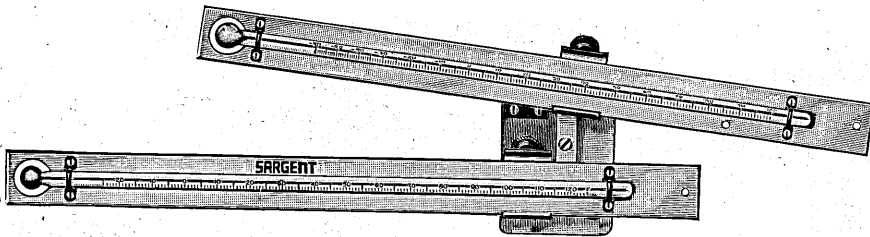
S-81475 THERMOMETER—Weather, Window Type, Fahrenheit. An accurate weather temperature instrument designed for convenient mounting on exterior window frames to be read through the window. Red filled, with magnifying lens front and all metal plate, white enameled. Graduations are black, permanently baked into the white enamel. Mounting brackets are provided for installing the instrument in a convenient position for reading, permitting rotation about the vertical axis. Range, approximately minus 50° to plus 120°F in intervals of 2°; length, 8½ inches; width, 2 inches . . **2.00**

S-81480 THERMOMETER—Weather, Window, Dial Type, Taylor. A fine appearing instrument for window mounting, with large, easily read dial scale in non-corrosive plastic case, stainless steel mounting bracket and spiral bi-metallic movement. Range, minus 60° to plus 110°F; subdivision, 2°; outside diameter, 4¾ inches; thickness, 1 inch **3.50**

Maximum and Minimum Registering Thermometers

S-81490 THERMOMETER—Maximum and Minimum, Dial Type, Window, Taylor. With non-corrosive plastic case, spiral bi-metallic movement and large, easily read scale, similar to S-81480 but with high and low indicating pointers which are displaced by movement of the indicator and manually reset by the action of a centrally located knob. Range, minus 60° to plus 110°F; subdivision, 2°; outside diameter, 4¾ inches; thickness, 1 inch **7.50**

S-81505 THERMOMETER—Maximum and Minimum Registering, Six Pattern, Differential, Wall Form.
 An instrument for registering maximum and minimum temperature during any period since the last resetting by the movement of the mercury column in a U shaped capillary with magnifying front, due to differential expansion in two terminal expansion chambers. The U shaped capillary is mounted on a plastic case with guard and with top and bottom brackets for mounting on wall. Reversed scales are engraved on the case at the sides of the two arms. Each arm contains a metallic indicating float which remains at the point of highest column rise, being held at its maximum altitude by surface tension upon subsequent recession of the mercury column. Floats are reset following each reading by means of a magnet supplied with the instrument.
 Range, minus 30° to plus 120°F; subdivision, 2°; total length, 11½ inches **10.00**



S-81515

S-81515 THERMOMETERS—Maximum and Minimum Registering, U.S. Weather Bureau, Townsend Pattern.

This unit consists of two registering thermometers of the U.S. Weather Bureau pattern consisting of engraved stem thermometers mounted on stainless steel plates and held in the correct positions with rotating facilities by the Townsend style brass support.

The maximum thermometer registers by separation of the mercury column in a constriction of the bore on contraction of mercury in the bulb. The minimum thermometer registers by the position of an index float carried downward by surface energy with recession of the mercury meniscus and allowed to remain at the lowest position when the meniscus rises.

The Townsend support allows all necessary manipulations in the use of both thermometers without removal of thermometer scales from the clamps.

The upper clamp which holds the minimum thermometer is capable of a quarter turn for resetting while the lower clamp, extended forward to clear the upper, rotates freely for complete freedom in reading and resetting the maximum thermometer.

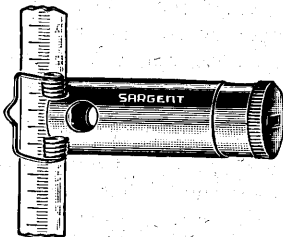
The minimum thermometer is spirit filled with a range approximately from minus 20 to 60° to plus 120°F in intervals of 1° while the maximum thermometer is mercury filled with a range approximately minus 20° to plus 120°F in intervals of 1°.

Each thermometer is made strictly in accordance with U. S. Weather Bureau specifications and provided with manufacturer's certificate of accuracy.

Complete including maximum and minimum thermometers and support 24.75

S-81525 Maximum Registering Thermometer, Only. Of S-81515 thermometer assembly, mounted on stainless steel plate to fit clamp of Townsend support. Length, 12 inches 8.25

S-81535 Minimum Registering Thermometer, Only. Of S-81515 thermometer assembly, mounted on stainless steel plate to fit clamp of Townsend support. Length, 12 inches 8.25



S-81565



S-81575

S-81565 READING LENS—Thermometer and Burette, Magnifying. A compact, convenient, adjustable lens greatly facilitating reading of fine thermometer scales and especially useful for application to Beckmann differential thermometers and also to burettes of capacities up to 100 ml. Telescoping form with focussing adjustment and with spring clamp accommodating tubes of 6 to 16 mm diameter 4.00

S-81575 GRADUATION FILLER—Thermometer and Burette, Air Drying. Resistant to common solvents and abrasion. It can be applied by thinning with turpentine to the consistency of cream and pressing into graduations with a spatula, the excess being wiped off with the flat surface of a piece of stiff paper, using a fresh surface at each stroke. Color, black. Per 1½ ounce tube 2.00

For thermometer for Westphal balance, see S-3205.

For polarimeter tube thermometer, see S-70905.

For refractometer thermometers, see Refractometers.

For hygrometric thermometers, see S-42615 and following.

For large dial thermometer, see S-43115.