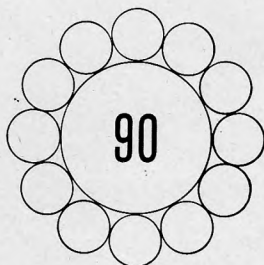


Modern
LABORATORY APPLIANCES

For
Chemical—Metallurgical—Biological
Laboratories



Copyright 1942

FISHER SCIENTIFIC COMPANY

711-723 Forbes St., Pittsburgh, Pa., U.S.A.

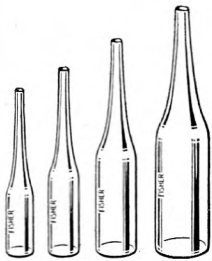
and

EIMER AND AMEND

633-635 Greenwich St., New York, N. Y., U.S.A.

In Canada

Fisher Scientific Company, Ltd., 904-910 St. James St., Montreal, P. Q.



1-215

1-215. **AMPOULES, Clear Resistant Glass;** the standard shape with flat bottoms and long tips with open ends suitable for sealing.

Non-corrosive glass used in making these ampoules eliminates any chance of contamination due to the dissolving of alkali or soluble silicates.

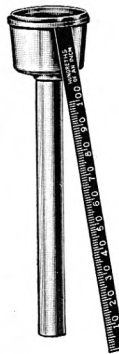
Capacity, approx., ml.	1	2	5	10
Per dozen	\$.30	.35	.50	.65
Per gross	\$2.50	2.70	4.20	5.50

AMPOULES, Bottle Form, see Bottles, Serum. **ANAEROBIC CULTURE DISHES,** see Dishes, Culture. **ANAEROBIC CULTURE JARS,** see Jars, Anaerobic Culture.

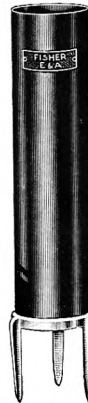
Anemometer . . . Rain Gauges



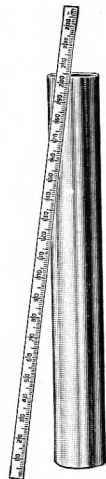
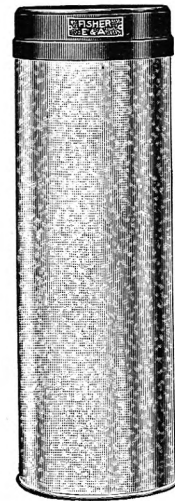
1-235



1-241



1-242



1-235. **ANEMOMETER, Biram Type,** for measuring air velocities from 200 to 3000 feet per minute, in wind tunnels, mines, sewers, furnace flues (not over 300°F.), ventilating shafts, etc.

The velocity is measured by the speed of rotation of an aluminum fan four inches in diameter. This fan is mounted in a jeweled movement and its revolutions are recorded on three dials which read up to 10,000 feet. The instrument is set in operation by means of a lever on the top, and another lever at the side quickly resets the dials to zero. The anemometer is supplied complete with leatherette carrying case and correction table.

Each, \$39.75

1-241. **RAIN GAUGE,** for measuring rainfall up to 1.0 inch. This apparatus consists of a blue-bronzed outer cylindrical case 3 inches in diameter and 13½ inches high. The case has three brass feet which, when forced into the ground, hold the gauge upright. A receiving funnel attached to an inner brass receiving tube and two measuring sticks complete the apparatus.

The rain is caught in the funnel and conducted to the inner receiving tube. The top of the funnel is removed and the measuring stick inserted into the inner tube. The scale of the stick is graduated in .01 of an inch and reads to 1.0 inch of rain. An overflow slot is provided to take care of rains heavier than 1.0 inch.

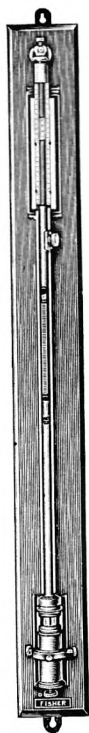
Complete as described.

Each, \$13.50

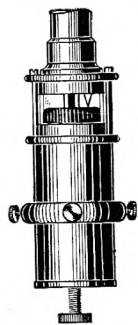
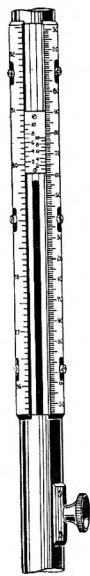
1-242. **RAIN GAUGE, U. S. Weather Bureau Type,** for measuring rainfall or snowfall up to 2.0 inches. The galvanized metal outer case stands 27 inches high, has an 8 inch inside diameter, and is provided with a brass receiver and inner tube. The graduated measuring stick reads from 0 to 2.0 inches in .01 inch. The outer case serves as an overflow container, or as a snow gauge when the inner tube is removed.

Each, \$18.50

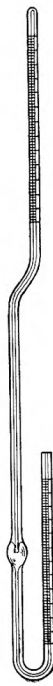
Mercurial Barometers



2-380

Enlarged View
of Cistern of
No. 2-380Enlarged View
of Scale of
No. 2-380

2-383



2-390



2-400

- 2-380. BAROMETER, Precision Mercurial, Fortin Principle, U. S. Army Signal Corps Type.** This is the instrument for making precise Barometric Pressure Corrections in laboratory operations. It is also used in Weather Observatories, Factories, Mines and Power Plants.

The Mercury Cistern is constructed on the Fortin Principle adjustable to zero, with zero indicated by an ivory point in the cistern. The glass Barometer Tube is carefully made and annealed, and mounted in a bronzed metal casing. The Scale is calibrated from 25.5 to 32.7 inches, and from 650 to 830 millimeters, with Vernier reading to 1/100 inch and to 1/10 millimeter. The Thermometer is calibrated in both the Fahrenheit and Centigrade Scales, and is easily detached for checking with other thermometers. The Barometer is mounted on a polished mahogany board, 4½ inches wide and 43 inches long, and is equipped with Opal Glass Reflectors to facilitate observation of the Cistern and Meniscus.

The illustration shows an enlarged view of the Cistern, also an enlarged view of the Scale and Vernier.

This Barometer is calibrated for use at altitudes up to 3000 feet above sea level, and will be supplied on all orders, unless otherwise specified. Prices of Barometers for altitudes higher than 3000 feet are quoted upon request. **Each, \$90.00**

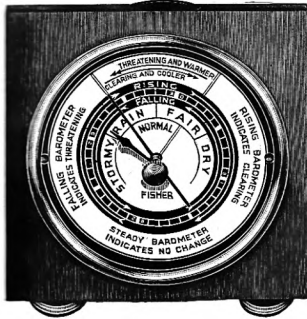
- 2-383. BAROMETER, Mercurial, Improved Design.** This is a medium priced instrument having a wide range of application in both industrial and educational work. The scales are calibrated from 600 to 830 mm. and from 25 to 31 inches. By means of the vernier, readings to 1/10 mm. and 1/100 inch can be made. A Centigrade and Fahrenheit thermometer is provided for observing the temperature of the mercury column. The level of the mercury in the cistern is adjusted by means of a screw above the ceiling of the cistern.

This barometer is intended for altitudes up to 3000 feet and is supplied filled with mercury. **Each, \$22.50**

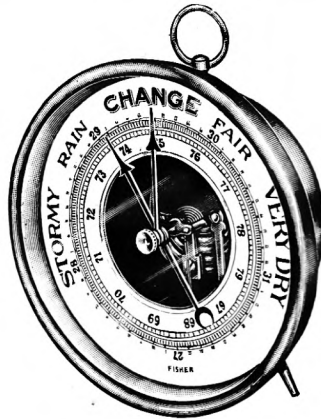
- 2-390. BAROMETER, Bunsen Syphon Type,** made entirely of glass, about 34 inches over all, calibrated from 600 to 800 mm.; used for educational purposes, and suitable for altitudes up to 6000 feet above sea level. This tube is to be filled and mounted in the laboratory, and is supplied without mercury and without barometer board. **Each, \$4.00**

- 2-400. BAROMETER TUBE, Straight,** made of heavy wall, glass barometer tubing, closed at one end, 33½ inches long. Same style as used on No. 2-380 Barometer, to be filled with mercury and used with an independent mercury well. Supplied without mercury. **Each, \$1.00**

Aneroid Barometers



2-402



2-404



2-405

2-402. BAROMETER, Aneroid. This is an inexpensive barometer recommended for laboratory or home use. The barometer movement is sensitive and accurate, and can be adjusted for different altitudes. The mechanism is mounted in a bakelite case measuring $4\frac{5}{8}$ inches wide, $4\frac{3}{4}$ inches high, and $1\frac{3}{8}$ inches deep, with chrome trim. Arrow movement indicates rising or falling barometer, and the probable weather condition is read directly from the simple dial markings. An easel on the back of the instrument supports it when placed on a desk or table.

Each, \$5.00

2-404. BAROMETER, Aneroid. This barometer can be used to measure changes in barometric pressure. The dial is $5\frac{1}{2}$ inches in diameter and is graduated from 27.5 to 31.5 inches in 0.02 inch, and from 70 to 80 cm. in 1 mm. divisions. The case is made of brass and has an adjusting screw in the rear for making an initial setting.

Each, \$11.00

2-405. BAROMETER, Aneroid, Compensated for Temperature; as supplied to the U. S. Navy, U. S. Weather Bureau, U. S. Bureau of Plant Industry, etc. The Barometer is 5 inches in diameter, with open-centered, silvered, metal dial, graduated in millimeters and inches with great accuracy. A screw in the rear permits adjustment of the zero setting. The movement is high grade and compensated for temperature, thus insuring accurate readings of Barometric Pressure, for altitudes up to 4000 feet.

Each, \$22.50

2-415. BAROMETER, Aneroid, Recording, contained in a glass-covered case. The use of this instrument eliminates the necessity of frequent reference to barometric readings since it produces a permanent record of the barometric pressure over a period of a week's time; the unit diaphragm movement is compensated for temperature change. However, where precision work is being done, we recommend our No. 2-380 Mercurial Barometer.

This instrument is designed for use in altitudes from 0 to 3500 feet and is furnished with a year's supply of charts. The case is $12\frac{1}{2}$ inches wide, $7\frac{1}{2}$ inches deep and $6\frac{3}{4}$ inches high.

Each, with charts and ink, \$70.00

2-416. CHARTS for No. 2-415 Barometer; 52 charts, a year's supply.

Per set, \$3.00

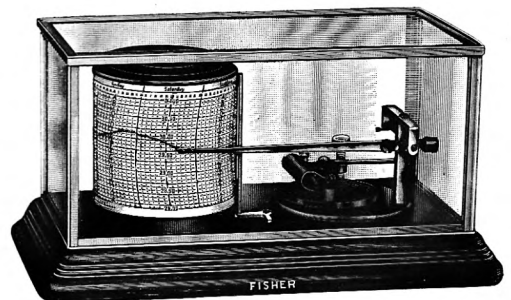
BASKETS, for Centrifuges, see Centrifuge Baskets.

BASKETS, for Test Tubes, see Test Tube Baskets.

BATHS, Air, see Ovens.

BATHS, Sand, see Sand Baths.

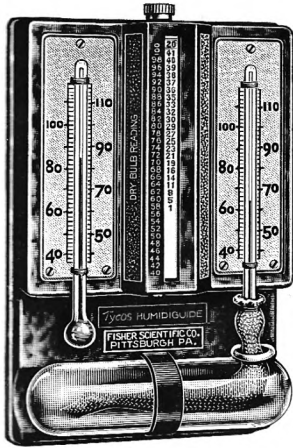
BATHS, Water, see Water Baths.



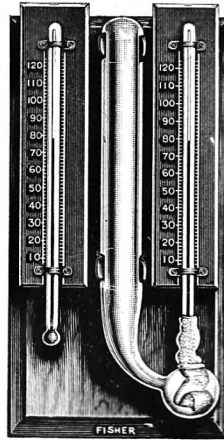
2-415

The United States Weather Bureau reports barometric pressure in terms of a standard called the millibar. This standard has been in use for some time in other countries, but was only recently adopted in this country.

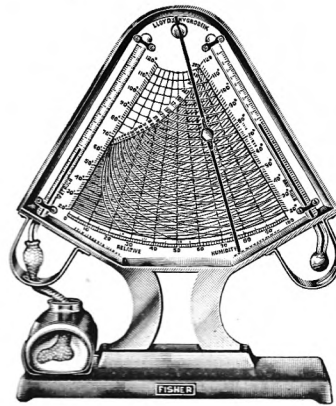
The bar is equal to 29.53 inches of mercury and it has been divided into one thousand equal parts called millibars. A millibar is therefore equal to 0.02953 inches or 0.75 mm. of mercury and one inch of mercury is equal to 33.86 millibars.



11-613



11-615



11-640

11-613. HYGROMETER, Humidiguide, a self-contained instrument for measuring the relative humidity. The dry-and-wet-bulb thermometers are read, their reading subtracted from each other and the difference referred to the rotating table found on the center of the instrument. The figure opposite the dry-bulb reading is the per cent of relative humidity. Thus, handbook tables, etc. are eliminated.

The case is molded Bakelite which can not warp and is not affected by laboratory fumes. A means is provided in the rear for suspending the instrument on the wall.

Each, \$5.00

11-613A. CISTERN, for No. 11-613 Hygrometer. This is the cistern supplied with No. 11-613, and should be ordered for replacement only.

Each, \$.60

11-615. HYGROMETER, Mason; with a pair of thermometers one wet-bulb and the other dry-bulb. Used for determining the amount of moisture in the air, relative humidity and the dew point.

The two magnifying mercury-filled thermometers with black-oxidized scales and white figures have approximate ranges of 30° to 120° F. With glass syphon water bottle, all mounted on an oak board 8½ inches by 4½ inches, with provision for hanging. Instructions for use are provided.

Each, \$5.50

11-620. CISTERN, for No. 11-615 Hygrometer. Each, \$.60

11-625. THERMOMETER, with scale; for No. 11-615 Hygrometer. The same thermometer can be used as the wet-bulb or the dry-bulb.

Each, \$2.25

11-635. WICKS, for No. 11-613 and No. 11-615 Hygrometer. Each, \$.10
Per dozen, \$1.00

11-640. HYGRODEIK, Mason. A Wet-and-Dry-Bulb Hygrometer with thermometer tubes mounted on a chart on the margins of which are temperature readings which correspond closely to the engraved scales on the thermometers.

When the swing index is at the intersection of the lines from the readings of the two thermometers it points to the relative humidity on the scale at the bottom of the chart. This eliminates the necessity of making calculations.

The dial has nickel-silver finish; gray-enameled brass frame; with two magnifying-front mercury-filled thermometers, range 20° to 120°F. Instructions for use are provided.

Each, \$17.50

11-645. CISTERN, for No. 11-640 Hygrodeik. Each, \$.50

11-650. THERMOMETER, Dry-Bulb, engraved stem; for No. 11-640 Hygrodeik. The thermometer used on the right side.

Each, \$3.25

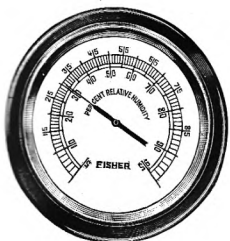
11-655. THERMOMETER, Wet-Bulb, engraved stem; for No. 11-640 Hygrodeik. The thermometer used on the left side.

Each, \$3.25

11-660. WICKS, for No. 11-640 Hygrodeik. Each, \$.10
Per dozen, \$1.00

11-661. HYGROMETER, Laboratory and Industrial. This is a combined laboratory and industrial hygrometer calibrated to indicate directly the percent of relative humidity. With this instrument, the slightest change in humidity is registered and can be read instantly. The dial is cream colored with black figures. The metal case is round, finished in black and trimmed in chrome; approximately 4½ inches in diameter and 1½ inches deep.

Each, \$5.00



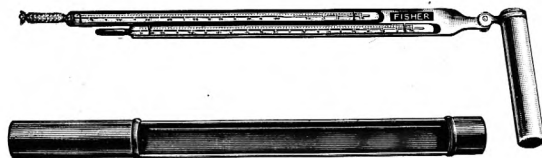
11-661



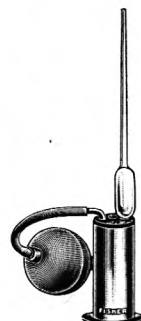
11-662



11-663



11-665



11-674

11-662. HUMIDIGRAPH, Portable, for automatically recording the relative humidity of the air surrounding the instrument.

The sensitive element is composed of sensitive wood fibers built upon a nickel wire screen and wound in the form of a spiral. Changes in relative humidity produce a deformation in this hygroscopic element with a consequent movement. This movement is transmitted by a simple linkage to the pen arm. The wood fibers have been aged and treated to assure that the original calibration will be retained.

The chart is 4 inches in diameter and is rotated by a 3-day clock mechanism. The instrument has a range of from 10 to 90 per cent. The complete unit is mounted in a rust-proof case provided with a glass front. Supplied complete with ink and 100 charts. **Each, \$51.00**

11-663. HYGROMETER, Sling Psychrometer, Pocket Type. This is a uniquely designed Walnut frame sling psychrometer which folds like a jackknife and may be carried in the pocket. This instrument is whirled and read as described under No. 11-665.

The wet and dry bulb thermometers have a range from 30° to 110°F. in 1° divisions. Supplied with wick and conversion chart. **Each, \$10.50**

11-665. HYGROMETER, Sling Psychrometer. A Wet-and-Dry-Bulb Thermometer which can be whirled, whereby the different thermometer readings can be obtained more accurately and in a shorter time. This is whirled for fifteen or twenty seconds and read, then repeated until two or more readings agree.

A copper case is provided to protect the thermometer when not in use; the thermometers have a range from 0° to 100°F., and are easily read to one-half (½) degree.

With each psychrometer is supplied a copy of the U. S. Dept. of Agriculture, Weather Bureau, Bulletin No. 235 giving the psychrometric tables for obtaining the vapor pressure, relative humidity and temperature of the dew point. **Each, \$12.00**

11-670. THERMOMETER, for No. 11-665 Hygrometer. The same thermometer can be used as the wet-bulb or the dry-bulb. **Each, \$2.50**

11-673. WICKS, for No. 11-665 Hygrometer **Each, \$.15**
Per dozen, \$1.50

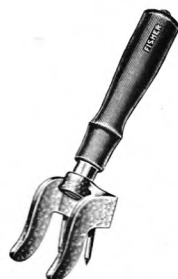
11-674. DEW POINT APPARATUS, for determining the dew point, moisture content and relative humidity of the air in any given location. This apparatus is used considerably in mines. It is simple in construction and operation.

A small nickel-plated cylinder is provided with a base, a rubber bulb and glass inlet and a pipette-shaped glass tube. The cork stopper holding these is provided with a third hole for a thermometer which is not supplied.

Alcohol, ether or other volatile liquid is placed in the cylinder and air from the bulb is aspirated through it. The temperature of the container is lowered by evaporation and when it reaches the dew point, the cylinder at once becomes frosted. The temperature of the container is noted by means of a thermometer. Tables are supplied showing the other humidity standards determined from this dew point.

The apparatus consists of cylinder, rubber bulb, glass tube and tables, without thermometer. **Each \$1.50**

Ice Chippers



11-676

11-676. ICE CHIPPER, a simple but effective tool for chipping ice off a large cake and at the same time reduce it to small pieces about the size of a peanut. A 20-pound block of ice can be completely chipped in less than five minutes. The teeth are hardened steel, the guard is galvanized iron and the handle is wood. **Each, \$1.00**

11-677. ICE SHAVER, for shaving ice directly from a large cake and reducing it to a fine snow-like mass.

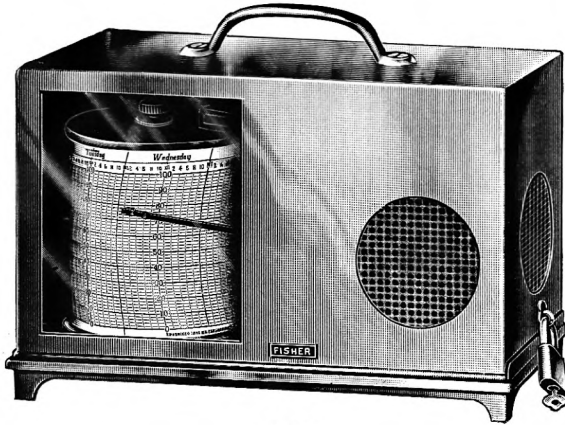
The shaver is held in the hand and run across the surface of the ice cake. The shavings pass into the chamber and can be readily removed as soon as enough have been collected. The complete unit is made of cast iron, galvanized; the overall length is 6 inches. **Each, \$1.00**



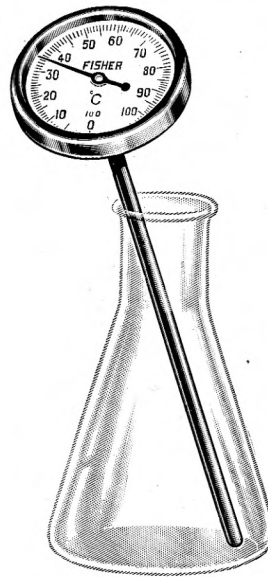
11-677

ICE CRUSHERS, see Crushers, Ice, page 361.





15-073



15-077
See also 15-076



15-080
See also 15-085

15-073. THERMOMETERS, 7-day Recording, for automatically recording the temperature of the air surrounding it. These recording thermometers furnish a 7-day ink record, showing extremes (high and low), the duration of critical temperatures, and the tendency. The chart is divided into days and 2 hour subdivisions. Horizontally, the lines are in degrees of temperature. An arm carrying the recording pen is connected directly with the bimetallic coil which changes with the temperature. This causes the arm with pen attached to move vertically over the chart.

Specifications: case of metal, grey enameled, 10x4 $\frac{7}{8}$ x6 $\frac{3}{8}$ inches high; complete with a one year's supply of charts and ink.

Model No.	84	85
Range, degrees	0 to 100 F.	20 to 120 F.
Each	\$52.50	52.50

15-073-5. THERMOMETER CHARTS, for use with No. 15-073 Recording Thermometer. Each chart is divided into 7 days and 2 hr. subdivisions.

For model No.	84	85
Range, degrees	0 to 100 F.	20 to 120 F.
Per set of 52 charts	\$3.75	3.75

15-075. THERMOMETER, Angle, Large diameter. Supplied with enclosed paper scale with large figures; range, 0 to 240° F. The body is 12 inches long by $\frac{3}{4}$ inch diameter; the stem is 6 inches long by $\frac{3}{8}$ inch diameter. Sometimes called "acid chamber" thermometer (not illustrated). **Each, \$3.75**

15-076. THERMOMETERS, Weston All-Metal, Fahrenheit Scales. These all-metal thermometers employ the bimetallic principle of temperature indication in an improved, patented double helix coil which is more sensitive and more accurate than the ordinary spiral or single helix coils.

The 8-inch stem is made of stainless steel which is corrosion resistant. The dial is 1 $\frac{3}{8}$ inches wide and the thermometers are guaranteed to be accurate to $\frac{1}{2}$ of 1% of total scale reading. The thermometers are unbreakable, are unaffected by vibration or over-temperature and are easily read.

Range, Fahrenheit	0°-180°	0°-220°	50°-300°	50°-400°	50°-500°
Each	\$4.25	4.25	5.00	5.50	6.00

15-077. THERMOMETERS, Weston All-Metal, Centigrade Scales. These thermometers are similar to No. 15-076 except that they are graduated in degrees Centigrade.

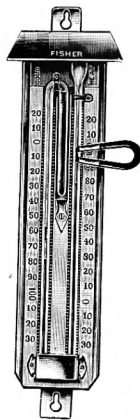
Range, Centigrade	-10° to +110°	0°-100°	0°-150°	0°-250°
Each	\$4.25	4.25	4.25	5.25

15-080. THERMOMETER. Metal case, Straight, with $\frac{1}{2}$ -inch iron pipe thread connection; length of scale, 6 inches; length below thread 1 $\frac{1}{4}$ inches. Sometimes called "hot well" thermometers.

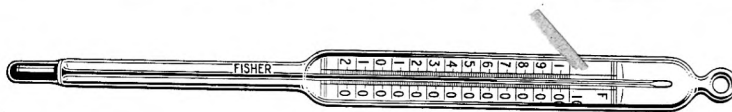
Range, degrees F. approx.	20 to 240	25 to 400
Each	\$3.50	4.00

15-085. THERMOMETERS, Metal Case, Angle, with $\frac{1}{2}$ -inch iron pipe thread connection. Length of scale, 6 inches; length below thread, 1 $\frac{1}{4}$ inches. The pipe connection extends from the back of the thermometer at a 90° angle.

Range, degrees F. approx.	20 to 240	25 to 400
Each	\$4.50	6.50



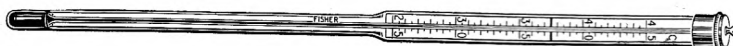
15-091



15-100



15-105



15-111

15-091. THERMOMETER, Maximum and Minimum Registering, Six's Type. The thermometer is "U" shaped with the high temperature at the top on one side and the low temperature at the top on the other side. Metal floats rise with the mercury column; one remains at the lowest temperature reached, the other at the highest temperature. These floats are reset by means of the magnet supplied. The scales are on a lacquered brass plate, mounted in a brass case with provision for hanging. Range, -20° to $+120^{\circ}$ F.; length over all, about 10 inches. **Each, \$8.00**

15-096. THERMOMETER, Maximum and Minimum, Registering, Weather Bureau Type. The maximum registering thermometer has a constriction and the mercury column remains at the maximum height until shaken down. The minimum thermometer has an "index" in the bore of the glass tube which is set in contact with the spirit column. The fall of the spirit column carries the "index" with it and leaves it at the lowest point reached, until it is reset.

Both thermometers are mounted in aluminum holders with the graduations legibly engraved on the metal. Range, 30° below zero to 120° F. above zero. Provided with a finished hardwood board 16 inches long by $3\frac{1}{2}$ inches wide, which has insulating supports and binding screws. **Each, \$18.00**

15-100. THERMOMETER, "Cold Test." Supplied with enclosed paper scale having large figures; range, -20° to $+110^{\circ}$ F. Body is about 6 inches long by $\frac{3}{4}$ inch diameter; stem is about 4 inches long by $\frac{3}{8}$ inch diameter. **Each, \$2.50**

15-105. THERMOMETER, Floating Dairy, all glass. Range, 0° to 220° F.; with enclosed paper scale having churning, cheese, and scalding temperatures indicated thereon. Length, about 8 inches. **Each, \$.90**

15-111. THERMOMETER, Incubator. This thermometer is graduated from plus 25° to plus 45° C. in $\frac{1}{2}^{\circ}$ divisions, and has a red line at the $37\frac{1}{2}^{\circ}$ C. mark. It has an enclosed milk glass scale. The overall length is 330 mm.; the stem is 180 mm. long.

This thermometer is suitable for use in the old type Freas Incubators, Weber Incubators and C. S. and E. Incubators. **Each, \$3.85**

15-112. THERMOMETER, Incubator. This thermometer is graduated from 0° to plus 50° C. in $\frac{1}{2}^{\circ}$ divisions, and has a red line at the $37\frac{1}{2}^{\circ}$ C. mark. It is the etched stem type. The overall length is 300 mm.; the stem is 150 mm. long. This thermometer is suitable for use in Thelco Incubators. **Each, \$2.00**

15-114. THERMOMETER, for C.S. and E. Incubators, Ovens & Water Baths. The thermometer is graduated from 0° to 80° C. in 1° divisions and has a red line at the $37\frac{1}{2}^{\circ}$ C. mark. The over all length is 250 mm., length below graduated scale for immersion, 95 mm. **Each, \$2.00**

To Reunite the Mercury Column of a Thermometer

The separation or "splitting" of the mercury column in a thermometer is not always an indication of a defect in manufacturing. It frequently occurs that during transportation the mercury will separate but it usually can be reunited without harm to the thermometer, provided the proper technique is employed. The following is suggested:

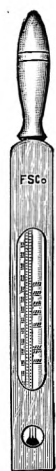
1. Try cooling the bulb of the thermometer by immersing it in an ice-salt mixture thus drawing the entire column into the bulb. Remove the bulb from the cooling mixture allowing it to warm slowly in the room air and the column will usually reappear united. Try this method several times, if necessary, before trying the other methods because they are not quite as safe.

2. If the above method is not successful, try holding the thermometer vertically in the right hand with the fist closed around the bulb; the bulb should be in the center of the palm. Try to reunite the mercury by bringing the fist down forcibly into the palm of the left hand, taking care not to strike the bulb. Try this about 10 times before giving up. If the small separated portion starts to move downward, you can be encouraged and proceed with the tamping.

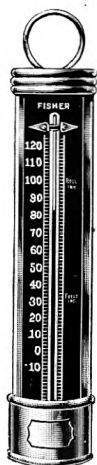
3. The mercury column of a thermometer having a ring on the top can sometimes be reunited by fastening a string to the ring and carefully swinging the thermometer in a circular motion. The centrifugal force may be sufficient to cause the mercury to unite.

4. As a last resort, a separated column may sometimes be united by gently warming the bulb at a considerable height over a low flame of a burner. By moving the thermometer back and forth slowly the column can be gradually forced into the expansion chamber at the top of the column. As the thermometer cools while held in a vertical position, the column may recede united. In this operation, care should be taken to avoid filling the expansion chamber with mercury.

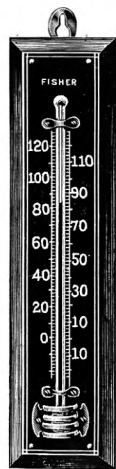
Thermometers



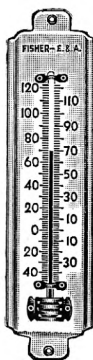
15-115



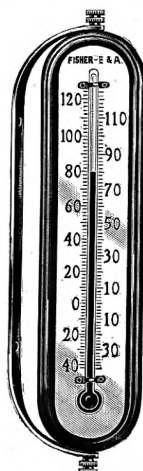
15-120



15-125



15-127



15-131



15-135



15-137

15-115. THERMOMETERS, Wooden Case with handle. They can be immersed while holding the handle, or will float horizontally. Thermometers have enclosed paper scales with large figures. Cases are well seasoned to prevent warping.

Range, degrees F.	20 to 220	0 to 220
Length, overall, inches.	12	17
Each	\$1.50	1.75
	Per dozen, 10% discount	

15-120. THERMOMETERS, Japped sheet metal case. Supplied with metal scale engraved with large figures; with ring at top for carrying or hanging. Length of case, without ring, 12 inches.

Range, degrees F.	-10 to 120	-10 to 220
Subdivisions, degrees.	1	2
Each	\$2.00	\$2.00

15-125. THERMOMETERS, Household. Range, -20° to 120° F.; for indoor or outdoor temperatures. Black oxidized scale with white graduations and figures. Mounted on hardwood back, with ring at top for hanging, length 9 inches. **Each, \$1.10**

15-127. THERMOMETER, Household. Range, -20° to 120° F.; for indoor or outdoor temperatures. White vitreous enamel background with black figures and graduations. These thermometers are 7 inches long and are filled with non-fading red liquid. **Each, \$.85**

15-131. THERMOMETER, Window, with bracket. This thermometer has a range from -40° F. to 120° F., with the 10-inch scale etched on enameled plate. The plate is finished in ivory vitreous enamel, with green border. Clear figures and lines guarantee accuracy and ease of reading. The bracket and fittings are of stainless steel, which resists corrosion and rust, assuring long life in outdoor service. **Each, \$2.25**

15-135. THERMOMETER, Clinical, Tycos. This is a reliable clinical thermometer made to conform with standards set by the U. S. Department of Commerce. The capillary tubing used has a wide angle of vision, assuring easier and more accurate reading. Each thermometer is supplied with a certificate of accuracy and composition case. **Each, \$1.50**
Per dozen, 10% discount

15-137. THERMOMETER, Cup Type, for measuring the temperature of liquids in tanks, barrels, tank cars and similar vessels. The thermometer is filled with a non-fading red liquid which facilitates reading. The graduated scale is made of aluminum; backing and handle are hard wood; the small cup is brass.

To use the thermometer, it should be lowered into the liquid, allowed to remain for about one minute and then be withdrawn. The cup will bring up with the thermometer a small amount of the liquid which prevents the reading from changing before it is observed by the operator.

Maximum diameter, $1\frac{5}{8}$ inches; length over all, $12\frac{1}{2}$ inches; range, -20° to $+150^{\circ}$ F.	Each, \$2.00
	Per dozen, 10% discount