

1912

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CATALOGUE  
& PRICE LIST of

# EUGENE DIETZGEN Co.

MANUFACTURERS OF

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS



CHICAGO, 166 W. Monroe Street

NEW YORK, 214-220 E. 23rd Street

SAN FRANCISCO, 18 First Street

NEW ORLEANS, 615 Common Street

PITTSBURG, 805 Liberty Street

TORONTO, 116 Adelaide Street, West

PRINCIPAL FACTORY, CHICAGO

*Ninth Edition*

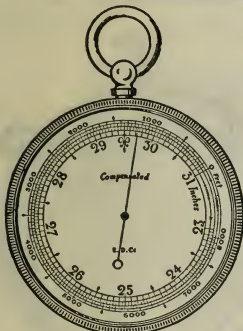
*Price 50 Cents*



ANEROID BAROMETERS

Continued

For Measuring Heights and Atmospheric Pressure



No. 6730A.



6740.

- No. 6730A. Pocket pattern, gilt case, 2½ in. diam., silvered metal dial, fixed altitude scale 8,000 feet, revolving pointer, compensated for temperature, in morocco case, . . . Each, \$20 50
- 6730B. Like No. 6730A, but altitude scale 3,000 feet, . . . " 22 60
- 6730C. " " 6730A, " " " 5,000 " . . . " 21 35
- 6730E. " " 6730A, " " " 12,000 " . . . " 22 20
- 6730F. " " 6730A, " " " 16,000 " . . . " 23 80
- 6735A. Pocket pattern, aluminum case, 2½ in. diam., silvered metal dial, fixed altitude scale 8,000 feet, revolving pointer, compensated for temperature, in morocco case, . . . Each, 24 25
- 6735C. Like No. 6735A, but altitude scale 5,000 feet, with keyless action, . . . Each, 28 00
- 6735D. Like No. 6735A, but altitude scale 10,000 feet, with keyless action, . . . Each, 28 00
- 6740. Pocket pattern, gilt case, 2½ in. diam., compensated, silvered metal dial with an altitude scale of 5,000 feet in single 5 foot divisions in a repeating circle of divisions. The outside scale is divided to 10 feet, while the scale directly beneath it subdivides it to 5 feet divisions. No vernier or magnifier used. In pigskin case, . . . Each, 50 00
- 6745A. Aviation Barometer, brass case, 4½ in. diam., silvered metal dial, fixed altitude scale 18,000 feet divided to 25 feet, revolving pointer, compensated, with thermometer, in leather sling case, . . . Each, 40 50
- 6745C. Like No. 6745A, but with aluminum case, . . . " 45 50
- 6745D. Aviation Barometer, aluminum case, 4½ in. diam., silvered metal dial, fixed altitude scale 18,000 feet divided to 25 feet, revolving pointer, compensated, with thermometer. In this instrument aluminum is used in the movement wherever practical, thus reducing the weight. In leather sling case, . . . Each, 49 50

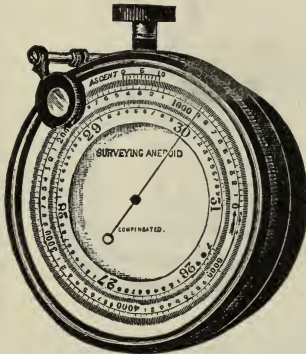
The great interest shown in Aviation has created a demand for Barometers suitable for this purpose. The above Aviation Barometers will be found to meet all the requirements of Aviators; they are accurate, easily and quickly read, and sensitive. While made principally for Aviators' use, they are well adapted for all general aneroid work.



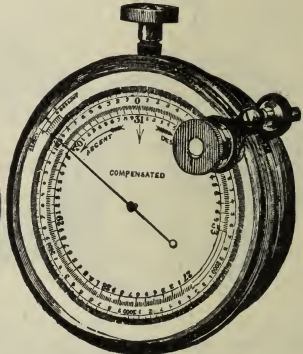
ANEROID BAROMETERS

Continued

For Measuring Heights and Atmospheric Pressure



No. 6760.



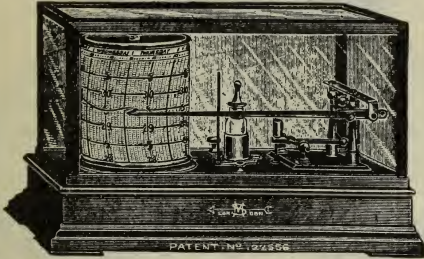
6769.

- No. 6760. Surveying Barometer, bronzed case, 3 in. diam., best engraved silvered dial, graduations on raised ring, fixed altitude scale 5,000 feet, vernier scale moved by rackwork motion, reading to 1 foot, compensated for temperature, adjustable reading lens, in leather sling case, . . . Each, \$63 00
- 6761. Like No. 6760, but altitude scale 10,000 feet, with vernier reading to 2 feet, . . . . . Each, 65 70
- 6762. Like No. 6760, but altitude scale 16,000 feet, with vernier reading to 2 feet, . . . . . Each, 69 40
- 6763. Like No. 6760, but *aluminum case*, . . . . . " 72 00
- 6765. Surveying Barometer, bronzed case, 5 in. diam., best engraved silvered dial, graduations on raised ring, fixed altitude scale 5,000 feet, vernier scale moved by rackwork motion reading to 1 foot, compensated for temperature, adjustable reading lens, in leather sling case, . . . Each, 68 00
- 6766. Like No. 6765, but altitude scale 10,000 feet, with vernier reading to 2 feet, . . . . . Each, 70 70
- 6767. Like No. 6765, but altitude scale 16,000 feet, with vernier reading to 2 feet, . . . . . Each, 74 40
- 6768. Like No. 6765, but *aluminum case*, . . . . . " 81 50
- 6769. Mining Barometer, bronzed case, 3 in. diam., best engraved silvered dial, graduations on raised ring, fixed altitude scale 2,000 feet below and 4,000 feet above sea level, vernier scale moved by rackwork motion reading to 1 foot, compensated for temperature, adjustable reading lens, in leather sling case, . . . . . Each, 63 00
- 6770. Mining Barometer, like No. 6769, but 5 in. diam., " 68 00



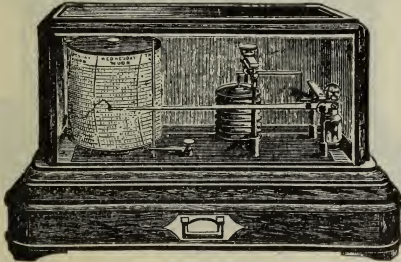
## BAROGRAPHS AND THERMOGRAPHS

These instruments are constructed to record weekly the varying atmospheric and temperature conditions by means of a German silver arbor connected at one end with the Aneroid Barometer, and carrying at the other end a pen that records automatically on a revolving graduated chart.



No. 6800.

No. 6800. Barograph, simplified form, recording one week. The movement of the recording pen is worked by a large vacuum chamber concealed in the base of the instrument. The most desirable and popular priced barograph on the market. Clock and charts are identical to those of the high priced instruments. Complete with ink and a year's supply of charts, in fumed and waxed oak case, . . . . Each, \$40 00



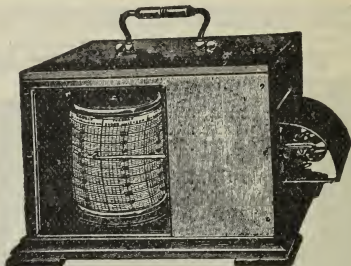
No. 6802.

No. 6802. Barograph, recording one week by two hour intervals from 28 to 31 in. Pen arm controlled by a series of 8 vacuum chambers and recording on a revolving drum 3 1/4 in. diameter, with Seth Thomas clock movement, which has exposed regulations to permit re-adjustment of the clock rate if necessary. In finely finished mahogany case with beveled plate glass and drawer for used and unused charts, complete with ink and a year's supply of gummed and perforated charts, Each, \$57 00



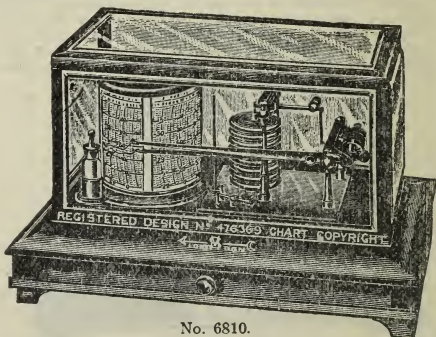
BAROGRAPHS AND THERMOGRAPHS

Continued



No. 6806.

No. 6806. Thermograph, recording one week, from 0 to 100 degrees Fahrenheit, by 2 degrees. The movement consists of a spiral lamina of non-rusting material which is exposed to the atmosphere at the end of the case. It is extremely sensitive and is not affected by vibration, as the pen arm is in direct connection with the coil. In copper case, complete, with ink and a year's supply of charts, . . . . . Each, \$43 00



No. 6810.

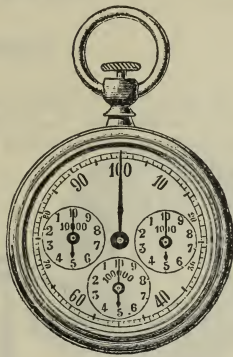
No. 6810. Combined Barograph and Thermograph, with non-corrosive thermometric coil, both recording on one chart for one week. The barograph chart range is from 28 to 31 in.; thermograph chart from 0 to 120 degrees by 2 degrees. The non-corrosive steel coil is superior to the old form of bourdon springs filled with alcohol, the porosity of which permits the evaporation of the alcohol. Complete with two different colored inks (blue for the barograph and green for the thermograph), and a year's supply of charts. In finely finished mahogany case with beveled plate glass and drawer, . . . . . Each, \$85 00



# PEDOMETERS AND ODOMETERS

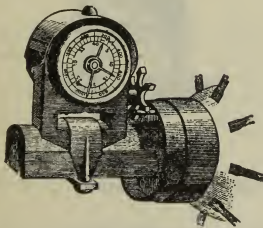


No. 6901B.



6904.

- No. 6901A. Pedometer, watch pattern, nickel case, registering distance walked to 10 miles, . . . . . Each, \$ 1 25
- 6901B. Pedometer, watch pattern, nickel case, registering distance walked to 100 miles, . . . . . Each, 1 25
- 6903. Passometer, watch pattern, nickel case, with 3 hands, registering 25,000 steps, . . . . . Each, 6 00
- 6904. Passometer, watch pattern, nickel case, with 4 hands, registering 100,000 steps, . . . . . Each, 6 50



No. 6907.

- No. 6907. Improved Odometer, registers distance traveled to 1,600 miles and repeats; rings a small bell as each mile is passed, . . . . . Each, \$ 5 00

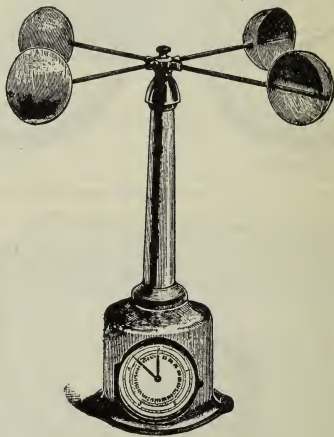
This Odometer can be used for any kind of vehicle. The illustration shows method of attaching to axle with pin in hub. They are made for wheels of any size from 28 to 54 in., varying every half inch. In ordering it is necessary to state the *exact diameter* of the rear wheel of carriage, from outside to outside of tire.



# ANEMOMETERS

Or Wind Gauges.

For measuring the velocity of air currents in mines, sewers, hospitals, public and private buildings, etc. Each instrument is tested separately, and has a correction table for variations, showing the amount of air, in feet, to be added and deducted.



No. 6908.

No. 6908. Robinson's Improved Anemometer, . . . . . Each, \$30 00

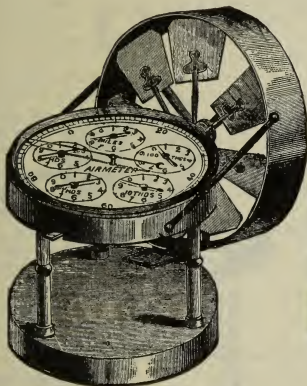
The four hemispherical cups are set in rotation by the motion of the air and the number of revolutions is recorded by the mechanism in the base of the instrument. The vertical axis communicating the motion of the cups to the recording mechanism runs in ball bearings, which insures a sensitive and delicate movement. The results of observations can be read off on an enameled dial on the face of the base. The outer circle of this dial registers 5 miles by  $\frac{1}{10}$  mile and the inner one up to 500 miles. The two hands can be set to zero.



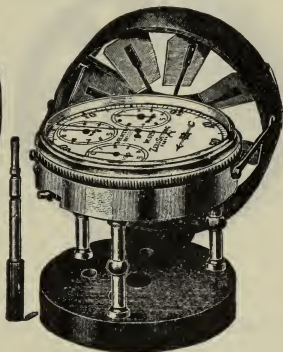
ANEMOMETERS

Continued

Or Wind Gauges.



No. 6910.



6912.

- No. 6910. Portable Air Meter, diameter of fan wheel  $2\frac{3}{4}$  inches, with disconnector. The indications are obtained by the revolution of a series of fans, acting first upon the large dial, divided to 100 feet, and then successively by a train of wheels on the indexes of five smaller dials, recording respectively 1,000, 10,000, 100,000, 1,000,000 and 10,000,000 feet, or 1,893 miles; in leather case, . . . . . Each, \$24 00
- 6911. Same as No. 6910, but with sand glass timer, in leather case, . . . . . Each, 27 50
- 6912. Portable Air Meter, with disconnector, 4 dials recording to 100,000 feet, with key for zero setting, in leather case, Each, 24 00
- 6913. Same as No. 6912, but with sand glass timer, in leather case, . . . . . Each, 27 50

The Timer consists of a sand glass which acts as a stop and also serves to easily compute the time the current takes in passing through the fans.

*We have the best facilities for testing and repairing Anemometers.*

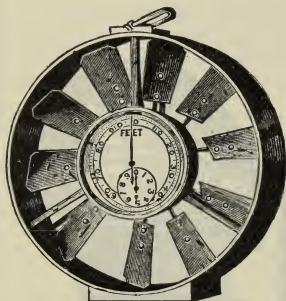




ANEMOMETERS

*Continued*

Or Wind Gauges.



No. 6922.



6935.

- No. 6922. Biram's Anemometer, 2 dials, 4 in. diameter, reading to 1,000 feet, with disconnector, in leather case, . . . Each, \$22 50
- 6924. Biram's Anemometer, 4 dials, 4 in. diameter, reading to 100,000 feet, with disconnector, in leather case, . Each, 23 50
- 6928. Biram's Anemometer, 2 dials, 6 in. diameter, reading to 1,000 feet, with disconnector, in leather case, . . . Each, 26 00
- 6930. Biram's Anemometer, 4 dials, 6 in. diameter, reading to 100,000 feet. with disconnector, in leather case, . Each, 28 50
- 6932. Biram's Anemometer, 6 dials, 6 in. diameter, reading to 10,000,000 feet, with disconnector, in leather case. Each, 32 00
- 6935. Anemometer, watch pattern, 2 in., registering to 1,000 feet; nickel plated hunting case, with stop. When open the two covers form a base for the instrument; in morocco case, Each, 30 00



## CURRENT METER

The increased demand for a high grade Current Meter, especially designed for use in irrigation work to measure the speed of flowing water, has led us to list the following Acoustic Meter, which is superior to other makes on account of its accuracy and simplicity of construction. It is very compact and portable, and possesses the desirable advantages of having no exposed mechanism; no delicate parts to get out of order; continuous reliability in action; and rigidity combined with lightness.

The revolutions of the bucket wheel are indicated by a small hammer, which is connected with the mechanism and strikes against a thin diaphragm, one blow for every ten revolutions. The recording mechanism is enclosed in the stem of the meter and is absolutely protected from injury. The meter is suspended by a tube, by which it is held in the stream during observations, and through which the sound of the blows on the diaphragm is conveyed to the ear by means of an ear-piece attachment. As this attachment is fastened to the operator's head, both hands are left free for the manipulation of the meter.

By use of a Reduction Table supplied with the meter, results obtained may be readily reduced.



No. 6950.

- No. 6950. Acoustic Current Meter, including two 2-foot lengths of graduated brass tube, tool accessories, and extra pivot bearing, in strong wooden box with lock and strap, Each, \$50 00
- |        |   |         |      |
|--------|---|---------|------|
| 6950A. | Extra Graduated Brass Tube, 2 feet long,    | . . . " | 2 50 |
| 6950B. | Canvas Case,-for 2, 3 or 4 lengths of tube, | . . . " | 2 50 |



# HYDROMETRIC TUBE

(Pitot's Tube.)

This is another type of instrument for measuring the velocity of currents, and consists, principally, of two parallel tubes connected at the top, the lower ends being bent at right angles so that the openings are in opposite directions.

To measure the velocity of currents, the instrument is immersed into the stream directing one opening against the stream, thus causing the water to rise higher in the up stream tube than in the downward directed one. The difference in height of the two water columns is the velocity, which is proportional to the square of the speed in meters per second.

As it will be necessary for the convenient observation of the height of the water in the tubes, to bring the water above the surface of the stream, a small pump has been attached to the top of the tubes with which the air pressure above the water columns can be reduced; this permits the water to rise in the tubes proportionally without affecting the difference of height in the least. The instrument is further provided with a faucet below the glass tubes with which the flow of water can be shut off as soon as the water columns have assumed a steady position. It may then be withdrawn from the stream to a convenient position, and with the aid of the sliding sight the readings of both tubes can be taken with the mm. scale provided for that purpose.

The Hydrometric Tube is particularly well adapted for use in shallow waters where the Current Meter, on account of its size and construction, cannot be used advantageously.

With each instrument is furnished a correct formula for determining the velocity, where:

- V=velocity in meters per second.
- h2=height of water column in mm.
- h1= " " " " " "

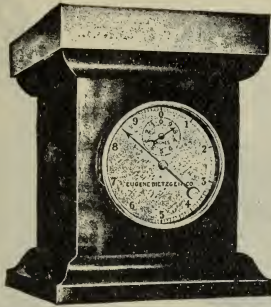
$$\text{Thus } V=0.14 \sqrt{h2-h1}$$

No. 6968. Hydrometric Tube, in polished hardwood case, weight complete about 20 pounds, . . . . . Each, \$110 00





### RAIN GAUGE



No. 6976.

The Rain Gauge illustrated above is known as the "tilting bucket" rain gauge. No measurement is necessary as the rain is collected in the 8 in. receiver and is taken through a small pipe and dropped into one side of a bucket. When a given amount of rain has collected in the bucket (0.01") the weight of the rain on the laden side causes it to overbalance and, by a mechanical arrangement, the hand moves 0.01" at each operation. The rain, still passing through the receiver, is collected in the opposite bucket; when that has received the given amount, the same operation is repeated. Its great advantage is that it is zero setting, making it particularly useful to anyone desiring to keep a record of rain-fall by the month or week, as by the zero setting device no calculation is necessary. The dial registers 1 inch in 1-100th inch; the second or smaller dial reads to 12 inches.

No. 6976. Zero-setting Rain Gauge in Jappeded Metal Case, 8x10 in., Each, \$27 00  
6978. " " " " Copper Case, 8x10 " " 32 00

An advantage which applies to this gauge is that the collecting funnel can be placed at a distance from the gauge, and connected to it by a small pipe, the instrument being placed within a house or shelter.

### STOP WATCHES



No. 6988.

No. 6988. Stop Watch, stem-winder, nickel-plated case, porcelain dial, registering to 30 minutes by 1/2 seconds; fly-back, engaging and disengaging mechanism, . . . . . Each, \$6 00

6990. Stop Watch, like No. 6988, but with a side lever by means of which it is possible to cause the hand to fly back to zero and to start automatically and instantaneously, . . . . . Each, 7 00