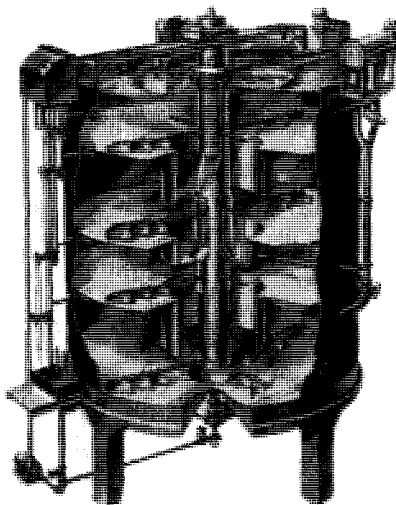


New Products and Equipment . . .

New Cane Juice Clarifier Cuts Investment Costs and Reduces Processing

Dorr-Oliver Inc. has developed a cane juice clarifier, a new four-compartment unit for the high-speed clarification of cane juice. The manufacturer claims the clarifier is designed with 30% less volume than conventional clarifiers with equivalent working capacity, thus reducing the processing time by 30% while producing juice of comparable clarity and mud of equal density. Existing clarifiers can be converted to the Dorr design to increase their working capacity with a relatively small increase in tank volume.

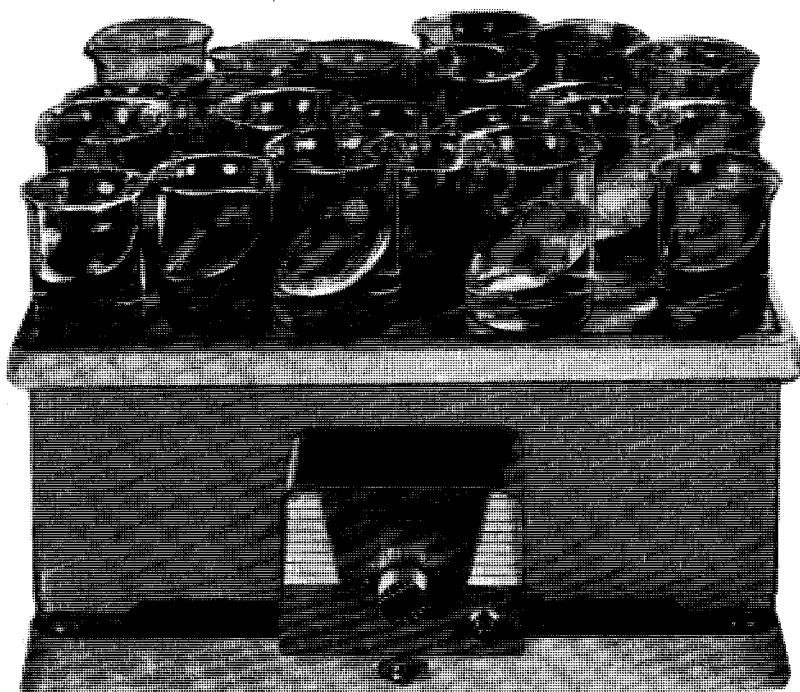
The manufacturer claims that the 30% volume reduction of the new clarifier over conventional clarifiers handling the same flow with comparable results substantially reduces investment cost. In addition to lower first cost, considerable savings are also realized in freight forwarding charges and in the cost of foundation and erection. New design features, such as the overflow measuring weirs, permit control of clarification to an even greater degree than possible in previous conventional machines.



Cut away view of Dorr-Oliver cane juice clarifier. Juice passes into the central tube which is divided vertically to insure equal feed distribution to both sections. Overflow from the compartments is controlled by metering weirs PE1

Agitator Hotplate

Agitator hotplate available from Fisher may relieve researchers of the tedious job of stirring over hotplates. Oscillator rotates with a frequency of 216 times per minute, can be turned on or off independently of the heater. Hotplate top is made of aluminum, regulator keeps temperature at any operating level between 200° to 700° F PE2



Algicide

An aquatic herbicide for control of algae in ponds and irrigation canals has been announced by Hercules Powder Company.

The chemical is "Delrad" and it has been found to be unusually effective for the control of algae in farm ponds, lakes, irrigation canals, and other bodies of water. Some algae have little useful purpose and interfere with the propagation and growth of fish.

Small amounts of Delrad not only destroy the pestiferous algae but also act to disintegrate the algae. When algae die under normal conditions, or are killed by artificial means other than Delrad, they frequently come to the surface, decompose, and produce undesirable odors and impart undesirable taste to the water.

In the case of irrigation canals and drains, masses of algae can seriously reduce the flow of water and, when dead, can clog pipes, valves, and screens, substantially increasing the cost of irrigation.

The amount of Delrad required to control algae, in a particular pond or lake, is dependent largely upon the environmental temperature.

Generally, the higher the temperature the lower is the concentration required for control. The frequency of treatment is somewhat dependent on the type of the water. Fewer number of treatments are required in hard or alkaline water. PE3

Continuous Infrared Analyzers

Four series of Tri-Non Infrared Analyzers for continuous analytical control of chemical process gas streams are now being manufactured by The Perkin-Elmer Corp. The series range in complexity from deluxe models of highest sensitivity and performance for the most complex processing problems, to simpler models designed to monitor relatively simple process streams. Prices of the new instruments vary with their complexity and range from \$2800 to \$5450.

Series A Tri-Non analyzers offer highest sensitivity, stability and discrimination—and are completely explosion proof.

Series B Tri-Nons are similar to series A, except that the electronics and recorder are remotely located and are not explosion proofed.

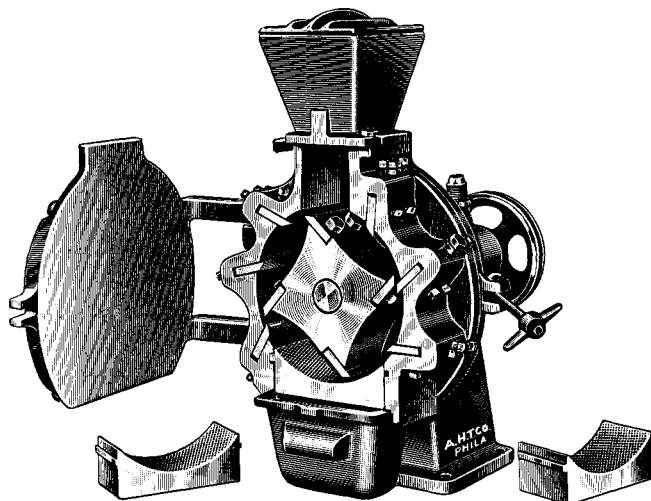
Series C analyzers are not explosion proofed. The detector section is connected to the electronics section by a 500 foot cable.

Series D Tri-Nons are also not ex-

A. H. T. CO.
SPECIFICATION

WILEY LABORATORY MILLS

► For the preparation, with minimal loss of moisture, of a wide variety of materials for laboratory analysis



4275.

WILEY LABORATORY MILL, Standard Model No. 2. For the preparation, with minimal loss of moisture from heating, of a wide variety of materials for laboratory analysis, such, for example, as:

animal hair, bones, fertilizer materials, grain, leather, plastics, seed, tanning materials, etc.

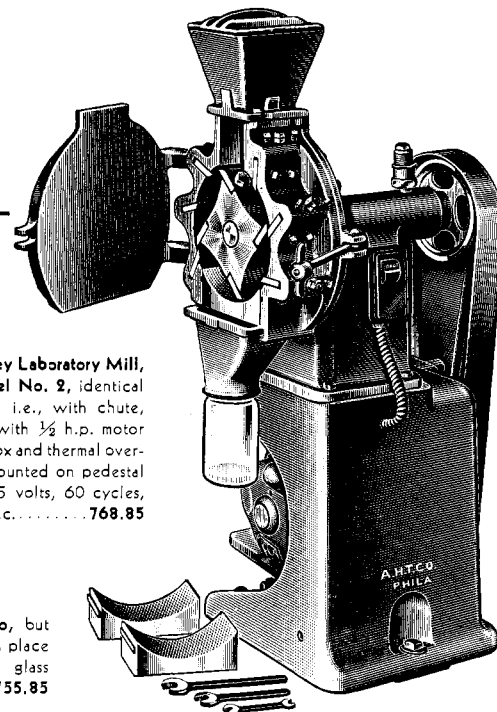
Now furnished with either a deep, cast aluminum drawer with rounded inner corners, 28 oz. capacity, which can be withdrawn from the front, or an interchangeable chute for collecting the sample directly in a standard screw neck glass jar, 16 oz. capacity, or in a bag, table drawer, etc.

Four hardened steel knives on a revolving shaft work with a shearing action against six knives bolted into the frame. The shearing action of the cutting edges, between which there is always a clearance, tends to avoid changes in the sample such as temperature rise, loss of moisture, liquefaction, contamination, etc., making this Mill satisfactory for many materials which can not be reduced by other mechanical means.

A sieve is dovetailed into the frame so that none of the material comes from the grinding chamber until it can pass through the mesh. Mill without motor is 22½ inches high and occupies floor space 14½ × 18 inches. Motor driven model is mounted on heavy pedestal base 16¼ inches high. Motor support built into the base is hinged for adjusting belt tension by means of a wrench.

4274-W. Wiley Laboratory Mill, Standard Model No. 2, as above described, with chute—as shown in illustration of 4275-H—three 16 oz. glass jars with plastic caps, and three sieves of 0.5 mm, 1 mm and 2 mm mesh, respectively. With pulley for V-belt, and set of wrenches for adjusting knives, but without drawer or motor.....**443.00**

4275. Ditto, but with drawer in place of chute and glass jars; without motor.....**430.00**



4275-H. Wiley Laboratory Mill, Standard Model No. 2, identical with 4274-W, i.e., with chute, but complete with ½ h.p. motor with starting box and thermal overload cutout, mounted on pedestal base. For 115 volts, 60 cycles, single phase, a.c.....**768.85**

4275-R. Ditto, but with drawer in place of chute and glass jars.....**755.85**

4275-H.

Copy of Supplement 110, giving more detailed description of above and other models of the Wiley Mill, sent upon request.

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*For Seed Bed Treatment Use Niagara Bed-Fume
A Methyl Bromide Soil Fumigant*



**DANGER
ZONE**

Niagara

CHEMICAL DIVISION

FOOD MACHINERY AND CHEMICAL CORPORATION

Middleport, N. Y., • Jacksonville, Fla.



*Trade Mark

plosion proofed and all components are mounted in a metal cabinet.

Perkin-Elmer Tri-Non analyzers are shipped sensitized and adjusted to specific plant processing problems. **PE4**

Inflated Suit Protects against Both Gas and Liquid Chemicals



Emergency suit manufactured by the Standard Safety Equipment Co. is said to have overcome both the liquid penetration and gas seepage problem. Air from an outside source inflates the suit and constantly maintains controlled, positive air pressure within the garment. With the air pressure slightly greater on the inside than outside, harmful fumes are prevented from entering. For liquid protection, Sta-Safe Gra-Lite fabric is used throughout the garment. Gra-Lite is claimed to be impervious to virtually all organic and most inorganic compounds, as much as 40% lighter than other materials, and is said to exhibit extraordinary abrasion resistance **PE5**

Pressure Filter

A self-cleaning closed-type pressure filter designed for filtration of liquids down to $\frac{1}{10}$ of a micron and for the minute filtration of chemicals, oils and fats has been developed by U. S. Hoffman Machinery Corp.

The filter has wide application for use by brewers, wineries and distillers, chemical and cosmetic manufacturers,

oil and fat processors, and food and pharmaceutical plants.

Filter requires no filter bags, sheets, or pads. In contrast to plate- or leaf-type filters, Hoffman claims the unit virtually eliminates loss of valuable liquids through spillage.

Filtration media used are: tubes of porous stone, porous carbon and stainless steel wire mesh. Other media which can be used are diatomaceous earth, macerated wood pulp, paper pulp. **PE6**

Super-Netone Filter Paper

The National Filter Media Corp. announces a new neoprene impregnated filter paper with a wet bursting strength of 75 lbs. per square inch or more. The manufacturer claims this new paper shows good chemical resistance, is free flowing, economical, and in many applications it can replace cloth or extend cloth life. The filter paper is available in several weights, plain or crepe finish. **PE7**

Vibration and Noise Eliminated In New Mechanical Vacuum Pumps

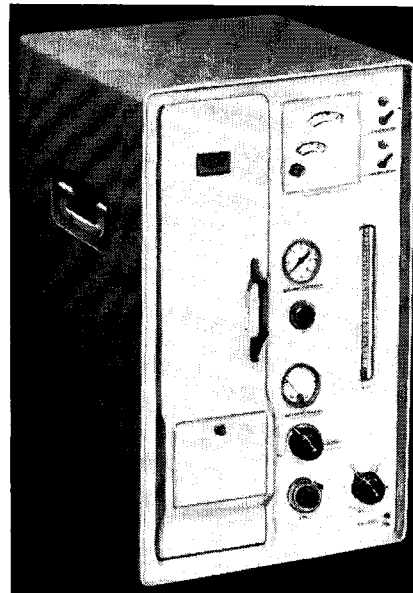
Central Scientific claims it has developed a new line of mechanical vacuum pumps which operate quietly and with practically no vibration. In fact, the company says, a glass of water placed on top of one of the pumps in operation will hardly show a ripple.

In addition to its quiet, vibration-free operation, the new pump, named the Hyvac 7, has more pumping capacity per cubic foot of space occupied than any other high vacuum pump on the market. The Hyvac 7 produces a free

air displacement of 70 liters per minute (as compared with 57 liters per minute for former models) and a guaranteed ultimate vacuum of 0.1 micron, yet its floor space requirement is only $8\frac{1}{2}$ by $17\frac{1}{2}$ inches with an over-all height of about 13 inches.

Other exclusive features of the new Hyvac 7 include: unique intake O-ring connector coupling to save time in assembly of vacuum system. **PE8**

For Routine Analysis Of Gas Mixtures



The Vapor Fractometer, a simple, low-cost, portable apparatus for the analysis of multi-component mixtures of gases or volatile liquids, is now in production by The Perkin-Elmer Corp. The apparatus utilizes the fractional separation of vapors by means of a partition column **PE9**

Use . . .

READERS' INFORMATION SERVICE

ACS editors screen all manufacturers' product announcements and industrial literature, publishing only what is *really* new and containing valuable scientific or technical data.



Circle desired items and Ag and Food will do the rest

YOUR RIS COUPON APPEARS ON NEXT PAGE