is easy to install and operate. Resins absorb objectionable sulfates, carbonates and other anions. However, exchange capacity of resin was found to be extremely low when only common salt was used as regenerant, due to formation of blanketing gases that prevented complete regeneration.

The pH of regenerant solution has been raised, and gas blanketing tendency eliminated. This also improves quality of effluent.

American Water Softener Co, 330 W Lehigh Ave, Philadelphia, Pa.

Film-Forming Amine

801 • *Hagofilm* is said to reduce corrosion from oxygen and acid carbon dioxide in steam condensate systems. The amine is fed to the boiler in quantities of 2 or 3 lb per million lb of steam. It vaporizes with the steam and deposits a thin, non-wettable protective film on all metal surfaces where condensation occurs, and throughout the return system. May be obtained in both solid and liquid form.

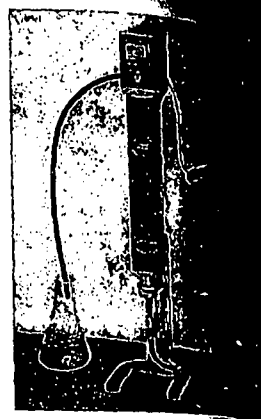
Hagan Corp, Pittsburgh 30, Pa.

Water Filter

919 • New diatomite filter unit can be used for large volume water filtering, manufacturer states. Sparkler model SCJ filter is said to remove either colloidal or solid suspended matter, and up to 80 to 100% of bacteria. Unit allows use of raw water sources for industrial plant water supply.

Available in sizes from 25 to 1000 sq ft of filtering surface. Flow capacities over 2½ mgd per unit.

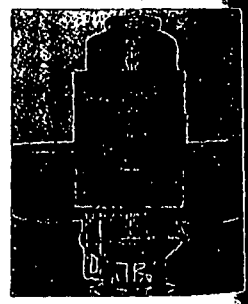
Sparkler Mfg Co, Mundelein, Ill.



Cartridge Demineralizer

702 • New demineralizer features [illegible] manent cartridge, an electric purity [illegible] cator, and a sight indicator for adj[illegible] intake flow to the optimum rate for [illegible] ion exchange action. Unit can supply [illegible] 10 gph of high purity water, is useful [illegible] laboratories, storage batteries, etc. To [illegible] ate, connect intake hose to the tap, [illegible] outlet hose in a receptacle, and turn [illegible] faucet. Purity meter warns when [illegible] charge in the cartridge requires replacement.

Penfield Mfg Co, Inc, Attention [illegible] Clohessy, 19 High School Ave, [illegible] den, Conn.



Mono-Bed Demineralizer

714 • Completely automatic, supervision-free *Mono-Bed* demineralizer, available [illegible] flow rate capacities from a few gallons per hr to 5000 and up, requires no steam power, provides an effluent with a mineral content of virtually zero (resistances as high as 20,000,000 ohms per cm). When efficient conductivity falls below standard, treated

(Continued on page 252)

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The Showcase of New Bulletins

AIR CONDITIONING, HEATING, REFRIGERATING AND ALLIED EQUIPMENT

A1 Cooling Towers — Mechanical draft type, capacities up to 100 tons of refrigeration. 8-page bulletin gives dimensions, selection data, performance. Binke Mfg Co, Cooling Div, 3123 Carroll Ave, Chicago 12, Ill.

A2 Cooling Towers — Induced-draft, counter-flow units. 36-page bulletin CF-57-4 gives construction details, suggestions on recirculation and [illegible]. Foster Wheeler Corp, 165 Broadway, New York 6, N.Y.

A3 Tube Heat Exchanger—Twin *O-flo* unit, standard interchangeable construction. 20-page bulletin 1400 gives description, design and construction features, specifications, dimensions, installation photos. Griscom-Russell Co, Massillon, Ohio.

A4 Instantaneous Heaters — Hot water units, 2, 4, and 6 pass, capacities from 2 to 425 gpm. 56-page bulletin 58-12 gives capacity tables for heaters, illustrations, descriptions, [illegible]. American District Steam Co, Inc, North Tonawanda, N. Y.

A5 Dehumidifying Heaters — Tray and spray-tray types. 12-page bulletin WC-106 describes principles, elements, features, gives applications, [illegible]. Grever Water Conditioning Co, 3 [illegible]. Grever Water Conditioning Co, 3 [illegible] Dept 10-6, 310 W 14th St, New York 11.

A6 Radiant Panels—Far-infrared radiation for paint baking, curing, drying, degreasing, etc. 6-pages, bulletin 5-605 gives dimensions, ratings, industry controls. E L Wingand Co, 7731 Thomas Blvd, Pittsburgh 8, Pa.

A7 Dehumidifiers — 32-page bulletin 333 illustrates applications of [illegible] in industry. Pittsburgh Lectrodryer Corp, P.O. Box 1768, Pittsburgh 30, Pa.

A8 Unit Heaters — Propeller fan units, horizontal and vertical types. 16-page catalog 1200 gives capacities, descriptions, applications, specifications. Airtherm Mfg Co, 750 S Spring Ave, St. Louis 10, Mo.

A9 Filters—For ventilation and air conditioning equipment. 8-page bulletin 100 gives photos, specifications on viscous, washable *Viscynex* filters. Dollinger Corp, 11 Centre Park, Rochester 4, N. Y.

A10 Steam Vacuum Refrigeration—Surface condenser and barometric condenser types. 18-page bulletin 60A shows construction, gives principles, operation, recommends types of service. Graham Mfg Co Inc, 415 Lexington Ave, New York 17, N. Y.

A11 Centrifugal fan type unit heaters described in 16-page catalog. Photos, spec charts and tables, applications and optional features of Airtherm line shown. Catalog 403. Airtherm Mfg Co, 750 S Spring Ave, St Louis 10, Mo.

A12 Vaneaxial Fans—16-page Bulletin J-611 describes Axivane series 1060 fans, 124 models, 18 to 84 in. in diameter, volumes to 150,000 cfm at pressures to 11 in. wg. Joy Mfg Co, Oliver Bldg, Pittsburgh 22, Pa.

A13 Industrial Fans—Illustrated 12-page booklet gives features, wheel types, hookup arrangements, accessories, performance tables. Booklet SA-6872. Westinghouse Sturtevant Div, Dept T-616, 200 Readville St, Hyde Park, Boston 36, Mass.

A14 Air Filter — dehydrator, mechanical filter and automatic trap give instrument quality air, disposable filter cartridge, 8 pages. Hankison Corp, Biltmore Bldg, Pittsburgh, Pa.

A15 Induced-Draft Fans — motor driven, axial flow, in divided housing. 13 to 36 in. diameter fans, 1/12 to 15 hp motors. Bulletin DB-53-53, 8 pages, specs, dimensions. DuPothesat Fans Div, American Machine & Metals, Inc, East Moline, Ill.

A16 Ventilating Fans—V-belt driven, packaged units for volumes from 100 to 12,000 cfm at low static pressures. 28 pages, Catalog 815. Clarage Fan Co, Kalamazoo, Mich.

A17 Heating Systems—Booklets on vapor and vacuum systems, reevaporation, radiator traps, vapor controls and trap maintenance. Catalog 71, Bulletins R-44, C-36, E-48, etc. Barnes & Jones Inc, 808 Eustis St, Boston 19 Mass.

A18 Oil Booster — Closed heating system uses high flash-point oil for heat transfer, to 600 F. 4 pages, illustrated. Bulletin AD-108. Cleaver-Brooks Co, 216 E Keefe Ave, Milwaukee 12, Wis.

A19 Heat Exchanger Tubes — Description, application, specifications and data. 24 pages, illustrated. Aluminum Co of America, Gulf Bldg, Pittsburgh 19, Pa.

A20 Air Handling Units—complete space on central station units and all accessory equipment, selection tables. 32 pages, Bulletin 710. Rush Mfg Co, West Hartford 10, Conn.

A21 Unit Heaters—12,000 to 204,000 Btu per hr, and electric duct heaters from 25,500 to 204,000 Btu per hr. 8 pages, Bulletin E-1. L J Wing Mfg Co, Linden, N. J.

A22 Airfoil Centrifugal Fans—with airfoil shape blades for mechanical draft, high velocity air conditioning, heavy duty industrial and vehicular tunnel applications. 8 pages, Catalog 1250. Westinghouse Sturtevant Div, Dept T-060, 200 Readville St, Hyde Park, Boston 36, Mass.

A23 Suspended space heaters for general commercial and industrial use with any type gas fuel. Bulletin 843, 8 pages with photos and tables. Dravo Corp, Pittsburgh 22, Pa.

A24 Air cleaners and coolers for higher efficiency in compressed air systems. Fully describes aftercoolers, separators, filters. Bulletin 171, 7 pages of drawings and tables. R P Adams Co, Inc, Buffalo 17, N. Y.

BOILERS AND AUXILIARIES

B1 Steam atomizing oil burners for use with heavy oil or tar in boilers, stills, dryers and other furnaces having steam or compressed air available for atomizing the oil. 16-page bulletin 21. National Airoil Burner Co, Inc, 1324 E Sedgley Ave, Philadelphia 34, Pa.

B2 Pneumatic spreader stokers for bituminous, sub-bituminous, high ash-fusion and lignite coals described in 12-page catalog. Text covers coal conveying, drying and preheating, automatic firing. Material on automatic combustion controls, dumping grates, fly-ash reinjection system. Vorse 1650. Iron Fireman Mfg Co, Cleveland 11, Ohio.

B3 Regenerative Fly Ash Collector—has no moving parts, consumes no power. Operates on pressure-velocity exchange with centrifugal flow. 6 pages. Breslove Separator Co, Commonwealth Bldg, Pittsburgh 22, Pa.

B4 Crushers — Handbook explains various crushing methods and where they apply in crushing procedure. Non-technical 12-page bulletin to assist "the man who, sometime, may assist "the man who, sometime, may want to select a crusher." Illustrated. Pennsylvania Crusher Co, 1700 Liberty Trust Bldg, Philadelphia 7, Pa.

B5 Unit Steam Generator — 650 to 20,700 lb per hr at 212 F, oil or gas firing, staggered tubes, 4-pass construction. 16-page bulletin 4000 gives dimensions, components. Preferred Utilities Mfg Corp, 1900 Broadway, New York 23, N. Y.

B6 Heat Tube Boilers—14-page bulletin gives data on 10 installations of VF and VS boilers. Drawings, photos. Henry Vogt Machine Co, Inc, 1000 W Ormsby, Louisville 10, Ky.

B7 Steam Generator—Amesteam unit, 345 to 17,250 lb per hr. 8-page bulletin 1080 describes construction, auxiliaries, typical boiler room layout. Ames Iron Works, Box R-1, Oswego, N. Y.

B8 Steam Generators — Factory assembled or field erected units, 3 horizontal drums with integral water wall elements. 20-page bulletin SD43-10M describes VJ units for all standard firing methods. Photos, dimensions. Erie City Iron Works, Erie, Pa.

To order copies of bulletins, fill out and mail cards from pages 223, 249