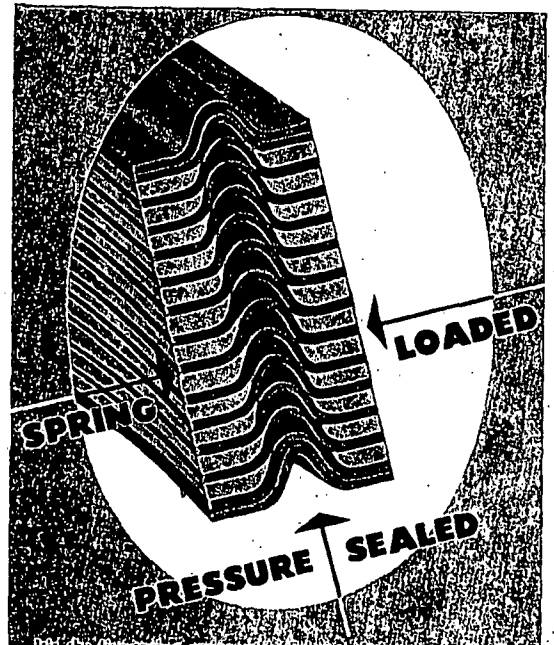


It's the live spring action and U-shaped ply of the metal plies in Flexitallic Spiralwound Gaskets that permits them to give and take with varying pipe line or boiler stresses, to seal joints tight at safe bolt loads and utilize the pressure they are sealing against to keep them tight under all operating conditions.

There are types and sizes for all standard flanges and for manholes, handholes and tube caps for all makes of stationary and marine boilers, waterwalls, economizers, etc.

Materials of construction include plated low carbon steel, or stainless, Canadian or blue African asbestos chemically inert duPont Teflon.

Sold universally through industrial distributors. Ask your supply house or write—

UNITED STATES GASKET COMPANY

FABRICATORS OF "TEFLON" & "KEL-F" FOR THE CHEMICAL PROCESS & ELECTRONIC INDUSTRIES

CAMDEN 1 NEW JERSEY

Representatives In Principal Cities Throughout the World

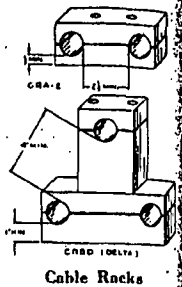
More EQUIPMENT NEWS

Begins on p. 167

rosion and suitable for all Class 1, Div. 2 locations.

Used as either running or trouble signals, the systems provide both an audible and a visual alert signal that must be acknowledged by the operator when an "off-normal" condition develops. Visual signals are provided by either torpedo type lamps or backlighted, illuminated name plates. Catalog 100.

Pannlarm Products, Inc., 6310 Broadway, Chicago 40, Ill.



Cable Racks

251 • Phenolic insulating cable racks are divided into two groups: 300 v and under, or over 300 v. Standard racks have maximum size holes possible to maintain required clearances. Mounting bolt holes take standard size bolts.

Adalet Mfg Co, 14500 Lorain Ave, Cleveland 11, Ohio.

For more data on these items, use post card, p. 167. Identify your request with item number.

• Oil Mist Control

216 • *Precipitron* oil mist control unit will recover coolant oil from mist and smoke generated by high speed cutting, grinding, milling, etc. Available in two models: type PO-6 with air-handling capacity of 600 cfm, and type PO-12 with capacity of 1200 cfm. Unit is completely self-contained, shipped factory-assembled and tested. PO-6 is 55-in. high, 22-in. wide, 24-in. deep, weighs 265 lb.

Westinghouse Sturtevant Div, Dept. T-S09, 200 Readville St, Hyde Park, Boston 36, Mass.

Electric Solenoid Valves

252 • Improved Atkomatic solenoid valves are available for pressures to 300 psi. Adjustable timing on closing action is available to 300 psi. This eliminates shock on supply lines, particularly on hydraulic operations. Valves are packless, easily maintained, and designed to handle hydraulic operations, oil, water, steam, gases or any media not harmful to brass.

Atkomatic Valve Co, 545 W Abbott St, Indianapolis, Ind.

(Advertisement)

HALL INDUSTRIAL WATER REPORT

Hall Laboratories, Inc.—A Subsidiary of Hagan Corporation, Pittsburgh, Pa.

Volume 1 FEBRUARY 1953 Number 1

New Water Manual Published by ASTM

Of interest to everyone concerned with industrial water is ASTM's "Manual of Industrial Water," a January 1953 release, prepared by Committee D-19. Manual discusses uses of industrial water, difficulties caused by industrial water, compositions of water-formed deposits, treatment, sampling, analysis of water, identification of water-formed deposits.

Research by Hatch Gives New Basic Facts on Threshold Treatment for Corrosion Control

Research papers by Dr. G. B. Hatch of Calgon, Inc., titled "Protective Film Formation with Phosphate Glasses" and "Inhibition of Galvanic Attack of Steel with Phosphate Glasses" provide a better scientific understanding of the mechanism of film formation with Calgon.

Data prove Calgon stops corrosion by virtually eliminating flow of current between anode and cathode in corrosion cells.

Research shows Calgon is a cathodic inhibitor. All cathodic inhibitors are safe inhibitors, because they do not increase tendency toward pitting.

Data reveal that protective film is formed by electrodeposition process, and that Threshold Treatment for corrosion is quite *different from* Threshold Treatment for scale prevention.

Write if you want a free copy of these fundamental papers.

Industrial Water Statistics

According to U. S. *Dept. of Commerce* statistics, use of industrial water for process has been estimated at 80 billion gal per day during 1950. This is 8 times the quantity required in 2900, although population increase in same 50 years was only 2-fold.

Manufacture of steel, production of electric power require 50 billion gallons of the 80 billion per day. Industrial use of water is estimated to increase 170 per cent from 1950 to 1975, according to Materials Policy Commission.

Pilot Plant Designed for Steel Company Results in Minimum Cost for Waste Disposal

A Pennsylvania steel company had to dispose of wash waters evolved in the manufacture of producer gas.

This wash water contained objectionable quantities of phenol, sulfide, and cyanide.

Preliminary study showed that either chemical treatment, or closing up wash water system could do the job. A Hall Labs staff engineer recommended use of a pilot plant to determine chemical treatment costs. He specified equipment for pilot unit, and provided detailed instructions for operation. Pilot plant showed that all hydrogen sulfide and cyanide and about 90% of phenol could be removed.

But cost analysis of chemical treatment revealed it was 2 or 3 times as costly as closing up system. On this basis, decision was to install a recirculating system for the producer gas wash water.

Major problem in closed system was build-up of suspended solids. Methods of controlling this were studied by the Hall staff, and recommendations made to steel company.

State antipollution requirements were satisfied, and another step taken toward clean natural streams with the minimum cost to industry.

Field Reports on Industrial Water Treatment

Herman Reda, Service Engineer in our Detroit Office, made the following report on a food processing plant in his area:

"Turbines have now operated continuously for 3½ years. Prior to use of Hall System, plant had to clean units every 6 months."

A report on boiler water control comes from Bill Pfeiffer of the St. Louis Office. Report concerns a paper company:

"Client is pleased with silica treatment. After silica had been fed for about 3 months, boilers were opened for inspection, found to be much cleaner than client ever saw before. Heavy sludge usually found in top rear drum and mud drum was almost gone. Silica is also helping out at the filters, and filtered water contains no suspended matter. Client cleaned filters with Buromin—pleased with results."

"Calgon" and "Buromin" are names of phosphate glasses developed by Hall Laboratories for industrial water treatment and marketed, respectively, by its associates, Calgon, Inc., and the Buromin Company who have registered the names in the U.S. Patent Office as trademarks. "Hall System" is similarly registered as a service mark by Hall Laboratories.

Industrial Water Problems Require Special Handling

There are no "stock answers" to industrial water problems. For information, write, wire or call Hall *Laboratories*, Inc., P.O. Box 1346, Pittsburgh 30, Pennsylvania.

Water is your industry's most important raw material. Don't waste it.