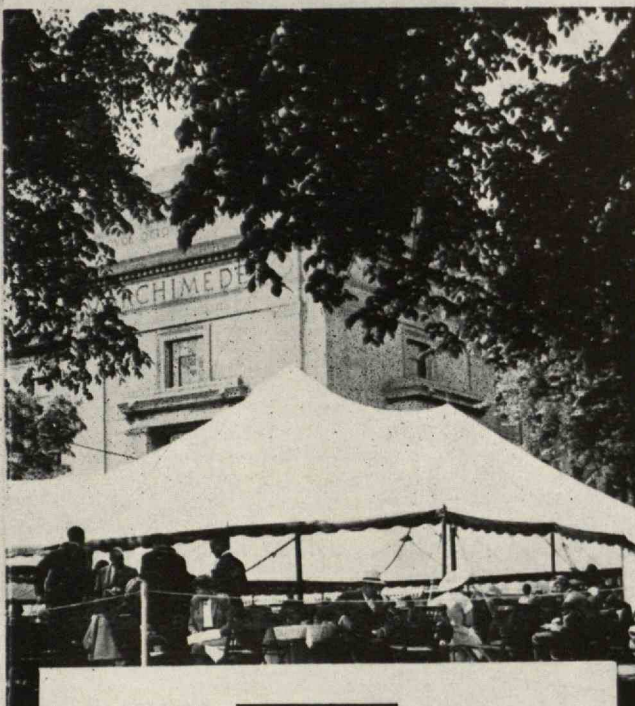


TECHNOLOGY

REVIEW

July 1952

TECHNOLOGY ALUMNI DAY June 1952



Accalaureate Service
OF THE
Class of Nineteen Hundred Fifty-Two
Massachusetts Institute of Technology

Walker Memorial
Thursday, June Five
Nineteen Hundred Fifty-Two
At Three P.M.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
GRADUATION EXERCISES
CLASS OF 1952



"There are distinctions
and similarities."

THE ALUMNI BANQUET

AT THE HOTEL STATLER, BOSTON
June 9, 1952

ROBERT H. WINTERS '33 Photograph by
National Film Board, Canada THE COVER

WHAT IS BEING EATEN? 2
The Menu for the evening, from
Fruit Cocktail to Demitasse

PRESENTATION OF CLASS GIFTS
The 25- and 50-year classes make

COMMENCEMENT LUNCHEON

FRIDAY, JUNE 6, 1952

Attend the Commencement Buffet Luncheon
with their guests in the Great Court immediately
following Graduation Exercises, Friday, June 6.

I expect that guests will join me.

Signature

YOU CAN HELP us estimate the number of persons to be served

YOU are cordially invited to be a guest of
President Kilham at an Informal Dinner for
Honorary Secretaries, Educational Counselors,
and Officers of M. I. T. Clubs at the new
Faculty Club, 90 Memorial Drive, Cambridge,
on Sunday, June 8, at 6:30 P. M.

The Dinner
discussion
sessions, School
Education



M. I. T.
Alumni Day Ticket
BANQUET
\$7.50

B. DUDLEY

Class Table 35

No 543

MONDAY, JUNE 9, 1952
THE IMPERIAL
BALLROOM
HOTEL STATLER
7:00 P.M.

Please use the enclosed



M. I. T.
Alumni Day Ticket
LUNCHEON
\$2.50

(Including Commencement and Mass Old Age Tax)
and admission to all parties of Alumni Day
at M. I. T.

B. DUDLEY

MONDAY, JUNE 9, 1952
DU PONT COURT—12:30 P.M.
(On Cour de Role—The Radcliffe Chapel)

No 624

May 30—June 9, 1952

MASSACHUSETTS INSTITUTE
OF
TECHNOLOGY



Commencement
and
Alumni Day
Program

Fields of activity indicative of Vulcan Engineering experience:

ORGANIC CHEMICALS

Synthesis, recovery, and purification of methanol, ethanol, propanols, butanols; formaldehyde, acetaldehyde, furfural; acetone, methyl-ethyl ketone; formic acid, acetic acid; esters, ethers, glycols, phenols, and halogen derivatives of oxygenated organic compounds.

PETRO-CHEMICALS

Production and refining of ethylene, ethylene oxide, ethylene glycol, ethanol, and other ethylene derivatives; isopropanol and methyl-ethyl ketone; butadiene, benzene, heptane, toluene, styrene, diphenyl; and chlorinated hydrocarbons such as chloroethane, chlorobenzenes, and chlorotoluenes.

PHARMACEUTICALS

Antibiotic production; fermentation pilot plants; recovery units for solvents utilized in antibiotic purification; and special production and separation processes for biochemical operations.

LOW TEMPERATURE GAS SEPARATION

Complete units for separation of low and high purity oxygen from air; hydrocarbon separations; low temperature vessels for storage and transportation of gases.

WASTE DISPOSAL

Concentration and combustion of aqueous organic chemical waste liquors, particularly liquors containing carbohydrate and ligneous components; with provision for heat and power recovery where economically feasible.

CHEMICAL RECOVERY

Absorption, extraction, and distillation processes for organic solvent recovery; sulfur dioxide recovery from sulfite pulp mill waste liquors and stack gases; and organic vapor recovery from vent gases.

EXTRACTION AND DIFFUSION OPERATIONS

Liquid-liquid extraction processes for recovery and purification of liquid and solid organic chemicals; the Vulcan-Kennedy liquid-solid extraction process for oil-seed processing, soluble coffee production; fiber washing and other specialized countercurrent diffusional operations.



Fifty years of specialization in engineering for the Chemical Process Industries have yielded a wealth of experience and accumulated know-how which places Vulcan in a unique position to handle efficiently special problems in design and construction of chemical plants.

VULCAN PROCESS ENGINEERING



Inquiries concerning process problems will receive prompt attention by the engineering staff.

VULCAN ENGINEERING DIVISION

The VULCAN COPPER & SUPPLY CO., General Offices and Plant, CINCINNATI 2, OHIO
PHILADELPHIA BOSTON SAN FRANCISCO BUENOS AIRES
VICKERS VULCAN PROCESS ENGINEERING CO., LTD., MONTREAL, CANADA

51 YEARS OF SERVICE

ENGINEERING DIVISION • MANUFACTURING DIVISION • CONSTRUCTION DIVISION • INDUSTRIAL SUPPLY DIVISION

Metal acrobat tells time

Every time your watch ticks, its finely tempered hair-spring coils and uncoils . . . 5 times per second, 18,000 times per hour!

This tiny steel acrobat gains much of its dependability from modern grinding. It is formed by rolls ground by Norton and Behr-Manning abrasives. So, you see, precision grinding helps put the spring in steel.

Not only in making the hairspring of your watch but in every manufactured metal product, big or little, Norton and Behr-Manning abrasives are essential production tools. As the world's largest manufacturers of abrasives and abrasive products, Norton and Behr-Manning constantly develop better products to make all other man-made products better.

NORTON makes abrasives, grinding wheels, refractories, Norbide grain and molded products, grinding and lapping machines, non-slip floors. Norton Company, Main Office and Works, Worcester 6, Mass.

BEHR-MANNING makes abrasive paper and cloth, oilstones, abrasive specialties, Behr-Cat brand pressure-sensitive tapes. Behr-Manning Corporation, Division of Norton Company, Troy, New York.

Plants, Distributors and Dealers the world over



DIRCK J. OLTON, Behr-Manning Product and Development Engineer, perfected coated abrasive machinery for polishing aircraft engine and frame components.



DR. L. H. MILLIGAN, 29 years in Norton Research, developed vitrified diamond wheels, which excel in off-hand grinding of cemented carbide tools.

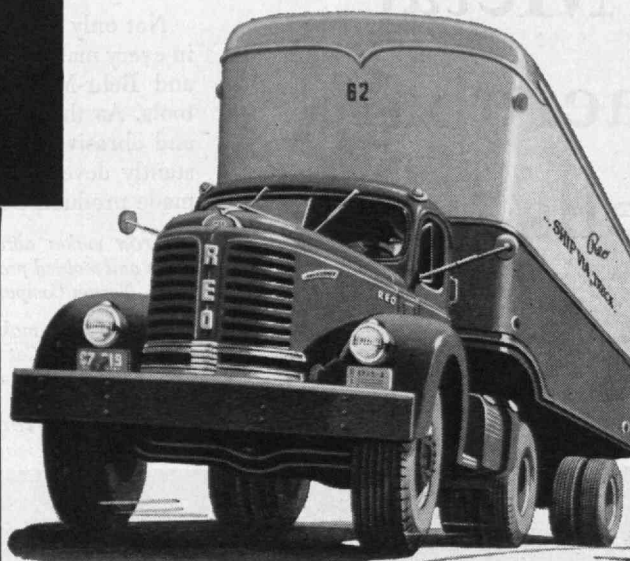


Making better products to make other products better

NORTON • BEHR-MANNING

REO

**Important
source of supply
for military
and commercial
trucks**



Reo Tractor Unit

**World's
largest builders
of power
lawn mowers**

• • •

M.I.T. MEN AT REO:

Joseph S. Sherer, Jr., '23
President and General Manager

William Walworth, '26
Chief Engineer, Truck Division

Paul H. Rosenberg, '38
Chief Engineer, Lawn Mower Division

James Thomas-Stahle, '40
Project Engineer, Lawn Mower Division

Reo Royale Power Mower



REO MOTORS, INC. TRUCKS • ENGINES • BUS CHASSIS • LAWN MOWERS • Lansing 20, Mich.

How would YOU control costs here?



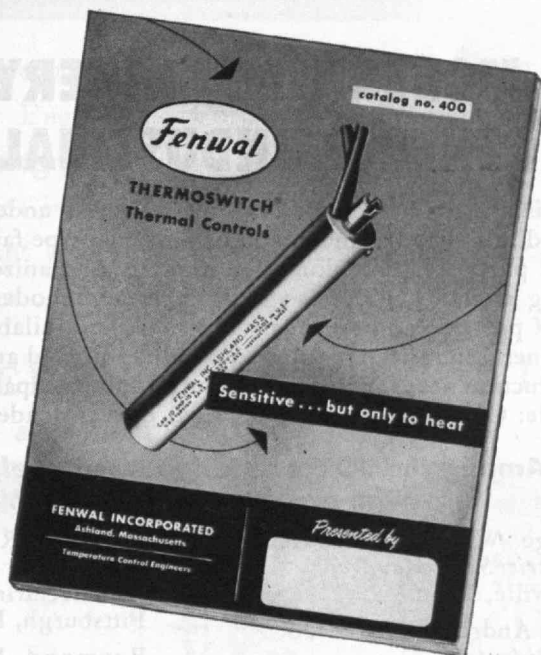
PRODUCTION LOSSES were eliminated on Fuller Brush Company assembly machines. Faulty control of viscosity of the special sealing compound, used to make handles stay put, resulted in costly breakage of expensive equipment and burned-out motors. Now, a low-cost Fenwal THERMOSWITCH thermostat prevents damage by starting the motor only when viscosity is right.



SPOILAGE FROM OVER-HEATING would prove costly to egg producers if water in Paden's Whirl-A-Way egg washer got too hot. Accurate temperature control, under extreme moisture conditions, was called for. Only a temperature-sensitive, adjustable, moisture-proofed Fenwal THERMOSWITCH thermostat installation met all the requirements, at reasonable cost.



A FENWAL THERMOSWITCH CONTROL may cut your costs, too. Its external, single-metal shell expands or contracts *instantly* with temperature changes, making or breaking enclosed electrical contacts. Compact, highly resistant to shock and vibration, Fenwal THERMOSWITCH units have solved hundreds of problems.



SEND FOR THIS NEW CATALOG for complete explanation of the unique THERMOSWITCH unit. Also ask for more detailed, illustrated discussions of the problems above. Fenwal engineers will be glad to help you solve your temperature control problems involving heat, humidity, vapor level, radiant heat, pressure and other variables. Write Fenwal, Incorporated, Temperature Control Engineers, 97 Pleasant Street, Ashland, Massachusetts.



THERMOSWITCH®

Electrical Temperature Control and Detection Devices

SENSITIVE... but only to heat

JOY *AROUND THE WORLD*



MODERN MACHINERY for MINING, OIL FIELD, GENERAL INDUSTRIAL and CONSTRUCTION USES

JOY is the world's largest manufacturer of underground mining equipment, and of vaneaxial-type fans for all purposes. The pioneer in modern mechanized mining methods, JOY also builds the most modern line of portable and stationary compressors available for general industrial, mining, quarrying, oil field and construction needs. Principal products of the company include: Continuous miners . . . Coal cutters, loaders

and shuttle cars . . . Belt, chain and shaker conveyors . . . Coal, rock and oil field drills, core drills and rotary blast-hole drills . . . Fans and blowers . . . Hoists and slushers . . . Portable and stationary air compressors, vacuum pumps and boosters . . . Oil-free air compressors . . . Oxygen generators . . . Air-operated hand-held tools . . . Shovel loaders . . . Electrical connectors . . . Miscellaneous mining equipment.

Among the JOY executive personnel, we are proud to number the following men who are graduates of the Massachusetts Institute of Technology

George Walter BERGMAN '27,
District Sales Manager
Knoxville, Tenn.

James Andrew DRAIN '26,
President
Joy Manufacturing Co., (Can.) Ltd.
Galt, Ontario, Canada

Benjamin Philbrick LANE '23,
Export Sales Manager
Export Department
New York, N.Y.

John LAWRENCE '32, *Vice President*
Manufacturing
Pittsburgh, Pa.

Raymond MANCHA '26, *Vice President*
Ventilating Equipment
Pittsburgh, Pa.

Jonathan A. NOYES '12, *District Sales Manager*
Dallas, Texas

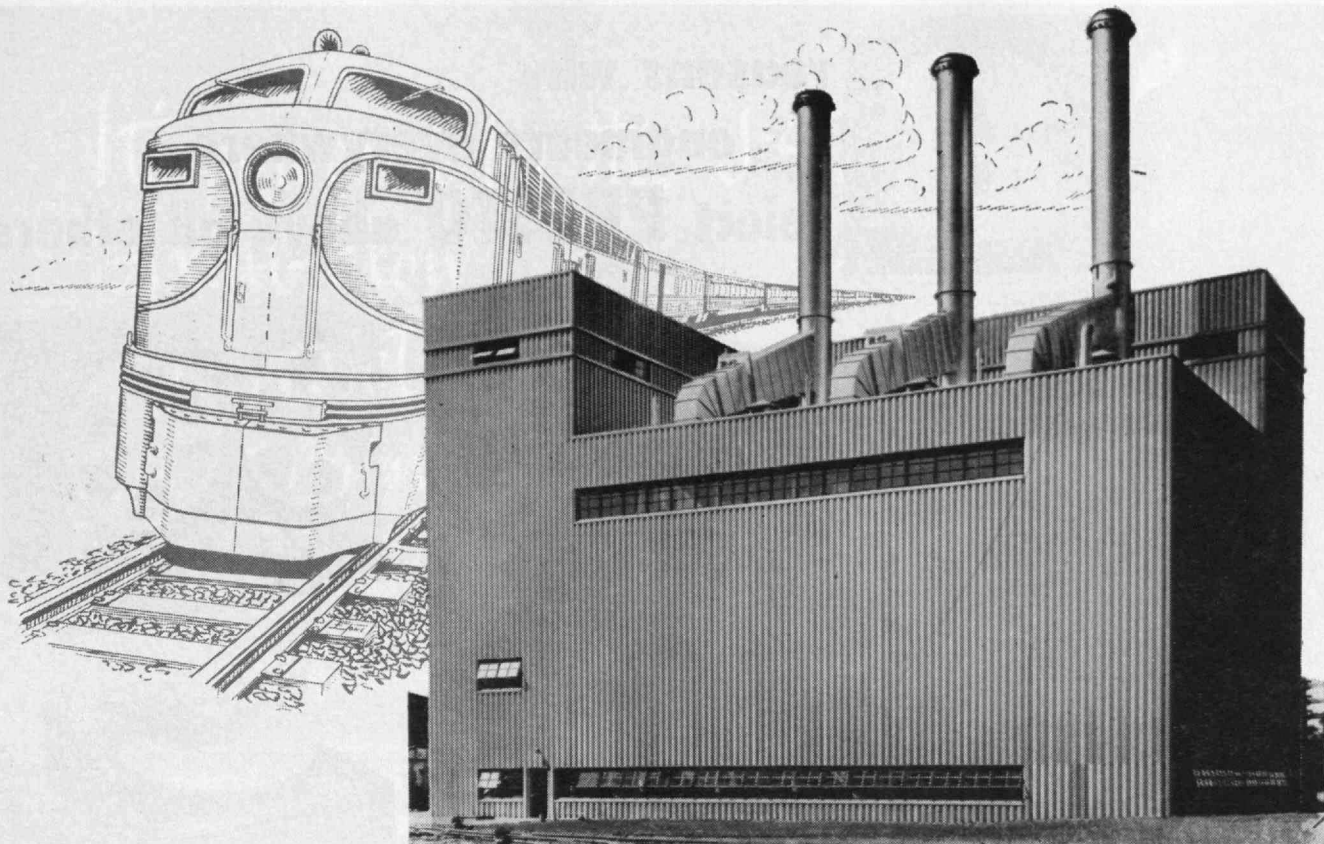
Robert Wesley SCOTT '23, *Product Manager*
Air Compressors
Michigan City, Ind.

*Consult a
Joy Engineer*



JOY MANUFACTURING COMPANY

General Offices: HENRY W. OLIVER BUILDING • PITTSBURGH 22, PA.
OFFICES AND DISTRIBUTORS IN THE PRINCIPAL CITIES OF THE WORLD



Steam generating plant of Fairbanks, Morse & Co., Beloit, Wisconsin.

STEAM POWER TO BUILD DIESEL POWER

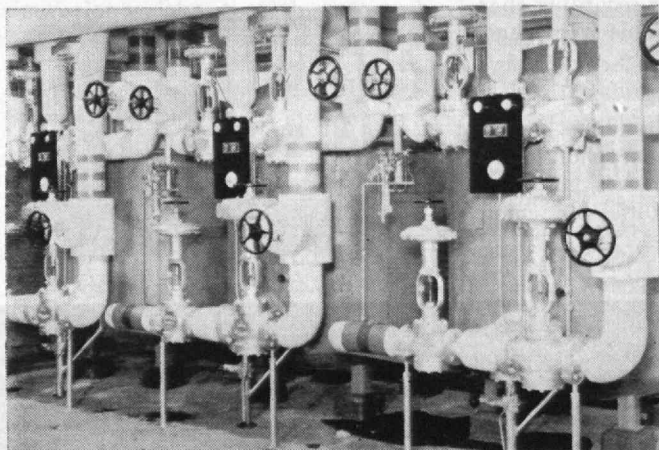
World famous diesel locomotive manufacturers, Fairbanks, Morse & Co., employed Stone & Webster Engineering Corporation to design and construct a new steam generating plant.



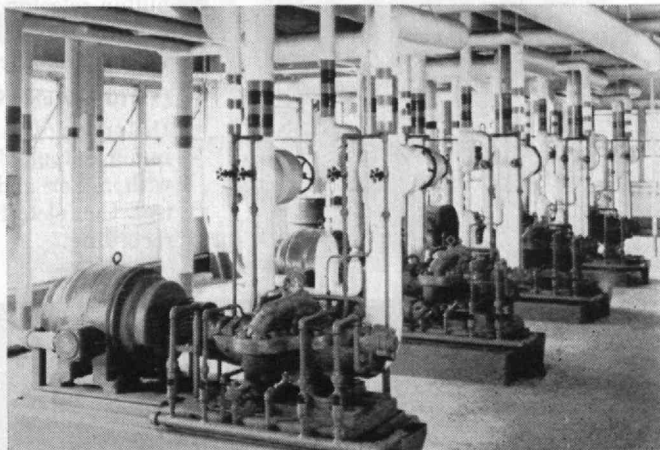
Designed for rapid changes in steam demand, up to the heaviest processing loads, the new plant yields substantial fuel savings of \$600. to \$650. per day, and provides complete continuity of service.

STONE & WEBSTER ENGINEERING CORPORATION

A SUBSIDIARY of STONE & WEBSTER, INC.



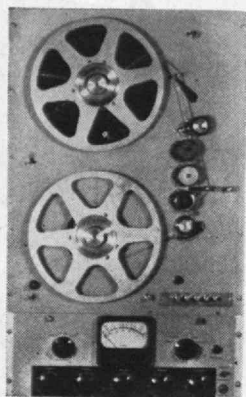
Completeness of instrumentation throughout is indicated by this view of the water treatment system.



Boiler feed pumps and facilities are of unusual capacity because of the heavy steam demand.

8

reasons why engineers everywhere select **PRESTO** above all others



TAPE RECORDERS

PRESTO rack mounted RC-10/24

Three-motor drive eliminates take-up clutch. Solenoid type brakes operated by push button. Three magnetic heads. Accommodates 10½" reel.

PRESTO portable RC-10/14

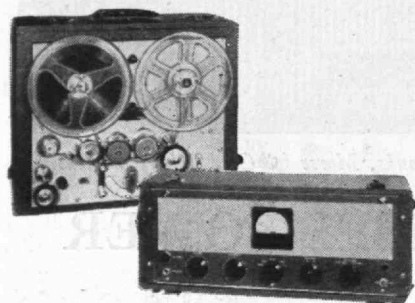
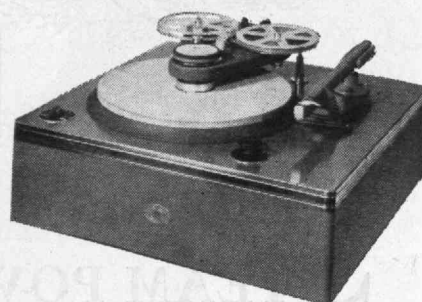
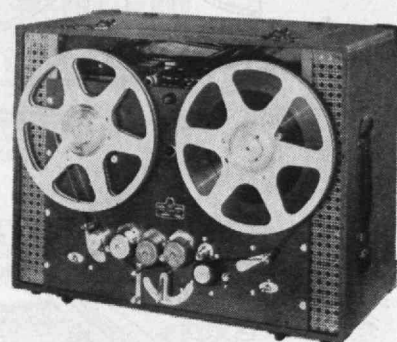
High fidelity tape recorder with rotary type selector control. Speeds of 7½" and 15" per sec.

PRESTO portable PT-920

The top buy in portable tape recorders, 10 watt amplifier, two speakers and amplifier in one case. 3 motors, no take-up clutch.

PRESTO tape reproducer TL-10

New and improved. Permits tape playback on 16" turntable at 7½" or 15"/sec. Plugs into standard speech input equipment.



DISC RECORDERS

PRESTO studio console 8 D-G

Direct gear drive, twin motors, 8 feed pitches in each direction. Radial cantilevered overhead with 1-D cutting head.

PRESTO portable 6-N

Low mechanical noise level; excellent accuracy at 78 and 33⅓ rpm; 1-D cutting head. Microgroove attachment available.

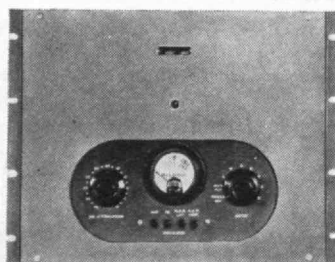
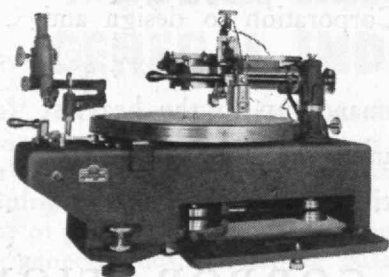
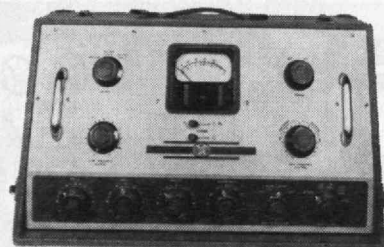
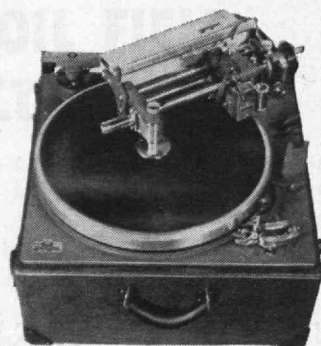
RECORDING AMPLIFIERS

PRESTO 92-B

For rack mounting, 60 watts, push button selector for recording characteristics. Removable front panel, for easy maintenance.

PRESTO portable 90-B

Distortion of less than 1.5% at maximum output, 3 microphone input with mixer and master gain control. Complete facilities for remote recording.



G. J. SALIBA '27

PRESTO RECORDING CORPORATION
PARAMUS, NEW JERSEY

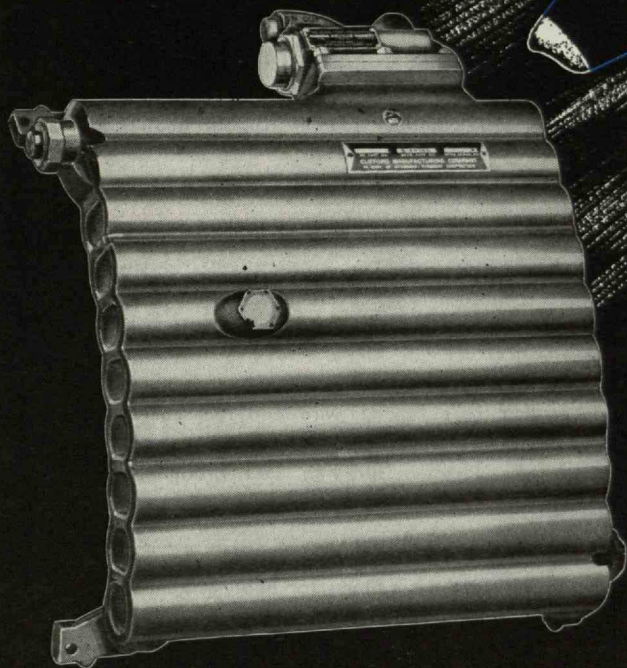
C. A. SANBORN '27

Export Division: 25 Warren Street, New York 7, N. Y.

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WORLD'S LARGEST MANUFACTURER OF PRECISION RECORDING EQUIPMENT AND DISCS

It's powered by the J-47 Axial-Flow Turbojet Engine



This modern jet plane gets its speed and power from the General Electric J-47 axial-flow turbojet engine, which has a basic thrust of 5200 lb. Many of these engines have their oil cooled by Feather-Weight Oil Coolers, tested at 1000 lb. pressure.

Another Feather-Weight...

DESIGNED TO COOL
A J-47's OIL

Here's another addition to the roster of famous jet-propelled and conventional aircraft which rely on the superior weight-strength ratio and accurate pretesting of *Feather-Weight* All-Aluminum Oil Coolers.

The increasing reliance on *Feather-Weight* Oil Coolers is due to Clifford's patented method of brazing aluminum in thin sections and to the accurate performance ratings predicted by the Clifford wind tunnel laboratory, largest and most modern in the aeronautical heat exchanger industry. Inquiries about *Feather-Weight* All-Aluminum Oil Coolers will be handled promptly.

CLIFFORD MANUFACTURING COMPANY,
142 GROVE ST., WALTHAM 54, MASS. Division
of Standard-Thomson Corporation. Offices in New York,
Detroit, Chicago, Los Angeles.



CLIFFORD



ALL-ALUMINUM OIL COOLERS
FOR AIRCRAFT ENGINES

HYDRAULICALLY - FORMED BELLOWS
AND BELLOWS ASSEMBLIES



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Aircraft
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Steam Trap
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Assembly



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Seal
Assembly

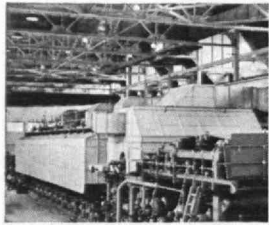


All-Aluminum
Cylindrical
Oil Cooler

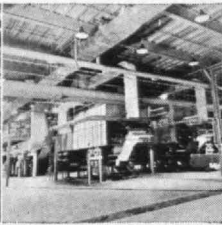


All-Aluminum
Oval Oil
Cooler

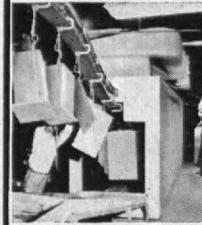
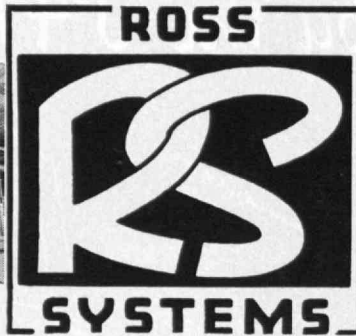
For Nearly 30 Years The Leading Builders Of



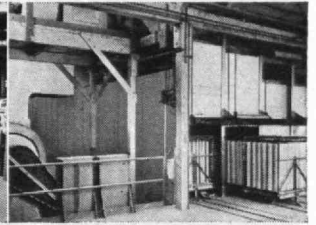
Pulp and Paper



Textiles



Metal Finishing



General Drying

INDUSTRIAL AIR PROCESSING EQUIPMENT

AIR HEATERS	Direct, Indirect and Combination Types, Oil, Gas and Steam Fired	For use wherever a supply of hot circulated air is required—for industrial ovens, drying processes, building or space heating, Make-Up Air Systems, heat treating, foundry cupola heating, etc. Delivery temperatures up to 1000 deg. F.
INDUSTRIAL DRYERS	Batch and Continuous Types for Web or Particle Drying Using Any Source of Heat	In wide use for drying processes in such industries as ceramics, chemicals, drugs, pulp and paper, plastics, rubber, textiles, cork products, insulating materials, thread, floor covering, wall board and many others.
INDUSTRIAL OVENS	Batch and Conveyor Types for Temperatures Up To 1000 deg. F. For Baking, Curing, Heat Treating	Insulated panel constructed ovens for such operations as metal finishing and decorating, core baking, wire and rod baking, heat treating castings, etc. Complete paint, lacquer, enamel, japan and porcelain baking systems covering spraying, rust proofing, drying, cooling apparatus.
HEATING and VENTILATING, AIR CONDITIONING	Industrial Hoods, Air Supply and Exhaust, Duct Work and Control Apparatus	Individually designed air systems for heating, ventilating and conditioning all departments of paper, textile and similar plants. All necessary apparatus for air make-up, supply, distribution and exhaust to control temperature and humidity for improving working and operating conditions, removing fog and vapor, preventing damage from condensation, cooling motors, generators and similar functions.
WASTE HEAT RECOVERY	Heat Interchanges and Economizers for Waste Vapor and Gases	For full utilization of heat units in waste vapor or gases to provide reclaimed heat for buildings, water, etc. to reduce steam and fuel costs.

ROSS clients get the benefit of nearly 30 years of experience, complete testing facilities and the most modern and efficient manufacturing equipment. Catalog on request.

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