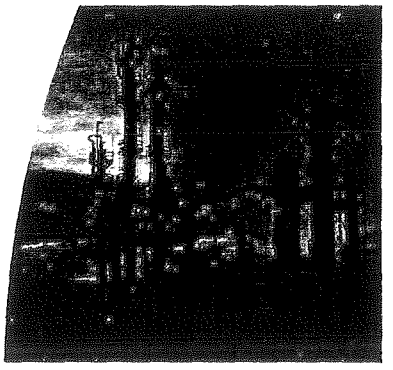
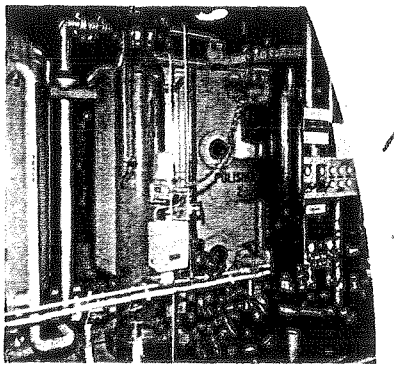
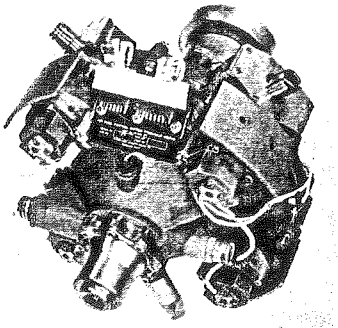
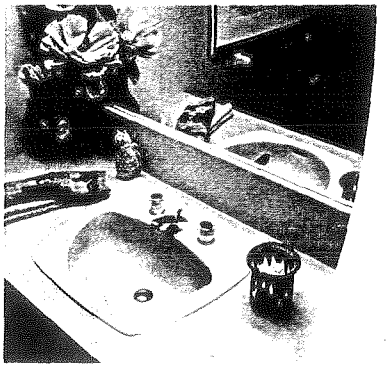
CRANE CO. ANNUAL REPORT 1966









CRANE CO. ANNUAL REPORT 1966

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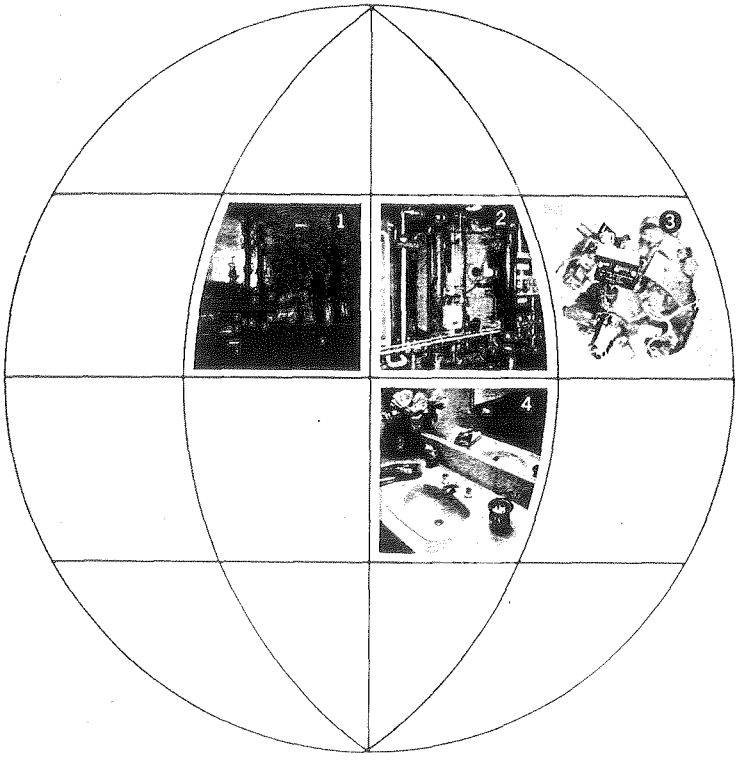


The front cover design on this 1966 Annual Report symbolizes Crane Co.'s worldwide operations in the fields of (1) fluid control (2) water treatment, (3) stabilization of moving objects, and (4) comfort conditioning and sanitary control. Highlights of activities in each of these areas will be found on pages 10-19.

Cochrane condensate polishing
t United Illuminating's
ort Harbor Unit #2 protects
rating unit by removing
nants and automatically
g boiler water with a solids
of less than 25 parts per billion.

Financial Highlights

	1966	1965
Sales	$405,907,000	$370,08[illegible]
Net Income	11,251,000	7,9[illegible]
Cash Dividends	3,517,000	2,7[illegible]
Net Working Capital	107,044,000	105,8[illegible]
Total Assets	224,423,000	206,9[illegible]
Common Shareholders' Equity	126,773,000	119,7[illegible]
Common Shares Outstanding at Year End	2,482,152	2,49[illegible]
Ratios at Year End:		
Net Income to Sales	2.8%	[illegible]
Net Income to Average Assets	5.2%	[illegible]
Common Shareholders' Net Income to Average Equity	9.0%	[illegible]
Current Ratio	3.2/1	[illegible]
Per Common Share:		
Net Income	$ 4.45	[illegible]
Depreciation	3.27	[illegible]
Cash Flow from Operations	7.72	[illegible]
Cash Dividends	1.33*	[illegible]
Common Shareholders' Equity	51.07	[illegible]

*Adjusted for 20% Stock Dividend in December, 1966

To The Shareholders:

We are pleased to report to you that Crane Co.'s sales and earnings in 1966 reached new highs for recent years.

Net sales in 1966 amounted to $405.9 million, the highest in the history of the Company. This represents an increase of $35.8 million, or 9.7%, over 1965.

Net income was $11,251,000, or $4.45 a share, compared with $7,991,000, or $3.08 a share, the previous year, an increase of 40.8%. Net income was the highest in ten years, and a new record for common share earnings.

Cash flow from operations (net income plus depreciation) amounted to $19.4 million, or $7.72 a share, compared with $15.8 million, or $6.22 a share, in 1965.

Common shareholders' net income to average equity rose to 9.0% in 1966, the highest in history, from 6.4% the year before. Common shareholders' equity per share was $51.07 at 1966 year end, a new high, and an increase of $3.11 per share over 1965.

During 1966, the Company paid quarterly dividends of $.40 per common share. In November, 1966, the Board of Directors declared a 20% common stock dividend on common shares outstanding December 20, which was paid on December 30, 1966. The Company's present intention is to continue the $.40 quarterly dividend rate on the shares now outstanding.

The increase in sales reflects the high level of industrial activity in the world-wide economy and the Company's increased emphasis on the manufacture and sale of industrial products. Approximately two-thirds of the Company's sales were industrial products—valves, pumps, water treatment systems and allied equipment. Net income rose at a higher rate than sales because of the high level of operations of our industrial products, and the discontinuance of several marginal operations and product lines, here and abroad. At the year-end the Company's backlog of orders was 27% higher than the previous year-end.

North American operations produced 65.8% of consolidated earnings and represented 87.3% of consolidated equity, substantially the same as in 1965.

Pension costs charged against operations in 1966 were $2,176,000, compared with $640,000 in 1965. This increase reflects a charge of $1,081,000 for pension costs incurred under the Company's United States trusteed pension plans, the first contribution made since 1959.

During the year, the Company continued to broaden its industrial product base through the acquisition for cash in May of all the common stock of Glenfield & Kennedy Holdings Limited of Kilmarnock, Scotland, a major manufacturer of waterworks valves and water treatment equipment, with plants in Scotland, England and South Africa. Glenfield & Kennedy also has 5½% preference stock outstanding of $2,800,000 and 5¾% loan stock due in 1982 of $4,388,000.

In December, 1966, Crane acquired for cash all the common shares of the Acheson Manufacturing Company of Rankin, Pennsylvania, a manufacturer of fittings.

Through a tender offer, the Company acquired approximately 22% of Sawhill Tubular Products, Inc., of Sharon, Pennsylvania, fabricators of a wide range of steel pipe and tubing. Our search continues for the acquisition of companies and/or product lines in fields where we have experience and know-how and in fields that are compatible with our own.

In 1966, the Company, and virtually every other manufacturer of plumbing fixtures, was indicted by a Federal Grand Jury, charging certain violations of the Sherman Antitrust Act. The Company has denied these charges. The Government filed an accompanying civil complaint at the same time. In addition, three separate actions have been filed by other parties against the same group of plumbing manufacturers, including Crane, claiming treble damages on the same grounds. The Company intends to defend vigorously all of these suits. We have been advised by counsel that the ultimate effect of these actions should not materially affect Crane's financial position or earnings.

On behalf of the Board of Directors, we wish to express our gratitude to the many persons—customers, shareholders and employees—who made 1966 a significant year for the Company.

Respectfully submitted,

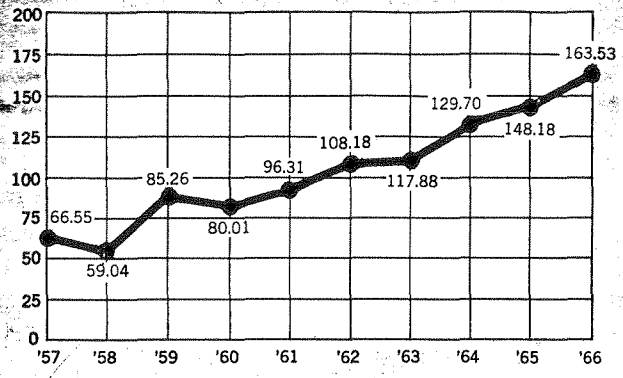
D. C. Fabiani, President

T. M. Evans, Chairman

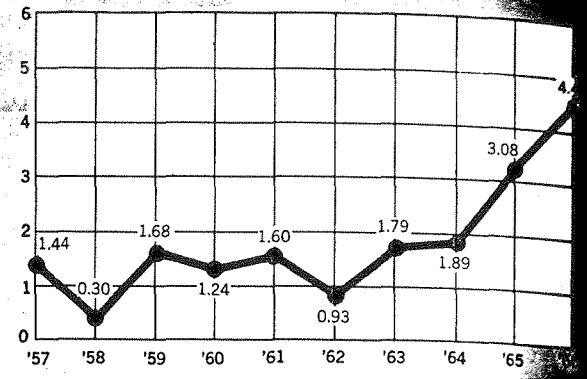
March 17, 1967

T. M. Evans and D. C. Fabiani discuss operations in the Company's New York Executive Office.

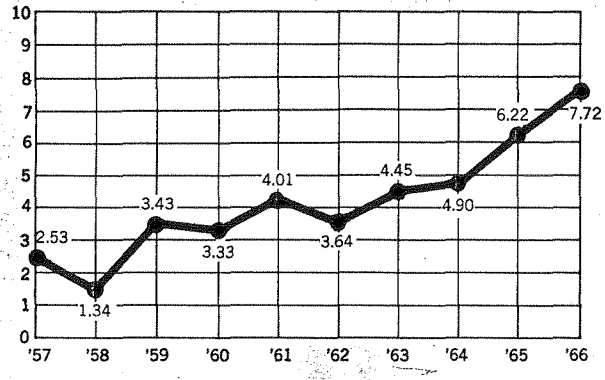
NET SALES PER SHARE*†



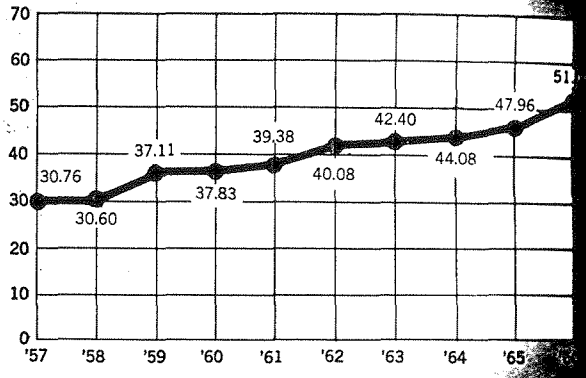
NET INCOME PER SHARE*†



CASH FLOW PER SHARE*†
(net income plus depreciation)



SHAREHOLDERS' EQUITY PER SHARE*†



*In dollars per common share outstanding at end of year

Ten-Year Consolidated Financial Summary

	Net Sales	Income Before Income Taxes	Net Income	Net Working Capital	Depreciation	Preferred Shares	Common Shareholders' Equity Total	Common Shareholders' Equity Per Share†	Inc Per
1957	$378,948,173	$17,218,612	$ 8,678,272	$130,175,138	$6,213,179	$11,983,182	$175,064,998	$30.76	$
1958	336,196,279	3,897,185	2,167,345	136,163,472	5,915,406	11,406,185	174,250,476	30.60	
1959	310,172,639	13,585,161	6,517,746	84,626,580	6,369,811	10,941,523	135,003,440	37.11	
1960	285,618,712	7,216,250	4,824,463	89,560,647	7,457,676	10,459,300	135,064,791	37.83	
1961	319,556,202	9,121,253	5,675,770	99,371,959	8,000,070	10,009,300	130,649,983	39.38	
1962	333,766,863	6,926,092	3,194,032	88,226,079	8,383,196	9,109,300	123,623,143	40.08	
1963	337,365,571	10,703,634	5,447,378	92,081,379	7,606,845	8,441,300	121,351,442	42.40	
1964	357,823,354	10,028,987	5,529,829	96,098,246	8,316,181	8,069,300	121,604,518	44.08	
1965	370,084,039	13,836,113	7,991,351	105,843,822	7,846,942	6,318,600	119,774,345	47.96	
1966	405,906,737	20,284,865	11,251,085	107,044,223	8,124,427	4,908,600	126,772,526	51.07	

†Adjusted for 100% Stock Distribution in October, 1965, and 20% Stock Dividend in December

onsolidated Statement of Income For Years Ended December 31

	1966	1965
Sales	$405,906,737	$370,084,039
erating Costs and Expenses:		
ost of sales	331,825,432	307,332,642
elling, general and administrative	51,643,339	46,588,097
	383,468,771	353,920,739
rating Profit	22,437,966	16,163,300
her Income (Deductions):		
nterest—net	(2,554,631)	(2,241,237)
ain on disposal of capital assets—net	290,360	48,440
iscellaneous	111,170	(134,390)
	(2,153,101)	(2,327,187)
come Before Income Taxes	20,284,865	13,836,113
ovision for Income Taxes	9,033,780	5,844,762
Income	$ 11,251,085	$ 7,991,351

onsolidated Statement of Earned Surplus For Years Ended December 31

	1966	1965
lance at Beginning of Year	$ 67,744,345	$ 92,861,518
Income	11,251,085	7,991,351
	78,995,430	100,852,869
idends:		
referred shares—$3.75 per share	197,765	290,522
ommon Shares:		
Cash—$1.33 per share ($.96 in 1965)	3,319,091	2,418,045
Stock—Market value of 413,652 shares issued in December, 1966, as 20% stock dividend	13,443,690	—
0% Stock Distribution—		
ar value of 1,035,550 shares issued in October, 1965	—	25,888,750
ess of Cost Over Par Value of Reacquired Shares—Net:		
14,100 preferred (17,507 in 1965) and 12,700 common (101,620 in 1965)	418,548	3,511,207
dition to Reserve for Foreign Contingencies	—	1,000,000
	17,379,094	33,108,524
nce at End of Year	$ 61,616,336	$ 67,744,345

Consolidated Balance Sheet At December 31

	1966	1965
ASSETS		
Current Assets:		
Cash	$ 17,851,073	$ 17,[illegible]
Marketable securities, at cost which approximates market	6,855,160	5,[illegible]
Accounts receivable, less allowance for doubtful accounts—$1,436,252 in 1966; $1,294,819 in 1965	57,559,113	54,[illegible]
Inventories, at lower of cost or market (after deducting reserves of $21,659,078 in 1966 and $20,817,526 in 1965 to state the principal inventories in the U.S. on a LIFO basis):		
Finished goods	32,719,228	35,0[illegible]
Work in process	26,481,102	24,6[illegible]
Raw materials and supplies	12,874,251	10,[illegible]
	72,074,581	68,[illegible]
Prepaid expenses	929,785	[illegible]
Total Current Assets	155,269,712	145,[illegible]
Investments and Other Assets at Cost:		
Investment in foreign affiliate (equity in net assets—$1,576,543 in 1966; $1,768,208 in 1965)	1,538,073	1,[illegible]
Investment in Sawhill Tubular Products, Inc.	2,812,202	
Investments and other assets	2,748,548	[illegible]
	7,098,823	[illegible]
Property, Plant and Equipment at Cost:		
Land	4,637,346	[illegible]
Buildings and improvements	57,546,622	56,[illegible]
Machinery and equipment	117,883,930	108,[illegible]
	180,067,898	16[illegible]
Less accumulated depreciation	118,013,268	[illegible]
	62,054,630	[illegible]
	$224,423,165	$20[illegible]

	1966	1965
ABILITIES AND SHAREHOLDERS' EQUITY		
urrent Liabilities:		
urrent maturities of long-term debt	$ 3,798,727	$ —
oans payable by foreign subsidiaries	5,083,892	4,934,993
ccounts payable	15,881,436	15,855,997
ccrued payrolls, taxes and other liabilities	16,166,392	12,728,091
.S. and foreign taxes on income	7,295,042	6,510,461
Total Current Liabilities	48,225,489	40,029,542
ngTerm Debt	38,304,557	37,992,850
nority Interest in Foreign Subsidiaries	1,132,959	1,331,444
ferred Credit from Acquisitions	796,882	—
serve for Foreign Contingencies	1,482,152	1,482,152
reholders' Equity:		
eference Stock of Glenfield & Kennedy Holdings Limited, 5½%	2,800,000	—
umulative preferred shares, 3¾% par value $100 (redeemable at the option of the Company and subject to sinking fund requirements): Authorized—88,206 shares in 1966 (92,057 in 1965); outstanding—49,086 shares in 1966 and 63,186 shares in 1965 (after deducting 39,120 shares in treasury in 1966 and 28,871 shares in 1965)	4,908,600	6,318,600
erial preferred shares, par value $5: Authorized—600,000 shares in 1966	—	—
mmon Shareholders' Equity:		
ommon shares, par value $25. Authorized—5,000,000 shares in 1966 (3,500,000 in 1965); outstanding—2,482,152 shares in 1966 and 2,081,200 shares in 1965 (after deducting 138,280 shares in treasury in 1966 and 111,620 shares in 1965)	62,053,800	52,030,000
apital surplus from 20% stock dividend	3,102,390	—
arned surplus—$28,211,347 in 1966 ($25,918,511 in 1965) is not restricted as to payment of common dividends	61,616,336	67,744,345
Total Common Shareholders' Equity	126,772,526	119,774,345
Total Shareholders' Equity	134,481,126	126,092,945
	$224,423,165	$206,928,933

Consolidated Statement of Changes in Net Working Capital

For the years ended December 31

SOURCE OF NET WORKING CAPITAL	1966	1965
Net income	$ 11,251,085	$ 7,991
Depreciation	8,124,427	7,846
Cash flow from operations	19,375,512	15,838
Disposals of property, plant and equipment	3,534,549	3,691
Preference stock of Glenfield & Kennedy Holdings Limited	2,800,000	
Long-term debt—net (see details below)	311,707	5,624
Other	598,397	917
	$ 26,620,165	$ 26,065
USE OF NET WORKING CAPITAL		
Acquisition of new business facilities	$ 6,093,311	$ 1,408
Addition to existing plant and equipment	9,218,332	4,388
Investments and other assets	4,445,217	
Reacquisition of shares (less options exercised)	2,146,048	7,865
Cash dividends paid	3,516,856	2,708
Increase in net working capital	1,200,401	9,744
	$ 26,620,165	$ 26,065

Details of Long-Term Debt At December 31

	1966	1965
U.S. bank loan payable $875,000 quarterly through May 1, 1971 and $1,750,000 quarterly through May 1, 1972 plus interest, currently at 6¼%	$ 19,250,000	$ 22,[illegible]
Crane Canada Limited sinking fund debentures (secured by a general claim on property and assets), dated May 1, 1965, payable $407,000 annually through May 1, 1984 and $2,442,000 on May 1, 1985, plus interest at 5¾%	9,361,000	9,[illegible]
Crane Ltd. (England) term bank loan—payable February 28, 1969, interest currently at 7½%	5,040,000	5,[illegible]
Glenfield & Kennedy Holdings Limited unsecured loan stock, 5¾% due 1982	4,387,670	
Miscellaneous	265,887	4[illegible]
	$ 38,304,557	$ 37,9[illegible]

tatus of Stock Option Plans At December 31, 1966

	Number of shares	Price per share
n Adopted in 1951*		
lance outstanding January 1, 1966	50,232	$13.54–$29.07
tions granted	—	
tions cancelled	(720)	18.75– 18.96
tions exercised (4,800 shares issued from treasury)	(20,832)	16.25– 28.98
lance outstanding December 31, 1966	28,680	13.54– 29.07

Of the balance outstanding at December 31, 1966, options for 22,920 shares were exercisable. No additional options are to be granted under this plan.

n Adopted in 1965*		
lance outstanding January 1, 1966	22,800	$24.58–$29.28
tions granted	5,160	28.75– 47.29
tions cancelled	(720)	29.28
tions exercised	(720)	26.04– 29.28
lance outstanding December 31, 1966	26,520	24.58– 47.29

Of the balance outstanding at December 31, 1966, options for 8,400 shares were exercisable and options as to 93,480 shares could be granted (compared with 97,200 at December 31, 1965).

*justed for 20% Stock Dividend in December, 1966

eport of Certified Public Accountants

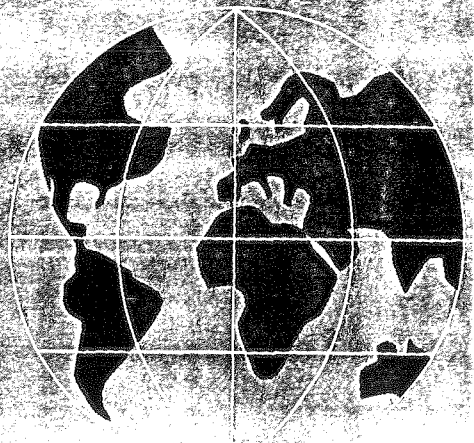
the Shareholders of Crane Co.:

We have examined the accompanying consolidated balance et of Crane Co. and subsidi- s at December 31, 1966 and related consolidated state- nts of income, earned surplus changes in net working capital the year then ended. Our exam- tion was made in accordance th generally accepted audit- standards, and accordingly uded such tests of the account- records and such other audit- ing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Crane Co. and subsidiaries at December 31, 1966, the consolidated results of their operations and the changes in their net working capital for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Arthur Young & Company

York, N. Y., February 15, 1967



[illegible]

[illegible] and other industries.

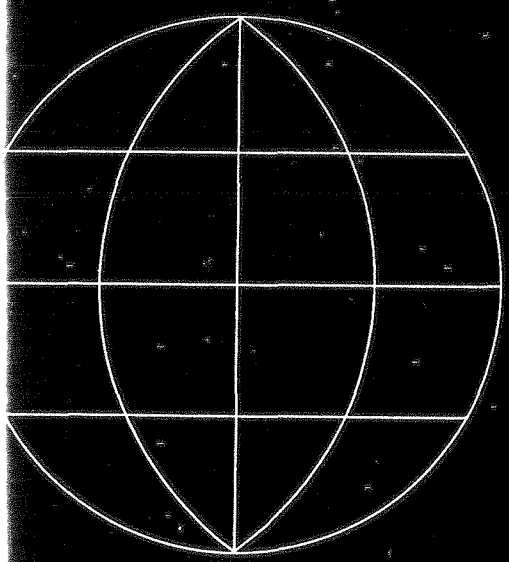
In water treatment, the Company designs and manufactures [illegible] and water conditioning systems to provide processed fluids for use and reuse by government and industry and water for human consumption.

Crane Co. is a major producer of aircraft braking systems, hydraulic components, fuel booster and transfer pumps, emergency subsystems to stabilize and control moving objects in the aerospace and general industries.

In the fields of control conditioning and sanitary control, the Company makes plumbing, heating and air conditioning for home improvement and new construction markets to condition enclosed spaces and provide sanitary control that manage health and comfort.

Industrial Sales Predominate

[illegible]



[illegible] and industrial systems and heating systems. [illegible] the Company's business is [illegible] these products [illegible] sales. The balance [illegible] of sales of plumbing, heating, air conditioning and related products to the building and construction industries.

Tending to the emphasis Crane has had on industrial products to industrial markets is the fact that sales of these products in 1969 approached 70 per cent of total sales. The present product mix and earnings of the Company are markedly improved because profit margins on industrial sales are normally higher than on sales to the building and construction industries.

Crane has expanded through product research and development and acquisitions. The latest acquisitions in 1969, were Stanfield & Kennedy Holdings Limited, of Scotland, and the Acteson Manufacturing Company of Ranlin, Pennsylvania.

Research and Development

Four major objectives govern the Company's research, development and engineering programs:

1. Redesign of existing processes and products to reduce cost, improve performance and appearance.
2. Standardization of site products [illegible] and the standardization of components.
3. Development of new products [illegible] and expand product lines using known concepts, processes, methods and materials.
4. Applying new technologies and new concepts to improve existing materials, processes, methods and products; develop or apply new materials, processes and methods and develop new products.

[illegible] Company's [illegible] in the United States is directed [illegible] Hydra-Zorb research [illegible] Hydra-Zorb [illegible] Bard, California [illegible] developments in the [illegible] aerospace fields.

Worldwide Distribution and Concurrently with placing [illegible] emphasis on the design and [illegible] of industrial products, has improved its position [illegible] national marketplace [illegible] that 37 per cent of the [illegible] consolidated net sales [illegible] sales of foreign subsidiaries [illegible] the export of domestically [illegible] tured products.

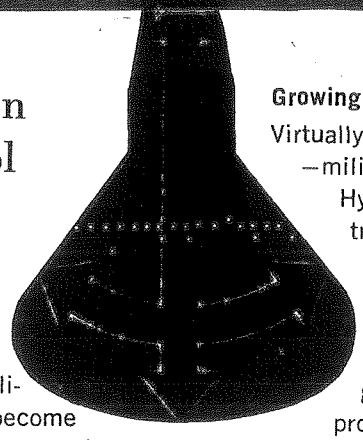
Crane has forty-five manufacturing facilities in countries [illegible] are in the United States, [illegible] eight in England and [illegible] in Scotland, France, Spain, [illegible] South Africa and Australia. [illegible] pany also has a trading [illegible] Germany and a manufacturing [illegible] in Holland.

Crane's products are [illegible] worldwide through its [illegible] Division, and through its [illegible] branches, distribution facilities, agents located in many countries [illegible] the U.S. and Canada. [illegible] amount of the Company's [illegible] line is marketed through [illegible] wholesale branch warehouses [illegible] as Crane Supply Company.

Crane employs a total of [illegible] persons and is an Equal Opportunity Employer. The Company [illegible] years has had good relations [illegible] employees and with the [illegible] tions representing them.

CRANE CO.: Worldwide

Stabilization and Control of Moving Objects



Through its Hydro-Aire Division in Burbank, California, Crane has become a major supplier to the nation's aerospace program and to the manufacturers of commercial and military aircraft. Its products—anti-skid braking systems, hydraulic components, pneumatic subsystems and booster and transfer pumps—stabilize and control moving objects in the aerospace and aircraft industries.

This division had satisfactory results in 1966, reporting increases in both sales and earnings over the previous year. These results capitalize on a decade of product development, applications engineering and investment in future growth. Its outlook for the foreseeable future is most promising.

Growing Demand

Virtually every jet aircraft produced—military or commercial—utilizes Hydro-Aire's aircraft brake control system which helps make landings safer and smoother.

Largely responsible for Hydro-Aire's favorable results in 1966 has been the growing demand for Crane products in the commercial air transport market. It is expected that sales volume from this market will continue at a high level into the late 1970's. In addition, an increased volume is anticipated from military aircraft production as well as the growing cilivilian air freight industry.

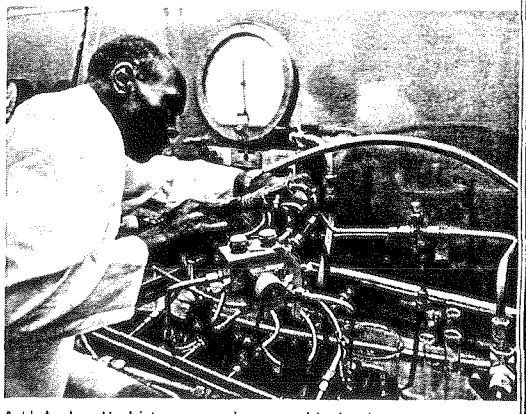
In the aerospace and ballistic missiles programs, long-range commitments to programs which require Hydro-Aire equipment offer a bright future to this division. Included among these products are Hydro-Aire's new line of liquid coolant pumps for fuel cells and environmental cooling as well as electro-hydraulic power packages and variable drive hydraulic pumps.

Future Prospects

The trend in both of these markets, i.e. aircraft and aerospace, is upward as far as forecasts can reasonably project. A substantial portion of this division's backlog is in commercial rather than military applications.

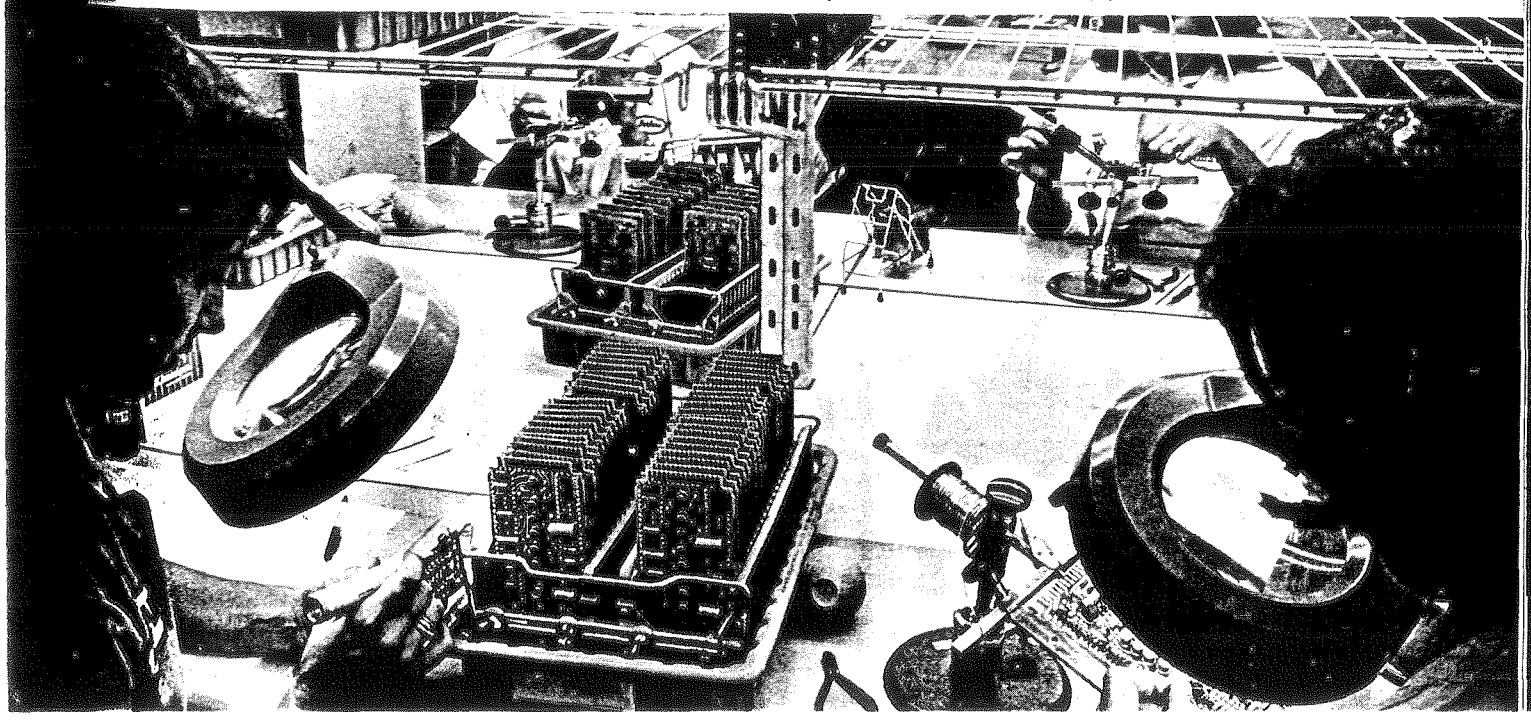
In addition, the growth of commercial air freight will increase this percentage over the next five years as further efforts are made to penetrate this market.

Investment in new equipment in 1966 enabled this division to manufacture many components required for its products that it formerly purchased. The program to improve "in-house" capabilities will continue in 1967, along with the continuing product research and development program designed to improve Hydro-Aire's position as an aircraft and aerospace components manufacturer.

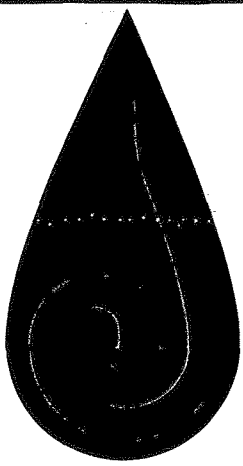


A Hytrol anti-skid servo valve, used in brake control systems for aircraft, is being tested during manufacture.

Solid state printed circuit boards used in the control box of the Hytrol Brake Control System are assembled and tested.



Fluid Control



The design and manufacture of systems and devices, pumps, valves and fittings with meters and allied equipment for controlling the flow of fluids, constitute the major portion of Crane's business. In 1966, sales of these systems and products accounted for more than 50 per cent of total sales. With the increasing demand for Crane equipment from many industries such as chemical, petroleum and power generation, sales of these products will continue to increase.

In view of the projected growth of its principal customers, the Company will continue to emphasize this segment of its business through expansion and improvement of facilities and equipment and through expending considerable amounts on research and development. The chemical industry, for instance, is forecasting a substantial increase in capital expenditures in 1967. The need to expand is even more apparent in the petroleum and petrochemical industries, where more equipment is required to explore offshore areas, to drill deeper for new reserves and to take advantage of new processing techniques. In both of these industries, international markets are growing at a faster rate than domestic markets.

Residential water meters, a new line for Crane in the United States, offer the company a tremendous potential.

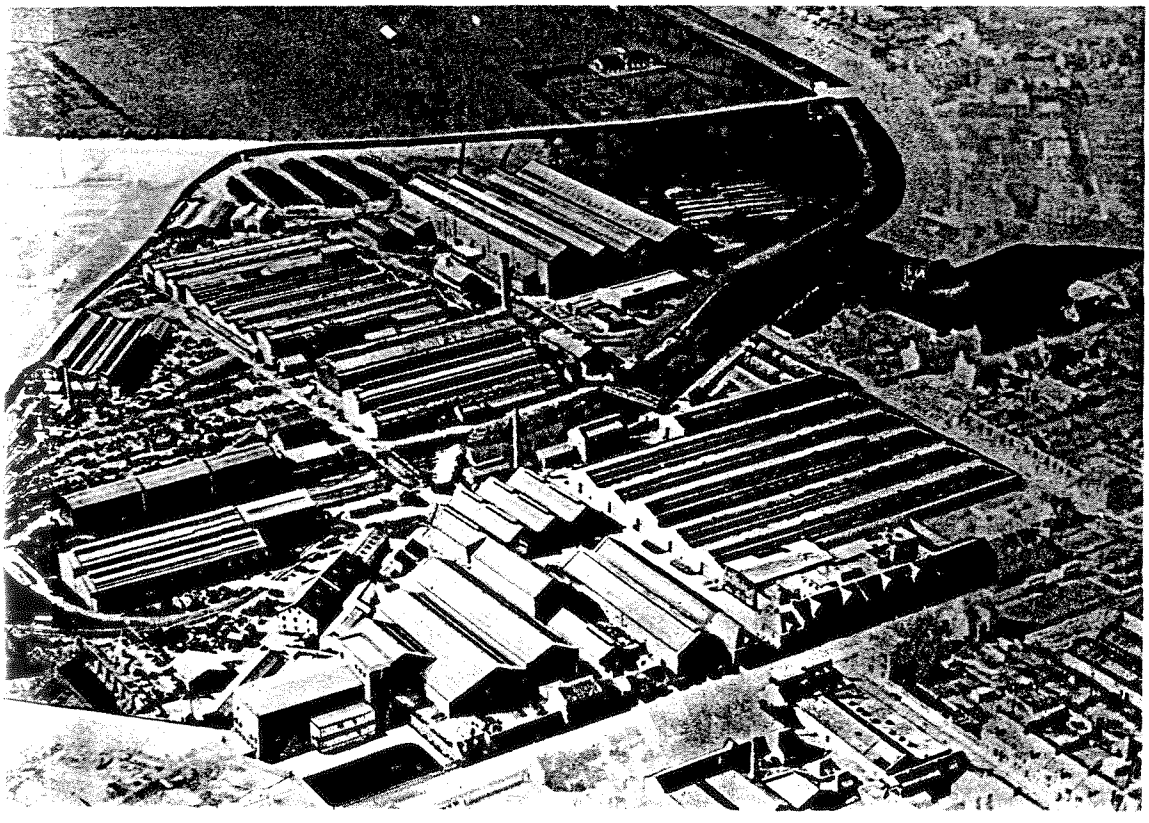
Crane's manufacturing, sales and distribution facilities for fluid control systems and products are international, enabling it to manufacture, sell, install and service on a worldwide basis.

Pump Lines Broadened

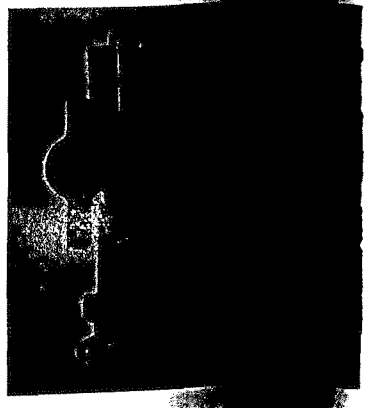
Crane is a leading supplier of water system pumps, sewage pumps and turbine and centrifugal pumps for chemical processing, petrochemical and varied industrial applications. In 1966, it introduced a new line of pumps conforming to standards set up by the chemical industry and known as AVS (American Voluntary Standards) pumps. The Company can now offer a far broader line to the chemical processing industry.

To meet the increased demand for pumps, and to provide increased capacity for the manufacture of residential water meters, the facility at Rogers, Arkansas, was expanded at a cost of over $1 million. Crane's Chempump products—"canned pumps" or "zero leakage pumps"—handle corrosive, toxic or other problem fluids throughout industry. In 1966, a new line of intensifier accessories was developed to enable high speed pumps to do the job which has only been possible in the past with lower speed pumps. This new concept broadens Crane's pump market in the fields of refrigeration, chlorine and other low flash point fluids.

Crane is forecasting an increase in sales in this product line in 1967. The chemical industry continues to expand, Government space and nuclear programs will continue at a high level and several new pump lines, including a metering pump, will be introduced in 1967.



Aerial view shows the extent of the Kilmarnock (Scotland) works, the principal plant of



New Chem/ used in proces and water tr predetermi amounts of li and

Valve Facilities Expanded

Crane is the largest valve manufacturer in the world. Its products range from standard to engineered, special service valves for many industries, including the defense, power generation, chemical, petroleum and waterworks fields, and in diameters from ¼-inch to 170-inches. Even larger diameters can be made to special requirements.

One significant development in 1966 was the completion of a $2 million expansion and modernization program in the steel foundry at the Indian Orchard, Massachusetts, valve plant. The results of this program are already apparent in terms of higher output and increased efficiency in the production of stainless steel and alloy cast steel valves. As industrial processing utilizes higher temperatures and pressures or more corrosive fluids, the demand for these valves will continue to increase.

An expansion program has been started in Chicago for new machining for the manufacture of brass valves. This equipment will enable Crane to reduce production time and costs.

New Product Developments

Under the direction of the Research and Development Center in Chicago, several new developments took place in 1966. New alloy valves provide Crane with a more complete line of corrosion-resistant valves. Additions were made to broaden the ball, butterfly and globe valve lines. Globe and gate valves for cryogenic and compressible gas service were developed. Engineering work was completed on larger water meter sizes, thus broadening the line. Product lines for the chemical processing industries were strengthened, including the new AVS chemical pump, a new canned motor pump, new metering pumps, a new hot oil pump, and the development of regenerative turbine pumps.

In 1967, Crane will continue to stress the study of redesign and improvement in the bronze valve line, including production equipment. Its line of stainless steel valves will be expanded to further widen the market for this product in the chemical, petroleum and process industries.

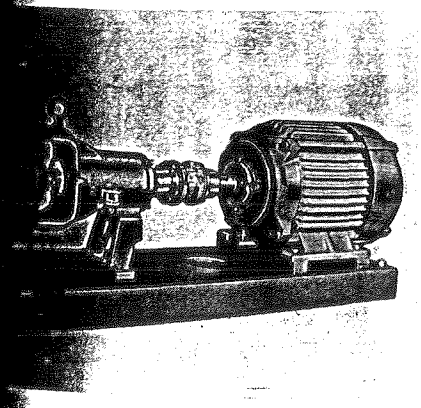
Work will continue on redesigning cast iron gate valves aiming at lighter weight, more compactness and lower cost. Considerable effort will be devoted to developing meters for the industrial market. Research and development work will continue to extend the Chempump canned motor pump to larger sizes.

On the metering pump, where precision and cost are factors, a product development program is underway on lower-priced models which will give Crane a greater penetration in the chemical, petroleum and water treatment markets.

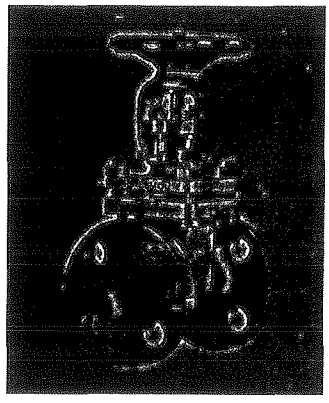
Outside of the United States, Crane's business in fluid control systems and products has grown rapidly and is expected to accelerate in the future.

Canadian Business Increased

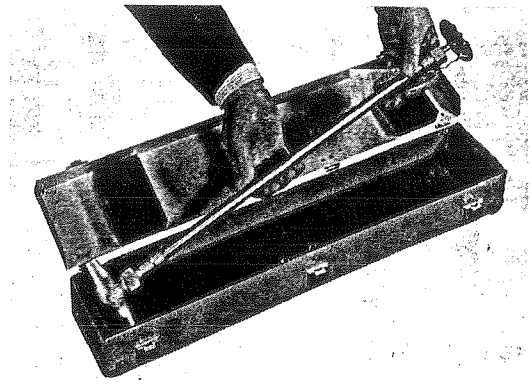
Shipments of valves and fittings in Canada, in 1966, were substantially ahead of a year ago. Sales were made to several major pulp and paper projects. Of these, shipments to the world's largest integrated pulp mill—at Lac Quevillon in Northern Quebec



Pump line will a variety of non-corrosive from water to to slurries.



An expanding line of alloy steel valves offers processing industry users the advantages of compact size and high strength to meet increasing pressure and/or temperature service.



This aluminum sample case makes it easy for salesmen to demonstrate features of new bronze globe valves developed for cryogenic service.

Fluid Control/ continued

—were the most significant. The further expansion of the Athabaska Tar Sand Development in Northern Alberta, where oil is being extracted from tar sands, resulted in sizeable sales of Crane products.

In Canada, because of the increase in business, Crane Canada Limited continues to expand and modernize its facilities. Completion early in 1966 of the $1 million modernization of valve production in Montreal has provided increased capacity and reduced costs. The Marieville plant tripled its capacity, providing manufacturing facilities for a full range of pumps and allied equipment to meet the growing commercial and industrial demand in Canada.

British Add to Facilities

Crane Ltd. (England) had a satisfactory year in 1966. Sales of this subsidiary will benefit from the increased drilling activities in the North Sea. Drilling and exploration companies have been purchasing pumps, valves and other equipment from Crane. As oil and gas production is brought in, petrochemical companies will also add to their facilities, thus providing a broader market for Crane products.

To meet growing demand, Crane Ltd. continued to expand and upgrade its facilities. The Aycliffe plant was expanded, providing additional manufacturing space for the production of boilers. A new branch warehouse was opened in London. And, the Burgess Hill, Sussex, research and development center was expanded. This facility is doing application engineering for Crane products sold in the United Kingdom.

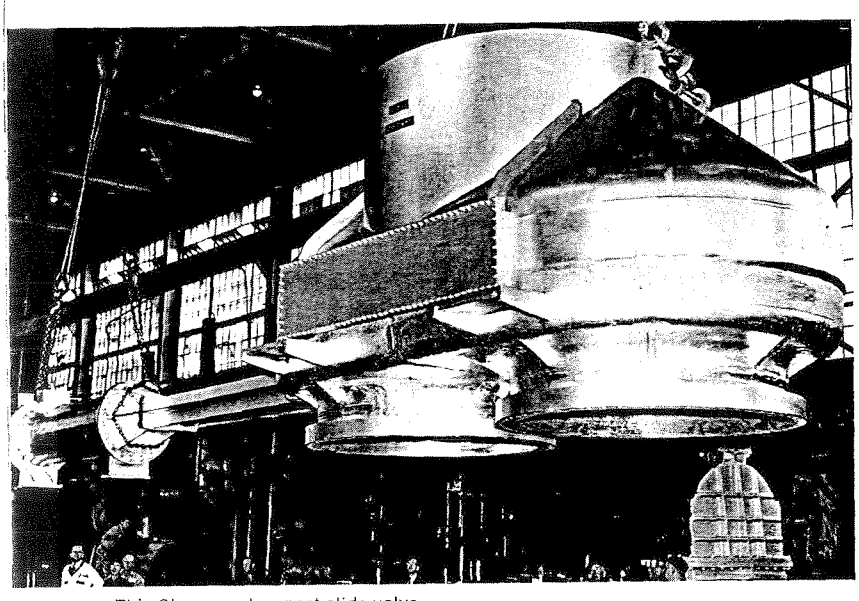
Glenfield & Kennedy Broadens Markets

The acquisition of Glenfield & Kennedy Holdings Limited provided Crane with new products, new markets and additional manufacturing, research and development facilities.

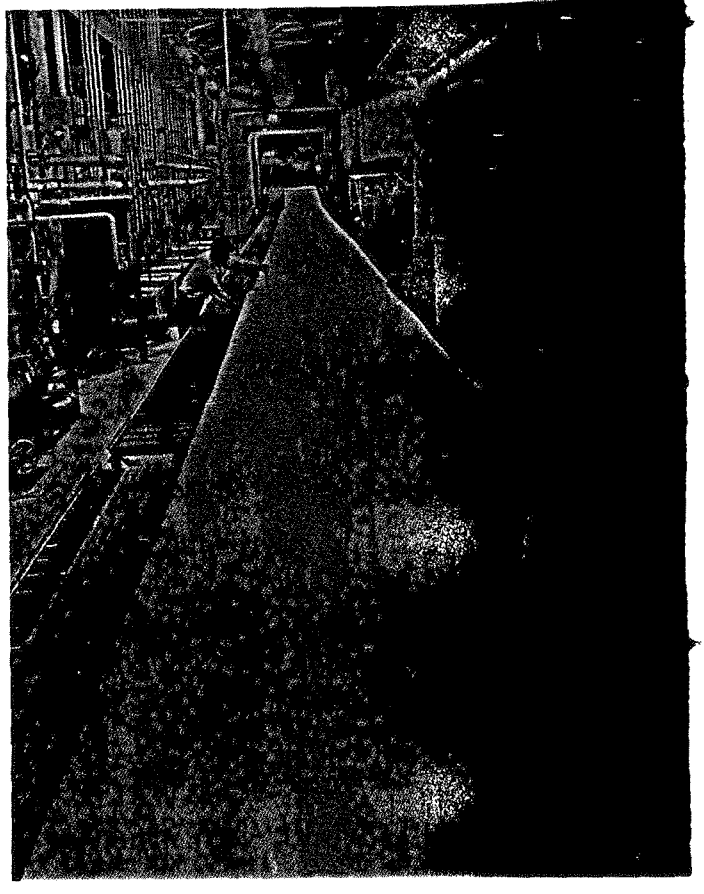
Long known as an innovator in flow control systems and equipment, Glenfield & Kennedy supplies filtration equipment, a large variety of valves, gates and allied equipment. These have wide application in municipal water systems, conventional and nuclear power stations, hydro-electric plants and many process industries.

Fluid control systems and products are manufactured in plants in Scotland, England and South Africa. One of Glenfield & Kennedy's facilities, a steel foundry, will enable Crane Ltd. to manufacture its own steel valve castings. The South Africa plant in Benoni, Crane's first manufacturing facility in that country, strengthens the Company's position in this market area. It is currently producing cast iron gate valves, and will add a line of cast steel gate valves by mid-1967.

On the European Continent, Crane's two subsidiaries in the fluid control field—Crane, S.A. France and Crane—FISA, S.A., Spain—continued to upgrade their product lines and to expand and modernize manufacturing facilities.



This Chapman two-port slide valve, weighing approximately 28,000 lbs., will control regenerator gases at 1200°F in a California oil refinery.



Because urethane foam hardens immediately on exposure to air, conventional pumps could not be used in this installation. A Crane Chempump was chosen, has operated continuously for over 35,000 hours without maintenance.

...nce Centralizes Valve Production

...ane S.A. France, in 1966, concen...ted on its valve business and dis...ed of its plant in La Courneuve. ...e machinery and equipment was ...sferred from this plant to Lille, ...tralizing valve production facili... at one location. This transfer ...stantially improved valve produc... at Lille, while at the same time ...ucing costs. It is planned to build ...ther valve plant in the vicinity of ...ille.

...rane S.A. France is a major sup...r to the French Atomic Energy ...mittee, the French nationalized ... industry, Electricité de France ... to the petroleum industry. In ...6, it supplied all the valves for ... St. Laurent des Eaux nuclear ...er station. It also supplied all the ...ves for the Havre power station ...p built by Electricité de France ... for the Ile de France refinery.

Spanish Sales Rise

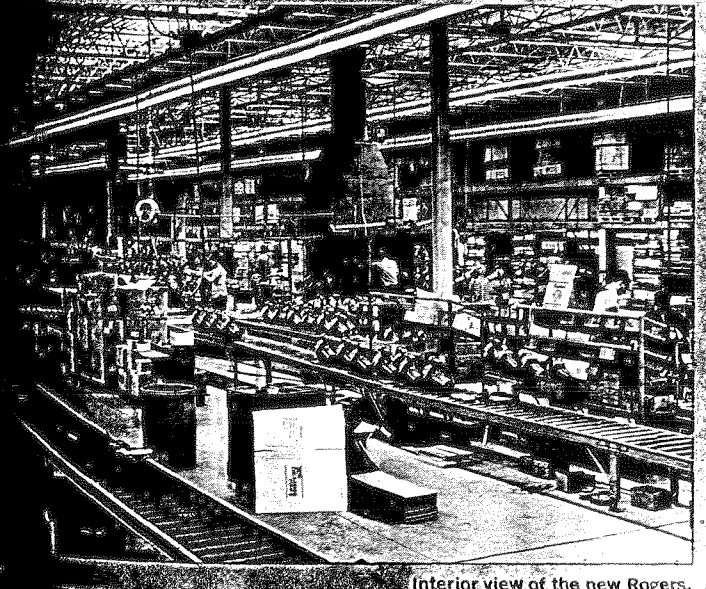
Crane-FISA, S. A. Spain, is a major supplier of valves to the growing Spanish petroleum industry. A new cast steel gate valve, introduced late in 1965, has been well received in this market. It is becoming one of Crane-FISA's major product lines. At the same time, sales of circulating pumps have risen rapidly in the heating field, and arrangements have been made to have Crane-FISA pumps incorporated into original equipment made by other manufacturers.

Crane-FISA plans to begin construction in 1967 of a new manufacturing plant near Madrid. When this plant is in production, Crane-FISA will introduce new Crane valve designs into the Spanish market. In some cases these will complement, and in others will replace, the present Crane-FISA models. The emphasis in the new plant will be on steel valves, and accordingly, the present steel foundry facilities in Bilbao will be modernized to better supply the new plant.

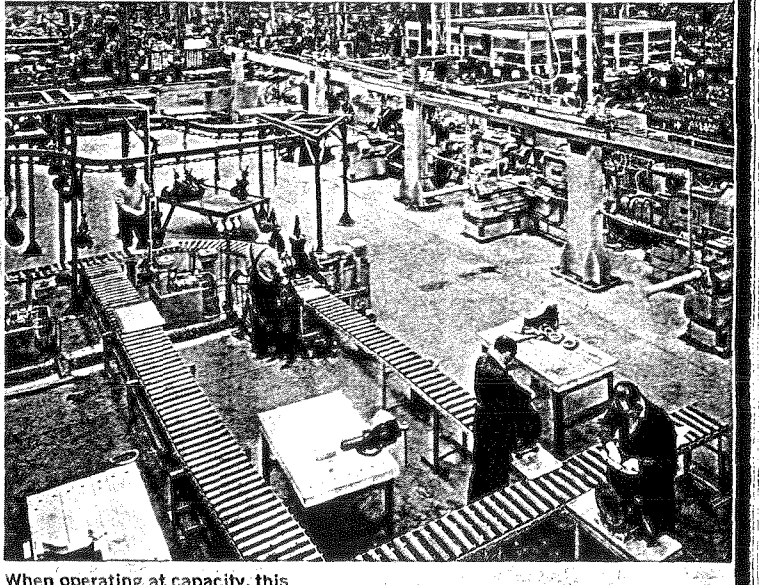
Volume Up in Australia

Crane Australia Pty. Limited, with headquarters in Sydney, reported a record sales volume in 1966. This subsidiary's products, manufactured in Australia, are sold throughout Southeast Asia and the Southwest Pacific. It supplied many major projects in this area, ranging from petrochemical plants to civic construction. Of note was the sale of valve equipment to the United States Navy, North West Cape V.L.F. Communications Station on the Indian Ocean, and the Philips I.C.I. Chemicals carbon black and synthetic rubber project located in Botany Bay, Sydney.

Crane Australia's manufacturing facilities were expanded and a new warehouse operation was started in Melbourne to improve sales and distribution. To broaden penetration of the growing Australian market, similar warehouse operations will be established in other Australian states.

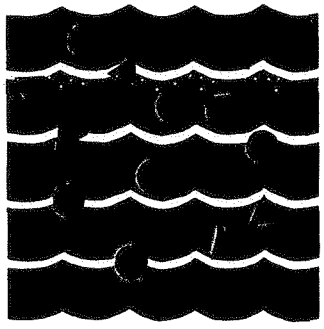


Interior view of the new Rogers, Arkansas plant shows the paint shop (in the center) and assembly operations.



When operating at capacity, this transfer machining and assembly line at the Kilmarnock (Scotland) plant can produce a gate valve every two minutes.

Water Treatment



The treatment of water is a growing international problem. The water shortage is becoming acute, not only in the United States, but all over the world. Water pollution control is a vital national concern, and both Government and industry have instituted large scale programs to make better use of water resources. And, as the population increases, sewage and industrial waste treatment becomes more critical, too.

Crane has long been a leader in engineering and manufacturing filtration equipment and specialized water conditioning systems such as clarification equipment, deaerators, ion exchangers and demineralizers. Through its Cochrane operation and Glenfield & Kennedy, Crane will expand into these areas both at home and abroad.

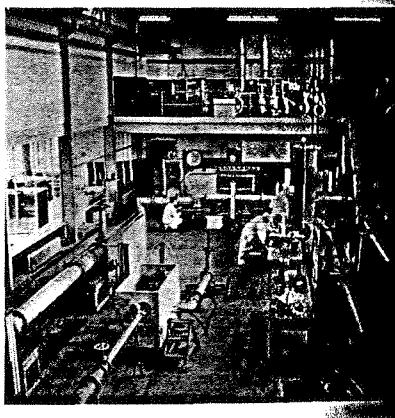
Cochrane Treatment Systems

Sales of Cochrane's "Filterex" systems in 1966 were at a high level. These systems enable industrial and municipal users to process contaminated liquids for re-use. In water shortage areas or where pollution is a problem, this equipment has proven itself to photographic film and pulp and paper companies such as Eastman Kodak Co. in Rochester, New York, the St. Regis Paper Co. in Monticello, Mississippi, the Fibreboard Paper Co. of Antioch, California, and the Thilmuny Pulp & Paper Co. of Kaukauna, Wisconsin.

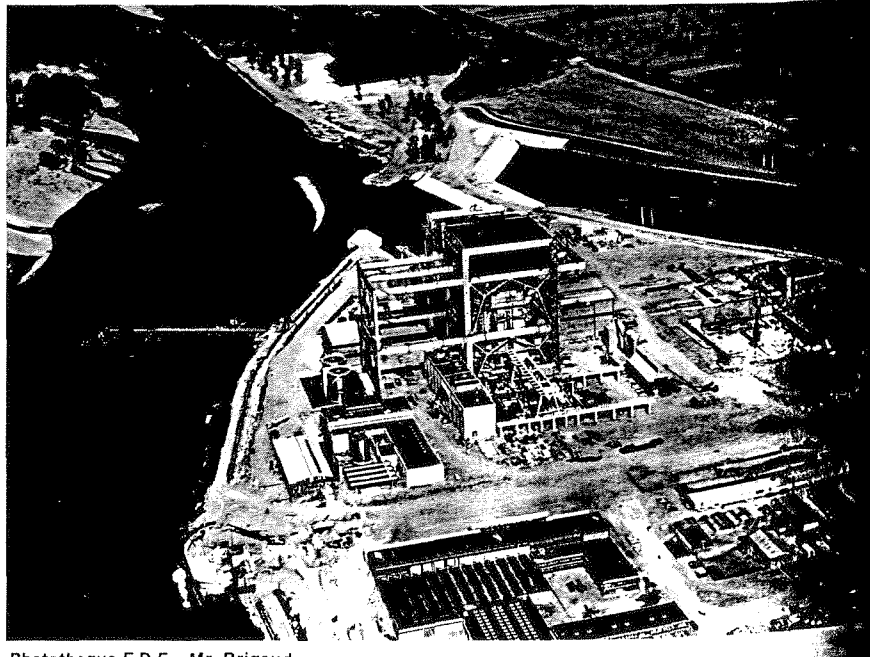
The potential for the sale of these systems is excellent. The steel, paper, beverage, chemical and oil industries are all large water users. In addition to requiring equipment to transport and purify water, they are now taking steps to avoid pollution of their own water supplies.

The demand for warm process softeners, such as lime and soda plants, continued at a high level and large chemical, paper and steel producers are among the companies that are reducing both their boiler problems and water contaminants with Cochrane systems. Numerous orders for water demineralizing equipment, the field which Cochrane has pioneered, were received from the public utility industry including the Public Service Co. of New Hampshire, the Public

Glenfield & Kennedy Hydraulics Laboratory at Kilmarnock, showing the test floor, design and drawing office (left) and the model gallery in the background.



The St. Laurent des Eaux project, France's first nuclear power station, installed Cochrane equipment. All valves for this plant were supplied by Crane S.A. (France).



Phototheque E.D.F.—Mr. Brigaud

Service Electric & Gas Co. of New Jersey and the Pennsylvania Power & Light Co.

During 1966, Crane received a research and development contract from the Office of Saline Water, U.S. Department of Interior. Under the auspices of the OSW, Crane is investigating methods for the pretreatment of brackish water to improve the economics of desalination by electro-dialysis process procedures.

Nuclear Power Markets

Crane has placed considerable emphasis on the growing atomic-nuclear market as public utility companies and others install nuclear power plants at an increasing rate. Cochrane equipment, used to assist in heat exchange and radiation control problems, is now being used in over fifty such installations. Some of the more interesting installations include the nuclear ship S.S. Savannah; the Indian Point Station of the Consolidated Edison Co. of New York; the Camen Project in Italy; the large Hanford nuclear facility, owned by the Atomic Energy Commission and operated by the General Electric Co.; the largest boiling water type nuclear plant in France, the Electricité de France St. Laurent des Eaux Station; and the Tarapur Atomic Power Plant in India.

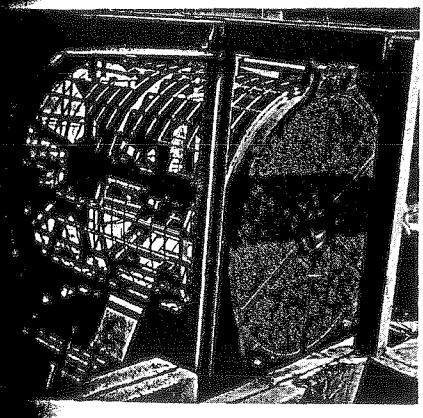
Microstraining Equipment

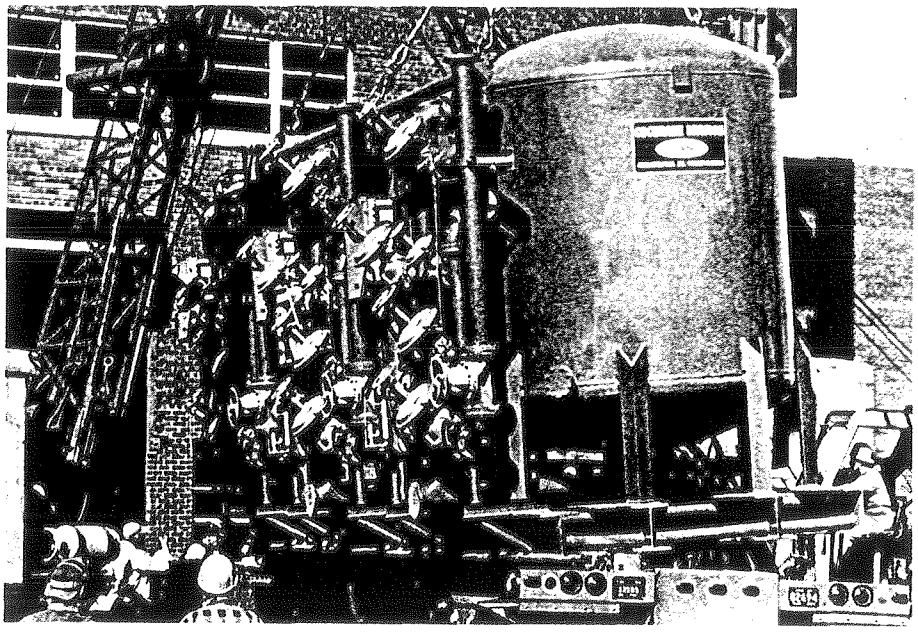
Glenfield & Kennedy provides an international network of products and services to a variety of industries utilizing flow control and water treatment equipment. Glenfield & Kennedy's important line in the water (potable and process) and sewage fields is the microstrainer. This line of rotary drum filters provides continuous automatic mechanical removal of microscopic and other suspended matter in water and the tertiary treatment of sewage.

Crane manufactures water treatment equipment and systems in the United States, Canada and Scotland.

An expansion program at Crane's Cochrane plant in King of Prussia, Pennsylvania, is presently underway to meet the increased demands for its products. When completed, this will increase manufacturing space, and provide additional machine tool capabilities and broader test facilities.

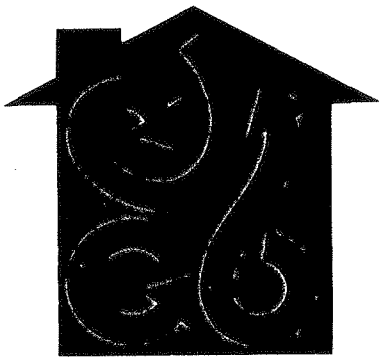
Two Microstraining units were installed at the Jerome Park Reservoir, Bronx, New York. They remove micro-organisms before drinking water is supplied to New York City from this service reservoir.





This 40-ton Cochrane Demineralizer is being installed at the Kodak Park Works, Rochester, New York, along with a condensate filtering system. Working together, they remove iron, copper & hardness from boiler water.

Comfort Conditioning and Sanitary Control



Crane has long been a leader in supplying the building and construction industries with quality plumbing, heating and air conditioning products and systems. It has more recently been increasingly active in the home improvement and renovation markets, supplementing normal sales to the new housing market, which has been at a low level.

Crane's position in this important segment of its overall business remains strong. Approximately one-third of the Company's total sales are generated by plumbing, heating and air conditioning products. As in the past, Crane's leadership stems from its many innovations and high quality products.

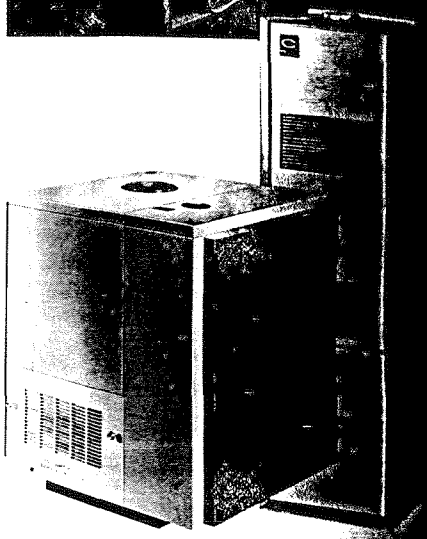
Crane's line includes lavatories, bathtubs, water closets, kitchen sinks, laundry tubs, water fountains, plumbing brass and bathroom accessories, residential and light commercial boilers, baseboard heaters, warm air furnaces and air conditioners, and Crane Chef combination refrigerator-range-sink units.

New Products Well Received

At the recent show of the National Association of Home Builders held in Chicago, Crane previewed a variety of new products. Its sculptured bathtub, a harbinger of new design in bathroom fixtures, highlighted the display. With a wide sculptured back giving plenty of shoulder and hip room, the new tub incorporates such other features as an integral grab bar, slip-resistant bottom and a flat rim for safe and easy entry and exit. Crane was the first in the industry to incorporate ideas such as these recommended in a study on the bathroom prepared by Cornell University.

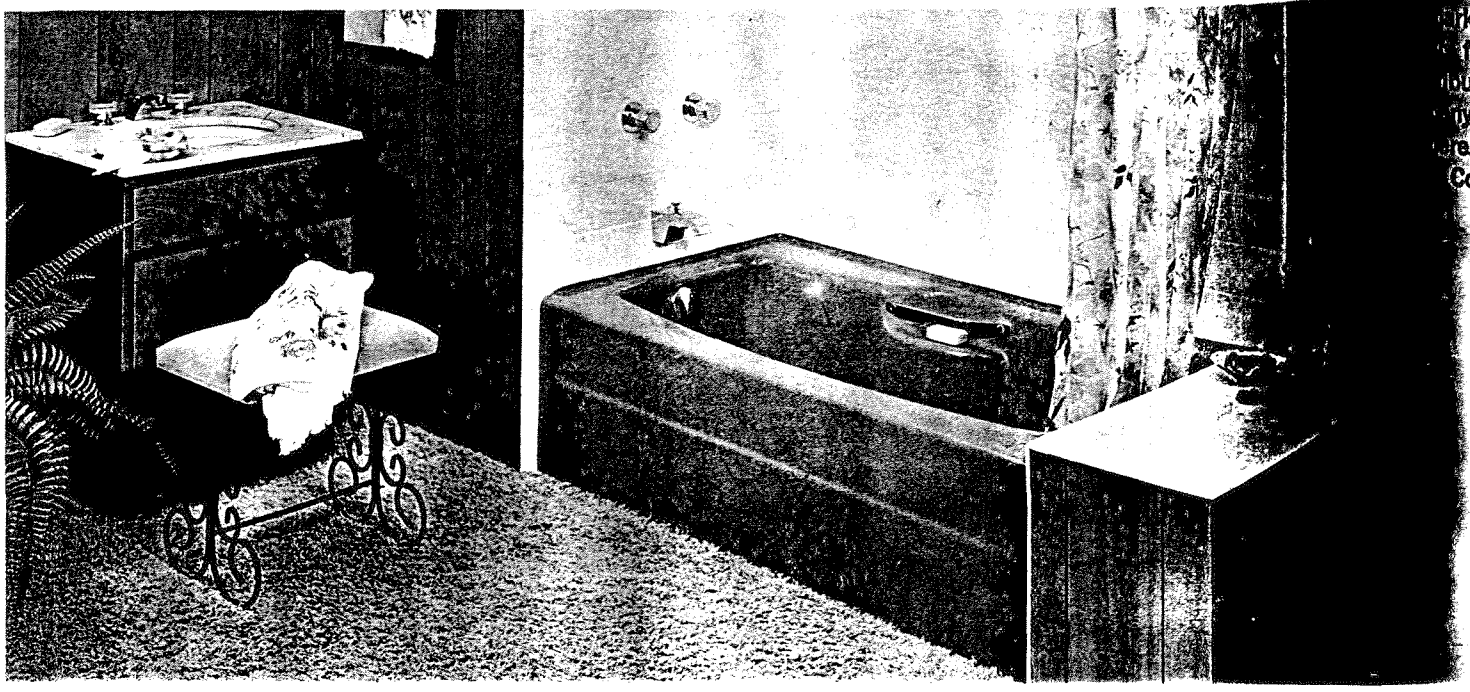
Other new fittings and fixtures which were well received by the trade included the "Neu-Criterion" water closet, designed with modern low-silhouette line and incorporating an exclusive longer flushing valve; a water closet designed for easy installation in slab construction houses and high-rise buildings with concrete floors; the new "Hymont" water closet for geriatric and nursing homes, with

A general view of the assembly area in Crane Ltd.'s Derby (England) plant shows work on gas burners.



Compact new gas boiler and new warm air furnace (rear) were among the models introduced early in 1967.

New bathtub design incorporates both comfort and safety features not found in others.



several features to aid the aged and infirmed; a new shower valve that eliminates sudden bursts of hot or cold water by mechanical rather than thermostatic means; a budget-priced shower head with a non-corrosive spray ring for long non-clog use; two new self-rimming, easily installed, porcelain enameled cast iron countertop lavatories—the "Charlotte" and the "April"; and, a new line of popularly priced plumbing brass designed for greater ease of operation.

Several new products will come into the market in 1967. Manufacture has already begun on the new sculptured bathtub. A new line of gas-fired warm air furnaces, incorporating many innovations, will be introduced, along with new, compact cast-iron gas boilers. Significant improvements in performance, serviceability, appearance and manufacturing costs will result. The addition of a new high capacity baseboard heating unit gives the Company a full line of baseboard heaters, enabling it to cover the entire market. Design of a completely new line of residential air conditioning equipment was completed in 1966 and introduced early this year, thus strengthening Crane's competitive position.

Market Position Strong

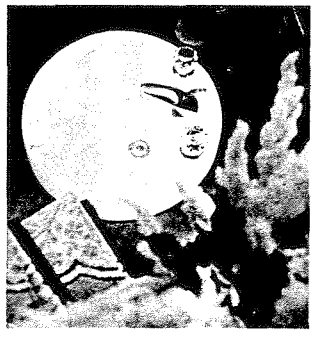
The Company, in 1966, placed greater stress on home improvement and renovation in the light of a lower rate of new residential housing starts. This market is receiving increased emphasis from Crane's marketing and distribution organization, and the Company expects to improve its position here.

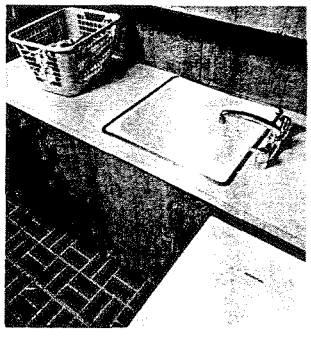
Commercial and institutional construction remained at a relatively high level. Crane was a principal supplier of plumbing, heating and air conditioning equipment for many major projects in commercial, hospital and institutional construction. Its position in this area is good, and will be strengthened by new products just introduced.

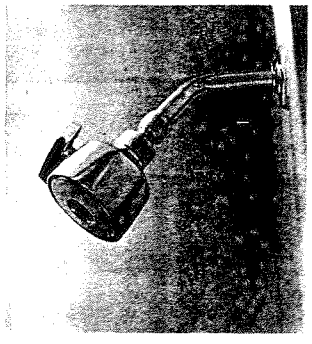
Sales and distribution facilities for plumbing, heating and air conditioning products are maintained in the United States, Canada, Great Britain, France, Holland, Spain, Australia and Germany.

In Canada, Crane fixtures were selected for the $10 million expansion of Sir George Williams University in Montreal. And 56 of the major pavilions at the Universal and International Exhibition of 1967 (Expo '67) are equipped with the Company's plumbing fixtures and other products.

In Bermuda, Crane plumbing fixtures, supplied by Crane Canada, were used throughout the Princess Hotel, one of Bermuda's most luxurious resort hotels. In St. Louis, Crane hospital and residential fixtures were specified for Queeny Tower, newest addition to the Barnes Hospital complex. The largest urban renewal project in the state of Wisconsin, Juneau Village in Milwaukee, used almost 3,000 of Crane's products. In Dallas, Crane fixtures were used in one of the newest and most elegant health and beauty spas—the Neiman-Marcus Greenhouse. And, the new 25-story Connecticut Mutual Insurance Company building in Chicago will be heated and air conditioned with Crane equipment.







The Chatelaine "Home of Tomorrow" at Expo '67 is completely equipped with plumbing and fixtures by Crane Canada.

CRANE CO. FACILITIES

UNITED STATES OPERATING GROUPS

Crane Group
Chicago, Illinois
W. D. Graham, Jr., Executive Vice President

Crane Supply Company
Chicago, Illinois
E. L. Hannon, Jr., Vice President

Hydro-Aire Division
Burbank, California
D. A. Lichty, Vice President

Acheson Manufacturing Co.
Rankin, Pennsylvania
G. R. Acheson, Jr., President

FOREIGN SUBSIDIARIES

Crane Australia Pty. Limited
St. Marys, N.S.W., Australia
P. J. Farrell, Managing Director

Crane Canada Limited
Montreal, Canada
R. S. Reade, President

Crane Ltd.
London, England
David Burns, Managing Director

Crane S.A.
Paris, France
R. D. Halpin, General Manager

Crane G.m.b.H.
Dusseldorf, Germany
Klaus Alms, Manager

Crane-Deming de Mexico S.A.
Monterrey, Mexico
H. F. McNiff, Manager

Crane-FISA, S.A.
Bilbao, Spain
L. R. Kowalski, General Manager

AFFILIATED COMPANY

Crane Nederland N.V.
Deventer, Netherlands
G. DeHorn, Managing Director

CRANE CO.,

300 Park Avenue, New York, N.Y. 10022

VALVES
PUMPS
FITTINGS
METERS
WATER TREATMENT
PLUMBING
HEATING
AIR CONDITIONING