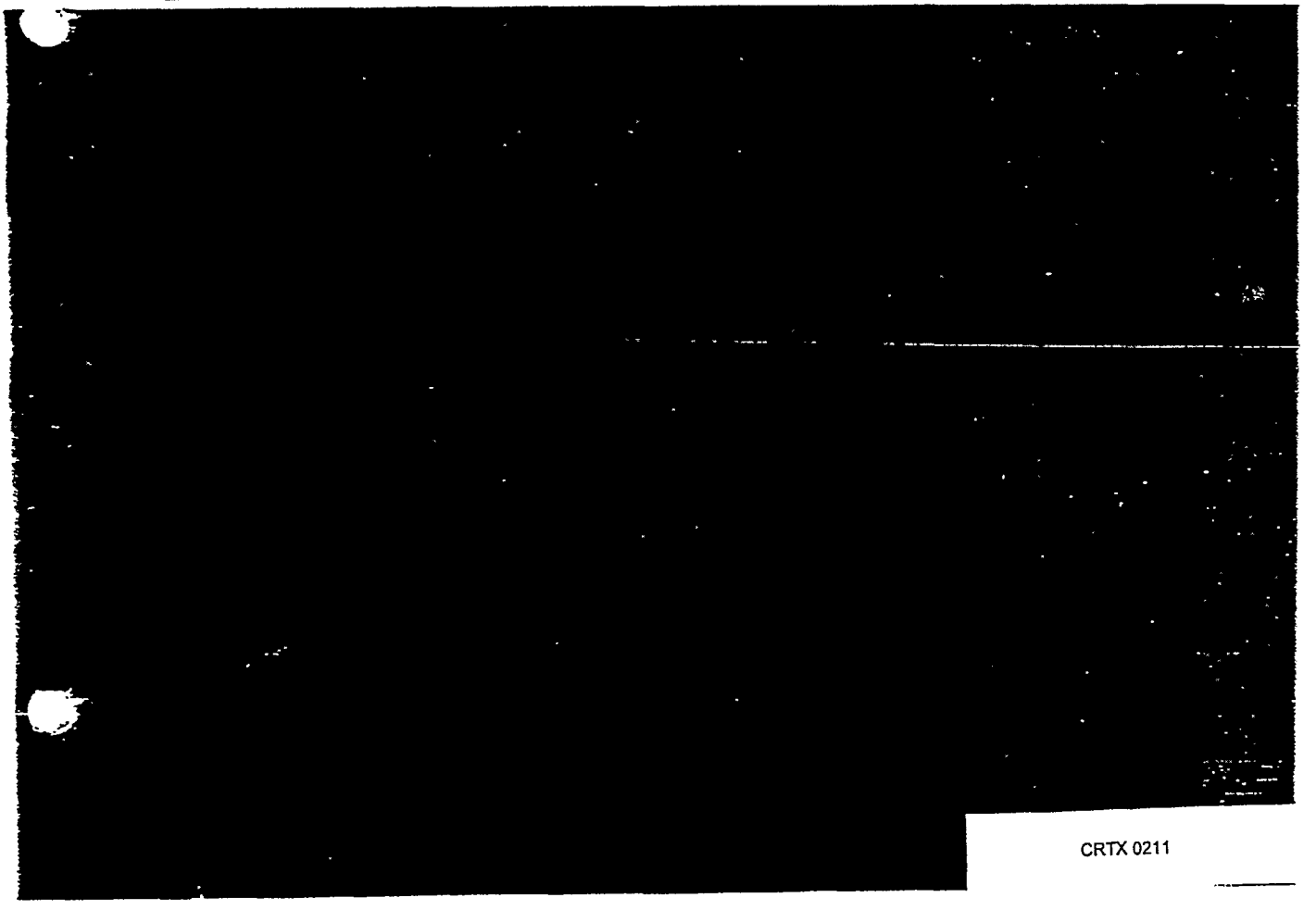
PLAINTIFF'S
EXHIBIT
CRA-24

CRANE CO.
Annual Report 1970

CRANE



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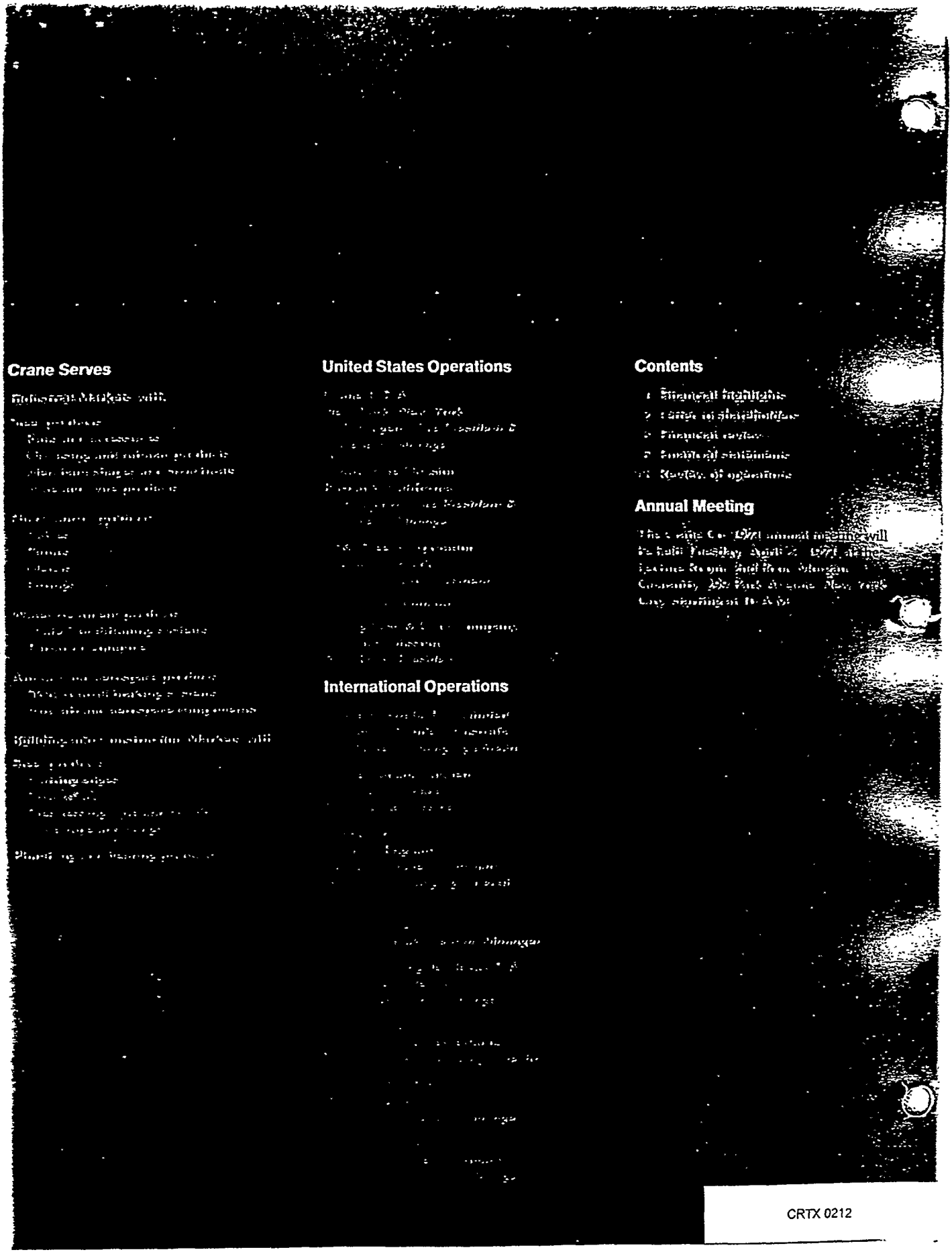

Crane Serves

United States Operations

International Operations

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Annual Meeting

Crane Co. Annual Report 1970

Financial Highlights

	1970	1969
Sales	$680,207,000	$550,707,000
Income before net extraordinary credit	8,255,000	9,493,000
Net extraordinary credit	—	2,109,000
Net income	8,255,000	11,602,000
Cash dividends	4,165,000	4,141,000
Net working capital	180,352,000	194,321,000
Total assets	597,207,000	577,410,000
Common shareholders' equity	149,619,000	146,094,000
Common shares outstanding at year end	2,577,868	2,543,015
Ratios at year end:		
Net income to sales	1.2%	2.1%
Common shareholders' net income to average equity	5.5%	8.1%
Current ratio	2.6	3.1
Per common share:		
Income before net extraordinary credit	$ 3.15	$ 3.58*
Net extraordinary credit	—	.81*
Net income	3.15†	4.39*
Depreciation	8.70	5.50*
Cash flow from operations	11.85	9.89*
Cash dividends	1.60	1.60
Common shareholders' equity	58.04	56.32*

*Adjusted for 2% stock dividend in December, 1970.
†Assuming conversion of subordinated debentures, net income per common share would amount to $2.52 ($3.62 in 1969).

To our shareholders:

Crane results reflect the 1970 economic slowdown in both North America and abroad. Specifically labor, raw materials and freight costs increased sharply, and competitive policies in the steel business partially prevented Crane from recovering these cost increases.

Consolidated net sales for 1970 were $680,207,000, up from $550,707,000 for 1969. CF&I Steel Corporation financial results are included for the full year 1970 and for only six months of 1969. Net income for 1970 was $8,255,000, or $3.15 per share, compared with $9,493,000, or $3.58 per share, excluding a non-recurring gain of $2,109,000, or 81 cents per share, from the sale of real estate not used in the business in 1969.

Cash flow (net income plus depreciation) in 1970 was $30,714,000, or $11.85 per share, compared with $25,957,000, or $9.89 per share in 1969. Crane continued its modernization program and in 1970 new capital expenditures totaled $52,395,000, with CF&I Steel incurring the major share. A substantially lower level is anticipated for 1971.

During 1970, the Company paid the regular $1.60 cash dividend per share and in December, 1970 paid a 2 per cent stock dividend as in the previous two years. All per share statistics have been adjusted to reflect this stock dividend.

At December 31, 1970, Crane common shareholders' equity was $149,619,000, or $58.04 per share, compared with $56.32 at December 31, 1969. Consolidated net working capital at December 31, 1970 was $180,352,000, compared with $194,321,000 for 1969. At December 31, 1970, consolidated long-term debt was $274,041,000, compared with $271,411,000 at December 31, 1969. At year end, $129,380,000 of this long-term debt was subordinated, including $57,099,000 convertible into common stock.

During the year, 251,532 shares of Alcan Aluminium Limited, held as an investment, were exchanged for $7,398,000 principal amount of 5 per cent convertible subordinated debentures due 1994 for a net gain of $996,000. In addition, $2,915,000 principal amount of these convertible subordinated debentures was purchased in the open market for $2,061,000. Gains on these transactions were credited to the balance sheet account—deferred credit from acquisition.

On behalf of the Board of Directors, we wish to thank all shareholders, employees, suppliers and customers for their support. Looking ahead, if the economic climate improves as forecast for 1971, your Company has the financial resources, products and people to continue to increase shareholders' equity.

Respectfully submitted,

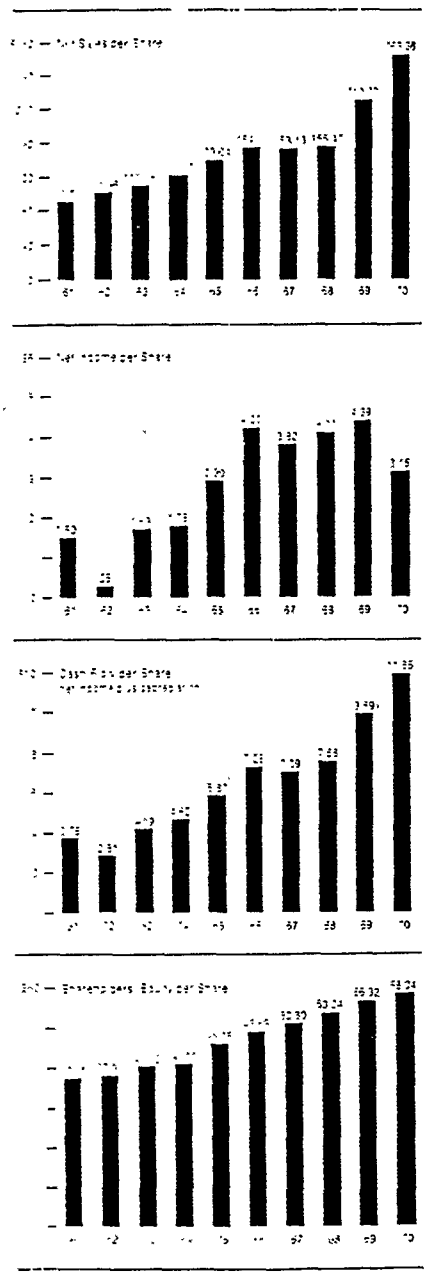
D. C. Fabiani
President

T. M. Evans
Chairman

February 25, 1971



T. M. Evans, Chairman, and D. C. Fabiani, President



Financial Review

Consolidation

The consolidated financial statements include the operations of CF&I Steel Corporation, an 86 per cent owned subsidiary, for the full year 1970 and for the second half of 1969. The difference between the purchase price and CF&I Steel shareholders' equity was recorded as deferred credit from acquisition in the consolidated balance sheet. This deferred credit is being amortized as a credit to cost of sales over a seven-year period from July, 1969, with $2,633,000 recorded in 1970 and $1,074,000 in 1969. CF&I Steel contributed $242,300,000 sales and $8,792,000 net income in 1970, compared with $120,918,000 sales and $4,406,000 income before extraordinary credit in 1969. The income contributions were after deducting minority interests of $1,402,000 in 1970 and $800,000 in 1969.

The investment in Huttig Sash & Door Company, a 55 per cent owned subsidiary, is recorded at cost plus equity in undistributed earnings since acquisition. The equity in Huttig 1970 income before taxes was $996,000, compared with $1,551,000 in 1969, and 1970 income after taxes was $525,000, compared with $753,000 in 1969.

Subsidiaries outside of the United States and Canada contributed net sales of $66,163,000 in 1970, compared with $61,011,000 in 1969. During 1970, they operated at break-even, compared to net income of $657,000 in 1969. These subsidiaries represented 16.3 per cent of shareholders' equity in 1970 and 16.8 per cent in 1969.

Plant Improvement

In 1970, $52,395,000 was invested in property, plant and equipment, principally a new bar mill at Pueblo, Colorado An additional $8,500,000 expansion a the Chattanooga, Tennessee, plant was financed by a ten-year equipment lease

In the same period, several unprofitable or marginal plants were closed o sold and the Company incurred start-up expenses on new facilities. Operations at the Trenton, New Jersey, pottery Madrid, Spain, valve factory; and Aycliffe, England, heating factory were discontinued, and Crane-Glenfield (S.A. Pty. Ltd., South Africa, was sold, resulting in costs of $1,701,000. In addition start-up costs at Chattanooga, the Caro Stream, Illinois, distribution center and other locations amounted to $1,748,000 These actions, to improve future earnings for Crane, caused the incurrence o costs and losses totaling $3,449,000 which were charged against 1970 earnings before income taxes as miscellaneous expense.

In 1970, the operations of the Palmer, Massachusetts, wire rope plan and other smaller operations of CF&. Steel Corporation were sold and the resulting loss of $3,725,000, after a related income tax credit of $3,406,000, was charged by Crane to the deferred credi from acquisition and minority interes in the amounts of $3,213,000 and $512,000, respectively.

Long-term Financing

Long-term debt at December 31 1970 was $274,041,000, essentially th same amount as the prior year. This wa achieved although CF&I Steel issue $23,750,000 of 7¾ per cent first mortgage bonds in May, 1970. Corporat liquidity and working capital durin 1970 were such that other long-term deb was reduced by $21,120,000. Schedule debt retirements over the next five year are in principal amounts of $5,379,00

in 1971, $12,173,000 in 1972, $10,898,000 in 1973, $9,597,000 in 1974 and $9,592,000 in 1975.

In March, 1971, CF&I Steel will issue an additional $2,500,000 of 7¾ per cent first mortgage bonds due 1990 to complete the overall funding of $50,000,000 for the capital improvement program. Under the terms of the indenture, CF&I Steel is required to expend approximately $85,000,000 on capital improvement. From inception of the program, $64,000,000 was expended and an additional $27,000,000 has been committed.

At December 31, 1970, worldwide commitments for annual rentals under long-term leases expiring through the year 1993 amounted to approximately $4,586,000.

Pension Plans

Crane Co. and its consolidated subsidiaries have a variety of pension plans for the more than 28,000 employees worldwide. Crane and certain subsidiaries have followed the practice of funding current service costs and interest on unfunded past service costs for major plans. CF&I Steel provides for funding of past service costs over a 30-year period.

Investment gains, which continue to be substantial, are used under an averaging method to reduce payments to the trustees on certain plans. Pension costs charged against 1970 operations were $11,325,000, compared with $4,239,000 for 1969. At December 31, 1970, CF&I vested benefits exceeded the total of pension funds and balance sheet accrual by $54,000,000. The substantial increase in vested benefits over last year was principally caused by the most recent labor contract and the Palmer plant closing.

Income Taxes

In 1970 and 1969, as a result of substantial differences between reported income before income taxes and actual taxable income, federal income tax refunds of $6,850,000 and $3,150,000 were recorded in accounts receivable. These differences arose from permanent tax savings which resulted in income tax benefits and temporary tax differences which resulted in a deferred income tax benefit of $1,520,000 ($2,313,000 charge in 1969). Principal 1970 permanent tax savings were investment credits — $2,876,000 ($1,075,000 in 1969), tax exempt investment income—$1,444,000 ($1,790,000 in 1969) and depletion, original issue discount and other— $2,714,000 ($970,000 in 1969).

Stock Options

During 1970, the Stock Option Plan adopted in 1965 was terminated and no further options could be granted. At the 1970 Annual Meeting, a new plan was adopted under which 50,000 shares were initially reserved for options. A summary of option transactions is as follows:

	Number of Shares	Price Per Share
Outstanding January 1, 1970	52,570	$18.15–$56.62
Options granted	13,400	32.25– 39.25
Options cancelled	(6,890)	27.63– 54.90
Options exercised	(5,506)	25.03– 27.63
2% stock dividend	1,049	–
Outstanding Dec. 31, 1970	54,623	$17.79–$55.51

Options for 20,500 shares were granted and for 6,169 shares were exercised in 1969.

At December 31, 1970, options for 24,612 shares were exercisable and for 46,410 shares could be granted.

Litigation

The litigation between Crane and American Standard, Inc., and Blyth & Co., Inc., which arose out of the merger of Westinghouse Air Brake Company into American Standard, as reported in last year's Annual Report, is continuing. Crane has entered a claim for damages, but it is impossible to determine at this time the extent of any recovery. Management continues to believe that the American Standard suit against Crane for so-called "insiders profits" is without substantial merit.

The civil anti-trust litigation instituted against the Company, arising under the Sherman Act, which has been discussed in previous Annual Reports, is still the subject of pending court proceedings. Management continues to be advised by counsel that the amount of any payments or settlements made with respect to such suits will not materially affect the financial position and earnings of the Company.

Miscellaneous

Early in 1971, North Jersey National Bank was merged into Garden State National Bank. Crane opposed the merger on the basis of its large investment, and has now surrendered its shares for appraisal rights.

Consolidated Statement of Income for Years Ended December 31

	1970	1969
Net Sales	$680,206,546	$550,707,177
Operating Costs and Expenses including straight-line depreciation of $22,458,887 ($14,354,342 in 1969):		
Cost of sales	584,892,028	464,665,938
Selling, general and administrative	75,275,787	67,360,814
	660,167,815	532,026,752
Operating Profit	20,038,731	18,680,425
Other Income (Deductions):		
Interest—net	(16,900,581)	(11,947,201)
Gain on disposal of capital assets—net	726,761	1,089,863
Dividend income on investments	2,358,772	2,617,755
Miscellaneous—net	(3,382,874)	210,894
	(17,197,922)	(8,028,689)
Income Before Income Taxes	2,840,809	10,651,736
Provision for Income Taxes	(5,413,929)	1,158,267
Income Before Net Extraordinary Credit—per share: $3.15 in 1970 and $3.58 in 1969 ($2.52 and $3.04 assuming conversion of debentures)	8,254,738	9,493,469
Net Extraordinary Credit	—	2,108,830
Net Income	$ 8,254,738	$ 11,602,299
Net income per common share:		
On average shares outstanding	$3.15	$4.39
Assuming conversion of debentures	2.52	3.62

Consolidated Statement of Earned Surplus for Years Ended December 31

	1970	1969
Balance at Beginning of Year	$ 76,867,991	$ 72,580,736
Net Income	8,254,738	11,602,299
	85,122,729	84,183,035
Dividends:		
Preferred shares—$3.75 per share	114,476	122,754
Common shares:		
Cash—$1.60 per share	4,050,100	4,018,390
Stock—2% per share, market value of 50,547 shares (50,084 in 1969)	1,381,450	2,172,644
Excess of Cost Over Par Value of Reacquired Shares—Net:		
1,192 preferred (5,870 in 1969) and 21,200 common reacquired, less 5,506 issued under stock options (48,300 and 6,169, respectively, in 1969)	173,766	1,001,256
	5,719,792	7,315,044
Balance at End of Year	$ 79,402,937	$ 76,867,991

See comments on pages 2 through 4

Consolidated Balance Sheet at December 31

ASSETS	1970	1969
Current Assets:		
Cash	$ 18,138,288	$ 17,865,804
Short-term investments	23,601,805	39,061,024
Accounts receivable, less allowances of $1,862,114 ($1,990,492 in 1969)	111,379,699	96,110,081
Inventories, less LIFO reserves of $32,540,704 ($31,274,298 in 1969), at lower of cost or market:		
Finished goods	68,239,222	66,675,813
Work in process	51,063,708	45,717,560
Raw materials and supplies	17,511,686	18,932,464
	136,814,616	131,325,837
Prepaid expenses	5,119,990	3,613,851
Total current assets	295,054,398	287,976,597
Investments and Other Assets:		
Investments at cost:		
Southern Pacific Company, 1,000,000 shares of common stock	41,779,984	41,779,984
Alcan Aluminium Limited, 40,568 shares of common stock (301,300 in 1969)	1,065,166	7,859,749
North Jersey National Bank, 135,052 shares of common stock	4,934,362	4,934,362
Outlying lands	1,261,388	1,261,388
Miscellaneous	3,904,580	4,472,726
	52,945,480	60,308,209
Investment (equity method) in Huttig Sash & Door Company	7,789,609	7,515,528
Other assets	4,536,117	4,774,833
	65,271,206	72,598,570
Property, Plant and Equipment at Cost:		
Land	14,515,006	14,386,053
Buildings and improvements	107,893,993	108,104,626
Machinery and equipment	407,826,962	380,856,938
	530,235,961	503,347,617
Less accumulated depreciation	293,354,362	286,513,152
	236,881,599	216,834,465
	$597,207,203	$577,409,632

LIABILITIES AND SHAREHOLDERS' EQUITY	1970	1969
Current Liabilities:		
Current maturities of long-term debt	$ 5,379,011	$ 2,736,985
Loans payable	16,539,800	7,891,193
Accounts payable	47,134,781	42,408,221
Accrued payrolls, taxes and other liabilities	43,497,637	34,536,509
U.S. and foreign taxes on income	2,150,796	6,082,611
Total current liabilities	114,702,025	93,655,519
Long-Term Debt (see details on page 9)	274,041,143	271,411,242
Operating and Other Reserves	18,281,214	20,158,389
Minority Interest in Subsidiaries	23,910,559	26,627,972
Deferred Credit from Acquisition	11,270,361	13,958,955
Shareholders' Equity:		
Preference stock of Glenfield & Kennedy Holdings Limited, 5½%	2,400,000	2,400,000
Cumulative preferred shares, 3¾%, par value $100 (redeemable at the option of the Company and subject to sinking fund requirements): Authorized—72,996 shares (76,806 in 1969); outstanding—29,834 shares (31,026 in 1969) after deducting 43,162 shares in treasury (45,780 in 1969)	2,983,400	3,102,600
Serial preferred shares, par value $5: Authorized—600,000 shares	—	—
Common shareholders' equity:		
Common shares, par value $25: Authorized 10,000,000 shares; outstanding — 2,577,868 shares (2,543,015 in 1969) after deducting 218,888 shares in treasury (197,688 in 1969)	64,446,700	63,575,375
Capital surplus	5,768,864	5,651,089
Earned surplus—$13,936,001 in 1970 ($13,874,241 in 1969) is not restricted under the terms of the 6½% sinking fund debentures	79,402,937	76,867,991
Total common shareholders' equity	149,618,501	146,094,455
Total shareholders' equity	155,001,901	151,597,055
	$597,207,203	$577,409,632

See comments on pages 2 through 4.

Consolidated Statement of Capital Surplus for Years Ended December 31

	1970	1969
Balance at Beginning of Year	$ 5,651,089	$ 4,632,917
Excess of market value over par value of common shares issued as 2% stock dividends	117,775	920,522
Excess of subordinated debentures converted over par value of 3,050 common shares issued	—	97,650
Balance at End of Year	$ 5,768,864	$ 5,651,089

Consolidated Statement of Source and Application of Funds for Years Ended December 31

	1970	1969
Source of Funds:		
Operations:		
Net income	$ 8,254,738	$ 11,602,299
Depreciation	22,458,887	14,354,342
Other, net	(1,651,556)	1,092,511
	29,062,069	27,049,152
Long-term debt issued	23,750,000	145,751,482
Reduction in investments, mainly Alcan shares exchanged	7,362,729	—
Disposals of property, plant and equipment	9,888,983	1,979,764
Increase in minority interest	—	24,863,195
	70,063,781	199,643,593
Application of Funds:		
Additions to property, plant and equipment	52,395,004	38,326,059
Acquisition of CF&I Steel Corporation's net non-current assets	—	68,060,190
Reduction in long-term debt	21,120,099	12,923,724
Reacquisition of shares less options exercised	685,316	2,641,553
Cash dividends	4,164,576	4,141,144
CF&I extraordinary item absorbed by reserves	3,725,180	—
Other, net	1,942,311	1,332,677
	84,032,486	127,425,347
Net Source (Application) of Funds	$ (13,968,705)	$ 72,218,246

See comments on pages 2 through 4.

Report of Independent Accountants

To the Shareholders of Crane Co.:

We have examined the consolidated balance sheet of Crane Co. and subsidiaries as of December 31, 1970 and 1969, and the related consolidated statements of income, earned surplus, capital surplus and source and application of funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not examine the financial statements of CF&I Steel Corporation, a consolidated subsidiary, which statements were examined by other independent certified public accountants whose reports thereon for 1970 and 1969 have been furnished to us.

In our opinion, based upon our examinations and the aforementioned reports of other independent certified public accountants, the accompanying balance sheet and statements of income, earned surplus, capital surplus and source and application of funds present fairly the consolidated financial position of Crane Co. and subsidiaries at December 31, 1970 and 1969, and the consolidated results of their operations, changes in shareholders' equity and source and application of funds for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

New York, N. Y.
January 28, 1971

Ernst & Ernst

Details of Long-Term Debt at December 31

	1970	1969
Crane Co.:		
6½% Sinking fund debentures due 1992, $2,000,000 due annually beginnning in 1973 of which $1,355,000 was in treasury in 1970	$ 38,645,000	$ 39,627,000
7% and 7¼% Bank term loans due 1974, $4,000,000 due annually (8¾% and 9% in 1969)	11,000,000	15,000,000
Miscellaneous	2,454,374	3,313,437
	52,099,374	57,940,437
Subordinated debentures:		
7% Sinking fund debentures due 1993, up to $1,000,000 due annually beginning in 1974	20,204,400	20,204,400
7% Debentures due 1994	52,077,200	52,077,200
5% Convertible debentures due 1993, convertible at $50 per share (377,172 common shares reserved in 1970) after deducting $1,331,000 debentures in treasury in 1970	18,858,600	19,020,600
5% Convertible debentures due 1994, convertible at $57.50 per share (665,042 common shares reserved in 1970) after deducting $13,700,000 debentures in treasury in 1970	38,239,900	48,552,900
	129,380,100	139,855,100
	181,479,474	197,795,537
CF&I Steel Corporation:		
5¾% First mortgage and collateral trust bonds, sinking fund series due 1979, minimum of $2,000,000 due annually, of which $2,035,000 was in treasury in 1970	17,965,000	20,000,000
7¾% First mortgage and collateral trust bonds, sinking fund series due 1990, $3,000,000 due annually beginning in 1975. Additional amount of $2,500,000 to be issued in 1971	47,500,000	23,750,000
4⅞% Convertible sinking fund debentures due 1977 (convertible into CF&I common shares at $31 per share), $1,000,000 due annually, of which $3,892,500 was in treasury in 1970	5,628,700	7,920,200
	71,093,700	51,670,200
Foreign Subsidiaries:		
Crane Canada Limited 5¾% sinking fund debentures (secured by a general claim on property and assets), due 1985, $427,000 due annually, of which $508,300 was in treasury in 1970	8,008,320	7,636,800
Crane Ltd. (England):		
7¾% Bank term loan due 1972 (8¾% in 1969)	4,320,000	4,320,000
8% Bank term loan due 1973 (9% in 1969)	3,132,403	3,442,550
Glenfield & Kennedy Holdings Limited 5¾% unsecured loan stock due 1982	3,628,490	3,683,513
Miscellaneous	2,378,756	2,862,642
	21,467,969	21,945,505
	$274,041,143	$271,411,242

Ten Year Consolidated Financial Summary

(in thousands of dollars)

	Net Sales	Net Income	Depreciation	Common Shareholders' Equity Total	Common Shareholders' Equity Per Share †	Net Income Per Share †	Cash Dividends Per Share †
1961	$319,556	$ 5,676	$ 8,000	$130,650	$37.11	$1.50	$ .80
1962	333,767	1,176*	8,383	124,105	37.91	.25	.80
1963	337,366	5,447	7,607	121,834	40.12	1.69	.80
1964	357,823	5,530	8,316	122,087	41.70	1.78	.80
1965	370,084	7,991	7,847	121,256	45.75	2.90	.92
1966	405,907	11,251	8,124	128,255	48.69	4.20	1.28
1967	403,361	10,228	8,632	133,831	50.80	3.82	1.54
1968	409,549	10,998*	9,146	140,514	53.34	4.11	1.54
1969	550,707	11,602*	14,354	146,094	56.32	4.39	1.57
1970	680,207	8,255	22,459	149,619	58.04	3.15	1.60

*After extraordinary charge of $2,018,000 in 1962 and extraordinary credits of $2,503,000 in 1968 and $2,109,000 in 1969.

†All per share amounts have been adjusted to reflect stock dividends. Cash dividends have been paid at an annual rate of $1.60 since December, 1965.

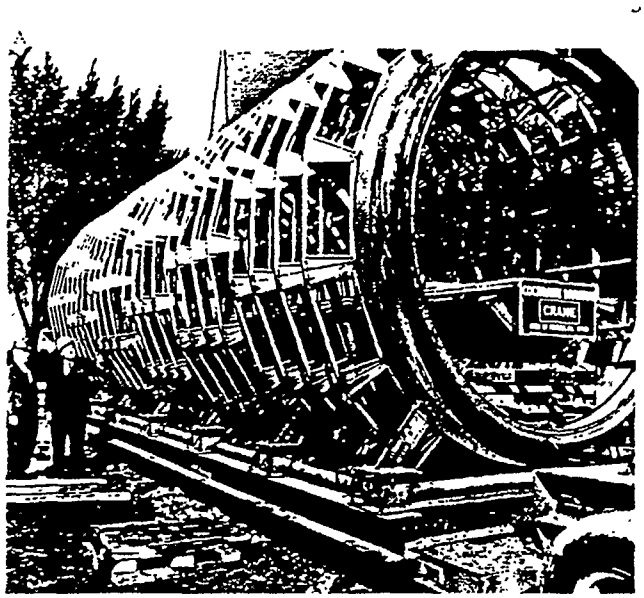
Analysis of Net Sales and Operating Profit

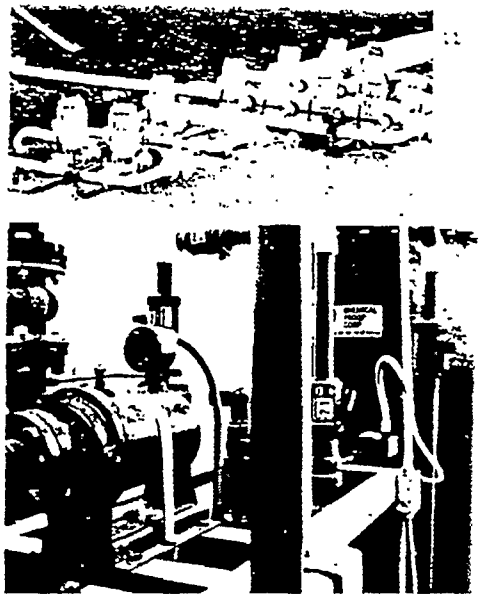
(in thousands of dollars)

	1970 Amount	1970 %	1969 Amount	1969 %
	Net Sales			
Crane-U.S.A.	$270,703	40	$263,941	48
CF&I Steel Corporation	242,300	35	120,918	22*
Hydro-Aire Division	14,740	2	16,758	3
Crane Canada Ltd.	86,301	13	88,079	16
International Operations	66,163	10	61,011	11
Total Net Sales	$680,207	100	$550,707	100
	Operating Profit			
Crane-U.S.A.	$ 3,308	13	$ 5,153	22
CF&I Steel Corporation	13,696	54	7,585	33*
Hydro-Aire Division	1,855	7	2,446	11
Crane Canada Ltd.	2,161	9	3,574	16
International Operations	4,156	17	4,120	18
	25,176	100	22,878	100
Corporate	(5,137)		(4,198)	
Total Operating Profit	$ 20,039		$ 18,680	

*From July 1, 1969.

Pages 11 through 20 describe the organization, products and services of these units.





Crane-U.S.A.

Crane-U.S.A., consisting of the Engineered Products, the Valves and Fittings and the Plumbing and Heating Divisions and Crane Supply Company, manufactures and distributes all domestic products except those of the Hydro-Aire Division. Its broad line of valves, pumps, meters, controls, fittings, water treatment and conditioning equipment, and plumbing and heating equipment is sold throughout all industrial, building and construction markets.

Although Crane-U.S.A. sales showed a slight increase in 1970, profits were down. Operations suffered from cutbacks in capital goods spending in some industrial markets and the continued low level of activity in all segments of the building and construction fields.

Engineered Products Division

An international leader in the design and manufacture of highly engineered fluid control and treatment products, Crane supplies a wide range of pumps, meters, control valves, and water and waste treatment equipment used in industrial processing, power generation, and municipal water and waste treatment.

Sales and profits of this Division exceeded 1969 results. Looking ahead, performance is directly tied to industries for which good growth projections have been made for 1971 and beyond.

Environmental Systems

To expand its activities in the fight against pollution, Crane formed a new Environmental Systems Division, which includes the Cochrane operation. It designed and built the world's largest microstrainer for the Chicago Metropolitan Sanitary District. This unit will provide tertiary (advanced) treatment for 15,000,000 gallons of municipal effluent per day, the first installation of its kind in a major city.

Crane also has exclusive representation in this country for Trailigaz and Otto Process ozonation equipment for air pollution control and water and waste treatment. The combination of ozonation and microstraining gives Crane a system with considerable potential in this ecology-conscious era.

Use of this combination to purify and clarify effluent in municipal waste treatment was demonstrated experimentally at the Chicago Hanover Park plant. A Michigan sewage treatment plant installed ozonation to destroy odors.

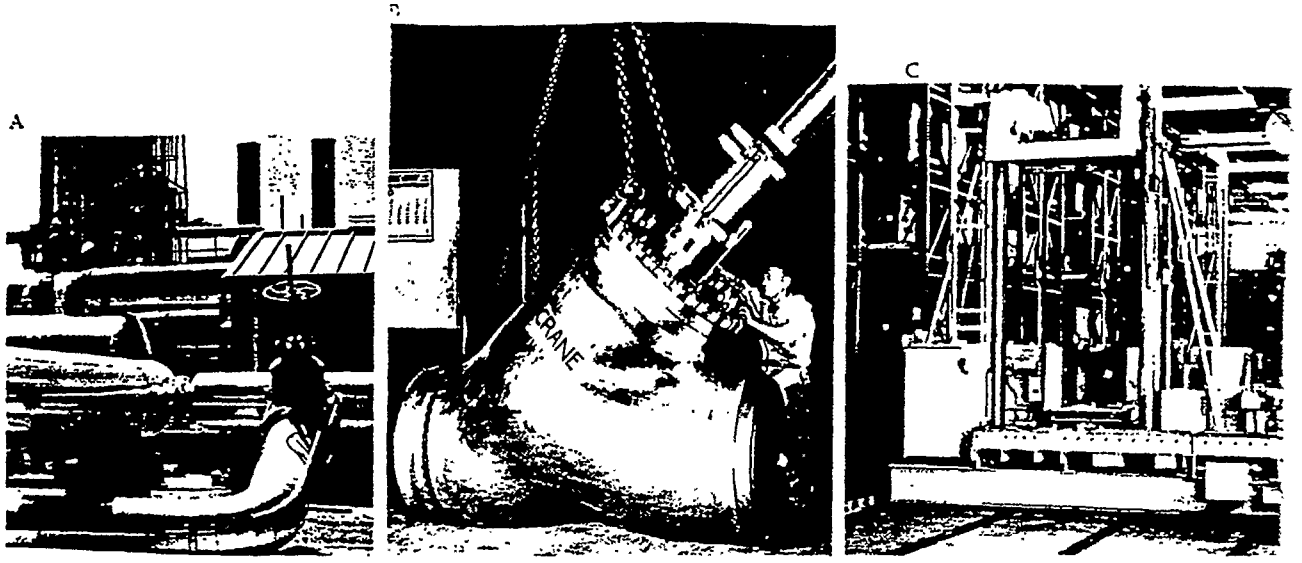
Industrial water treatment equipment represented Cochrane's highest sales volume again in 1970. Boiler feedwater and condensate polishing demineralizers and deaerators for central stations showed the best performance, reflecting continued demand for increased electrical generating capacity.

While new contracts, particularly those related to industrial expansion,

A. Stainless steel framework of the giant microstrainer, 121½ feet in diameter and 30 feet long, is examined by officials of Chicago Metropolitan Sanitary District.

B. Deming vertical in-line pumps installed at an East Coast oil terminal.

C. Leakproof Chempump in a research plant evaluating processes for the removal of phosphorus from wastewaters.



fell slightly under last year, a healthy backlog and more efficient operations provided improved performance.

Cochrane designed and supplied a system which destroys and removes toxic chromium from the plating process waste effluent of a major steel company plant. The major effort is to achieve completely integrated installations like the boiler makeup and condensate demineralizers at the Fort St. Vrain nuclear generating station north of Denver, Colorado.

Pumps and Meters

Chempump sales increased over the previous year despite depressed activity in the chemical processing industry.

The growing role of Chempump products in the power industry is exemplified by the installation of 28 submerged pumps at a nuclear plant in Chicago and four units in a Swiss nuclear installation to provide safe recirculation.

An anticipated growth in demand from the chemical industry and expansion of the nuclear market should broaden opportunities for Chempump in 1971.

Sales of Deming pumps increased in 1970. Product development has been geared to the growing chemical, power and environmental control industries, where Deming products are gaining wide acceptance.

Both chemical process and vertical in-line pumps, introduced in 1969, showed substantial sales increases. However, pump sales to municipalities and the building trade declined slightly.

Ground was broken for a new Deming foundry at Salem, Ohio. It is scheduled for operation late this year.

Water meter sales held up well in 1970 in spite of the downturn in residential housing. "Aqua-Flow," a new manifold meter for economical measurement of large quantities of water, was introduced early this year.

Control Valves and Off-Shore Systems

Flomatics is undergoing restructuring as an industrial control valve manufacturer. During 1970, it developed a nylon extrusion valve for service in textile fiber plants.

Advancing Crane technology for offshore oil drilling and exploration operations was demonstrated last year by the functional use of Flomatics solenoid valves and micromatic filtration in a sub-sea depth test of 300 feet. The offshore industries operation also started development of other new products to increase Crane participation in this market.

Valves and Fittings Division

Crane offers a wide range of valves and fittings to control, channel, and govern the flow of all types of fluids. Higher sales in 1970 were offset by increased costs, with the result that operations fell below expectations.

Research and development produced a number of new and highly marketable designs, including a 300-pound cast steel gate valve, the new Tork-Seal ball valve for industrial, chemical and petroleum applications and an expanded butterfly valve line. A new 150-pound cast steel gate valve for the power, petroleum and chemical industries went into full production at the Chattanooga valve plant, where major modernization and expansion were completed in 1970. The 300-pound valve will be in production there this year.

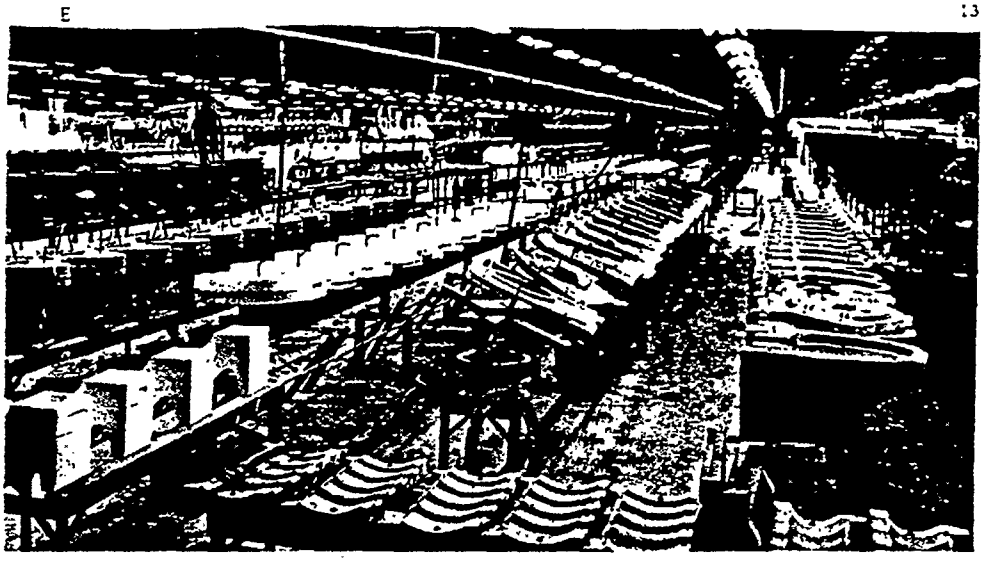
Crane remains a leading manufacturer of nuclear valves and fittings for the power industry and naval applications. Experience in the nuclear field puts the Division in a unique position to capitalize on the expanding commercial nuclear utility market.

The Chapman operation marked its centennial during 1970. This plant, which produces some of the largest specially engineered valves in the western hemisphere, operated at a good performance level.

A distribution center at Carol Stream, Illinois, was opened in 1970 to stock regular and fast-moving valve products. Fully automated, it permits shipment to all parts of the United States within a 48-hour period. In addition to improving customer service, the distribution center will enable the Company to increase manufacturing efficiency by more fully utilizing automated facilities at the Chattanooga, Chicago and Washington, Iowa, plants.

Crane supplies a broad range of standard and special fittings. Notable among contracts last year was the million-dollar order for large diameter (48-inch) welding fittings for the Alaska pipeline project.





Plumbing and Heating Division

Crane plumbing and heating product sales are directly related to the construction industry, where greater than anticipated sluggishness occurred during 1970. As a direct result, performance was below the 1969 level. The forecast of increased home building activity and greater availability of construction and mortgage money should improve business in 1971 and beyond.

The new Nevada, Missouri, ceramic plant went on stream in late 1970 and full production is anticipated before mid-1971. Full production is also scheduled in the second half at the Chattanooga, Tennessee, enamelware facility, where a large-scale modernization and expansion program is nearing completion. The installation includes a fully automated enameling process, a Crane exclusive in the United States, which will produce cast iron plumbingware at greatly reduced costs.

In addition, expansion of the Ferguson, Kentucky, plant to be completed late this year will nearly double ceramic capacity there. These new facilities will improve Crane's ability to meet ceramic demands, strained during 1970 by the closing of the antiquated Trenton, New Jersey, plant.

The Petite•7, a highly styled new line of modern hydronic nonferrous baseboard heating, recorded sales performance well ahead of forecast.

In early 1971, Crane introduced three new boilers designed for residential, light and heavy commercial hydronic heating applications in a range of sizes for broad and optimum marketability.

A pioneer in the modular bathroom, the Crane Unette showed increased acceptance during the year. It is being redesigned and modified to make it more versatile for commercial, residential and institutional construction. Typical Unette shipments for multiple installations included units for a low income housing project in Maine, a condominium complex in Colorado, and a high-rise apartment building in Missouri specially designed for the elderly.

The Crane Chef compact kitchen has been modified to improve appearance and operation, making it more adaptable to efficiency apartments, dormitories and institutions, as well as to home improvement and renovation. Distribution was expanded during 1970 by marketing nationwide through independent kitchen dealers. Additional outlets are planned this year.

Crane Supply Company

Crane Supply Company, with 72 branches in 38 states, is the distribution division for plumbing and heating equipment, valves and pumps, as well as related products purchased from other manufacturers to serve housing, building, water systems and industrial markets.

Sales in 1970 were equal to the prior year. This operation maintained a good profit position despite the decline in housing and higher operating expenses.

A. Crane cast steel gate valve at a natural gas booster station in Oklahoma.

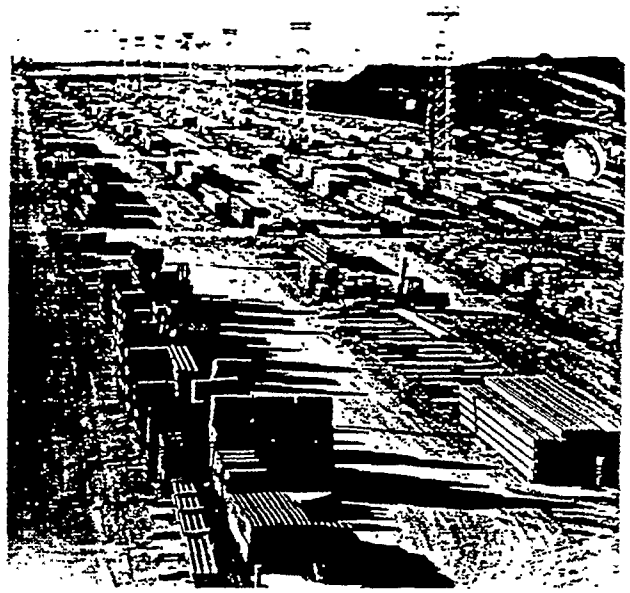
B. This 35-inch-diameter 600-pound cast steel Y-pattern globe valve will be used as a main steam valve at a nuclear power plant in Illinois.

C. Console operated automatic equipment fills valve orders at the new Carol Stream distribution center.

D. The versatile Unette modular bathroom, quickly and easily installed in many types of buildings, is ideally suited to pre-stressed slab construction.

E. A portion of the casting department at the new Nevada, Missouri, pottery.





CF&I Steel Corporation

CF&I Steel Corporation, a major supplier to the Rocky Mountain area, ranks twelfth in the industry in steel shipments. It manufactures and distributes a variety of steel products used in the construction, petroleum, mining, metalworking, transportation, farming and ranching markets.

CF&I, in its first full year as a Crane subsidiary, maintained sales volume and performed profitably despite unfavorable economic conditions, increased freight rates and higher labor and material costs. Increased prices on a number of products during the year failed to offset these costs. CF&I eastern mills were adversely affected by strikes in the trucking, tire and automotive industries.

At the end of 1970, CF&I closed its Palmer, Massachusetts, plant because of unprofitable operations. The manufacture of wire rope products will continue as before at Trenton, New Jersey.

Construction

The slackening of activity in the construction industry during 1970, plus imports of low-priced foreign steels, affected sales. Sales of rolled products—merchant bars, shapes and angles, rebars and cutting edges — all of which are tied directly to construction, were below 1969.

The wire products group, which serves the western construction, homebuilding and agricultural markets, began to show improved sales in the last quarter. Principal components of this group are nails, welded wire fabric and prestressed strand.

The new 11-inch bar mill at Pueblo began production at the end of 1970. Built at a cost of $41 million, it is one of the most technologically advanced facilities of its type in the country, and is capable of producing a broad range of bars and shapes in a variety of sizes. Production for the full 1971 year will permit a more aggressive approach to sales opportunities and a share in markets not now obtainable.

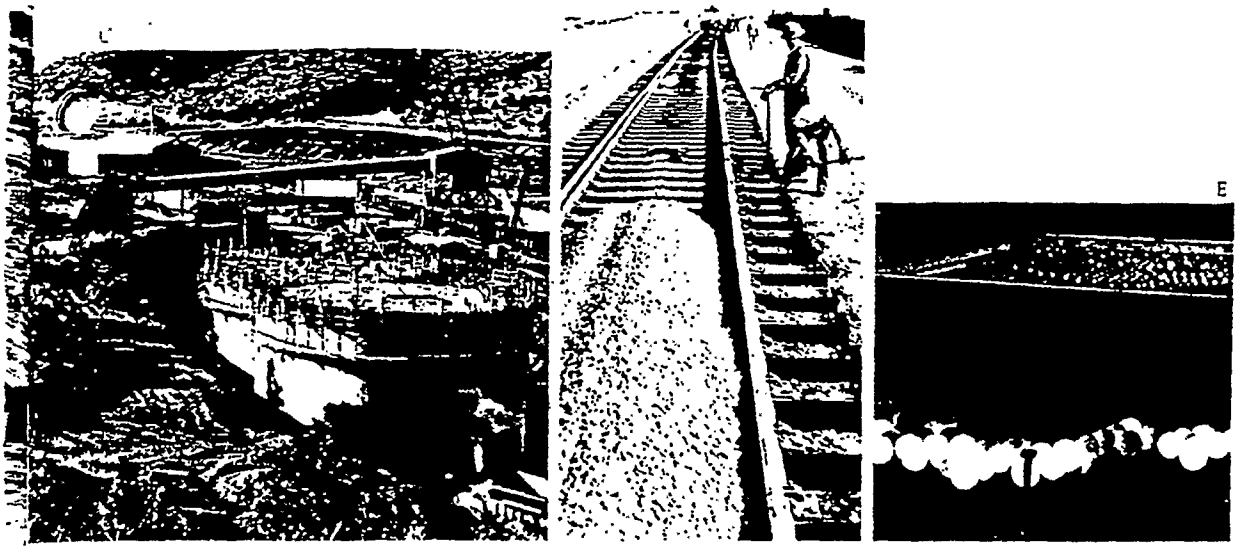
CF&I launched development of new markets for the sale of controlled cooled rods produced at the Pueblo mill. The Pueblo plant is one of the few in the nation equipped to furnish rods with the in-line process for thermally controlling the metallurgical structure. These rods offer users substantial savings as certain processing can be eliminated at the customer's plant on many end products.

During the year, CF&I acquired a reinforcing bar fabricating plant in Salt Lake City. This plant, CF&I Fabricators of Utah, will supplement the activities of CF&I Fabricators Inc., of Denver, to broaden CF&I markets for reinforcing steel.

Petroleum

Drilling activity in the petroleum industry during 1970 was lower than in 1969, but casing and tubing business picked up late in the year because of higher crude oil prices and an expected increase in natural gas activity. Drilling in 1971 is expected to equal if not exceed 1970.

During the year, the Pueblo mill began to stock casing and tubing in



Anchorage, Alaska, establishing an early foothold in this market. Prudhoe Bay and the North Slope of Alaska are expected to become large oil producing areas. CF&I, with the only seamless tube mill west of the Mississippi, is strategically located to serve this growing market.

The company has installed special equipment to produce casing and tubing with couplings applied under controlled torque turn conditions.

To meet increasing demands of the petroleum industry for higher quality products, CF&I is expanding the quench and tempering facilities in its tubular production department.

Mining

Pueblo introduced improved grinding balls and grinding rods for the mining industry in 1970. Expanded grinding ball production facilities, which include a new forging and heat treating unit, are now in full operation. An evaluation laboratory to process and test customer ores will be completed during 1971.

Metalworking

Wire and cold rolled product sales were below 1969, due primarily to the depressed automotive industry. Metalworking is a principal market for CF&I, especially for its eastern mills. Primary market areas for wire, wire rope, cold rolled strip, welded wire fabric and prestressed strand are in states east of the Mississippi River.

Transportation

Sales of railroad products made at the Pueblo plant showed an improvement over the previous year.

The Hi-Cant tieplate, which was introduced in 1969, has met increasing acceptance by the railroads. This tieplate, which is exclusive in the industry, is designed to reduce wear and improve service life of the outside rail on a curved track.

CF&I is supplying rails for the High-Speed Ground Transportation Center being built near Pueblo, Colorado, by the U.S. Department of Transportation. This 45-square-mile complex will be used to test advanced forms of rail transportation.

In addition, CF&I has furnished all the rails for the Bay Area Rapid Transit System in San Francisco, which is now nearing completion.

Farming and Ranching

Sales for Pueblo agricultural products, including baling wire and field fence and posts, showed considerable improvement in the fourth quarter, and growth is expected throughout 1971.

Organizational Changes

CF&I corporate headquarters moved from Denver to a new building in

A. & B. "Shipping Wes
new CF&I open-air facility,
more than one mile long. Ea
access for truck or rail shipme
and modern materials handli
equipment help give custome
better and faster servi

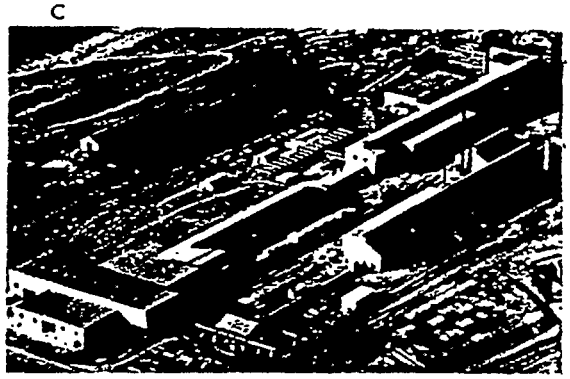
C. Two new 200-foot silos at t
Allen Mine (and two
Pueblo) will be used to sto
speed loading and unloadir
and maintain a continuo
flow of coking co

D. All rails and accessories
the Department
Transportation new hi
speed testing center are be
produced at Pueb

E. Grinding balls undergo h
treating in expan
production facilities at Pueb







A. In the new 11-inch bar mill, the entire hot mill complex between the heating furnace and cooling bed is controlled from this console in a pulpit 14 feet above the mill floor.

B. View down the bar mill line shows the roughing stands in the foreground. Intermediate and finishing stands are beyond.

C. Aerial view of new eight-acre bar mill facility.

Pueblo during the year. The Pueblo Division Sales offices were also moved to the new headquarters building.

Another important organizational change during the year was the establishment of the Wire Rope, Roebling, Pueblo and Fabricated Metals Divisions as separate profit centers. With this change, each division is responsible for its own manufacturing, purchasing, engineering, accounting and sales.

Distribution

A traditional problem in the steel industry has been the distribution of mill products to highly diverse markets.

"Shipping West," adjacent to the Pueblo mill, is a new 2.1 million square foot storage and shipping area which has immediate access to rail and highway transportation. Arranged to allow rapid assembly and shipment of customer orders, this area, coupled with improvements in plant facilities, helps CF&I offer customers improved service.

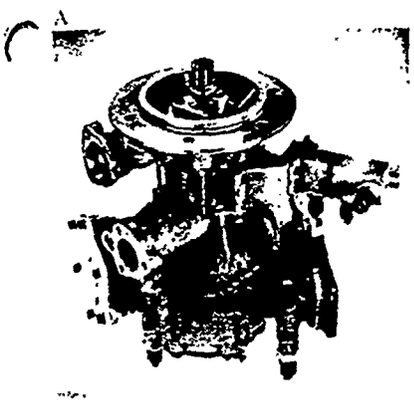
Facilities

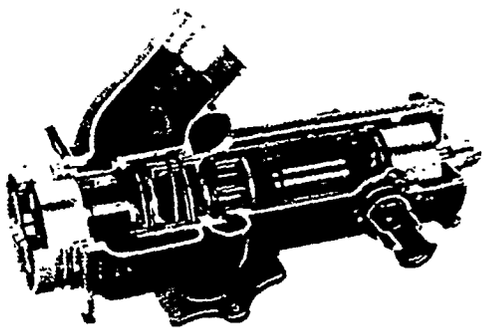
All phases of the program for modernization and improvement of the Pueblo plant, launched in 1968, moved forward on schedule during 1970.

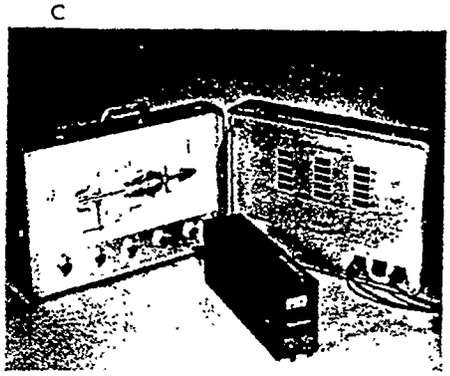
A major project at the Allen coal mine was the installation of longwall mining equipment. In longwall mining, an entire seam of coal is removed from a section of the mine by carving a continuous working face, or longwall. This method reduces operating costs and increases the safety of the operation.

Among projects that will be completed in 1971 are facilities for rapid loading and unloading of coal, which will be transported by unit train system from the Allen mine to the Pueblo plant, expansion of heat treating capacity in Pueblo's seamless tube mill to meet the increased demand for higher strength tubular products, and the installation of additional equipment for the production of an expanded line of cutting edges. In addition, a new battery of coke ovens has been authorized for Pueblo, and a new electric furnace installation is also being planned for this location.

CF&I is exploring both Company and leased lands to determine the availability of mineable seams of coking coals. Diamond core drilling is being conducted in the Sunrise District of Wyoming in a search for additional ore reserves for the Pueblo plant. Other exploration of outlying Company lands is seeking additional mineral deposits.







Hydro-Aire Division

Hydro-Aire designs and manufactures brake control systems, fuel and hydraulic pumps, controls and systems and other accessories for the aerospace industry.

Hydro-Aire Division is a pioneer and recognized leader in the design of brake controls. Its products are on all major U. S. military aircraft and all but one of the American-built commercial jet aircraft models presently in use.

Last year, the commercial aircraft industry, faced with spiraling costs of financing and reduced passenger traffic, cut back its programs, and the government made reductions in military and space expenditures. Because of dependence on both commercial and government segments of the aerospace industry, Hydro-Aire operations were depressed but profitable.

Advances were made by Hydro-Aire in 1970 in the fields of automatic braking (where the brakes are controlled by computer) and jet engine fuel controls. Significant contracts have been received for further advancement and application of these technologies. Their impact on operations is not expected to be felt until 1972 and later because of long-range development and subsequent production phases.

In cooperation with The Boeing Company, Hydro-Aire developed and demonstrated the first fully automatic braking and skid-control system. This system, already successfully tested, is designed to provide automatic brake release to prevent excessive wheel slip and lockup, while at the same time automatically controlling the deceleration of the aircraft.

Hydro-Aire entered a new product area last year with the development of the main engine fuel pump for a new jet engine. This pump incorporates features which result in considerable weight savings and improved engine performance.

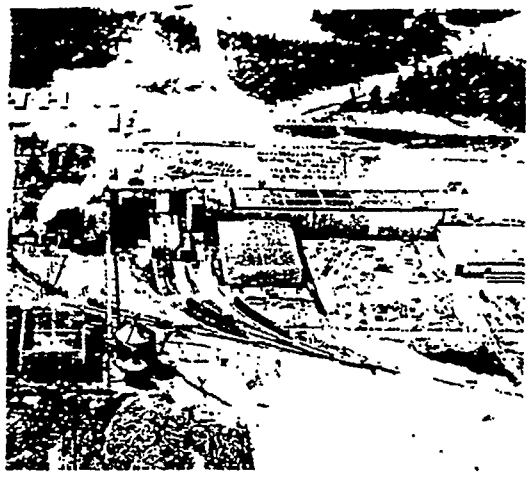
The Division also developed a motor and/or engine driven fuel boost pump which will be used on many new aircraft. This pump can be serviced in the field without disturbing aircraft plumbing, thus reducing aircraft downtime.

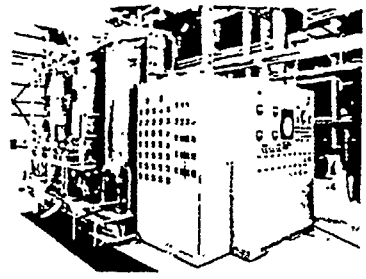
Hydro-Aire has developed an on-line maintenance system for in-flight monitoring of aircraft systems. The basic concept is also directly applicable to ground installations. It provides a unique approach to system monitoring and offers an excellent new product potential for the Seventies.

A. Main fuel pump for a new engine to power military jet aircraft.

B. Cut-away view shows the unique cartridge configuration of a fuel boost pump used in both the Boeing 747 and Douglas DC-10.

C. This Hydro-Aire on-line maintenance system equipment is designed to pinpoint problem areas.







Crane Canada Limited

Crane Canada Limited manufactures and distributes plumbing fixtures, valves, pumps, heating equipment and water conditioning equipment for housing, commercial and institutional building and industrial applications.

Tight money, coupled with severe labor problems, adversely affected Crane Canada Limited operations in 1970. Work stoppages in housing and building construction rose to an unprecedented level, highlighted by a four-month construction strike in British Columbia. This had a serious effect on plumbing product sales, and severe price competition worsened the impact.

Unpegging of the Canadian dollar slowed capital spending in the pulp and paper industry and affected others engaged primarily in export. Exceptions were the oil and gas industries where spending remained strong.

With labor contracts settled and more mortgage money available, housing starts began to increase during the last months of 1970 and are expected to continue strong in 1971. Emphasis will be on multiple family and other low cost housing projects. Improvement hinges on the construction industry's ability to resolve new labor negotiations without major stoppages.

Crane Canada has worked closely with the Canadian government to help plan for housing needs, particularly in moderate income and public housing areas. Last year, it was one of three major companies selected to pool research and development talents to investigate the design of a totally integrated, all-Canadian building system for low income housing.

Sales of valves, pumps, water treatment equipment and other industrial products exceeded 1969 despite generally depressed capital spending. A redesigned cast steel valve line and activity in the oil and gas industries contributed to this performance.

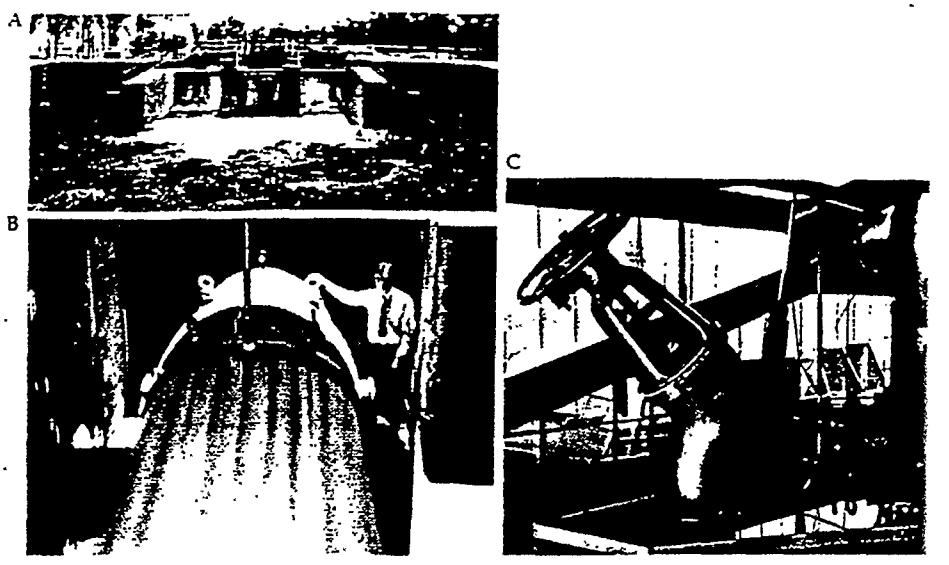
An Environmental Systems Division was formed to combine water and waste treatment experience with knowledge of systems engineering and fluid pumping and control. Research and development activities will be coordinated with those of the Environmental Systems Division in the United States.

Crane Supply Division distributes in every major Canadian city and serves building, construction and industrial markets. Results were below the record 1969 levels because of reduced construction and tight money. Increased activity forecast for this year, especially in the second half, points toward improved business for the Crane Supply operation in Canada.

A. Crane valves, hydrants, pipes and fittings were used extensively throughout the new St. Anne-Nackawic pulp and paper mill in New Brunswick.

B. Control panel and regeneration system of Cochrane Ammonex condensate polisher installed at the Clover Bar Generating Station, Edmonton.

C. Simon Fraser University, Vancouver, selected Crane plumbing fixtures and brass.



A. & B. Three 48-inch hollow jet steel valves manufactured at Kilmarnock, Scotland, plant were installed by Crane Australia to control the water supply for Sydney, which uses up to 637 million gallons per day.

C. This 16-inch pump discharge valve at the Algeciras, Spain, power station is one of a variety of valves supplied by Crane S.A.

International Operations

United Kingdom—valves, fittings, heating equipment, pumps, and water conditioning equipment
The Netherlands—valves, fittings and heating equipment
France—valves and pumps
Spain—valves and pumps
West Germany—valves
Australia—valves and pumps
Mexico—valves and pumps

Operations outside the United States and Canada showed a moderate sales gain, but operating profits remained essentially the same because of worldwide economic conditions and labor unrest.

United Kingdom

Crane Ltd. operations in 1970 produced higher sales, but Great Britain's inflation, a very significant increase in labor costs, a construction slowdown and a credit squeeze all served to depress profits.

In the Heating and Supply Division, malleable fittings sales were particularly strong. Crane Ltd. is concentrating on commercial heating products where market conditions are favorable. The Company expects to be a strong factor in this area.

Fluid Control Division sales rose in 1970 with the introduction of control valves and a new butterfly valve. Gains were made in sales to the oil, chemical, petrochemical and marine industries, and also in the sale of water meters and pumps.

Programs to broaden the product and market bases for both pumps and meters were launched. Following the successful introduction of new vertical in-line and chemical process pumps, sales efforts were extended into areas where market penetration has been limited in the past and considerable potential exists.

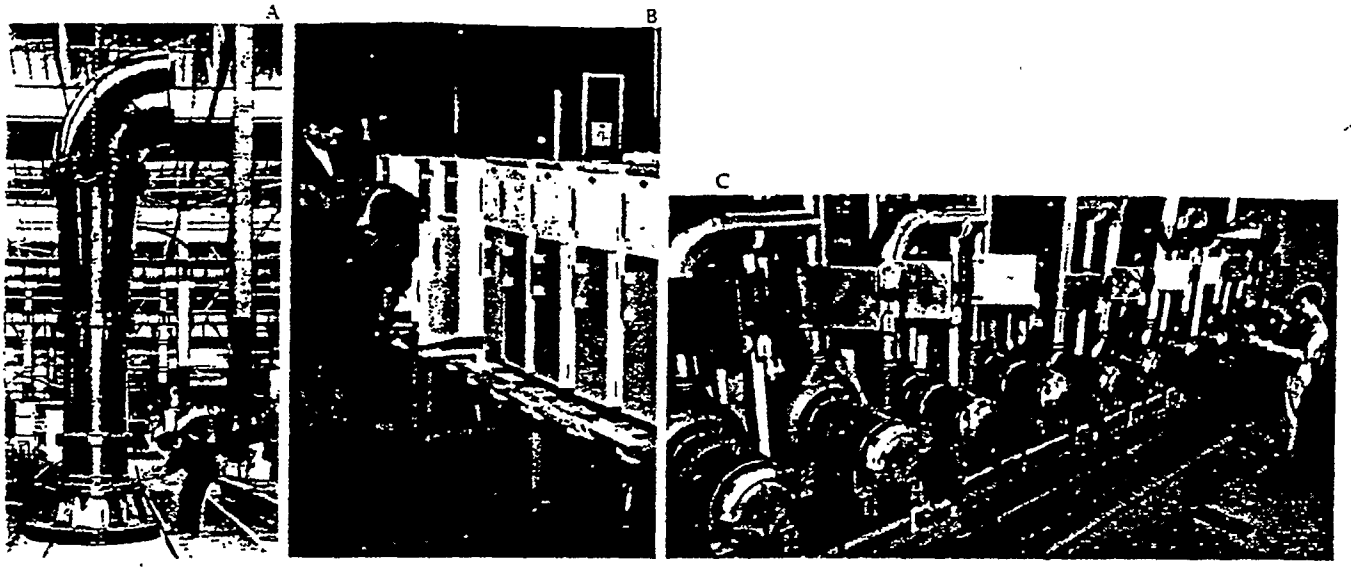
A new Environmental Systems Division was established for industrial water and waste treatment and the first major contract for a new fertilizer complex in Hungary was signed.

If the labor climate improves and easing of the money supply continues, the outlook for 1971 is expected to be more favorable.

The Netherlands

Generally favorable economic conditions, coupled with increased operating efficiency, helped Crane Nederland, N.V. show improved performance for the year. Sales of malleable fittings, natural gas-fired domestic boilers and ball valves all were ahead of 1969.

While inflation is expected to con-



nue in 1971, Crane Nederland anticiates improved market conditions. Caacity will be increased with a fully utomated malleable fittings molding ne scheduled for operation by the iiddle of the year.

rance

rane S.A. orders were up in all primary iarkets served: oil, gas, chemical, elec-ical and ship building. Significant inreases in material and labor costs were ffset by improved efficiency in manuacturing and distribution. Automated iachinery was installed for manufacure of new low pressure steel valves.

While inflation and a possible slowlown in the economy make projections ıncertain, industrial expansion in 1971, ogether with improved operating effi-iency, is expected to provide favor-.ble marketing conditions.

pain

hipments improved significantly dur-ıg 1970, due to strength in the shipuilding industry, a major market for rane-FISA, S.A. valves. A new line of ıst steel valves was developed to meet ıe needs of thermal power plants lanned by the Spanish government.

The domestic market also showed nprovement during 1970, and there as an expansion in export sales. This end is expected to continue in 1971.

Jest Germany

rane G.m.b.H. serves the chemical, petroleum, gas and power industries of West Germany with valves manufactured there and by other Crane companies. The chemical industry was most responsive in 1970 with a substantial jump in demand over last year. Sales of steel valves rose, but unstable prices, coupled with rising labor and interest costs, reduced profits.

The forged steel line will be broadened in 1971 to gain greater penetration into the domestic market and the Common Market.

Australia

Crane Australia Pty. Limited sales were approximately the same in 1970, but profits showed improvement.

Australia last year expanded its capacity to produce large diameter valves. With the introduction of several new products, it now manufactures a full line of iron and steel valves in sizes up to 24 inches in diameter and a competitive line of pumps.

With the continuing discovery and development of mineral resources on that continent, the outlook for the Australian economy is expected to remain favorable.

Mexico

Valve and pump sales for Crane-Deming de Mexico S.A. rose as a result of the improved economic climate and better distribution. Plans for 1971 include the introduction of a new low cost valve and an industrial pump line.

A. Electrically operated submerged discharge regulating valve for the Essex River Authority was built at the Glenfield & Kennedy plant, Kilmarnock.

B. Boilers for domestic heating are inspected at Deventer, The Netherlands, plant.

C. This battery of Crane centrifugal pumps circulates water for the air conditioning and heating system in the Churchill Hotel, London.

Chempump, Crane Chef, Hi-Cant, microstraining, Petite•7, and *Unette* are Registered Trade Marks. Applications have been filed to register *Ammonex* and *Tork-Seal* as Trade Marks.

Directors

Officers

Stock Transfer Agents

Registrars of Stock

Bond Trustees & Disbursing Agents

Auditors

Executive Offices

Equal Employment Opportunity Policy