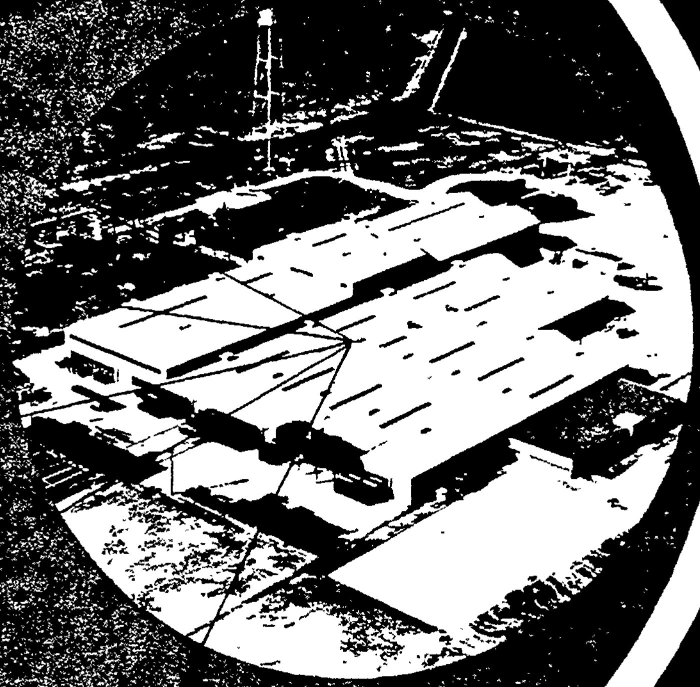
PLAINTIFF'S EXHIBIT
JMMC-160

New Johns-Manville Transite® Pipe Plant



DENISON, TEXAS

Serving Texas, Oklahoma, Colorado, Kansas, Arkansas, New Mexico and Other Areas In The Rapidly-Growing Southwest With These Transite Asbestos-Cement Products:

- Pressure Pipes For Municipal And Private Water Systems
- Irrigation And Industrial Pipe Lines
- Sewer And Building Pipe
- Gas And Plumbing Vents
- Air And Telephone Ducts; Electrical Conduit

Press View And Public Opening
Friday, June 20, 1958

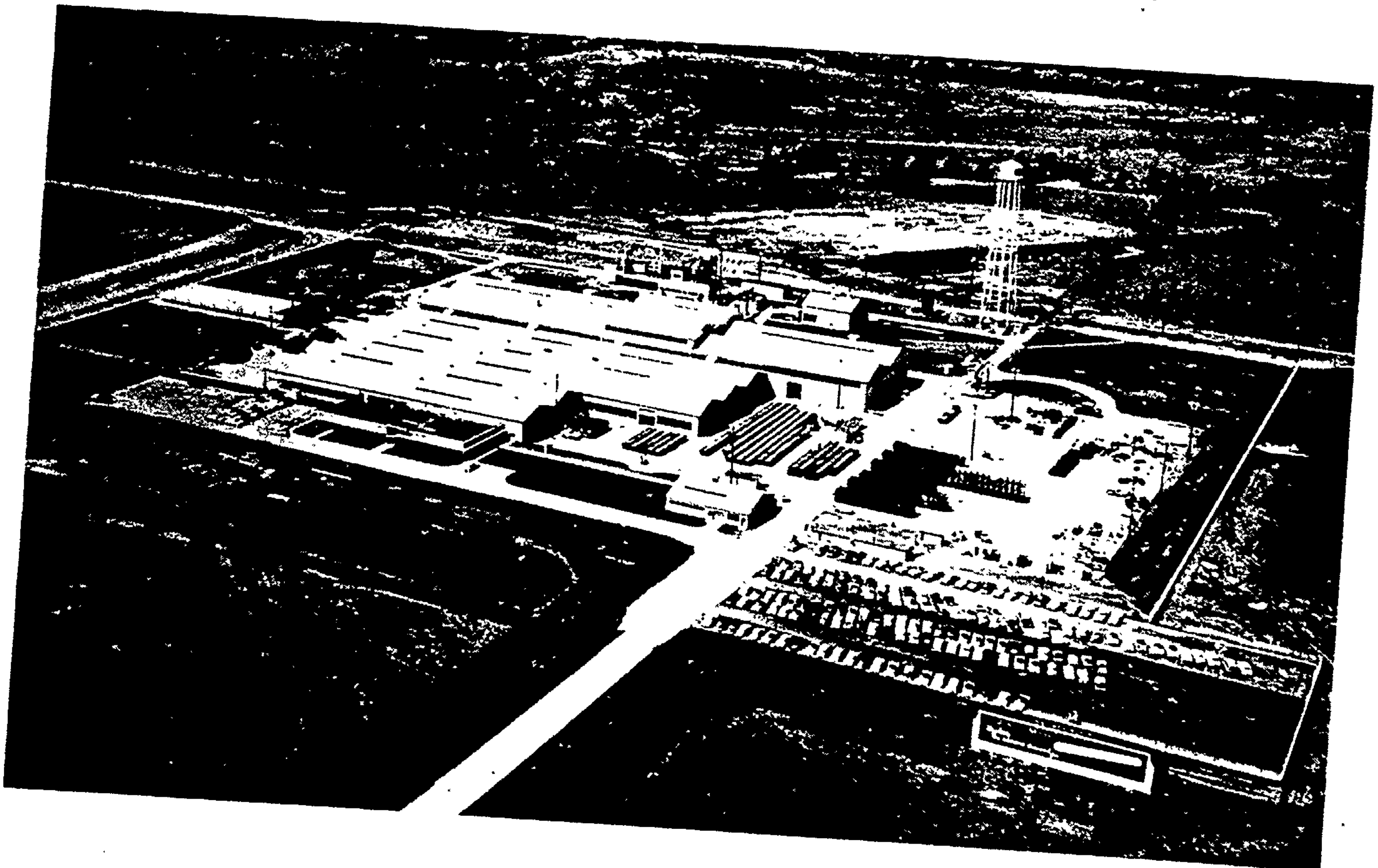
EDITORS:

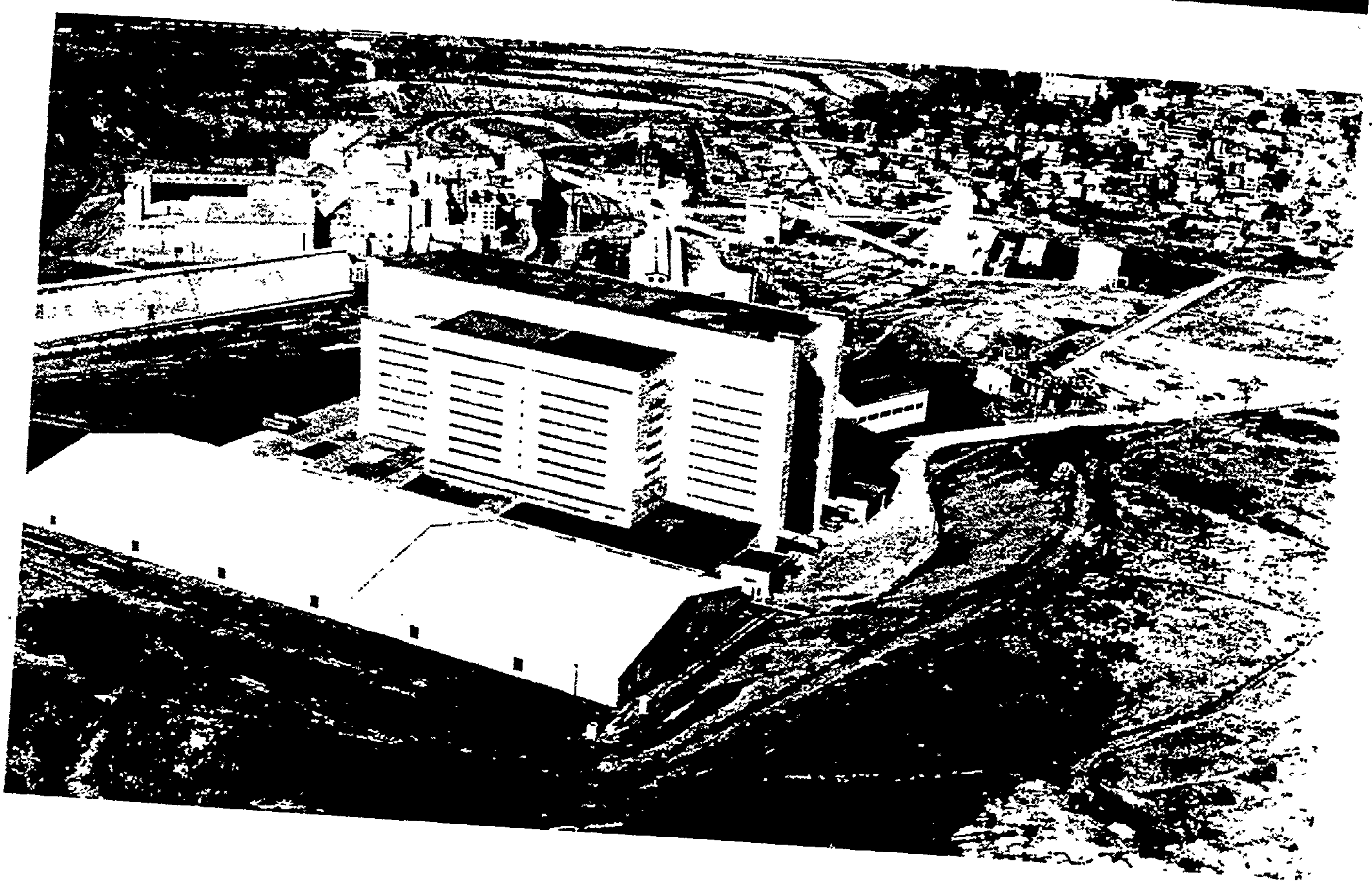
For any further information needed contact Industrial Relations Manager, Johns-Manville Products Corporation, Denison, Texas, or the Public Relations Department, Johns-Manville Corporation, 22 East 40th St., New York 16, N. Y., Telephone: Lexington 2-7600

Serving Homes And Industry Since 1858

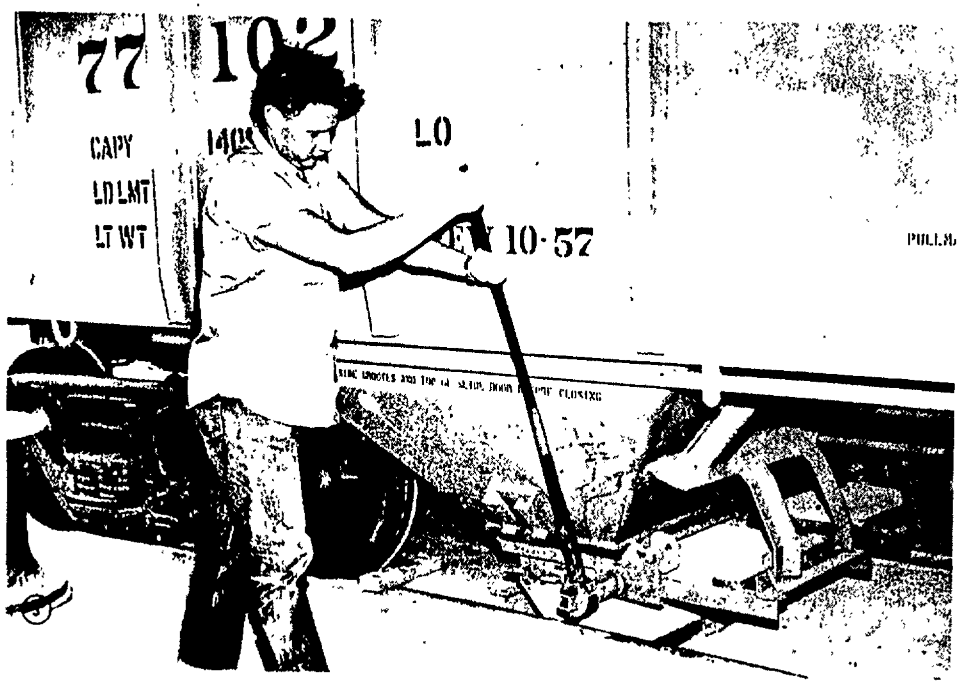
JM

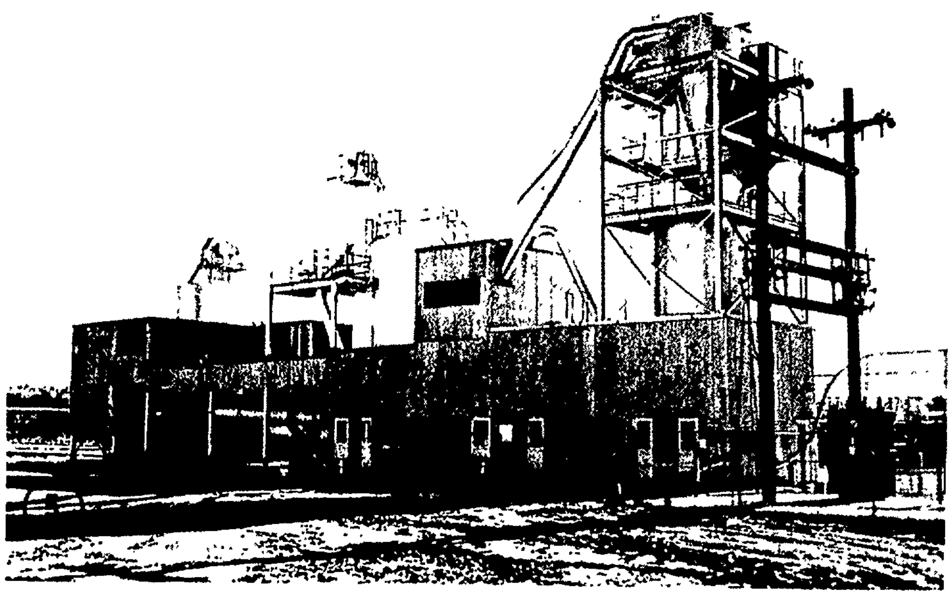
PHOTOGRAPHS AVAILABLE UPON REQUEST
(See Accompanying Captions And Photo Order Blank)

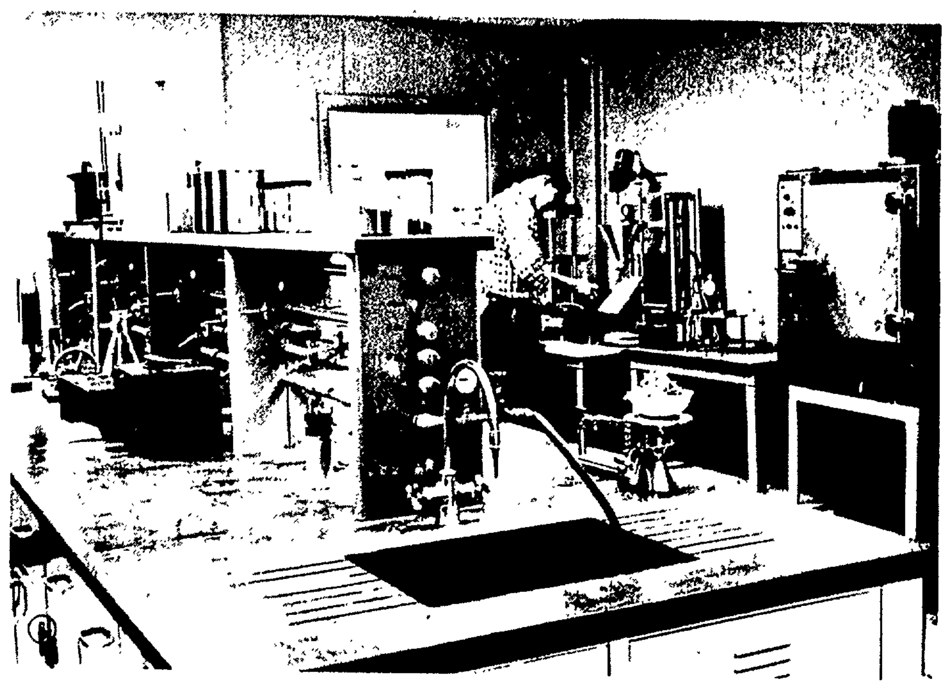




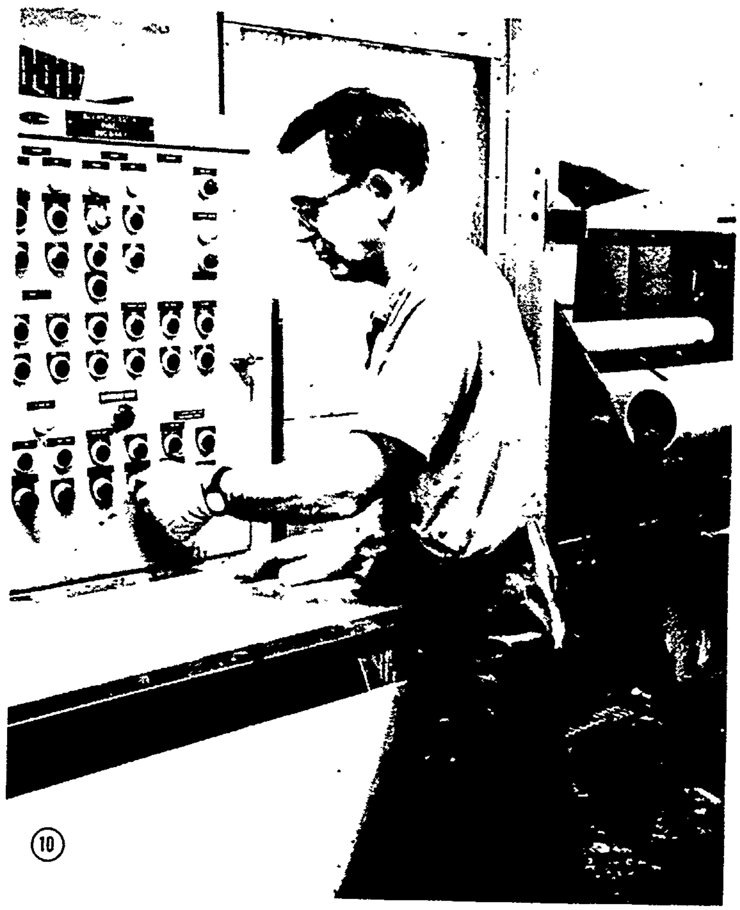
RAW MATERIALS COME FROM TEXAS, CANADA, AFRICA AND AUSTRALIA





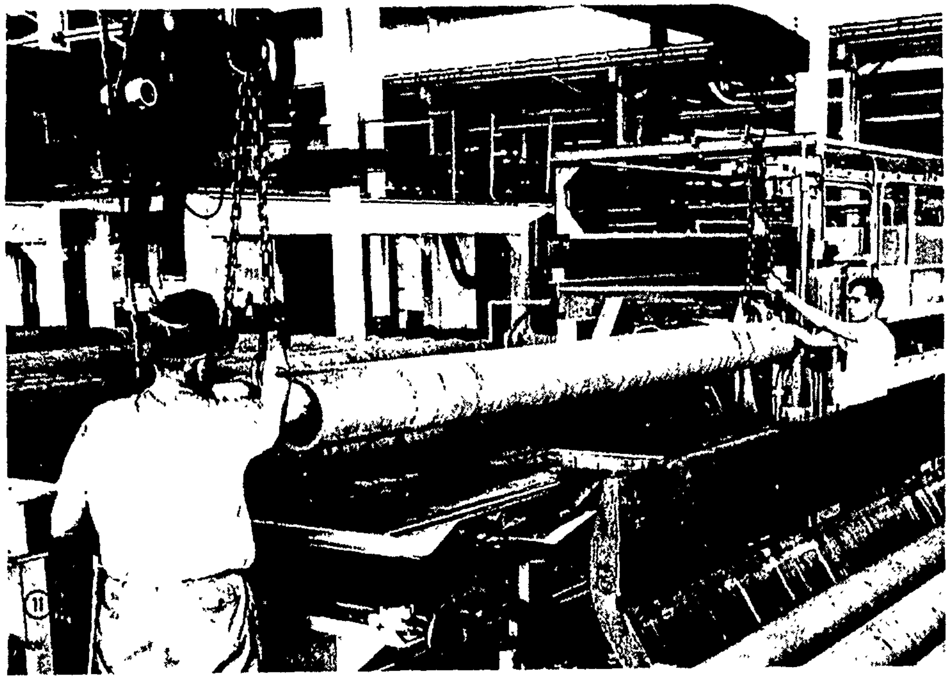


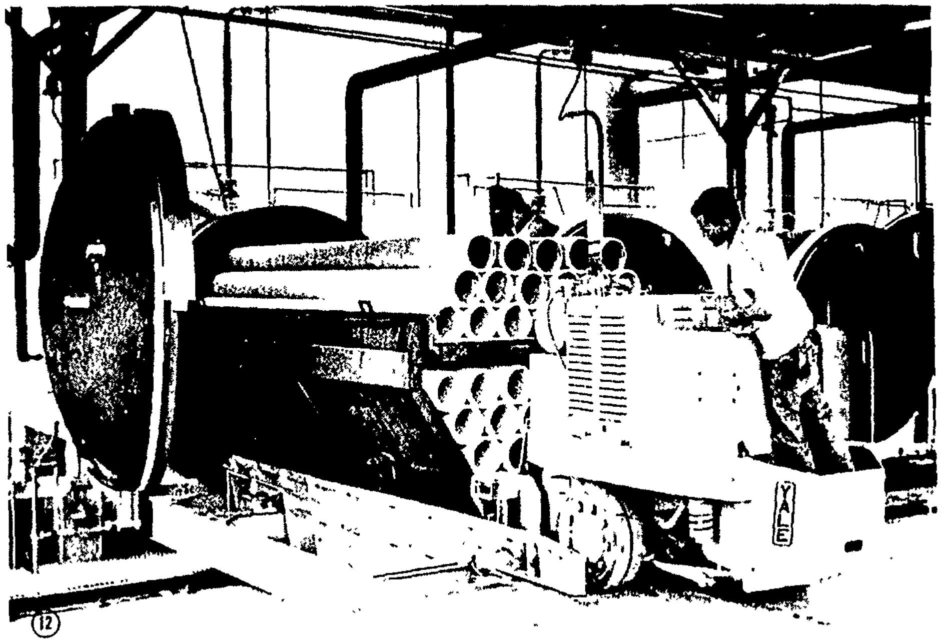
PUSH BUTTON CONTROL GOVERNS MECHANIZED MANUFACTURING PROCESSES

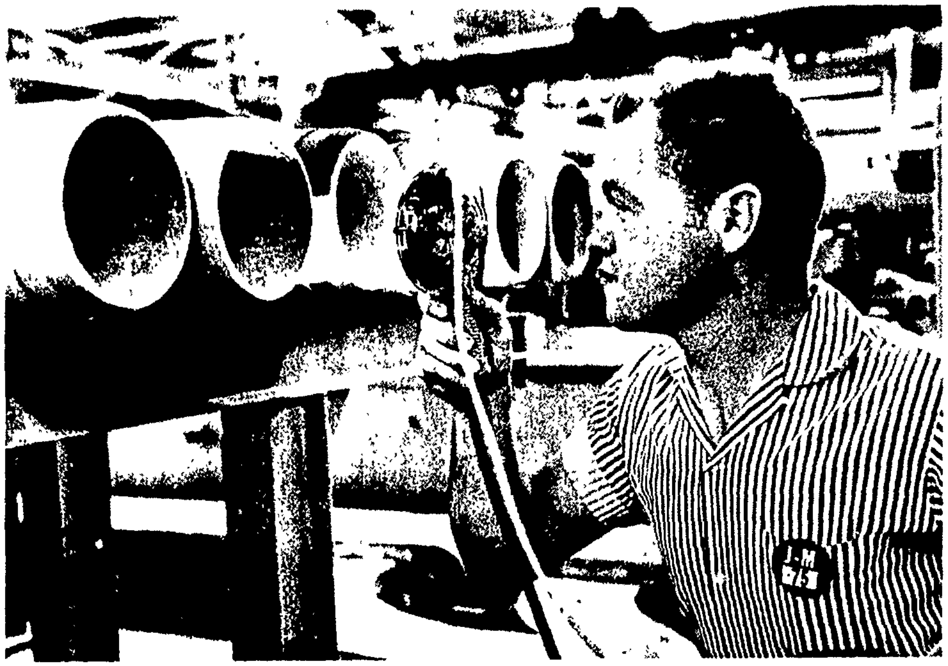


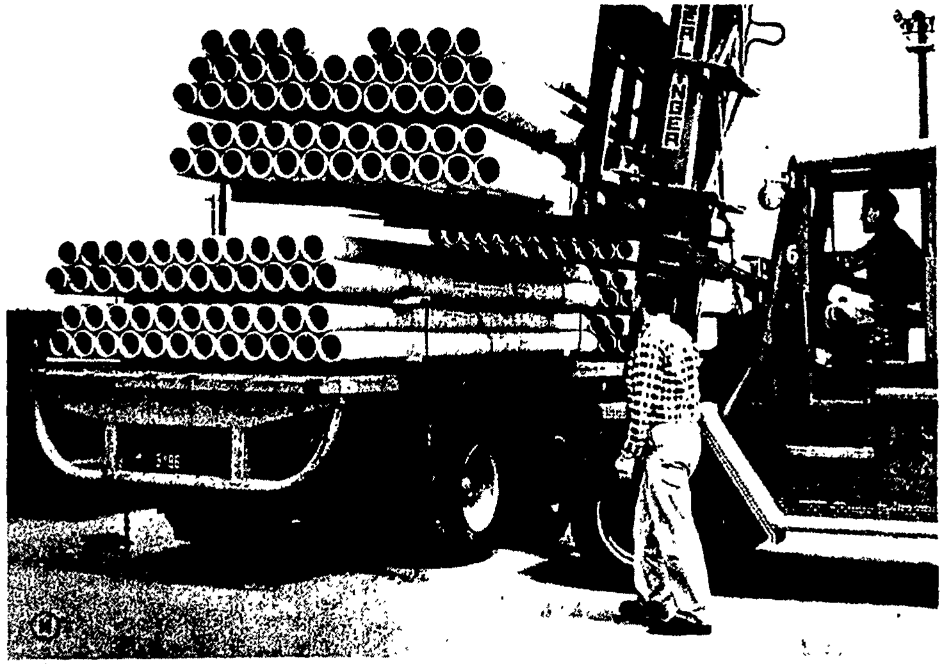
10

PIPE IS CURED AND CLOSELY INSPECTED BEFORE SHIPMENT









STRONG MANAGEMENT, MERCHANDIZING, RESEARCH AND SALES TEAM MANUFACTURES TRANSITE PIPE PRODUCTS AT NEW DENISON, TEXAS, PLANT AND DISTRIBUTES THEM THROUGHOUT SOUTHWESTERN STATES


A.R. Fisher


C.B. Burnett


R.F. Orth


J.E. Hesse


T.R. Turnbull


J.H. Goodwin


G.R.R. Wahl

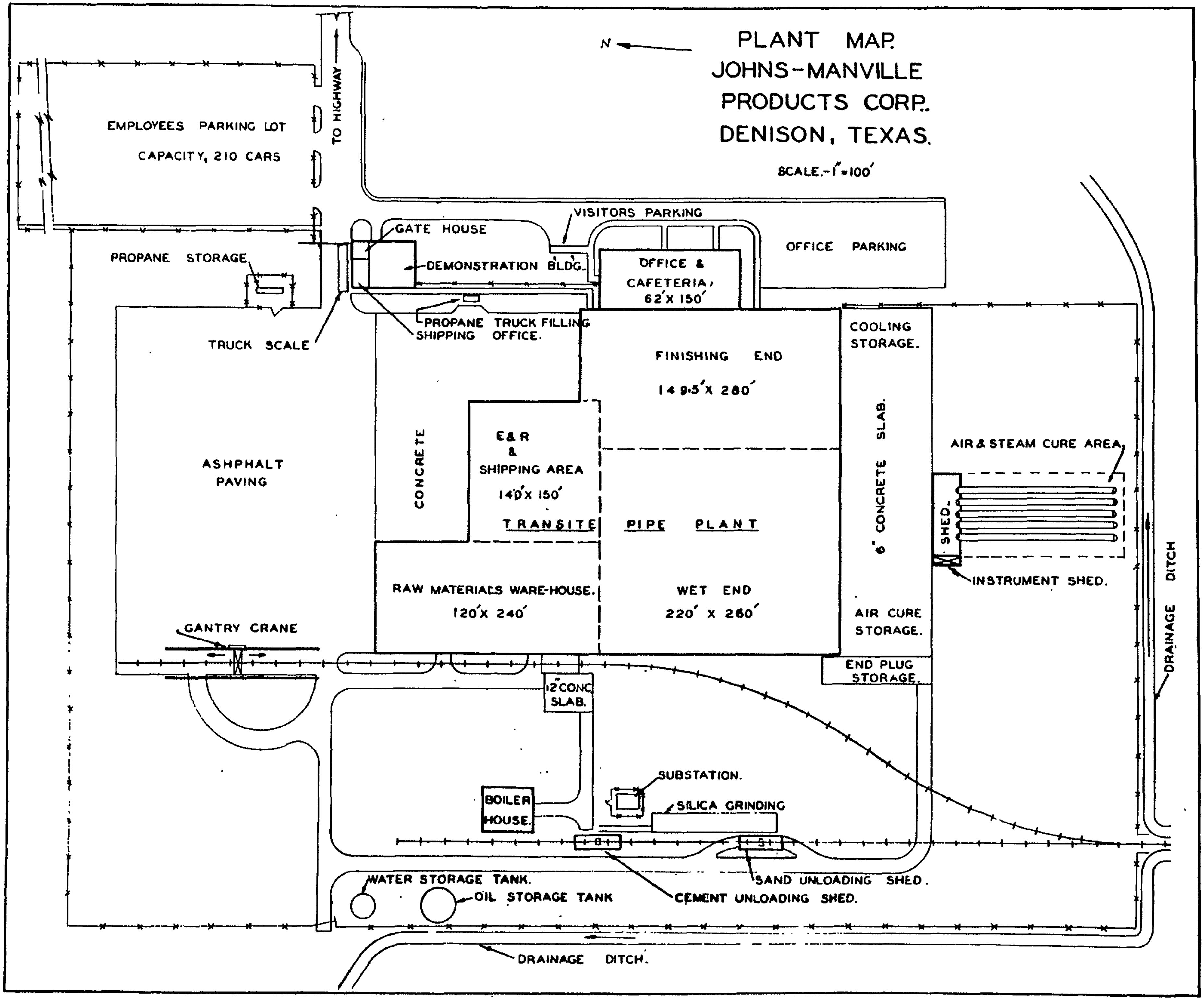

J.C. Bradley


W.H. Waring


J.W. Davis


H.G. Palmer


G. Smolak


PLANT MAP.
JOHNS-MANVILLE
PRODUCTS CORP.
DENISON, TEXAS.
SCALE.-1"=100'
N
EMPLOYEES PARKING LOT
CAPACITY, 210 CARS
TO HIGHWAY
VISITORS PARKING
GATE HOUSE
DEMONSTRATION BLDG.
OFFICE & CAFETERIA, 62'X 150'
OFFICE PARKING
PROPANE STORAGE
TRUCK SCALE
PROPANE TRUCK FILLING
SHIPPING OFFICE.
FINISHING END
14 9.5'X 280'
COOLING STORAGE.
6" CONCRETE SLAB.
AIR & STEAM CURE AREA
SHED.
INSTRUMENT SHED.
ASHPHALT PAVING
CONCRETE
E&R & SHIPPING AREA
140'X 150'
TRANSITE PIPE PLANT
RAW MATERIALS WARE-HOUSE.
120'X 240'
WET END
220' X 260'
AIR CURE STORAGE.
END PLUG STORAGE.
GANTRY CRANE
12"CONC SLAB.
DRAINAGE DITCH
SUBSTATION.
SILICA GRINDING
BOILER HOUSE.
WATER STORAGE TANK.
OIL STORAGE TANK
SAND UNLOADING SHED.
CEMENT UNLOADING SHED.
DRAINAGE DITCH.

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At Denison, Texas, On Friday, June 20, 1958

-oOo-

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2. First Continuous, Automatic Manufacture Of Asbestos-Cement Pipe In U.S.

3. Construction Details Of The New Plant

4. Asbestos Fibres Stronger Than Steel Wire Used In Making Transite Pipe

5. Raw Materials Move Automatically Into Production Cycle

6. Clean Air And Water Assured By Modern Industrial Wastes Technology

7. Employee Facilities Stress Health, Safety, Pleasant Working Conditions

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9. Transite Pipe - Its Origin, Its Many Uses, How It Is Made

10. Organization Of The Johns-Manville Pipe Division

11. A Century Of Industrial Research And Development

12. The 100-Year History Of Johns-Manville

13. Text - Remarks By A.R. Fisher, Chairman And President

14. Biographical Data

PHOTOGRAPHS

1. Offset Reproductions Of Available 8 x 10, Black and White, Glossy Photographs

2. Picture Caption Material

3. Editors' Order Blank For Photographs

P I C T U R E   C A P T I O N   M A T E R I A L

EDITORS: The following caption material describes the offset pictures included in this press book. Black and white, glossy, 8 x 10 prints are available upon request. You may order them by number on the blank enclosed for your convenience.

-oOo-

1. AIR VIEW OF NEW JOHNS-MANVILLE TRANSITE PIPE PLANT AT DENISON, TEXAS

This new plant is the most modern of its type in the industry and represents more than half a century of accumulated engineering experience in the production of Transite asbestos-cement products. It consists of five steel, concrete and corrugated Transite, one-story buildings. It is on a 469-acre site on the banks of the Red River adjacent to Lake Texoma, ninth largest water reservoir in the world.

-oOo-

2. AIR VIEW OF JOHNS-MANVILLE MINE AND MILL AT ASBESTOS, QUEBEC

Although Texas silica and cement are utilized as raw materials in the manufacture of Transite Pipe at the new Johns-Manville plant at Denison, Texas, a third raw material - asbestos fibre - comes from Canada, Africa, and Australia. Most of the asbestos fibre, however, is shipped direct from Asbestos, Quebec, where Johns-Manville operates the largest asbestos mine and mill in the world. This mine produces more than half the asbestos fibre mined in Canada and about one third of all asbestos fibre mined in the world. Above air view of the Asbestos, Quebec operations shows the world's largest asbestos mill and warehouse in the foreground. In the background, right, is shown the headframe for underground mining, and, left, the mile-wide open pit mine and manufacturing plant.

-oOo-

3. <u>TEXAS CEMENT ARRIVING AT NEW JOHNS-MANVILLE TRANSITE PIPE PLANT</u>

Opening of hopper gates on cement car. The cement, produced in Texas, is dropped by gravity, then pumped through pneumatic conveying system directly to storage bins.

-oOo-

4. <u>CANADIAN ASBESTOS FIBRE ARRIVING AT NEW J-M TRANSITE PIPE PLANT</u>

Asbestos fibre shipped from Canada is shown arriving at the new Johns-Manville Transite Pipe plant at Denison, Texas. The Canadian National Railways freight car, shown above, came into Denison over the M.K.& T. Railway. A fork lift truck operator and unloader remove fibre bags for tiering in warehouse.

-oOo-

5. <u>SILICA GRINDING BUILDING AT NEW J-M TRANSITE PIPE PLANT</u>

One of the important operations at the new Johns-Manville Transite Pipe plant at Denison, Texas, is the preparation of silica which is used as a raw material. The above view shows the Silica Grinding Building. Texas sand is unloaded from trucks by gravity into bins serviced by bucket elevators which convey the sand to surge storage tanks. From this point the sand is automatically fed through a gas heated dryer into a 200-ton storage hopper. It proceeds automatically from the hopper to a Patterson Rotating Ball Mill where it is ground into silica, then is pushed by air to a screen classifier and then into a 200-ton finished silica storage bin.

-oOo-

6. <u>RAW MATERIALS PASS QUALITY CONTROL TESTS</u>

Quality Control laboratory technicians continuously test all raw materials - asbestos fibre, cement and silica - used in the manufacure of Transite Pipe at the new Johns-Manville plant at Denison, Texas. Here a laboratory technician is shown testing samples of some newly arrived cement.

-oOo-

7. <u>ASBESTOS AS STRONG AS STEEL WIRE USED IN MAKING TRANSITE PIPE</u>

Asbestos fibre as strong as some types of steel wire is one of the raw materials used in manufacture of Transite Pipe at the new Johns-Manville plant at Denison, Texas. In this picture various grades of asbestos fibre from Canada, Southern Rhodesia and Australia, are shown being placed into a conveyor leading to the willow. This operation in the manufacturing process is to "fluff up" and thoroughly mix the various grades of fibre according to the type of Transite Pipe desired. From this point on, no raw material is touched by human hands, the rest of the manufacturing operations being automatic.

-oOo-

8. <u>PUSH-BUTTON CONTROL TAKES OVER AS TRANSITE PIPE IS FORMED</u>

Transite Pipe is formed on polished steel mandrels under pressure to produce a pipe wall of dense, uniform, homogeneous structure. Here a control operator is shown pushing the button that starts manufacture of a 13-foot section of 150-pound Ring-Tite pressure pipe. The process is continuously observed by the assistant control operator and machine tender to assure efficient functioning.

-oOo-

9. AUTOMATIC LATHES MACHINE ENDS OF PIPE SECTIONS TO REQUIRE TOLERANCES

Transite asbestos-cement pressure pipe is carefully machined to insure tight fit before being shipped from the new Johns-Manville Transite Pipe plant at Denison, Texas. Here a universal pressure pipe lathe operator is shown working electrical switches and push buttons to start this automatic operation.

-oOo-

10. TRANSITE PIPE TESTED AT THREE AND A HALF TIMES NORMAL WORKING PRESSURE

Transite pressure pipe is tested at three and a half times its normal working pressure before being shipped from the new Johns-Manville Transite Pipe plant at Denison, Texas. Here an operator uses an electrical push-button to start automatic hydrostatic testing of 6-inch, 150-pound Ring-Tite pressure pipe.

-oOo-

11. NEWLY FORMED PIPE CURED BY AIR AND STEAM BEFORE FINAL TESTS

The air and steam curing stage contributes much to the stability and structural integrity of Transite Pipe. Under action of the high-pressure steam, Transite assumes a new chemical identity. The silica unites chemically with the free lime ordinarily associated with cement products and converts it into highly stable calcium silicates. The cured pipe is thus unusually resistant to corrosive attack throughout its entire structure. Here the Head Curer and Curer at the new Johns-Manville Transite Pipe plant at Denison, Texas, are shown removing a 6-inch, 150-pound Ring-Tite pressure pipe section from the extraction table. It goes to the adjoining cure tray for air cure, then into the steam curing process.

-oOo-

12. SPECIAL TANKS GIVE TRANSITE PIPE STEAM CURE AT NEW J-M TEXAS PLANT

A battery of specially designed autoclaves give Transite pipe made at the new Johns-Manville plant at Denison, Texas, a high-pressure steam cure at the end of the manufacturing process. Here a platform truck driver is shown loading one of the steam cure tanks.

-oOo-

13. QUALITY CONTROL SPECIALISTS INSPECT TRANSITE PIPE

After Transite Pipe made at the new Johns-Manville plant at Denison, Texas, has been given the steam cure, it is carefully inspected by Quality Control technicians. Here an inspector is visually checking 6-inch, 150-pound Ring-Tite pressure pipe for any interior imperfections, prior to measuring inside and outside dimensions to insure that each section meets the required specifications. Tolerances and machining are also carefully measured.

-oOo-

14. PIPE SHIPPED DIRECT TO JOB SITE BY TRUCK FROM NEW J-M TEXAS PLANT

Johns-Manville located its new Transite Pipe plant at Denison, Texas to provide prompt delivery of pipe to service the needs of the rapidly growing southwest. Here a load of asbestos-cement pressure pipe is about to be sent from the J-M plant direct to a job site. The gang leader is shown directing a truck driver in loading of a flat bed truck.

-oOo-

15. STRONG MANAGEMENT, PRODUCTION, MERCHANDIZING AND SALES TEAM MOVES JOHNS-MANVILLE TRANSITE PIPE PRODUCTS FROM NEW PLANT AT DENISON, TEXAS, INTO SOUTHWEST AND ADJACENT TERRITORIES

a. A.R. Fisher, New York
Chairman And President

b. C.B. Burnett, New York
Executive Vice President

c. R.F. Orth, New York
Vice President And General Manager
Johns-Manville Pipe Division

d. T.R. Turnbull, New York
Division Production Manager

e. J.E. Hesse, Denison, Texas
Plant Manager

f. J.C. Bradley, Denison, Texas
Industrial and Public
Relations Manager

g. G.R.R.Wahl, New York
Division Merchandize Manager

h. J.H. Goodwin, New York
Division General Sales Manager

i. W.H. Waring, Houston, Texas
District Sales Manager

j. H.G. Palmer, St. Louis, Mo.
District Sales Manager

k. J.W. Davis, Denver, Colo.
District Sales Manager

l. George Smolak, Manville, N.J.
Research Manager, Pipe Department
Research and Engineering Centers

# # #

PR-1-100

PUBLIC INFORMATION
from
JOHNS-MANVILLE CORPORATION
22 EAST FORTIETH STREET NEW YORK 16, N. Y.

FOR ADDITIONAL DATA, IF REQUIRED, TELEPHONE:

	DAY	NIGHT
WAD ALLEN	LE 2-7600	RH 4-3978
BATES RANEY	LE 2-7600	OR 3-7113

FOR RELEASE: 10 AM, Friday, June 20, 1958

DENISON, Texas, June 20.--(Special)--Johns-Manville opened the first continuous-process asbestos-cement pipe plant in the United States here today.

It was an industry technological innovation roughly comparable to the introduction of the first continuous strip mill in the steel industry, company engineers said. The new plant, operated by electronic push-button controls, is an almost completely automatic factory.

Governor Price Daniel came from the state capitol at Austin to officiate at the opening ceremonies, giving the signal that put into operation an entirely new type of industry in the state's economy here at this Grayson County birthplace of President Eisenhower.

Notables from city, county and state, along with A.R. Fisher, Chairman and President and R.F. Orth, Vice President and General Manager of the Pipe Division, who is a native Texan, and other Johns-Manville officials, as well as hundreds of local residents, attended the plant opening.

The plant is situated on a 469-acre site on the banks of the Red River which separates Texas from Oklahoma and puts to industrial use land formerly restricted to farming and pecan growing. It adjoins the 1,300-mile, man-made Lake Texoma, ninth largest water reservoir in the world.

The new Transite asbestos-cement pipe plant is one of eight new Johns-Manville factories being brought into production in the United States and Canada during 1958 - the company's 100th anniversary year.

MORE

Northeast Texas was selected as the location for this plant to speed deliveries and cut shipping costs in supplying the rapidly-growing southwestern states and adjacent areas with Transite asbestos-cement pipe for water and sewer systems, irrigation and industrial pipe lines, electrical conduit, air conditioning and other ducts, vents, flues and stacks.

"Opening of our new plant at Denison marks another move forward by Johns-Manville and another milestone in the industrial progress of Texas," Mr. Fisher told the plant opening audience. "There is no doubt that Texas is experiencing a spectacular growth. The Lone Star state is growing at a faster rate than the country as a whole. Denison is now one of the 26 communities in the United States and Canada where we operate plants and mines. This new J-M plant will serve the rapidly-growing Southwest market, including Oklahoma, Colorado, Kansas, Arkansas, New Mexico and adjacent areas."

Mr. Fisher pointed out that Johns-Manville is no stranger to Texas. "In 1952 we acquired an asphalt roofing plant at Fort Worth," he said. "But even then we felt that we were long overdue in Texas and the Southwest. On a number of occasions we considered the possibilities of expanding into Texas. Every survey we made was most favorable."

The Johns-Manville Pipe Division, which functions virtually as a separate company in manufacturing, merchandizing and distributing its Transite asbestos-cement pipe products, will operate the Denison plant. Other J-M pipe plants are operated by the Division at Manville, New Jersey; Marrero, Louisiana; Stockton, California; Watson, California; and Waukegan, Illinois. Another Transite pipe plant is operated by the Canadian Products Division of Johns-Manville at Toronto, Ontario.

The Johns-Manville Denison Plant, a "showplace" establishment among the company facilities scattered from northern Ontario and Quebec to New Orleans and from Tilton, New Hampshire to the Pacific Coast, is the culmination of more than half a century of engineering, production and industrial research experience in the manufacturing of Transite asbestos-cement products.

MORE

It consists of five steel, concrete and corrugated Transite, one-story buildings covering 4 acres that include 186,000 square feet of manufacturing and warehousing floor space. The buildings have built-in corrugated translucent sections permitting daylight operations inside the plant. All of the production equipment and process layout were designed by the Johns-Manville General Engineering Department to performance specifications of the J-M Pipe Division. The new plant utilizes the latest production techniques based on manufacturing experience dating back to 1904 when Johns-Manville first introduced Transite asbestos-cement in flat sheets, from 1921 when it was first fabricated in corrugated form and from 1929 when Transite asbestos-cement was first produced in tubular or cylindrical shape.

The continuous-process pipe machine, designed by Johns-Manville engineers, includes a double press arrangement which allows formation of pipe at two alternating stations to which pipe mandrels are magazine-fed automatically. A very rough description of the process could compare it with the old-multi-barrel Gatling gun. Complementing the rapid-electronic-controlled operation of the continuous-process pipe machine is a completely automatic system of moving raw materials in bulk through a system of conveyors, chutes and pneumatic conveying pipes. An electronic control device automatically weighs, conveys and mixes all raw materials and serves them to the continuous-process pipe machine allowing uninterrupted operation.

Clean air and water are assured at the plant by special controls engineered to govern normal industrial wastes. Special equipment using the vacuum cleaner principle collects dust generated in the manufacturing process. Effluent from the plant and all process water is cleaned before being returned to the Red River by passing through a system of settling reservoirs that provide gravity filtration.

Employees of the plant are provided with the most modern type facilities designed to protect health, provide continuous safety and make it convenient for them to report for work in their street clothes and go home the same way.

MORE

Principal ingredients used in the manufacture of Transite pipe are asbestos fibres stronger than many types of steel wire, cement and silica. These three raw materials, all basically corrosion-resistant by nature, are consolidated under tremendous pressure to form a pipe wall of dense, uniform, homogeneous structure. After formation, the pipe is subjected to a high-pressure steam, curing process that adds to the stability and structural integrity of the pipe, making it unusually resistant to corrosive attack throughout its entire structure.

# # #

FIRST CONTINUOUS, AUTOMATIC MANUFACTURE OF ASBESTOS-CEMENT PIPE

IN UNITED STATES INTRODUCED AT NEW JOHNS-MANVILLE TEXAS PLANT

With the opening of the new Transite Pipe plant at Denison, Texas, on June 20, 1958, Johns-Manville introduces the first continuous, automatic manufacture of asbestos-cement pipe in the United States.

This almost completely automatic factory, controlled by electronic devices, is an inovation in the American asbestos-cement pipe industry comparable to the first continuous strip steel mill or the first continuous process for extrusion of metal pipe, according to company engineers.

Johns-Manville engineers and production specialists believe this new method of production in the United States will make possible a superior type of Transite asbestos-cement pipe and enable the company to increase unit production by at least 30 percent over production attained by previous methods.

The continuous process machine, designed by Johns-Manville engineers along the lines of the Mazza type, was built by the M.L. Bayard Company of Philadelphia to the design and specifications of Johns-Manville.

In operation, the machine transfers a wet asbestos-cement mixture to a felt roll which carries it to steel mandrels where the "pickup" on the felt is transferred, under pressure, in a laminating operation that forms the cylindrical pipe.

Continuous process is made possible by a double press section arrangement which allows formation of pipe at two alternating stations, to which pipe mandrels are magazine-fed automatically, roughly similar to the old Gatling gun principle.

Complementing the rapid electronic-controlled operation of the continuous process pipe machine is a completely automatic system of raw materials handling which feeds basic ingredients through a system of conveyors, chutes and pneumatic conveying pipes. An electronic

MORE

control board automatically weighs, conveys, and mixes all raw materials and serves them to the new pipe machine allowing uninterrupted operation.

This automatic design is continued at the take-off end of the machine. The steel mandrel is removed and the newly formed pipe section is transferred to large curing trays. After a short air cure these trays are transferred by low bed trucks to the steam curing area where they are automatically loaded and unloaded from a steam curing tank by an electrically controlled transfer truck.

After the steam curing operation the pipe is moved to the finishing area where the pipe ends are machined for fittings by an automatic lathe. From the finishing lathe each section of pipe moved to the hydrostatic test stand. The pipe is then subjected, by push-button controls, to $3\frac{1}{2}$ times its maximum working pressure.

After this operation the pipe is moved by low bed trucks to the air cure storage area adjacent to the plant, completing the production cycle.

The Johns-Manville Transite Pipe plant at Denison, Texas produces corrosion-resistant asbestos-cement pipe in lengths, sizes and weights ranging from 2-inch diameter, 10-foot long sections weighing about 10 pounds each up to 16-inch diameter, 13-foot long sections weighing about 1,100 pounds each. The plant has an annual rated capacity of 48,000 tons.

# # #

EDITORS: See pictures Nos. 8-9-10-11 and 12.

Special Report For Trade and Technical Editors

CONSTRUCTION DETAILS

NEW JOHNS-MANVILLE TRANSITE PIPE PLANT AT DENISON, TEXAS

The new Johns-Manville Transite Pipe Plant which began operations at Denison, Texas on June 20, 1958, is the most modern of its type in the industry and is the result of more than half a century of accumulated engineering experience in the production of asbestos-cement products.

It consists of five, one-story steel, concrete and corrugated Transite buildings on a 469-acre tract. The location is about four miles north of Denison on the banks of the Red River which separates Texas from Oklahoma. The new plant adjoins the 1300-mile, man-made Lake Texoma, ninth largest water reservoir in the world.

All of the production equipment and process layouts were designed by the Johns-Manville General Engineering Department to performance specifications of the Pipe Division. The new plant utilizes the latest production techniques based on manufacturing experience dating back to 1904 when Johns-Manville first introduced asbestos-cement Transite in flat sheet form, and from 1929 when Transite was first fabricated in tubular shape.

The buildings and services were also designed by the Johns-Manville General Engineering Department in collaboration with the Austin Company of Cleveland, Ohio. Site preparation was under supervision of the Houston, Texas operating office of The Austin Company which cleared and graded the land, installed underground service, piping, railway and road facilities and erected the buildings. Steel was supplied by the Metallic Building Company of Houston, Texas.

A highly-mechanized plant of modern architecture in a planned landscaped area, this new Johns-Manville operation is one of eight new plants brought into production in the United States and Canada during the company's 100th anniversary year. It brings to northeast Texas an entirely new industry and puts into industrial use land formerly limited to farming and pecan growing.

MORE

The plant was especially located at Denison, Texas to fill needs of the rapidly-growing southwest for immediate delivery of the nationally-known line of J-M Transite pipe products. These include pressure pipe for municipal and private water systems, irrigation and industrial pipe lines, building and sewer pipe, air conditioning and other ducts, vents, stacks and electrical conduits.

The operation has been so designed that quick expansion will be possible when required by increased production or addition of new product lines to keep pace with the expanding population of the southwestern states.

Manufacturing Building

The main plant building covers four acres. It provides more than 186,000 square feet of manufacturing and warehousing floor space. The structure is of peak-roof, single-story design with reinforced concrete foundations and floor slab. The frame is of structural steel.

The roof is of J-M corrugated Transite with built-in translucent corrugated sections permitting direct, outdoor lighting. This feature is carried into the wall construction which contains wide translucent sheets that make daylight operations possible inside the plant.

An area of 26,400 square feet has been set aside in the main plant building for storage of raw materials - asbestos fibre, cement and silica. A concrete slab and asphalt paved storage area of 185,000 square feet is assigned outside the plant building for the storage of finished pipe products.

Heating and ventilation is provided by unit heaters and roof vents, placed strategically throughout the plant to equalize heating in the winter and air cooling in the summer. Outside temperatures average 43 degrees in January and 84 degrees in July, with a mean annual temperature of 65 degrees.

MORE

Office Building

The office building is in front of the main manufacturing building and is separated by a fire wall. It covers a 60-by-152 foot space and is of single-story, semi-basement construction. The exterior reflects the latest in modern, functional plant architecture. Foundation and floors are of reinforced concrete. It has a structural steel frame. The office building walls are of J-M Transite with window-level brick siding. The roof is of J-M Built-Up roofing.

Service core of the office building contains a plant cafeteria, a conference room, medical clinic and rest rooms. There is a mechanical equipment room in the semi-basement for heating and air conditioning units. A feature of the interior construction is the use of J-M Universal Partitions that can be moved easily and quickly when rearrangement of the various offices is desired. Floors are covered with one-eighth inch J-M Terraflex tile for maximum life and easy maintenance. The offices are sound-conditioned, noise being controlled by a J-M Permacoustic tile ceiling.

Other Plant Buildings

A silica grinding building, sales demonstration and shipping building and boiler house complete the plant layout. All have essentially the same construction details as the main plant building. The Sales Demonstration Building contains the plant shipping office, a gate house for main gate and traffic control, and an area for demonstration and display of J-M Transite pipe products.

Electrical Services

Electric power for the new plant is provided by the Texas Power & Light Company. A three-transformer sub-station feeds a 5500 horsepower electrical load into the plant. The primary voltage of 13.2 KV is supplied by overhead feeders. Power is distributed in the plant up to 440 volts.

MORE

There is an extensive underfloor duct system in the office building that provides facilities for leading in telephone wires or 110 volt power to desks at any location. Office lighting is accomplished by flush-mounted, 110 volt flourescent fixtures, permitting easy movement of office partitions when necessary.

There is a manual type push-button fire alarm system actuated by controls in either the Boiler House or the Gate House. Wet Grinnell sprinklers are located stragically throughout the plant. Water for the sprinkler system is stored in a 50,000 gallon watersphere adjacent to the plant building.

Fuel, Air, Steam and Water Supply

The main fuel source of the plant is natural gas supplied by a Texas Power and Light Company pipe line. Natural gas is used to fire the plant boilers and the sand drying unit in the silica grinding operations. Oil stored on the plant property in a 10,000 gallon tank provides an emergency fuel supply. The oil is supplied by truck delivery from local dealers.

Compressed air is supplied by two, 100 horsepower, Worthington reciprocating air compressors, delivering 650 cubic feet at 100 pounds per square inch with distribution through a 4-inch pipe line. The air is used to operate the Fuller-Kinyon conveying system and the pneumatic units of the production equipment, as a booster to the gas flame in the plant boilers, and in the silica grinding unit.

Steam at the new plant is generated by two Union Iron Works MH-type package boilers, using 30,000 pounds per hour at 150 PSI. Steam is used in the pipe curing facilities and heating units.

Fire and process water for the plant is supplied from the Red River through a pumping station. Most process water is pumped directly into the manufacturing process. Fire and a small amount of process water is drawn to a 50,000 gallon watersphere where it can be served into the manufacturing process or sprinkler system by gravity flow. Domestic water is supplied by an artesian well drilled on the plant property.

MORE

FREIGHT SERVICES, PARKING AND TRAFFIC CONTROL

The plant was especially designed to facilitate handling of in-coming raw materials and out-going finished products. Rail siding has been designed to service railroad hopper cars so in-coming raw materials may move into the production cycle in the most efficient manner. Additional rail siding has been equipped with a large Gantry crane to facilitate loading of finished Transite pipe. All rail siding connects locally with the M.K. & T Railroad.

Truck loading and unloading areas have been designed to permit the most modern handling of in-coming materials and out-going products.

Employees have been provided with a 210 car parking lot immediately adjacent to the gate house. Visitors are accomodated with parking facilities in front of the office building.

Traffic control is handled from the main entrance gate house, by especially trained Pinkerton watchmen. The entire plant layout was designed to permit fast and efficient movement of all vehicles in and out of the plant area.

The new plant was laid out in a wooded area. All possible trees have been retained and kept pruned as part of a long-range beautification program by a landscape architect engaged by Johns-Manville to provide a plant appearance that would be a credit to the community.

# # #

EDITORS: See enclosed plant map and pictures Nos. 1 - 5 - 4

ASBESTOS FIBRES AS STRONG AS SOME TYPES OF STEEL WIRE

UTILIZED IN FABRICATING TRANSITE ASBESTOS-CEMENT PIPE

One of the principal ingredients used in the manufacture of Transite Pipe at the new Johns-Manville plant at Denison, Texas, is asbestos fibre that was created deep in nature's underground laboratories millions of years ago.

The fibre is shipped into Denison from Johns-Manville mines in Canada. Most of the fibre comes from Asbestos, Quebec, where Johns-Manville owns and operates the Jeffrey Mine, largest asbestos mine in the world. This one mine produces over half of the asbestos fibre mined in Canada or about one third of the world supply. Some of the fibre used in Denison comes from Matheson, Ontario, near where Johns-Manville operates the Munro Mine, producing a special type of high-grade fibre.

Geologists report that these J-M Canadian asbestos ore deposits are the results of great subterranean upheavals deep within the earth's crust millions of years ago. Great masses of molten rock were spewed upwards, torn open by the irresistible forces of heat and pressure. Then, hot mineral-bearing waters poured in. Slowly, over eons of time, the character of the rock changed. Then another great upheaval took place. Again, hot waters rushed in, drenching the rock with their mineral solutions.

Characteristics of the rock underwent still further changes. Numerous openings in the rock permitted more intimate penetration by the hot waters. Some of the twice-changed rock dissolved into saturated solutions. As the waters cooled, the dissolved rock was precipitated as crystals. Eventually, the cracks and crevices through which the hot waters had circulated became a network of fibrous, crystalline veins that ran irregularily throughout the masses of surrounding rock and became asbestos fibre as we know it today.

MORE

The very name "asbestos" is an index of its everlasting character. The word is derived from the ancient Greek language. It means inconsumable or indestructible. Asbest cannot burn. It is immune to rot, rust and decay. It resits heat and the action of most chemicals.

There are some 30 known varieties of asbestos fibre found in various deposits all ove the world. Only six of these, however, have any economic importance. One type, chrysotil the type mined and milled by Johns-Manville in Canada - is so superior to all others for m industrial purposes that it accounts for about 95 percent of the total world production of all natural mineral fibres.

The Canadian crysotile asbestos produced by Johns-Manville in Quebec is noted for its high tensile strength, unusual flexibility and extreme fineness. Many of these fibres are as strong as some types of steel wire, yet are soft, silky and so fine that a single fibre can be seen only with the aid of a powerful microscope.

Because of their great strength, asbestos fibres are used as a reinforcement in combination with portland cement and other materials under heavy hydraulic pressure to produce the strong, corrosion-resistant Transite asbestos-cement pipe.

The reinforcing network of countless numbers of tiny, amazingly strong asbestos fibre gives J-M Transite Pipe a tensile strength which is many times greater than that possessed by conventional concrete pipe of equal thickness.

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EDITORS: See accompanying aerial photo of J-M mining and milling operations at Asbestos, Quebec.

RAW MATERIALS MOVE AUTOMATICALLY INTO PRODUCTION CYCLE AT

NEW JOHNS-MANVILLE TRANSITE PIPE PLANT AT DENISON, TEXAS

In designing and building the new Transite Pipe plant at Denison, Texas, Johns-Manville engineers developed or adapted processes and equipment that provide automatic movement of raw materials at every stage into the production cycle.

The manufacture of Transite pipe utilizes three basic raw materials - cement, silica and various grades of asbestos fibre stronger than many types of steel wire. The "mix" varies depending upon type of pipe required.

Almost no manual labor is used in handling these heavy raw materials in bulk. Instead, a system of conveyors, chutes and pneumatic conveying pipes transport the basic ingredients in an automatic, electronic system controlled by push-button.

Cement arriving either by hopper truck or railway hopper car from Texas dealers is unloaded by gravity into bins. From these temporary storage areas a Fuller-Kinyon pneumatic conveying system literally blows the bulk cement into four 750-ton process storage tanks to await movement into production.

The silex required in the manufacturing process is ground at the plant from Texas sand delivered by trucks. The trucks are gravity unloaded into bins serviced by bucket elevators which convey the bulk sand to a surge tank. From the surge tank the sand is gravity fed to a gas-heated dryer which automatically deposits dry sand in a 200-ton storage hopper.

From dry storage the sand feeds out to a Patterson Rotating Ball Mill where it is ground into silex, a finely divided silica material. The finished silex is pneumatically conveyed through a pipe to a classifier screen where the proper production size is accepted and fed to a 200-ton storage bin. From this storage bin, the silica is conveyed to two, 75-ton process storage bins by the Fuller-Kinyon pneumatic conveying system to await movement into production.

MORE

Asbestos fibre from Canada, Africa and Australia arrives at the plant in freight cars and is moved to the fibre storage agea by fork lift trucks. Wher required, the asbestos fibre is again moved by fork lift truck to a fibre processing area where it is blended and processed. It is drawn bv air to production fibre storage bins to await movement intc production.

All ingredients are then in their proper position to continue moving automatically into the manufacturing process. A large electronic control board takes over, automatically weighing, conveying and mixing all raw materials and serving them to the continous process pipe machine which produces Transite pipe automatically without interruption.

Electronic controls built into this automatic system of moving raw materials assure accuracy and maintain required high standards of quality.

Johns-Manville engineering and production specialists report that this system of automatic metering and feeding of raw materials to the continuous process pipe machine produces a superior type of Transite pipe.

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EDITORS: See accompanying pictures
Nos. 3,4,5,6 and 7

CLEAN AIR AND WATER ASSURED AT NEW JOHNS-MANVILLE

TEXAS PLANT BY MODERN INDUSTRIAL WASTE TECHNOLOGY

Johns-Manville has given special attention to control of the normal industrial wastes connected with manufacturing operations at its new Transite Pipe plant at Denison, Texas.

The need for maintenance of clean air and water was uppermost in the minds of engineers and architects in designing equipment and laying out the plant, according to G.S. Smith, Vice President and Director of Engineering.

Special equipment designed to collect dust generated in the manufacturing process is located strategically throughout the plant. Wheelabrator dry, bag-type collectors act as huge vacuum cleaners in trapping dust particles that arise from handling raw materials in the manufacturing processes.

After the pipe leaves the manufacturing area it goes to the lathe area to be milled for fittings used in pipe line assembly. All universal lathes used in this process are also equipped with vacuum cleaner type Wheelabrator collectors that suck up dust as fast as it originates.

Plant process water is drawn from the Red River through a pumping station. Most of the process water is pumped directly into the manufacturing process through Transite pressure pipe, a product of the new plant.

Water is important in the wet end of the Transite Pipe manufacturing process in which three basic raw materials - asbestos fibre, cement and silica - are consolidated under pressure to form a pipe wall of dense, uniform homogeneous structure. After the pipe is manufactured it is subjected to an air and steam curing process, requiring more water. The finishing end in the plant also uses water in subjecting every section of pressure pipe manufactured to hydrostatic pressure tests $3\frac{1}{2}$ times greater than its maximum working specifications.

MORE

Effluent from the plant and all process water is cleaned before being returned to the Red River by passing through a system of settling reservoirs that provide gravity filtration. The used water is first passed through a pump to a large settling tank where a drain system recaptures valuable sediment and returns it to the manufacturing process. This provides efficient re-use of the water and raw materials. Spillage from the settling tank flows to a huge settling basin adjacent to the Red River. The process water is then filtered again by gravity. Eventually, the cleaned water is returned to the Red River by spillage from a second settling basin.

Engineering specialists constantly supervise industrial wastes at the plant to assure their proper handling in the community interest.

# # #

EDITORS: See accompanying pictures Nos. 7 and 9.

EMPLOYEE FACILITIES AT NEW JOHNS-MANVILLE TEXAS PLANT

STRESS HEALTH, SAFETY AND PLEASANT WORKING CONDITIONS

- - -

Employees at the new Johns-Manville Transite Pipe plant at Denison, Texas are provided with the most modern type facilities especially designed and engineered to protect their health, provide continuous safety and make it convenient for them to report for work in their street clothes and go home the same way.

Change rooms are equipped with conventional Bradley basins. Shower baths with plenty of hot water are continuously available. Individual lockers have built-in, forced ventilation for drying work clothes and improving atmosphere. The lockers are mounted on elevated concrete bases set on top of a special 1-inch, hard-concrete floor surface. The floor is covered with J-M Terraflex tile for good appearance and ease of maintenance. The change rooms have a 6-inch-high concrete curb all around to facilitate mopping and cleaning. The locker rooms are of wood and stud construction with attractive J-M Flexboard sidewalls.

An air-conditioned plant cafeteria provides hot foods in pleasant surroundings. The cafeteria is sound-conditioned by a J-M Permacoustic ceiling. Sidewalls are finished in decorative J-M Flexboard. The floors are covered with J-M Terraflex tile.

Pre-employement and periodic physical examination of all employees by the Medical Department provide a foundation for the plant accident and disease prevention program. A Medical Clinic, staffed by a nurse and doctor, provides the latest equipment for first aid and emergency treatment.

All machinery and equipment is protected by standard safety devices wherever necessary and this is reinforced by a continuous safety program in which all employees participate. In designing equipment and laying out the plant, one important objective was to make the Johns-Manville Denison Plant "a good place to work".

# # #

MODERN MATERIALS HANDLING MAKES WORK EASY

AT NEW JOHNS-MANVILLE TRANSITE PIPE PLANT

Work is made easier for employees at the new Johns-Manville Transite Pipe plant at Denison, Texas, by use of the most modern methods of materials handling, governing the movement of heavy loads through all stages of manufacturing, storage and distribution.

The system of handling materials with mechanized or automatic equipment eliminates the drudgery and back-breaking work formerly associated with factory production, safeguards employees health in connection with hauling, pushing, carrying lifting and stacking of heavy materials.

The plant layout was designed to permit fork truck or automatic handling of all raw materials, intermediate and finished products.

Manufacture of Transite Pipe utilizes three corrosion-resistant basic raw materials, cement, silica and asbestos fibres in various grades stronger than many types of steel wire. The mix varies depending on type of pipe required.

Almost no manual labor is used in handling these heavy raw materials in bulk. Instead, a system of conveyors, chutes and pneumatic conveying pipes transports and blends these basic ingredients, according to the "mix" specified, in a plant-wide automatic, mechanized system controlled by electronic push buttons.

Cement arriving at the plant either by hopper truck or hopper railway car from Texas sources is unloaded by gravity into bins. From these temporary storage areas a Fuller-Kinyon pneumatic conveying system literally blows the bulk cement into four, 750-ton process storage tanks. It goes on automatically to be ground into silica. Asbestos fibre arrives at the plant from Canada, Africa and Australia in railway freight cars in bags and is moved by pallet and fork lift truck to the fibre processing area.

MORE

The Johns-Manville Transite Pipe plant at Denison, Texas, produces asbestos-cement pipe in lengths, sizes and weights ranging from 2-inch diameter, 10-foot long sections weighing about 10 pounds each up to 16-inch diameter, 13-foot long sections weighing 1100 pounds each. The plant has an annual rated capacity of 48,000 tons.

Each pipe machine is equipped with a 5-ton overhead crane to permit easy handling of each section of Transite pipe through the various processes of manufacture and movement to extraction tables and curing trays. Low lift platform trucks move the pipe to the steam curing tanks and from there to the storage and shipping areas.

After all manufacturing and curing processes are completed the finished pipe is transported by fork lift trucks to a 185,000 square foot concrete slab and asphalt-paved storage areas, adjacent to the shipping area. The rail and truck-loading sites are servic by fork lift trucks and a large Gantry crane.

# # #

EDITORS: See pictures Nos. 3-4-11-12-14

THE STORY OF TRANSITE PIPE

Its Origin, Its Many Uses, How It Is Made

Johns-Manville began manufacturing a flat, asbestos-cement board in 1904 for use as fireproof protection beneath cars of the Brooklyn Rapid Transit Company. It was so successful in eliminating fires caused by sparks and short-circuits on newly-electrified trains that Johns-Manville named the new product "Transite" after the transit company it first served.

Transite was soon being widely used as a structural building board. As the cost of steel buildings increased, a new demand developed for a roofing material capable of supporting itself on wide spans. Johns-Manville, by natural evolution, developed Transite in corrugated form to fill these needs. Around 1921 the company began manufacturing Transite in 2-5/8-inch corrugated sheets. These corrugated Transite sheets were effective on roof spans up to 45 inches long.

As steel building construction costs kept rising, contractors found it economical to increase steel spans still further. Johns-Manville kept pace with these new industrial requirements by developing stronger Transite sheet in 1929, with a 4.2-inch corrugation, that was effective on spans as great as 4-feet, 6-inches. This corrugated Transite product is still in wide demand today, having withstood rigorous tests in all the intervening years.

The performance and excellent service record of Transite in both flat and corrugated form, with its established corrosion-resistant qualities inherent in the raw materials from which it is manufactured, made it a natural material for the rugged service required of underground piping or industrial lines. Johns-Manville began producing Transite in cylindrical or tubular form in 1929 to service this type of industrial need.

As in flat or corrugated Transite, three basic ingredients are used in the manufacture of Transite Pipe. These are asbestos fibres stronger than many types of steel wire, cement and silica. They are consolidated under pressure to form a pipe wall of dense, uniform and homogeneous structure. After the pipe is formed it is subjected to air and steam curing process,

MORE

The steam curing contributes much to the stability and structural integrity of the pipe. Under action of high-pressure steam in sealed autoclaves, Transite assumes a new chemical identity. The silica in its composition unites chemically with the free lime ordinarily associated with cement products and converts it into highly stable calcium silicates. As a result, the cured Transite pipe is unusually resistant to corrosive attack by acids, chemicals or fumes throughout its entire structure. A curious chemical fact is that the finished pipe weighs more than its original ingredients and thus gains added strength.

Since Transite was first produced in tubular form in 1929, many thousands of miles of Transite pipe have been installed in the United States and Canada for use as water and sewer mains, irrigation and industrial pipe lines, building sewer pipe, telephone and electrical conduit, air conditioning and other ducts, vents, flues and stacks.

In keeping pace with ever-increasing demands by industry, homes, farms and thousands of municipalities, Johns-Manville has expanded its Transite pipe manufacturing facilities to seven locations in the United States and Canada, strategically placed to speed deliveries and keep shipping costs down.

In addition to the newest Johns-Manville Transite Pipe plant at Denison, Texas, other factories are in production at Marrero, Louisiana; Manville, New Jersey; Stockton, California Watson, California; Waukegan, Illinois and Toronto, Ontario.

The Johns-Manville Pipe Division, which operates the American plants, is represented at the company's Research and Engineering Centers at Manville, New Jersey. These are the larges facilities of their kind in the world devoted to building materials, insulations, asbestos-cement pipe, and allied industrial products. A permanent group of industrial research scientists and technicians are constantly occupied there in seeking new ways to improve and use Transite Pipe. They have at their disposal a completely equipped Transite Pipe pilot plant where the latest improvements are developed and factory-tested before being put into production at the seven operating locations.

MORE

In manufacture of Transite pipe, asbestos fibres of various grades are selected and blended. Then, in predetermined proportions, the asbestos fibres are mixed with cement and silica. Enough water is added to disperse the fibres uniformly throughout the mixture.

This mixture or slurry, as it is called, flows into a tank where a revolving drum of fine wire mesh deposits it in a thin coating on a broad, endless felt band. The moving felt carries it in a wide ribbon over vacuum chambers which remove excess moisture. The mixture is transferred to a revolving steel mandrel. Here the coating builds up continuously under pressure of heavy, hydraulically loaded rollers which compress it into a dense, homogeneous structure.

In this way, a section of pipe the length of the mandrel is built-up until the desired wall thickness is reached. After the pipe is removed from the mandrel it is subjected to high pressure steam curing.

Modern equipment forms various types of Transite asbestos-cement pipe into 10-foot and 13-foot lengths, with some types ranging in diameter from 3 to 36 inches. Various types have different strengths, depending upon the purpose for which manufactured. Some pipe sections are available in half, quarter and one-third lengths, depending on the particular kind of pipe. This gives users great flexibility of choice.

Most water and sewer pipes and many industrial lines and electrical conduits for distribution of power are buried underground where they are immediately subjected to two types of corrosive attack - chemical and electrolytic. Chemical corrosion is caused by acids and salts encountered in the soil. Electro-chemical corrosion, an extremely complex process similar to action that takes place in a dry cell battery, occurs in metallic pipe when installed underground. Transite pipe, being non-metallic, does not conduct electricity and is immune to electro-chemical corrosion and is highly resistant to other types of corrosion.

In addition to its high resistance to ordinary corrosion, Transite pipe has an added advantage of high flow capacity because of its permanently smooth interior surface. Liquids and gases flow easily with a minimum of friction, permitting high carrying capacity and low pumping costs.

# # #

Organization Of The Johns-Manville Pipe Division - I

PIPE DIVISION ONE OF 22 BUSINESSES OF

WORLD-WIDE JOHNS-MANVILLE CORPORATION

The Johns-Manville Pipe Division, which put the company's seventh Transite asbestos-cement pipe plant into production at Denison, Texas, on June 20, 1958, is one of nine operating divisions engaged in 22 diversified businesses.

Functioning virtually as a separate company, the J-M Pipe Division is responsible for its own production, sales and profits. Backed by a strong management, research, production, merchandise, and sales team, and the growing use of Transite asbestos-cement pipe by the government, municipalities, industry, homes and farms, distribution of this Johns-Manville product has about tripled during the last ten years.

The phenomenal growth of this Division, and its continued expansion of facilities to keep abreast of increased sales, is attributed by Johns-Manville officials to two things - a quality product and a strong program of service to customers.

Transite asbestos-cement pipe is now manufactured at six locations in the United States, strategically placed to speed deliveries. Another J-M plant at Toronto, Ontario, operated by the Canadian J-M Division, manufactures Transite asbestos-cement pipe for the Canadian market. In addition to the J-M pipe plant at Denison, Texas, other United States pipe plants are located at Manville, New Jersey; Marrero, Louisiana; Stockton, California; Watson, California; and Waukegan, Illinois.

Area sales and customer service organizations, headed by District Sales Managers, are located at 12 business centers in the United States, selected geographically to provide fast customer service. They are at Atlanta, Boston, Chicago, Cleveland, Denver, Houston, Los Angeles, New York, Philadelphia, San Francisco, St. Louis and Seattle.

MORE

Heading the nation-wide organization is R.F. Orth, Vice President and General Manager of the Division, with national headquarters at New York. He is a native of San Antonio, Texas, and a graduate mechanical engineer of Texas A & M College. He joined Johns-Manville in 1924. A past President of the Water and Sewage Works Manufacturers Association, he is widely known throughout the industry.

A strong Division Headquarters team reinforces his management and provides dynamic support for the various pipe plants and sales and customer service districts. These include T.R. Turnbull, Division Production Manager; J.H. Goodwin, General Sales Manager; and G.R.R. Wahl, Division Merchandise Manager.

Mr. Turnbull is a native of Pumeroy, Ohio, who has been an industrial engineering and production executive for Johns-Manville since 1925. The six United States plant managers report to him.

Also in the production group on the Division Headquarters Staff are several specialists selected for their skill in handling engineering and planning and scheduling problems.

These include:

K.J. Whelan, Division Production Engineer, who is responsible for installation of new production machinery and maintenance of present plant machinery.

J.F. Stanton, Manager of Schedules, who supervises planning and scheduling and the maintenance of plant inventories.

Mr. Goodwin joined the company in 1945 after service in World War II as a Lieutenant Colonel in the U.S. Marine Corps. He is a native of Berkeley, California and a graduate mechan cal engineer from Purdue University. The 12 District Sales Managers report to Mr. Goodwin, who supervises all direct sales efforts of the Division.

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STRONG REGIONAL PRODUCTION AND SALES TEAM MOVES

"MADE IN TEXAS" J-M TRANSITE PIPE INTO SOUTHWEST

A strong management, merchandizing, research and sales team went into action on June 20, 1958, to move Johns-Manville Transite Pipe manufactured at the company's new Denison, Texas, plant into the southwestern states and adjoining areas.

It represented an entirely new type of industry for Texas made possible by opening of the first continuous-process asbestos-cement pipe plant in the United States.

In choosing Denison, Texas, as the site of the new plant, then planning, building it and designing ultra-modern, electronic push-button equipment that made it an almost completely automatic factory, the team drew on more than half a century of engineering and production experience in the manufacture of Transite asbestos-cement products.

Sparked by a native Texan, R.F. Orth, Vice President and General Manager of the Johns-Manville Pipe Division, the regional organization included J.W. Davis, District Sales Manager at Denver, Colo., W.H. Waring, District Sales Manager at Houston, Texas, and H.G. Palmer, District Sales Manager at St. Louis, Mo. Each of the district sales managers is responsible for distributing the Transite asbestos-cement made in Denison into tiers of surrounding states.

Mr. Davis, who specialized in sanitary engineering while being educated at Denver University and Colorado University, was associated with the United States Public Health Service and Colorado State Board of Health prior to joining Johns-Manville in 1944 as District Engineer at Denver. He is a native of Denver and is a licensed Sanitary Engineer at Denver.

MORE

Mr. Waring studied Civil Engineering at Texas A & M College and spent a number of years as an engineer with the Dallas, Texas Water Department and with the Merla Tool Corporation of Dallas prior to joining Johns-Manville in 1941 as Staff Manager for Transite Pipe at St. Louis. Following three years service with the U.S. Navy during World War II, he returned to Johns-Manville in 1947 and was promoted to District Sales Manager at Houston, Texas in 1956.

Mr. Palmer was graduated with a B.S. Degree in Civil Engineering from the University of Georgia, where he played Varsity football and basketball. Prior to joining Johns-Manville in 1936 as Assistant District Engineer for the Atlantic District, Mr. Palmer was associated with the State Highway Department of Georgia as a bridge designer and resident engineer on bridge construction. In 1956 Mr. Palmer was named Staff Manager for Dealer Sales for the Pipe Divisions' South Atlantic Region and in January, 1958, was transferred to St. Louis and was promoted to District Sales Manager.

Responsible for producing the "Made in Texas" pipe that will keep the three district sales managers busy, is J.E. Hesse, Plant Manager at Denison. He joined Johns-Manville in 1938 at Marrero, Louisiana and for more than 20 years has specialized in engineering and production of Transite asbestos-cement pipe. He is a native of Port Arthur, Texas, who was educated at Louisiana State University and Tulane University, majoring in mechanical engineering.

Assisting Mr. Hesse in personnel and community relations matters is James C. Bradley, Industrial Relations Manager at the Denison Plant. He has been with Johns-Manville since 1947. His first J-M assignment was as an industrial engineer at the J-M Waukegan, Illinois plant. He was educated at the University of Iowa and Northwestern University and took additional courses in business administration and economics.

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EDITORS: See photos Nos. 18-22-23-24-25

George R.R. Wahl is a graduate civil engineer from Harvard whose career with Johns-Manville since 1933 has concentrated on marketing research and market analysis. He is a native New Yorker. Mr. Wahl is the principal advisor of the Division General Manager on all merchandise matters affecting Transite pipe as a commodity.

Also in the Merchandise Group on the Division Headquarters staff are a number of product managers and specialists selected for their background in sales, engineering and marketing. They report to Mr. Wahl.

These include:

L.F. Frazza, Product Manager, Direct Sales, a graduate civil engineer from St. Peter's College. He joined Johns-Manville in 1937 after having served as a contractor, and now specializes in merchandising of pressure sewer and irrigation pipe.

J.R. Allen, Jr., Product Manager, Dealer Sales, with Johns-Manville since 1945 is a graduate of the U.S. Naval Academy and took post-graduate work at the Wharton School of Finance, University of Pennsylvania. He is product manager of house pipes and electric ducts.

C.A. Bailey, Product Manager, Industrial Pipe and Pipe Protection, a graduate of the University of Illinois. He became affiliated with Johns-Manville in 1945. He, too, is a product manager, specializing in industrial piping and pipe line felts.

A.J. Maahs, a civil engineering graduate of Cornell University, whose Johns-Manville career since 1933 has been devoted to all phases of Transite Pipe engineering and research. He acts as liaison with other J-M departments in development of new products and devises plans and methods for their applications.

MORE

R.H. Young, Manager, Sales Aids, joined Johns-Manville in 1935. With a strong engineering background, he now is responsible for technical sales data of assistance to customers and the J-M pipe sales and customer service force.

A.B. Lincoln, Manager of Services, who joined Johns-Manville in 1936, is responsible for maintaining division cost, profit and financial records.

S.H. Painter, Jr., Manager, Market Planning, joined Johns-Manville in 1957. He is a mechanical engineer from Lafayette College who received a Masters Degree in Business Administration from Harvard. He is responsible for market planning and analysis.

With more than 50 years of engineering and production experience in the manufacture of asbestos-cement products, Johns-Manville continually seeks ways to develop and improve Transite pipe to serve new needs. The Pipe Division is represented at the Johns-Manville Research and Engineering Centers at Manville, New Jersey, by George Smolak, Manager for Pipe Research, who has at his disposal a completely equipped Transite pipe pilot plant and the entire technical and scientific resources of the Research Center, largest in the world devoted to asbestos-cement pipe, industrial products, building materials, and insulations. Mr. Smolak has been with Johns-Manville since 19[illegible]7. He is a mining engineer graduate of the University of Idaho with a Masters Degree in metallurgical engineering, and is a technically qualified research chemist.

This is a cross-section of the dynamic division headquarters team that hopes to double sales of Johns-Manville Transite asbestos-cement pipe in the not distant future.

# # #

EDITORS: See Photos Nos. 17-19-20-23-26

A CENTURY OF INDUSTRIAL RESEARCH AND DEVELOPMENT BY JOHNS-MANVILLE

For more than 100 years, the continuous growth of Johns-Manville has reflected a record of industrial research and development of products for homes and industry that have made a substantial contribution to better living.

Long before the formal, organized, scientific expression of industrial research became a regular procedure in American business, H.W. Johns, roofing manufacturer and pioneer of the world-wide asbestos industry, was busy experimenting in a small basement work shop in New York.

He started out in 1858 as a jobber of paints and coatings for roofs and for preserving wood, metals and fabrics. About the same time he began experiments in a basement "laboratory" and developed a "portable" roofing which he manufactured and soon had on the market.

His first "laboratory" equipment consisted of a stove, a tea kettle with a flattened spout, and a clothes wringer. Rag felt, burlap and paper were guided into the clothes wringer while hot pitch was poured on intermediate layers. Later, he added a covering of asbestos fibre to the surface. This "portable" roofing was better than any on the market at the time and was soon in wide use all over the world. The pioneer equipment was still in experimental development use as late as 1872, long after new manufacturing machinery had been designed and was in operation.

By 1868, H.W. Johns had developed numerous products composed wholly or in part of asbestos fibres. Many of these products were destined to become standard items for mechanical, structural and electrical uses. People began to hear of the "fireproof" roofing he was manufacturing and came to buy it on the spot.

While H.W. Johns was carrying on his experimental and development work with asbestos fibres in a New York basement, Charles B. Manville and his three sons were pioneering on insulation for steam pipes and boilers in a Milwaukee basement. They experimented with everything from flour to sawdust and finally came up with a workable mixture of paper pulp and blue clay which is common in the Milwaukee area.

MORE

Later, wool felt shoddy was used as a binder in the clay. This reduced failures from expansion and contraction. Loss of heat was considerably lessened and substantial fuel savings resulted. As crude as this covering may now appear it was then the best in the country. Prior to that time steam pipes and boilers had no satisfactory coverings. These pioneer efforts were so successful that the Manville Covering Company was organized in 1886.

In 1901, the H.W. Johns Manufacturing Company of New York and the Manville Covering Company of Milwaukee were merged as the H.W. Johns-Manville Company. The new company began business January 1, 1902 with a line of insulating cements, asbestos and asphalt roofings, asbestos paper, high and low temperature insulations and other specialties.

Research and experiment continued. Some products were eliminated, others added. New and improved products were continually developed and today form the basis of many Johns-Manville services to home and industry.

Organized, scientific research first became part of the company's program in 1916, when a conductivity laboratory was built at Manville, New Jersey. Scientific data were collected in this early laboratory and established many industry standards which still prevail. Today it is the largest, most fully equipped conductivity laboratory in industry, and thermal insulation and control of heat and cold remain a vital part of the company's continuing research and development program.

In 1927, the company became known as the Johns-Manville Corporation and transition from limited family ownership to widespread stockholder control began.

Expansion of Johns-Manville research has followed the pattern of the company's growth from the small experimental activities of H.W. Johns in New York and C.B. Manville and his sons in Milwaukee to operation now at Manville, N.J. of the largest Research and Engineering Centers in the world, devoted to building materials, insulations and allied industrial products.

MORE

Primarily concerned with control of heat, cold, motion and sound, and protection against fire, weather and wear, the major research activities utilize asbestos fibre obtained from company mines in Canada and other sources, mineral fibres, wood fibres, diatomite and silicone rubber.

Asbestos applications, a major J-M product development, include rigid shingles and low cost siding materials, for which Johns-Manville developed the dry manufacturing process; Transite, an asbestos-cement product in flat, corrugated or pipe form used extensively in factory and commercial construction, water and sewage systems, irrigation and industrial lines, electrical conduit, flues, ducts and stacks; Marinite, a fireproof marine joiner material for shipboard bulkheads and ceilings, developed as a result of the disastrous Morro Castle fire, and installed in such ships as the SS America, SS Constitution, SS Independence and SS United States; and Flexboard, an inorganic structual wallboard.

Industrial products and asbestos applications include the strong, non-burnable, high dielectric strength asbestos paper, Quinorgo and Quinterra, which can be rolled to tissue thinness; and the heavy, fire-resistant asbestos textile theater curtains and fabrics for protective clothings; asbestos corrosion inhibitors, heat barriers for high temperature operations and electrical applications.

In 1929, Johns-Manville began utilizing mineral fibre to develop a variety of home and industrial insulations. The company pioneered in developing rock wool for insulation of existing homes by pneumatic blowing equipment. Rock wool with an added binder is used extensively in the rail, automotive, marine and domestic refrigerator and stove insulation fields and in rigid insulation blocks. Fiberized wool of refractory materials has been converted into thermal insulation blankets for jet engines and gas turbines, a field in which temperatures exceed the service limit of rock wool and asbestos insulations.

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The loblolly pine of the South and the lodgepole pine of the Pacific northwest have also been subjects of J-M research and development. J-M utilized for the first time the fibre of the loblolly pine and lodgepole pine in the manufacture of insulating board products, thus bringing new industries to the South and the Pacific northwest where J-M has insulating board plants in Jarratt, Va., Natchez Miss., Klamath Falls, Oregon and in Canada at North Bay, Ontario. Johns-Manville research scientists developed decorative-finish insulating board and, most recently, have perfected a flame-resistant finish for the product.

The most widely used roofing in the United States is asphalt roofing, a direct descendant of H.W. Johns' pioneering efforts, which gained much of its popularity from Johns-Manville ufacture. A recent J-M flooring development is Terraflex tile, a synthetic resin-asbestos re compound, bright in color with a tough surface and easy maintenance, practical for gymnasiums, hospitals, theaters and other public buildings.

Still another field in which Johns-Manville is a pioneer and leader is packing, a field investigated by the early H.W. Johns Company, which pioneered with an early packing - an asbestos "sock" woven over a core of pure asbestos. J-M pioneered also in the use of oil-resistant synthetic rubbers for a variety of packings, developing a soft-lip synthetic oil seal for the variable pitch aircraft propeller as well as molded packing elements and sheet packings.

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The company pioneered in the field of dry-mix clutch facings, and to remain in its preeminent position in development of automotive and industrial brake blocks, the Johns-Manville research engineers have built the world's largest inertia-type dynamometer devoted solely to testing friction materials. Railroad, aircraft, truck and bus brakes undergo test runs on this dynamometer. These tests give industry the latest developmental information and thus provide the public with the greatest possible braking safety. Johns-Manville installed a new engine cycling dynamometer capable of duplicating the inertia of a high-powered sports car or fully-loaded tractor trailer in exploring new friction material requirements for automatic transmissions in automobiles.

In answer to the demand of the railroad industry for efficient, light weight locomotives and trains, Johns-Manville friction specialists joined forces with air brake experts of Westinghouse Air Brake Company to produce a revolutionary composition Cobra Brake Shoe. Marketed by the Railroad Friction Products Corporation, a subsidiary of both parent corporations, the Cobra shoe makes possible yearly savings up to $900 on each car in maintenance or rail equipment and is able to reduce weight by as much as 3,000 pounds on some of the latest light weight cars.

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The Johns-Manville Research and Engineering Centers, opened in 1949, are equipped with the most modern research tools and laboratories with which the scientists and engineers can initiate, sutdy and analyze projects, design and build necessary machinery and equipment and follow projects through the semi-production stage in pilot plant areas adjacent to the laboratories.

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BRIEF HISTORY OF JOHNS-MANVILLE CORPORATION

Johns-Manville Corporation, which observes its 100th Anniversary year in 1958, originated when H.W. Johns, a 21-year-old Yankee from West Stockbridge, Mass., started out as a jobber and manufacturer and developed the business in a New York City basement work shop.

In 1858, in the midst of a national "financial panic" when 4,225 other businesses and banks were failing, he began the manufacture of paints and coatings for roofs and for preserving wood, metals and fabrics. He manufactured a gutta percha "portable roofing" which came into general use in nearly all parts of the world.

Almost at once he became interested in the fire-proof qualities of asbestos fibre, which he found described in the 1859 edition of the Cyclopaedia Americana and which was not then in general commercial use. He began experiments with asbestos fibre in roofing applications and became a pioneer in the development of the world-wide asbestos industry.

From 1858 to 1860 he did business at four successive locations. His first location was at 349 Fulton Street, Brooklyn, opposite the Brooklyn City Hall. He soon moved across the East River to 120 Wall Street at the corner of South Street, opposite the East River docks. Then he moved to 510 Broadway. Finally, in 1860, he found a more permanent address at 78 William Street, where he operated for 13 years.

He made known the results of his continued research and experimentation with asbestos fibres which he obtained from outcroppings on Staten Island, N.Y., in 1868, at the end of the Civil War. Mr. Johns began manufacturing numerous specialties composed wholly or in part of asbestos fibres, many of which were destined to become standard materials for mechanical, structural and electrical applications.

Expanding business forced the company to seek enlarged manufacturing space in 1873 and H.W. Johns moved his business offices to 87 Maiden Lane in Lower Manhattan. Production was transferred to this company's first real factory which it built in Long Island City, N.Y. It was from these locations that H.W. Johns actually pioneered the world-wide asbestos industry.

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Increased demands for asbestos fibre, which H.W. Johns had stimulated, led to the discovery in 1876 of huge deposits of high quality ore in Quebec, Canada. The superior quality of the Quebec fibre made possible much wider uses of the "magic mineral". Large quantities of this basic raw material became available to H.W. Johns for expanded commercial production in the United States. Asbestos products began to appear all over the world.

When Mr. Johns died in 1898, the NEW YORK TIMES and the NEW YORK HERALD both identified him as the "pioneer of the asbestos industry".

Three years later, in 1901, the Manville Covering Company of Milwaukee, in business since 1886, was merged with the H.W. Johns Manufacturing Company of New York, taking the firm name of H.W. Johns-Manville Company on January 1, 1902. In 1920, the company became known as Johns-Manville, Incorporated. T.F. Manville, Sr., was President. He died in 1925 and his brother, H.E. Manville succeeded him as President. Shortly thereafter, in 1927, the company began its transition from family to widespread stockholder ownership under its present name of Johns-Manville Corporation. Meanwhile, headquarters of the company had been moved in 1898 from 87 Maiden Lane. The offices went to 100 William Street. Production was transferred to a new plant in Brooklyn built to replace the first Long Island City Plant, which had burned. In 1912, company headquarters were moved again, this time to 292 Madison Avenue. A new plant was opened at Manville, New Jersey, that year, and the Brooklyn plant sold three years later.

The late T.F. Merseles, formerly with Montgomery Ward and Company of Chicago, became President in 1927, and he was succeeded upon his death in 1929 by Lewis H. Brown who came from Montgomery Ward and Company with Mr. Merseles.

The passing from limited to widespread control brought a change in company operations. With a great number of stockholders, (now more than 21,000) and with America once more in the grip of a depression, it became necessary to redouble efforts to increase business, safeguard investments of stockholders and jobs of employees.

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Accordingly, the many lines of J-M products were classified and organized into groups. In the case of adverse economic conditions in one particular field, such as construction, the range of products in industrial lines could be counted upon to hold business for the company at a relatively stable level. Johns-Manville eventually became, in effect, a combination of about 22 different businesses.

Johns-Manville was no longer strictly "a building materials firm". The Company's sales of building materials used in construction, repair and maintenance, exclusive of pipe and conduit, now constitute considerably less than half of its business. An important part of the Company's business is in the field of water pipe, conduit and industrial products, sales of which are substantially unaffected by seasonal fluctuations. Under its continuing program of diversification Johns-Manville has become the largest producer of asbestos-base products and one of the largest producers of asphalt building supplies in the United States.

The products now are organized into some 400 different lines and in general are designed for control of heat, cold, sound and motion and protection against fire, weather and wear. To mine, manufacture and sell these products, the company employs normally about 21,300 persons, operates facilities at 26 plant, mine and mill locations in the United States and Canada, and 80 sales offices.

Johns-Manville has had three phases in its 100 years of existence - the period of closely held private ownership from 1858 through 1920's, the period of widespread ownership since that time, and a third period of improvement and expansion since the end of World War II. Since 1946, more than $200 million has been invested in new plants, equipment, modernization and replacement.

The company built new plants at Tilton, N.H., Natchez, Miss., and Port Union, Ontario, Canada right after the war. Existing factories were enlarged and then J-M began a second program of expansion.

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This further post war growth included a new plant for the J-M Dutch Brand Division at Chicago, Ill., two new plants for manufacturing Transite asbestos-cement pipe at Stockton, Calif., and Denison, Texas; construction of two new plants for manufacturing insulating board at North Bay, Ontario, and Klamath Falls, Ore.; construction of a floor tile plant at Marrero, La., construction of a second plant at Natchez, Miss., for manufacture of hardboard; construction of an asphalt roofing products plant at Savannah, Ga., construction of a new asbestos mill at the Jeffrey Mine, Asbestos, Quebec; construction of a new warehouse for asbestos fibre at Asbestos, Quebec, expansion of underground mining operations at the Jeffrey Mine and development of underground mining at the company's Munro Mine in Northern Ontario.

A new Research and Engineering Center was built at Manville, New Jersey, providing the largest facilities in the world devoted to building materials, insulations and allied industrial products, and special equipment and facilities needed for manufacture of new and improved products.

The J-M Research and Engineering Center is equipped for the most modern application of science to industry. It utilizes 337,000 square feet of floor space and provides for all research technical activities including: fundamental scientific research, product development, process improvements involving product quality, pilot plant and semi-works scale experiments, design and initial construction of new product equipment, testing of building materials and industrial products. It serves as a central source of technical information.

It is located on a 93-acre plot of land, on which three research buildings and one general engineering building have been built and are now in operation. In addition to normal research laboratory facilities, two research buildings provide 16 experimental factories. Projects thus initiated in the research laboratory are carried through their development and pilot plant production stages to practical plant commercialization production.

To give impetus to its continuing post-war improvement and expansion program, Johns-Manville on September 19, 1946, decentralized production and sales activities of the company into six operating divisions to function virtually as independent businesses.

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These divisions, embracing all activities of the company, as their names imply, were the Building Products Division, Industrial Products Division, Celite (Diatomite) Division, Asbestos Fibre Division, Canadian Products Division and International Division.

In 1947 Johns-Manville acquired Van Cleef Bros. Incorporated, of Chicago, Illinois, internationally known manufacturers of "Dutch Brand" industrial and automotive products. This acquisition is operated as the Johns-Manville Dutch Brand Division. The Company also acquired the Goetze Gasket & Packing Co., Inc., manufacturers of metallic gaskets and packings that same year to augment this line of J-M products.

A major realignment of executive responsibilities under which the late Lewis H. Brown, who had been President since 1929, was elected Chairman of the Board of Directors and Chief Executive Officer, made the divisional reorganization of the company effective. Mr. Brown was succeeded as Chairman in 1951 by Leslie M. Cassidy. A.R. Fisher, who had joined Johns-Manville in 1923, became President.

Mr. Cassidy's election as Chairman came shortly after the Company had broken all its previous records with annual sales in 1950 in excess of $200 million, a position to which Mr. Cassidy himself had contributed as Vice President for Sales. By the end of 1956, annual sales of Johns-Manville were more than $300 million annually.

Johns-Manville operations were still further stream-lined and specialized late in 1955 to keep abreast the Company's continued expansion and diversification. At that time the Industrial Products Division was further decentralized and expanded into 3 separate operating divisions known as the Industrial Insulations Division, the Packings & Friction Materials Division, and the Pipe Division, bringing the total number of separate operating divisions to nine.

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Mr. Cassidy retired as Chairman in November, 1957, but continued in office as a Director and management consultant. At that time, A.R. Fisher, President, assumed the additional office of Chairman and Chief Executive Officer. this further realignment of executive responsibilities, Clinton B. Burnett, who had joined Johns-Manville in 1931 and gained wide company experience in cost reduction, engineering, production and administration, was elected to the newly created post of Executive Vice President. Mr. Burnett was also elected a Director of Johns-Manville Corporation and designated as the principal assistant in the administration of the Company.

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A CENTURY OF INDUSTRIAL RESEARCH AND DEVELOPMENT BY JOHNS-MANVILLE

For more than 100 years, the continuous growth of Johns-Manville has reflected a record of industrial research and development of products for homes and industry that have made a substantial contribution to better living.

Long before the f rmal, organized, scientific expression of industrial research became a regular procedure in American business, H.W. Johns, roofing manufacturer and pioneer of the world-wide asbestos industry, was busy experimenting in a small basement work shop in New York.

He started out in 1858 as a jobber of paints and coatings for roofs and for preserving wood, metals and fabrics. About the same time he began experiments in a basement "laboratory" and developed a "portable" roofing which he manufactured and soon had on the market.

His first "laboratory" equipment consisted of a stove, a tea kettle with a flattened spout, and a clothes wringer. Rag felt, burlap and paper were guided into the clothes wringer while hot pitch was poured on intermediate layers. Later, he added a covering of asbestos fibre to the surface. This "portable" roofing was better than any on the market at the time and was soon in wide use all over the world. The pioneer equipment was still in experimental development use as late as 1872, long after new manufacturing machinery had been designed and was in operation.

By 1868, H.W. Johns had developed numerous products composed wholly or in part of asbestos fibres. Many of these products were destined to become standard items for mechanical, structural and electrical uses. People began to hear of the "fireproof" roofing he was manufacturing and came to buy it on the spot.

While H.W. Johns was carrying on his experimental and development work with asbestos fibres in a New York basement, Charles B. Manville and his three sons were pioneering on insulation for steam pipes and boilers in a Milwaukee basement. They experimented with everything from flour to sawdust and finally came up with a workable mixture of paper pulp and blue clay which is common in the Milwaukee area.

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Later, wool felt shoddy was used as a binder in the clay. This reduced failures from expansion and contraction. Loss of heat was considerably lessened and substantial fuel savings resulted. As crude as this covering may now appear it was then the best in the country. Prior to that time steam pipes and boilers had no satisfactory coverings. These pioneer efforts were so successful that the Manville Covering Company was organized in 1886.

In 1901, the H.W. Johns Manufacturing Company of New York and the Manville Covering Company of Milwaukee were merged as the H.W. Johns-Manville Company. The new company began business January 1, 1902 with a line of insulating cements, asbestos and asphalt roofings, asbestos paper, high and low temperature insulations and other specialties.

Research and experiment continued. Some products were eliminated, others added. New and improved products were continually developed and today form the basis of many Johns-Manville services to home and industry.

Organized, scientific research first became part of the company's program in 1916, when a conductivity laboratory was built at Manville, New Jersey. Scientific data were collected in this early laboratory and established many industry standards which still prevail. Today it is the largest, most fully equipped conductivity laboratory in industry, and thermal insulation and control of heat and cold remain a vital part of the company's continuing research and development program.

In 1927, the company became known as the Johns-Manville Corporation and transition from limited family ownership to widespread stockholder control began.

Expansion of Johns-Manville research has followed the pattern of the company's growth from the small experimental activities of H.W. Johns in New York and C.B. Manville and his sons in Milwaukee to operation now at Manville, N.J. of the largest Research and Engineering Centers in the world, devoted to building materials, insulations and allied industrial products

MORE

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Asbestos applications, a major J-M product development, include rigid shingles and low cost siding materials, for which Johns-Manville developed the dry manufacturing process; Transite, an asbestos-cement product in flat, corrugated or pipe form used extensively in factory and commercial construction, water and sewage systems, irrigation and industrial lines, electrical conduit, flues, ducts and stacks; Marinite, a fireproof marine joiner material for shipboard bulkheads and ceilings, developed as a result of the disastrous Morro Castle fire, and installed in such ships as the SS America, SS Constitution, SS Independence and SS United States; and Flexboard, an inorganic structual wallboard.

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Abstract Of Remarks By
A.R. Fisher, Chairman And President
Johns-Manville Corporation
At The Official Opening Of The New
Johns-Manville Transite Pipe Plant
At Denison, Texas, On June 20, 1958

This year Johns-Manville is celebrating its 100th Anniversary. Our Transite pipe plant at Denison is the first new plant to be opened by the company this year as we start our second century of business.

This plant is the first of its kind in Texas and brings a new type of industry to your state. And, technically speaking, it is the first plant of its kind in the United States.

We are introducing at this plant the first continuous automatic manufacture of Transite pipe in the country. This forward step may be compared roughly to the introduction of the first continuous strip mill in the steel industry.

It marks another move forward by Johns-Manville and another milestone in the industrial progress of Texas. For there is no doubt that Texas is experiencing a spectacular industrial growth. Moreover, the Lone Star state is growing at a faster rate than the country as a whole.

Modern industry takes a great deal of pride in the contributions it is making to the industrial growth not only of Texas, but throughout the Great Southwest. But modern industry would never be able to forge ahead in this promising area without the support of its leading citizens. You have attracted industries by providing a receptive business climate. We of Johns-Manville appreciate that support.

And we are grateful to the official representatives of Texas and to the local businessmen, bankers and community leaders of Denison, Sherman and Grayson Country for their enthusiastic assistance in helping us to locate here.

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In building a plant here I am happy to note that we are helping Grayson County to maintain its reputation as one of the most diversified counties in the state of Texas. Your income is not dependent upon one resource, but upon many. It comes from crops, livestock, manufacturing and trade. It comes from oil, tourists and recreation. And now it will also come from Johns-Manville Transite Pipe.

Diversification of this kind always contributes to the economic stability and progress of a region just as it does to a company.

Johns-Manville, for example, is widely diversified. We manufacture more than 400 product lines. We are not one business. We are really a combination of some twenty-two different businesses.

Our policy of diversification combined with our tradition of forward planning has carried Johns-Manville safely and profitably through a century of wars, booms and depressic At the same time it has established a record of steady growth.

The friendly, helpful and neighborly spirit of everyone we have met in Denison, Sherma and Grayson County makes me regret that Johns-Manville did not start manufacturing operatic in this progressive community long before now.

Of course we are not strangers to Texas. In 1952 we acquired an asphalt roofing plant at Fort Worth. But even then we felt that we were long overdue in Texas and in the Southwe We have had our eye on your great state for many years. On a number of occasions we considered the possibilities of expanding into Texas. Every survey we made was most favorable

But, like Texas, we have been kept busy getting many other projects underway. Since t end of World War II we have spent more than $230 million on expansion and improvement. Anc this year our capital expenditures will amount to around $20 million.

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Our expansion program has been based on careful and detailed studies of demands for our products in the immediate years ahead. That is why we are constantly seeking new opportunities not only to keep abreast of the country's growing economy, but also to keep ahead of it. By planning now we will be in a position to supply these markets without delay as they grow.

Denison is now one of the twenty-six communities in the United States and Canada where we operate plants and mines. This new plant will serve the rapidly growing Southwest market of the United States. In addition to Texas, this market includes Oklahoma, Colorado, Kansas, Arkansas, New Mexico and adjacent areas.

Johns-Manville is just one of the many companies that have helped to bring about the amazing industrial achievement of the United States. This has been made possible through the invested savings of thousands of free men and women who have faith in enlightened capitalism.

Their faith is combined with the loyal services of other thousands of men and women who make careers in creating products and providing services for the public welfare. This accounts for the industrial strength and high standard of living of the American people.

During the next 100 years, countless new developments in Johns-Manville's many fields will be beckoning. And other fields of service and products as yet undreamed of will be awaiting discovery.

One hundred years ago it would have been a rare person of truly prophetic powers who could foresee the United States as it is in the middle of the Twentieth Century. For the growth of our country has been tremendous during the past century.

And the last ten years of it, the period between 1947 and 1957, have been the most productive in our history. American industry established production records in almost every field. Medicine and science broke through new frontiers. Our technological progress has been unsurpassed. People earned more and saved more.

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Most important, a solid foundation was laid for even greater accomplishments in the future.

Although the economy is undergoing an adjustment, our country is still doing business at a very high level. But we have become so accustomed to breaking records that we are startled, disappointed and even frustrated when we do not continue to break records.

How long the current downturn in business will last is still the uppermost question in the minds of our economists and businessmen. But the majority of these people seem to be in agreement on two points.

In the first place they do not expect this recession to be prolonged. In the second place they are convinced that we are on the threshold of another great era of economic growth.

No business ups and downs can stop this boom. It should be a bigger boom than the record breaking period following World War II.

The country's population growth, the billions now being spent arly on research for improved and new products, greater advances in technology and well-established trends toward higher living standards are just some of the factors that will bring about this boom.

Far-seeing business organizations already have charted these factors and are planning for another period of accelerated business activity.

I look forward with the greatest of optimism to the near and long term future of the United States, the Southwest and Texas.

Few states in the country are blessed as Texas is with so many natural resources, particularly the type of resources that are so important to modern industry. These resources have been a powerful force in the recent industrial development of Texas and the Southwes Their effects will be even more far-reaching when the boom of the 1960's gets underway.

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We hope that our operations here will make a significant contribution to your community and to the Southwest. And we hope that as a new industrial neighbor we will also establish a sound basis for a pleasant and rewarding community relationship.

# # #

Revised: May 1, 1958

FISHER, Adrain Robert

Chairman of the Board
Chief Executive Officer
and President
Johns-Manville Corporation

Born: March 27, 1895

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

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A.R. Fisher, Chairman of the Board, Chief Executive Officer and President of Johns-Manville Corporation, has devoted his career to every phase of Johns-Manville sales and production. He is also an authority on the mining and exploration of asbestos fibre, key raw material in many of the more than 400 different lines of products manufactured by Johns-Manville.

Prior to joining Johns-Manville in August, 1923, as Superintendent of the Asphalt Roofing Department for the Johns-Manville plant at Waukegan, Illinois, Mr. Fisher had been a Superintendent with the Barber Asphalt Company at Perth Amboy, New Jersey, and Manager with the Stowell Manufacturing Company, Jersey City, New Jersey. Since his first position with J-M at Waukegan, he has served in a managerial capacity at the company's plants in Lompoc, California and Manville, New Jersey.

In November, 1937, Mr. Fisher was transferred to the company executive offices in New York City as Vice President of Johns-Manville Products Corporation. Eight years later he was made a Vice President of Johns-Manville Corporation, and in January, 1946 was appointed Senior Vice President for Production and acting General Manager of the company's Asbestos Fibre Division. In January, 1951, Mr. Fisher was elected a Director of Johns-Manville Corporation, and in March, 1951, he was named President of the Corporation.

MORE

Mr. Fisher was elected Chairman and Chief Executive Officer in November of 1957 when L.M. Cassidy retired because of ill health. Mr. Fisher also continued as President and Director, positions he has held since 1951.

A native of New Brunswick, New Jersey, Mr. Fisher was graduated from Rutgers University with a Bachelor of Science degree in Engineering, and served as an officer with the United States Army Field Artillery during World War I. He is a member of the Board of Trustees of the Industrial Hygiene Foundation of America and a member of the Board of Directors of the Economic Club of New York.

Mr. Fisher is a member of the Union League Club and the Yale Club of New York City. He is a member of Delta Kappa Epsilon, national social fraternity.

Mr. Fisher is married and has a daughter, Mrs. John J. Ludwig. Mr. and Mrs. Fisher live at 1115 Fifth Avenue, New York City.

# # # #

Revised: May 1, 1958

ORTH, Robert Fitzpatrick Born: December 8, 1901

Vice President, Johns-Manville Sales Corporation

General Manager, Pipe Division

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

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R.F. Orth is Vice President and General Manager of the Pipe Division, Johns-Manville Sales Corporation, a position to which he was appointed on January 1, 1956.

Mr. Orth was born in San Antonio, Texas, on December 8, 1901 and was graduated from Texas A & M in 1923 with a Bachelor of Science Degree in Mechanical Engineering.

The year following his graduation he began his career with Johns-Manville as an acoustical engineer. Subsequently he held positions with the company as salesman, architectural representative, staff manager of the Transite Pipe Department for the St. Louis District and Manager of J-M's Public Utility and Electrical Departments at the company's headquarters in New York before serving as Merchandising Manager of the Transite Pipe Department at New York.

Mr. Orth is past President of the Water & Sewage Works Manufacturers Association. He is also a member of the Engineers' Club in New York and the Greenwich Country Club of Greenwich, Connecticut.

Mr. Orth is married and has two sons, Dr. Robert H. Orth and William T. Orth and a daughter Bettie C. McDonald. His home is on North Street and North Stanwich Road, Greenwich, Connecticut.

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Revised: May 1, 1958

BURNETT, Clinton Brown	Director and Executive Vice President Johns-Manville Corporation	Born: July 29, 1908

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

C.B. Burnett, Director and Executive Vice President of Johns-Manville Corporation, is a native of Waukegan, Illinois, and a graduate of Washington University, St. Louis, Mo., where he received a Bachelor of Science degree in Business Administration. He also studied law at Kent College of Law, Chicago.

Mr. Burnett joined the Johns-Manville organization in 1931. For a quarter century thereafter he gained wide experience in production, engineering and administration in various company operations.

His first assignment was in the Planning Department at the Company's Waukegan, Illinois, plant. He became Cost Reduction Manager there in 1936.

At the outbreak of World War II in 1941, Johns-Manville sent him to Parsons, Kansas, as Operations Coordinator and then Operating Manager of the Kansas Ordnance Plant which the company built for the United States government and operated for five years. Mr. Burnett supervised 15,000 Kansas Ordnance Plant employees and produced more than half a billion dollars worth of munitions during the war years.

When the war ended, Johns-Manville called him to New York for executive responsibilities in company-wide methods engineering and production of building materials and industrial products. He was elected a Vice President of the Johns-Manville Products Corporation in 1946.

MORE

Revised: May 1, 1958

HESSE, Jack Elwin	Plant Manager Johns-Manville Pipe Plant Denison, Texas	Born: December 25, 1914

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department of Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

Jack E. Hesse was appointed Manager of the Johns-Manville Transite Pipe plant at Denison, Texas on February 15, 1957 while the plant was still under construction.

Mr. Hesse joined Johns-Manville in 1938 at Marrero, Louisiana, in the Plant Maintenance Department, and was advanced to Assistant Plant Engineer in 1942. He was appointed Plant Superintendent at J-M's new Transite Pipe plant which was built in 1947 at Marrero. He held this position until August 1956, at which time he joined the Production Engineering Department at the J-M Pipe Division Headquarters, New York City.

An authority in the production of Transite asbestos-cement pipe, Mr. Hesse attended Louisiana State University, Baton Rouge, La., and Tulane University, New Orleans, specializing in mechanical and power engineering.

Mr. Hesse is a native of Port Arthur, Texas and a former resident of New Orleans and Gretna, Louisiana. He lived for a time at Highland Park, New Jersey, where he was active in civic affairs. Mr. Hesse is married and has three children. The eldest, Jack, Jr. was in the class of '57 at the United States Military Academy, at West Point, N.Y.

# # #

[illegible]ased: May 1, 1958

TURNBULL, Thomas Reed

Born: June 24, 1895

Vice President and Production Manager
Pipe Division
Johns-Manville Products Corporation

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

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T. Reed Turnbull is a Vice President of the Johns-Manville Products Corporation and Production Manager of the J-M Pipe Division, a position to which he was appointed on January 1, 1956.

Mr. Turnbull is an industrial engineering and production specialist who has been with Johns-Manville since 1925.

A former manager of the J-M Waukegan, Illinois, plant for 6 years, Mr. Turnbull also served at the old Cincinnati, Ohio, plant and and the Manville, New Jersey, [illegible] before his assignment to the company's Executive Offices in New York.

Mr. Turnbull has been active with civic and youth organizations. A former President of both the Chamber of Commerce and the Junior Achievement program in Waukegan, Illinois, he is also a member of the Society for the Advancement of Management.

A native of Pomeroy, Ohio, Mr. Turnbull now lives at 2 Tudor City Place, New York City. He is married and has two sons and five grandchildren.

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Revised: May 1, 1958

GOODWIN, John Henry	Vice President Johns-Manville Sales Corporation General Sales Manager, Pipe Division	Born: July 23, 1911

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

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John H. Goodwin is a Vice President of Johns-Manville Sales Corporation and General Sales Manager of Johns-Manville Pipe Division.

He joined Johns-Manville in 1945 as a staff engineer in the San Francisco Office. In 1948 he was appointed Manager of Insulations, Packings, Power Specialties, Friction Materials and Electrical Products for the San Francisco District. He served in that capacity until 1954 when he was appointed Assistant District Manager at San Francisco.

In December, 1954, during a realignment of executive responsibilities, he became San Francisco District Manager for the J-M Industrial Products Division. Mr. Goodwin was elected a Vice President of the Johns-Manville Sales Corporation and assumed his present position on January 1, 1956.

A native of Berkeley, California, Mr. Goodwin was graduated from Purdue University with a Mechanical Engineering degree. He is a member of the American Society of Mechanical Engineers and the American Society of Refrigerating Engineers. Mr. Goodwin served as a Lieutenant Colonel with the United States Marine Corps during World War II.

Mr. Goodwin is married and has a daughter Cornelia Goodwin. The family resides at Greenwich, Connecticut.

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Revised: May 1, 1958

WAHL, George René Robert	Vice President Johns-Manville Sales Corporation Merchandise Manager, Pipe Division	Born: July 30, 1911

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y.
Telephone: LExington 2-7600

-oOo-

George R.R. Wahl, a Vice President of Johns-Manville Sales Corporation, is Merchandise Manager of the Pipe Division.

He joined Johns-Manville in 1933 at the Company's Research Center in Manville, New Jersey as a laboratory assistant. He was transferred to the Transite Pipe Department in New York City in 1937 where he became Assistant Product Manager in 1952. He was elected a Vice President and appointed to his present responsibility on January 1, 1956.

A native of New York City, Mr. Wahl is a graduate of Harvard University with a BS degree in Civil Engineering.

Mr. Wahl is a member of the Harvard Engineering Society and Tau Beta Pi, engineering honor society. He is also a member of the National Mental Health Foundation, Humane Society of the United States, and has been active in the Monmouth County Mental Health [illegible] and other social welfare organizations

Mr. and Mrs. Wahl reside at New Monmouth Road, Middletown, New Jersey

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Revised: May 1, 1958

BRADLEY, James Cushman

Industrial Relations Manager
Denison, Texas Plant
Johns-Manville Products Corporation

Born: April 29, 1920

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

James C. Bradley, Industrial Relations Manager at the Johns-Manville Denison, Texas plant, administers prescribed company employee policy and assists the Plant Manager in the discharge of his established responsibility for maintaining good community relations.

Mr. Bradley began his career with Johns-Manville in 1947 as an Industrial Engineer at the J-M Waukegan, Illinois plant. In 1955 he was transferred to Marrero, Louisiana as Industrial Engineering Supervisor at the local J-M plant, and in 1957 was appointed to his present post as Industrial Relations Manager for the Denison, Texas plant.

Mr. Bradley attended the State University of Iowa and Northwestern University taking courses in Business administration and specializing in personnel and industrial management and labor economics. He is a member of Sigma Alpha Epsilon, national social fraternity.

Active in Denison civic affairs, Mr. Bradley is a member and director of the Kiwanis Club; a member and director of the Denison Community Concert Association; and a member of the Denison Chamber of Commerce. He is also a member of the Woodlawn Country Club.

Mr. Bradley is married and has three children, Pamela, James and Steven Bradley. The family lives at 1317 West Hull Street, Denison, Texas.

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Revised: May 1, 1958

WARING, William Hayne

District Sales Manager
Johns-Manville Pipe Division
Houston, Texas

Born: May 11, 1905

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

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William H. Waring, District Sales Manager for the Johns-Manville Pipe Division at Houston, Texas, is responsible for Transite asbestos cement pipe sales in Texas, New Mexico, Louisiana, Mississippi, Arkansas and Oklahoma.

Prior to his career with Johns-Manville, Mr. Waring was associated with the Dallas, Texas Water Department for 13 years where he became Distribution Engineer. He then joined the Merla Tool Corporation of Dallas as Sales Engineer and rose to the post of Sales Manager.

Mr. Waring joined Johns-Manville in 1941 as Staff Manager for Transite Pipe at St. Louis. Following three years service with the U.S. Navy during World War II, he returned to Johns-Manville in 1947 as Staff Manager for Transite Pipe for the Houston District. He was promoted to his present post as Houston District Sales Manager in 1956.

Mr. Waring attended Texas A & M, where he studied Civil Engineering. He is a member of the American Water Works Association, the National Association of Corrosion Engineers, and the Houston Engineering and Scientific Society.

Mr. and Mrs. Waring live at 551 Lupin Street, Bellaire, Texas.

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Revised: May 1, 1958

DAVIS, Jack William

District Sales Manager
Johns-Manville Pipe Division
Denver, Colorado

Born: January 11, 1915

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

Jack W. Davis, District Sales Manager for the Johns-Manville Pipe Division at Denver, Colorado, is responsible for Transite asbestos-cement pipe sales in Wyoming, Idaho, Utah, Colorado, New Mexico, Nevada, South Dakota and Nebraska.

Prior to joining Johns-Manville in 1944 as District Engineer at Denver, Mr. Davis was associated with the United States Public Health Service and the Colorado State Board of Health. In 1947 he was appointed Johns-Manville Manager for Transite Pipe at Denver and was appointed to his present post in 1957.

A native of Denver, Colorado, Mr. Davis attended the University of Denver and the University of Colorado, specializing in Sanitary Engineering. He is a licensed sanitary engineer in the State of Colorado. Mr. Davis is a Representative to the Colorado Engineering Council and is Secretary-Treasurer of the Rocky Mountain Society of the American Water Works Association.

Mr. Davis is married and has two children, Barbara and James Davis. The family lives at 10370 W. 13th Place, Lakewood, Colorado.

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Revised: May 1, 1958

PALMER, Henry George	District Sales Manager Johns-Manville Pipe Division St. Louis, Missouri	Born: January 22, 1909

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

Henry G. Palmer, District Sales Manager for the Johns-Manville Pipe Division at St. Louis, Missouri, is responsible for Transite asbestos-cement pipe sales in Illinois, Missouri, Kansas, Arkansas, Oklahoma, Kentucky, Mississippi, Tennessee, Iowa, Minnesota, Nebraska and South Dakota.

Prior to joining Johns-Manville in 1936 as Assistant District Engineer for the Atlanta District, Mr. Palmer was associated with the State Highway Department of Georgia as a bridge designer and resident engineer on bridge construction.

Mr. Palmer was transferred to Atlanta District as Sales Representative for the Johns-Manville Industrial Products Division in 1937 and became District Sales Manager in 1950. In 1956 he was named Staff Manager for Dealer Sales, South Atlantic Region for the Johns-Manville Pipe Division and in January, 1958 was transferred to St. Louis and promoted to District Sales Manager.

Mr. Palmer was graduated with a B.S. degree in Civil Engineering from the University of Georgia where he played Varsity football and basketball. He took his Masters degree at Georgia Institute of Technology.

Mr. Palmer is married and has a son, Henry G. Palmer, Jr., who is currently serving a medical internship. Mr. and Mrs. Palmer live at 21 South Rock Hill Road, Webster Groves, Missouri.

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Revised: May 1, 1958

SMOLAK, George

Manager
Pipe Department Research
Johns-Manville Research Center
Manville, N.J.

Born: March 3, 1900

EDITORS: The following biographical sketch, for release as needed, has been prepared by the Public Relations Department, Johns-Manville Corporation, 22 East 40th Street, New York 16, N.Y. Telephone: LExington 2-7600

-oOo-

George Smolak, Manager of Pipe Department Research, at the Johns-Manville Research Center, Manville, N.J., has over-all industrial research responsibility for development of new and improved Transite asbestos-cement pipe products in coordination with the J-M Pipe Division's sales and merchandizing departments.

Prior to joining Johns-Manville in 1927 as a Research Chemist at the Company's Nashua, New Hampshire plant, Mr. Smolak was a Research Chemist for the Hecla Mining Company at Gem, Idaho, and the General Electric Company at Schenectady, New York.

Mr. Smolak was transferred from the Nashua plant to the J-M Research Center in 1930 as a Research Chemist on asbestos-cement products. He has been instrumental in developing and improving many of the J-M asbestos-cement products now on the market. In 1952 he was named Assistant Manager of the Research Center's Pipe and Board Department and, in 1956, was promoted to his present post.

Mr. Smolak was graduated from the University of Idaho with a B.S. Degree in Mining Engineering and received his Masters degree in Metallurgical Engineering. He is a member of Sigma Psi, national social fraternity. Active in scientific circles, Mr. Smolak is also a member of the American Chemical Society, the Electro-Chemical Society, American Association for the Advancement of Science, the American Waterworks Association, and the Society of Chemical Industry. He is a veteran of World War I.

Mr. Smolak is married and has three children, Miss Jean Frances Smolak, Mr. George R. Smolak, and Mrs. Edmund Eldridge (Anna Jane Smolak). The family lives at 40 West Spring Street, Somerville, New Jersey.

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