

"Management by Morgan"

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"Management by Morgan"

So they said of Johns-Manville in '27 and so they say in '34. But Morgan management carries on with Manville men and all that insulates is not asbestos. The depression *vs.* diatoms, woolly rock, Sanacoustic Tile, prefabricated houses, and Lewis Herold Brown.

IF YOU were looking for a company with which to compare the Johns-Manville Corp., your best analogy might be the U.S. Steel Corp. True, Steel makes about thirty times as much money as Manville when times are good (also loses thirty times as much when times are bad). But both companies are engaged in the production and fabrication of a basic raw material, asbestos being to Johns-Manville much what steel is to U.S. Steel. Both are excellent examples of vertical integration, Steel with its coal mines and ore deposits and Johns-Manville with its asbestos quarries. Each is the largest unit in its industry, Steel with about 40 per cent of the national ingot capacity and Johns-Manville with about 40 per cent of the Canadian asbestos production from which practically all the asbestos used in the U.S. is derived. Both rate the building, the automobile, and the railroad companies as their best customers, although Johns-Manville is more top-heavy than Steel on the building end. Both sell most of their products according to buyers' specifications and operate pretty much on the principle that the law of averages will give them a good volume. And both have one tremendously important common denominator in the form of J. P. Morgan & Co.

The Morgan-Steel relationship is so historical that it needs no comment. The Morgan-Manville relationship is also familiar although the extent of the Morgan interest in Johns-Manville is not commonly realized. In 1927 J. P. Morgan & Co., with Thomas W. Lamont its active agent, bought 400,000 shares of Johns-Manville common at between \$50 and \$55. There are only 750,000 common shares outstanding and so (assuming that the banking house has retained its holdings) Manville is a Morgan company to the extent that the bankers actually hold a majority of its voting stock. In which position it is almost certainly unique among manufacturing companies. But the generalization remains. Both U.S. Steel and Johns-Manville are in the basic raw-material business, each is the biggest frog in its particular puddle, and both have at 23 Wall Street a great and good friend.

IN THE year the House of Morgan took it over, Johns-Manville's prospects were very bright prospects indeed. Its 1926 sales were \$45,000,000 out of which a \$5,000,000

profit had been taken. The death of Thomas Franklyn Manville in 1925 had created a serious problem of ownership and management. But this problem had apparently been solved by the sale of the company to J. P. Morgan & Co. For the bankers had signalized their arrival by installing genuine Morgan management, making Theodore Frelinghuysen Merseles President of Johns-Manville. Mr. Merseles was a high-pressure executive who had made a brilliant success with Montgomery Ward, another Morgan company. With Morgan and Merseles, Johns-Manville was going to do big things. It was—this was the plan—to become the General Motors of the building industry, with a surface for every purpose. Stock went from 55 early in the year to a 1927 top of 126.

Morgan and Merseles spent the next two years rapidly realizing their prospectus for Johns-Manville. The company bought, for cash, a group of new companies. Most of them made insulation for temperatures to which asbestos was not applicable. Their acquisition was a step toward horizontal integration which would give Johns-Manville an insulation for every temperature from 40° below to 2,500° above zero. Sound insulation, not a new thing with Johns-Manville, was promoted on a more ambitious scale, and a sound-insulation company was among the new purchases. There were rumors of a merger with American Radiator, U.S. Gypsum, Certain-Teed Products, with nearly any company that manufactured a building or a covering material. Sales for 1929 went to \$62,000,000; profits to \$6,600,000. The stock went to 242. Morgan money and Morgan men were working out as advertised.

Then things went wrong. Mr. Merseles died in March, 1929. The building boom was already over. In the fall of 1929 the stock-market crash ushered in the depression. Johns-Manville had a new, young manager in the person of Lewis Herold Brown, a Merseles man brought along from Montgomery Ward. He was able, but young—aged thirty-five. His youth accentuated the disparity between the new managers and the old group of Manville men who still held the key operating positions. Nor did the House of Morgan import another nationally known executive. Perhaps it had no more big shots in its arsenal, perhaps it

thought that Johns-Manville, with depression coming on, was not worth the ammunition. At any rate, sales and profits and public enthusiasm dwindled. The 1930 sales were \$12,500,000 less than the 1929 sales. The 1931 sales were \$16,000,000 less than the 1930 sales. The 1932 sales were \$13,000,000 less than the 1931 sales. So 1932 sales amounted to only \$20,400,000—less than *one-third* the volume of 1929. And in 1932 there was a deficit of \$2,700,000 of which about \$1,000,000 was an operating loss. Mr. Brown was still President but the company seemed to be the forgotten man. Forgotten apparently by its financial sponsor and forgotten certainly by the general public. The stock dropped to 10. The General Motors of the building industry was making no progress.

YET Johns-Manville stock is again a blue chip in the present bull market. It went from 12 in the spring of 1933 to 65 in February of 1934. It was back over the figure at which the Morgans had bought it—and very few of the big deals of 1927 could show a profit in 1933. And the public was buying it again. The stock moves rapidly because so little is left outstanding after figuring the Morgan interest and the stock still held by the Manville family and by Johns-Manville employees. Even so, its rise was notable. The building industry was still depressed and the first quarter of 1933 had been so bad that even a great second- and third-quarter improvement left sales for the twelve months at about their 1932 level. But in 1933 there was no deficit. The management had determined that it could get along on sales of \$20,000,000, had cut operating expenses until it made the determination a fact. Old expansion stories were reviving. There was a rumor that the company was going to bring out a prefabricated house. (A well founded rumor—see page 144). Investors remembered their 1927-29 enthusiasm about Morgan companies, Morgan management. So up went the stock, and up and up.

The 1927 buying of Johns-Manville had been founded largely on the theory that what was good enough for Mr. Morgan was good enough for you and me, The 1933 buying was probably no better informed. Mr. Brown was still little known—his most expansive gesture was to serve on one of Mr. Hoover's unemployment committees.

There was even less appreciation of the Johns-Manville business. People who knew that Johns-Manville was in the asbestos business thought of asbestos as a mysterious fireproof material good for theatre curtains. Such Johns-Manville products as rock wool and liatomaceous earth were (and are) totally uncomprehended. The ability of the company to get along on its 1933 income was the best reason for a bullish outlook. On the strength of it the company was nominated as a recovery stock, as one of the corporate Moses' showing the way out of the land of bondage. But who were the men and what were the causes producing these results? And accepting Manville as a recovery company, what would be its recovery sales? Few buyers of Johns-Manville in 1933 could have discussed these questions intelligently any more than could their ancestors of 1927. The answers split logically into two divisions—management and materials.

Manville to Morgan to Merseles . . .

THOMAS FRANKLYN MANVILLE was president of Johns-Manville from 1901 until his death in the fall of 1925. In its present form the company is a consolidation of the H. W. Johns Manufacturing Co. of New York and the Manville Covering Co. of Milwaukee. The Johns Co. (roofing, also paint) had started in 1858. By the end of the century, Founder Johns had died and the company was heavily in debt. The Manville Co. started in Milwaukee in 1880. It was an insulation company, began when Charles B. Manville, father of T. F., put cement on his neighbors' furnaces. In 1901 the Manvilles bought the Johns Co. and for the next twenty-four years T. F. Manville was the boss of the combined works. He ran the sales up to nearly \$40,000,000 a year. In 1922, when the post-War building boom helped pull the country out of the post-War panic, he roofed so many houses and insulated so many pipes that he was able to declare an extra cash dividend of \$40 a share (there were then only 30,000 shares outstanding). He ran the company as a one-man show. He took no advice, he borrowed no money, he dickered with no competitor. The company was almost as much a Manville family company as Ford Motor is



LEWIS HEROLD BROWN

. . . is the man you hear of when you hear of Morgan management at J-M. The bankers picked Mr. Merseles; he picked Mr. Brown—and in 1929 he died.

IN THE STREET THEY CALL J-M A MANAGEMENT COMPANY: HERE ARE THREE OF THE MANAGERS



photographs by Bourke-White

WILLIAM ROBBINS SEIGLE



LOUIS ROY HOFF

BEFORE Manville or Morgan were oldtimers William Robbins Seigle, now Chairman of the Board, and Louis Roy Hoff, present Vice President and Sales Manager. Both came to the old H. W. Johns Co. in 1900, before the Johns-Manville consolidation. Mr. Seigle arrived from the Fourth National Bank, to which the Johns Co. owed money. His first act was to sell the old company's paint business. Under T. F. Manville, Johns-Manville President for twenty-four years, Mr. Seigle became Production Manager. Paint got Louis Roy Hoff into the Johns Co. Walking down Manhattan's William Street, shortly after his discharge from the Spanish War, Mr. Hoff saw several cans of paint on the sidewalk in front of the Johns building. He walked in, asked why an asbestos company handled paint, discovered the existence of the paint division. He walked out with a \$15-a-week job as stenographer. Later he went into sales, became Sales Manager in 1912. Messrs. Seigle and Hoff have seen four Manville Presidents come; three Presidents go.



HIRAM EDWARD MANVILLE

... whose reign (1925-27) was an interregnum. He collected the Johns-Manville controlling interest—scattered by the death of T. F. Manville—then sold his majority holdings to J. P. Morgan & Co.

a Ford family company and Mr. Manville had some of the usual foibles of the owner and proprietor. He built a big hotel down at Manville, New Jersey. There is not much at Manville except the Johns-Manville factory, but anybody visiting the works had fine quarters during his stay. He considered research not worth a damn, boasted that he never spent a nickel on laboratories or chemists. He was a fine salesman and confident of his ability to sell anything. He sold automobile horns, fire extinguishers, spark plugs, hundreds of products not directly related to asbestos or asphalt; ran the list of company products up to more than 2,000 items. He was a fine specimen of a Grand Old Man in the days of the Grand Old Party. But he went home to the Plaza Hotel one night in October of 1925 and dropped dead—bad heart.

Hiram Edward Manville, younger brother of T. F., succeeded to the Manville presidency. He was (and is) a pleasant, well liked, capable gentleman but he was also past his prime and had no illusions about duplicating the driving energy of his elder brother. He was not eager to remain as Manville President, but he was concerned not only about the question of management but also about the question of control. T. F. Manville had left a block of stock to his son, T. F. Manville Jr., another to his daughter, Lorraine Manville Gould, and a third to

Johns-Manville employees. Young T. F. Manville had already acquired two divorces and much publicity, was not in line for the presidency. But the split up of the older Manville's stock had left no one in undisputed control of the company. The employees, with the stock T. F. Manville had just left them (and with another block distributed in 1922), owned nearly one-third of the company. H. Edward was worried lest someone buy up enough of the employees' stock to get control. So, feeling the company required a centralized ownership, he decided to do the centralizing himself. He bought T. F. Manville Jr.'s holdings, shopped around and picked up most of the employees' stock, and—with his own large interest—became the majority owner. Then he and Thomas W. Lamont of the House of Morgan got into a dicker and the House of Morgan emerged with the 400,000 shares already mentioned. H. Edward, feeling that the company was now unquestionably in good and strong hands, went into semiretirement as Chairman of the Executive Com-



ENDERS McCLUMPHA VOORHEES

His appraisal was praised by Mr. Marseles, who brought him into Johns-Manville as Secretary, Treasurer, Vice President.

mittee, a post that he still retains. He also kept a large block of Manville stock, is the largest individual stockholder, and has added to his holdings since 1927.

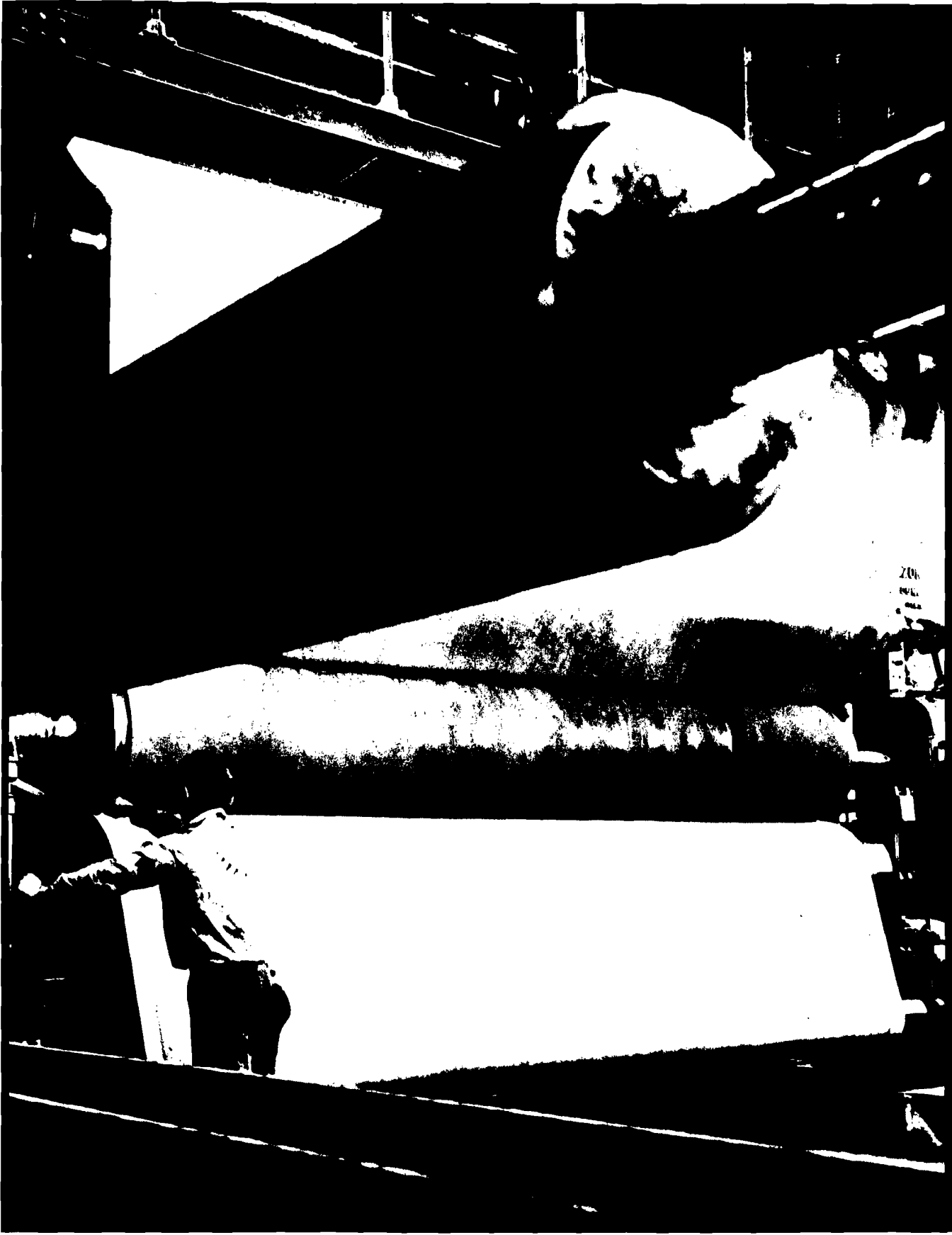
The sale of control to the bankers provoked an outcry from many of the employees. They said that they would never have sold their stock had they thought that control would be transferred to any outside interest and were overly frank in accusing H. Edward of selling them down the river. What they said and thought, however, did not much influence the course of events. But neither did it make Morgan-man Marseles' new row any easier to hoe.

THEODORE FRELINGTHUYSEN MERSELES had the same initials as had T. F. Manville, suffered also from the same heart weakness. Put into Montgomery Ward in 1921, another old family company into which the Morgans had bought, he made a splendid record with the mail-order house despite the fact that he liked Chicago so little that he commuted twice a month between his Chicago job and his New York home. He went to work rapidly on Manville. He turned the hotel into an office building. He threw out



SAMUEL ARTHUR WILLIAMS

... in charge of mining and production. He belongs to Manville old and Manville new. To Old, because he has been a Manville man for twenty-five years. To New, because his present authority dates from the Marseles régime.



Kaufmann-Fabry, Chicago

HERE IS A SHEET OF ASBESTOS AND CEMENT ROLLING ITSELF INTO A TRANSITE PIPE

Transite is a mixture of asbestos and cement—a "reënforced concrete" effect with the asbestos fibers supplying the reënforcement. Here is a Johns-

Manville trick: rolling it around a steel core to make a pipe superior to the ravages of time and rust, resistant to heat and acid.



Photographs by Bourke-White

SYMBOL OF THE PRESENT REGIME

... are these galvanometer wires in Johns-Manville's laboratories. New because T. F. Manville spent no nickel on science; symbolical of the present management's interest in research.

the automobile horns and fire extinguishers and such, cut the catalogue from about 2,200 to 1,400 items. Then he started his own expansion program, getting Johns-Manville into nonasbestos products such as rock wool and diatomaceous earth (of which more below). He was always brimming over with ideas—used to come down in the morning with a sheaf of shorthand notes (he was once a stenographer for the Pennsylvania Railroad) embodying his overnight thoughts on what to do with Johns-Manville. But he did not live long enough to leave his personality permanently imprinted on the organization. In March, 1929, he took a trip to the Pacific Coast, inspecting new properties, and died suddenly at the Del Monte Hotel. And the boom period of Johns-Manville vanished with him.

... to Brown

LEWIS HEROLD BROWN had been Mr. Merseles' assistant at Montgomery Ward, was Mr. Merseles' assistant at Johns-Manville. He is large, square shouldered, dark, well poised, immaculately attired, a model of what the contemporary executive should wear and look like. Born in Iowa, he studied law at the University of Iowa, but during one of his college vacations he got a temporary job with a corrugated-paper company and did so well at it that the job became permanent. Then came the War, and Mr. Brown went to the first officers' training camp with a lieutenant's commission in the mails. Unfortunately the commission stayed in the mails and when Mr. Brown arrived

he had no officer's standing. So he said never mind about being a lieutenant, he would start in as a private. By the time that the training period was over, he was an acting captain, and did not bother to look up his commission which never has been found. At twenty-three he was bossing lieutenants who were Spanish War veterans, which was good training for his later career.

Returning from France, and not much interested in further dealings with corrugated paper, he found himself in Chicago

with half a day between trains. He decided to take a walk through the Montgomery Ward premises. When he arrived the guide had just started off with a flock of tourists and no more trips were to be made until the next morning. Mr. Brown explained that he would not be in Chicago the next morning and got himself conducted through the plant as a special one-man visiting party. The trip concluded, he stopped to thank the man who had arranged it for him, discovered that the gentleman in



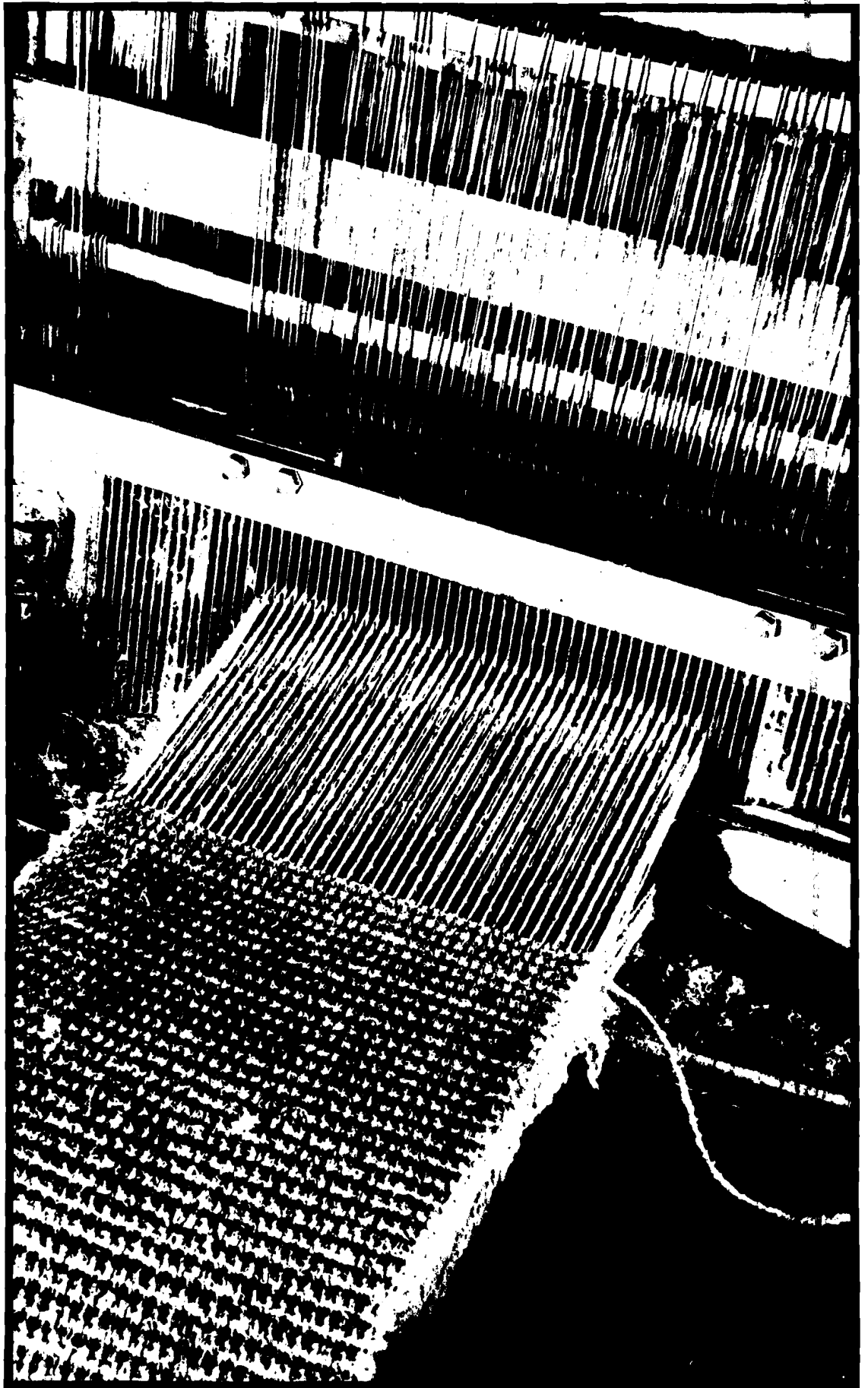
"THE FUNERAL DRESS OF KINGS"

... Old Roman Pliny called asbestos. Like a textile, it was woven and used for royal shrouds. Woven asbestos is still important—especially in brake linings—and here are strands that the carding machine has sorted and wound up on spools.



ASBESTOS IS HARD TO WEAVE BECAUSE IT IS SO SLIPPERY

Though cloth is made of it, asbestos remains a mineral and hard to weave—it is so smooth and slippery that the threads are not easily combined with one another. Here is an asbestos weaver engaged in knotting broken threads on a warping machine.



BRAKE LININGS BY J-M

The automotive industry remains the last great commercial resort of woven asbestos, brake linings being a combination of about 80 per cent asbestos and 20 per cent cotton. The picture shows the weaving of heavy-duty brake lining which will eventually absorb the friction heat caused by the stopping of trucks and busses. But in recent years, molded and semimolded brake linings have cut into the woven brake lining to such an extent that each of the three varieties is now free and equal in the sight of the industry.

question belonged to the personnel department, which was a nice way of saying that he hired people. So he and Mr. Brown talked, and by and by he hired Mr. Brown, whose first job was also with the personnel department.

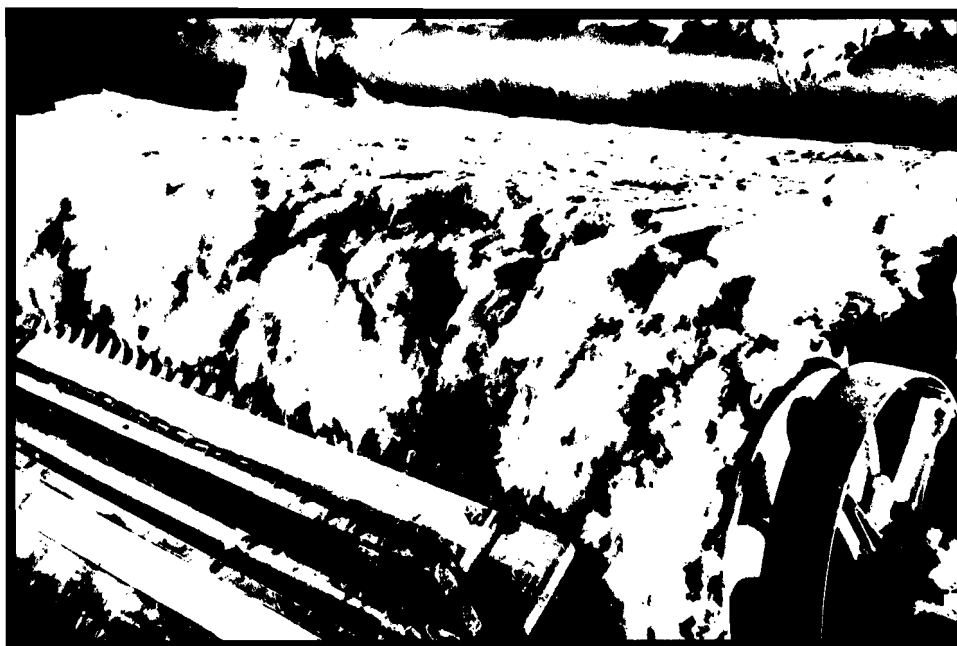
Hiring other Montgomery Warders did not long engage Mr. Brown's attention. He had a capacity for looking over various departments of the business, discovering what

was the matter with them, and suggesting remedies. He also had a capacity for getting his reforms adopted. So he rose to the position of what used to be called an efficiency expert (much as Mr. Brown has always abhorred the expression). But his best idea, which dealt with an improved way of handling the stencils for the millions of Montgomery Ward catalogues, languished until the arrival of J. P. Morgan & Co. (and Mr.



TO BLOW ROCK INTO WOOL USE JETS OF STEAM AND AIR

Rock wool is an insulator for cold and medium temperatures, also for sound. To make it, you pour molten silicon rock from a furnace through jets of steam and air. The blown rock cools off into a mass of porous, fluffy, wool-like fibers. After you have changed rock to fiber, you . . .



Photographs by Bowke-White

MOVE THE FIBERS ALONG A REVOLVING BELT AND WITH A SAW-TOOTHED . . . edge lift them off and keep them from piling up into a tangled mass. The rock wool contains millions of cells of dead air that supply its insulating property. Mixed with asphalt and pressed into sheets, it becomes rock cork, used in Frigidaire and other low-temperature insulation.



JOHNS-MANVILLE'S NO. 1 PRODUCT

. . . is this frost-covered-looking insulation. Made of 15 per cent asbestos and 85 per cent magnesia it has been for thirty-five years the standard covering for pipes and furnaces up to 600° Fahrenheit.

Merseles). Mr. Merseles immediately put Mr. Brown's stenciling idea into effect and soon Mr. Brown was Mr. Merseles' assistant. So Mr. Brown was used to being a young man in an old company and also a young man in a responsible position. And when Mr. Merseles moved out of Montgomery Ward and into Johns-Manville, Mr. Brown was the only Montgomery Ward man that he took with him.

SO MUCH for the four Manville presidents and the three Manville management changes since 1925. Meanwhile, what of the old Manville men who remained through all these administrations, like old U.S. Senators watching various Chief Executives come and go? Most important of these men were (and are) William Robbins Seigle, now Chairman of the Board, and Louis Roy Hoff, now Vice President and Sales Manager.

Mr. Seigle is a gray-haired, mellow, ruddy gentleman who was with Manhattan's Fourth National Bank in 1900 when the old Johns Co. owed the bank a lot of money. Mr. Seigle went over to see what could be done about this and what he did was sell the Johns paint business to James E. Patton Jr. (who later sold *his* business to Pittsburgh Plate Glass, as told in *FORTUNE*, January, 1934). Then he stayed with the company and became Production Manager under T. F. Manville. He was largely responsible for Manville operations in 1926 (and a very good year the company had), but—like H. Edward Manville—he did not want to be permanently burdened with the manage-



SQUEEZING ASBESTOS SHINGLES DRY IN A HYDRAULIC PRESS

ment problem. "We'd made pretty good money," says Mr. Seigle, referring to the situation following the death of T. F. Manville, "and we were more or less thinking that we might sell out and retire." But Mr. Seigle—who was the only large non-Manville stockholder during T. F. Manville's lifetime—did not participate in the selling out to the extent of surrendering his own interest, and instead of retiring moved up to the board chairmanship. Mr. Seigle is in charge of Manville research and development, has a house in Italy, and sends his five children to school in Europe.

Active head of mines and production is now Canadian-born Samuel Arthur Williams, onetime hockey player. Mr. Williams is in a way a link between Manville old and Manville new, for although he has been with the company over twenty-five years he has risen to his vice presidency during the Merseles-Brown administrations. He is the big mine and factory superintendent, has never worked for anybody but Johns-Manville.

Mr. Louis R. Hoff is a contemporary of Mr. Seigle in the Johns-Manville organization, both date from 1900. Like Mr. Brown at Montgomery Ward, he joined the old Johns Co. on his way back from a war, but it was the Spanish not the World War that Mr. Hoff saw action in. Back from Cuba, he was strolling along Manhattan's William Street (where the old Johns offices were situated) when he noticed in front of the Johns building a large number of cans of paint. Mr. Hoff had a vague idea that the Johns company was in the asbestos and roofing business and he was puzzled to account for the paint. So he walked in and asked why an asbestos company had paint

on its sidewalk. After the existence of the Johns paint division was explained, he stayed and talked a while and emerged with a \$15-a-week job as a Johns stenographer. It is an odd social note that in the days when stenography was a male vocation many an older U.S. executive (like Mr. Merseles) got himself a stenographic start in life which he probably could not or

would not duplicate in these days of female shorthand. Strange also is the casual manner in which jobs apparently were handed out. But whoever hired Mr. Hoff made no error. From stenography he got into the sales department, worked up, and in 1912 became Sales Manager, a position which he has held ever since. Mr. Hoff is short, wiry, quick, serious, earnest—a No. 1 sales manager with all the No. 1 sales manager's devotion to his sales. Even today he will get into sales conferences that run until one or two o'clock in the morning, and he has the same thorough enthusiasm for Johns-Manville's still unborn fabricated house as he has for the "85 per cent magnesia" insulation that was a standard product back in 1898. What Mr. Seigle does not know about asbestos is very little and what Mr. Hoff does not know about selling it is even less, and both come very close to refuting the ancient organization principle that nobody is indispensable.

Other oldtimers in Johns-Manville's many divisions include P. A. Andrews, head of building materials; T. K. Mial, head of insulation and power products; J. S. Carroll, petroleum-industry specialist; John H. Trent, who looks after the big business of railroad insulation; E. S. Crosby, of the foreign-sales division; and five additional operating vice presidents. All are veteran Manville men mostly working under the direction of Mr. Hoff.

Lone executive contemporary of Mr. Brown is Mr. Enders McClumpha Voorhees, Secretary and Treasurer. Mr. Voorhees was with Sanderson & Porter, consulting and industrial engineers. Prior to the
[Continued on page 128]



CUTTING ASPHALT SHINGLES OUT OF ASPHALT SHEET

Asphalt shingles are less expensive than asbestos but more expensive than wood. Here a sheet of asphalt, already scored with knives, is being separated into individual shingles, ready for laying. Relative prices per square (i.e., 100 square feet) of shingles: asbestos, \$7.50; asphalt, \$6; wood, \$5.

See for yourself



... IF "OFFICE STRAIN" IS AFFECTING YOUR EMPLOYEES

"Office Strain" is caused by inadequate office lighting. It results in errors in typing, in copying, in filing, and the hundred and one other duties connected with office work.

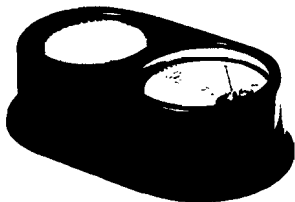
Up to this time you have had to depend on someone else to tell you whether your office lighting caused "eye strain".

Now—through a new scientific development you can check your office lighting—and see for yourself whether your employes are getting the right kind of light for fast, efficient work.

ALWAYS LOOK FOR THIS MARK OF QUALITY



Ask your local utility to test your lighting for you with this new device, or better still, write to the General Electric Company, which maintains a corps of experts trained to make this test. General Electric Co., Nela Park, Cleveland, Ohio.



★ This new instrument tells you at a glance the exact condition of your lighting. It lets you "see for yourself."

GENERAL  ELECTRIC
MAZDA LAMPS

"Management by Morgan"

[Continued from page 89]

Morgan purchase he made an appraisal of Johns-Manville, suggested various improvements in its cost accounting and other items of financial operation. After the Morgan deal Mr. Merseles asked him to come over to Johns-Manville and carry out the changes he had recommended.* So Mr. Voorhees came over and has been there ever since. Mr. Brown had also with him Mr. James S. Adams, who came as assistant advertising manager in 1927 and rose to be Mr. Brown's assistant and Vice President of the company. But in January, 1934, Mr. Adams left Johns-Manville, went to work for Benton & Bowles, Inc., Manhattan advertising agency.

MR. BROWN has now been President of Johns-Manville for five years. If he were a more demonstrative man he might easily have tendered himself a dinner on New Year's Eve of 1934, might appropriately have called it his "coming of age" party. For although he has been known to remark, "How long," plaintively, "do I stay here and still be the new manager", the days when he and his little band of Merseles survivors were referred to in the Manville offices as "the Junior Leaguers" are not long gone. And New Year's Eve would have been as good a date as any to red letter, for it marked the end of four long years of depression. When Mr. Merseles died Lewis Brown was thirty-five years of age. The corporation of which he found himself head was, we have noted, en route to a glorious integration comparable to General Motors. The question which never can be answered is "had the road remained open, would he have remained at the wheel?" For in October the market landslide blocked the way to further expansion and whatever plans remained in the pigeonholes of 23 Wall's roll-top desks began to gather dust. And since there was to be no more expansion, there

was no more need to search for another Merseles to expand. So Brown remained the Morgan management at Johns-Manville but functioned rather in the rôle of the Morgan management that Morgan forgot.

Brown's first decisions were intraoffice political. The Manville corridors still buzzed with the reverberations of the employees' suit. The bitterness of litigation dies hard. Brown let it be known that he was not interested in who had been on what side. He was surrounded by older executives, with older prejudices, with the outlook of another generation. He took for his philosophy an old Merseles tenet: it is a boss's job to get on with a good man. If he resented being patronized he never showed it by so much as moving a muscle of his face. The path was narrow, and it will always be doubtful if, in the beginning, he had the authority to force an issue. But whether the Corner would or would not have backed him up, he never raised the question. With infinite tact and infinite patience he sat down to the hard and disagreeable job of contraction management, the job in which there is endless work and little glory. In the end the depression helped him with his organization problem. The men who stayed on at Johns-Manville to bridge over the management change kept staying on to bridge over the depression. And little by little they came to respect their new president-in-law. The longer the depression lasted, the more unitedly they labored to bail out the boat.

For all its prosperity, the company had never gone in for piling up big surpluses and heavy cash reserves. All the 1928 and 1929 purchases were cash buys and the expenditures had left the company with a none-too-robust cash position. There was never any question of anything approaching insolvency—the company owed no money and had of course an ample financial backing. But an operating loss of \$1,000,000 was nothing at which to shrug a careless should-

[Continued on page 130]

*Out of similar Sanderson & Porter "survey and recommendation" came Seton Porter to head the reborn National Distillers (FORTUNE, November, 1935).

*"... and these figures
give us the true picture"*



ARE figures presented to you in understandable and usable form?

Statements, reports, summaries, irrespective of what you call them, should picture all your business activities with proper comparisons and analyses. They should show current events, not irredeemable past. Management is entitled to figures that are up-to-the-minute and do not require further interpretation.

An interesting book just off the press, "Management Reports in the Modern Manner" tells what punched card accounting is and what it does; how you can reduce the cost of accounting without a cent of capital investment for machines. It's the story of understandable figures, produced with Powers Punched Card Accounting. We will send a complimentary copy to every major and departmental executive. You owe it to yourself to read this book. Write for it now.

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"Management by Morgan"

[Continued from page 128]

der. And the Manville organization, new and old, adjusted itself to a realistic conception of Johns-Manville not as a \$60,000,000 nor a \$40,000,000 but as a \$20,000,000 company.

Salaries were cut 10 per cent and then 15 per cent, with heavier cuts in the higher brackets. A shingle plant in Cincinnati was closed. An asphalt plant in Dayton burned down, was not rebuilt. Sales managers and supervisors went back on the road; good salesmen covered larger territories and mediocre salesmen went looking for new jobs. The company clung steadily to its research department (a notably post-Manville development but with an old regimer, Mr. Seigle, at its head) and stuck doggedly with its new products. But it whittled down its operating expenses so consistently that when the sales tide turned in the spring of 1933 it was able to show quarterly profits that would have been losses on the same sales in 1932 periods. And since the 1933 upturn justifies the conclusion that 1932 and 1933 sales represented Johns-Manville's deepest depression, the management has gone into 1934 with the feeling that it can hold its own no matter what happens. It also has gone into 1934 with a more united management group than it has had at any time since the death of T. F. Manville. So much for the men who managed Johns-Manville. Now let us look at the things managed—at the materials and the products that carry the Johns-Manville name.

JUST as the general investor had little idea of who was managing Johns-Manville, so also he had a dim understanding of what the management managed. The company handles some 1,400 products (had 2,200 in T. F. Manville's time)—a multitude of things to sell which puts a premium on management ability. And it touches so many lines of business that in the recent code-formulating under NRA it was affected by seventeen codes. Here, in roughest outline, is the kind of business Johns-Manville does:

It sells insulation. Temperatures insulated range from 40° below zero to 2,500° above. The low-temperature business is not very large, as cork is still the biggest refrigeration insulator. But Johns-Manville dominates the field of high-temperature insulation, probably does more than two-thirds of the total business. All kinds of insulation should account for at least a third of the Manville business—say \$7,000,000 out of \$20,000,000.

It sells roofing: asbestos and asphalt. It may make 50 per cent of the asbestos shingles used in the U.S. But asphalt is the bigger roofing material and there are many competitors, with price cutting and small profit margins the rule. Roofing may amount to a quarter of the Johns-Manville business—say \$5,000,000 out of \$20,000,000.

It sells brake linings. Here it competes with potent specialty companies, one of which (Raybestos-Manhattan) is a good deal larger—in brake linings—than Johns-Manville. Brake linings may amount to 7 or 8 per cent of Johns-Manville business—say \$1,500,000 out of \$20,000,000.

It sells some 1,400 other products. Flooring, waterproofing, packing, gaskets, filter-aids, refractory cements, partitions, stove linings—an almost endless list down to fireproof whiskers for Santa Clauses. From the aggregate of this multitude comes the remaining \$6,500,000 of the \$20,000,000.

The variety of Johns-Manville production and competition continually accents management capacity. For the management must be in touch with nearly every basic U.S. industry and is selling everything from insulation that was standard in 1900 to such an item as a still unbuilt prefabricated house.

Materials of J-M

THE Johns-Manville catalogue has few common denominators. But nearly everything that Johns-Manville makes is made to cover something. Sometimes the covering is de-

[Continued on page 132]

Advertisement for the man who okays bills—



TODAY advertising costs must stand up under the microscope . . . every rate differential must be fully justified . . . every advantage taken. In boom times a little money can be burned without doing too much harm. In 1934 it's vastly different. . . . Five women's magazines, whose prices are identical—whose circulation methods are highly similar—whose distribution covers the same cities, towns, neighborhoods and streets—whose audiences are alike—whose editorial aims are much the same—share, fairly evenly, a market of more than eleven million American homes. . . . But there are five different costs for reaching the five different Sectors of this magazine-reading market of eleven million families—similar magazines but dissimilar rates. . . . The cost of reaching



PICTORIAL REVIEW'S MORE THAN *two million homes is the lowest, rate for rate, in its field. Translated to sales quotas, this advantage means much on the advertising balance sheet.

To justify their higher advertising rates, and their consequent higher sales cost, the other four ten-cent magazines are required to sell their respective Sectors of the woman market vast quantities of the advertiser's product in excess of the amount required of PICTORIAL REVIEW. Assuming a one-cent gross margin available for advertising, a campaign of 12 pages—and all circulations equalized on a basis of 2,000,000 families—

MAGAZINE "B" must sell 600,000 *more units* than PICTORIAL REVIEW
 MAGAZINE "C" must sell 408,000 *more units* than PICTORIAL REVIEW
 MAGAZINE "D" must sell 120,000 *more units* than PICTORIAL REVIEW
 MAGAZINE "E" must sell 96,000 *more units* than PICTORIAL REVIEW

The advertiser who ignores PICTORIAL REVIEW'S cost advantage, must believe that any one of the other Sectors will buy soap or soup or cigarettes or cosmetics in lavish excess of PICTORIAL REVIEW'S Sector. He must believe that—or else he is burning money. And he's burning it at a time when all sales are hard to get.

*A RECORD. Pictorial Review is the *only* woman's magazine which, in every consecutive month since October 1922, has delivered in excess of 2,000,000 net paid circulation—138 months.

PICTORIAL REVIEW OFFERS THE OPPORTUNITY TO BE SMART—AND

buy close

"Management by Morgan"

[Continued from page 130]

signed to keep things in, sometimes to keep things out. A keeping-in example is pipe insulation, which keeps in heat. A keeping-out example is a roof, which keeps out the wind and the rain. Asbestos is the most important ingredient in Johns-Manville insulation and about two-thirds of Johns-Manville's 1,100 products have some asbestos in them. So although the company also uses large quantities of asphalt, cement, magnesia, and other weighty bodies, asbestos remains its:

No.1 raw material

ASBESTOS, in case you don't know, is a mineral composed of about 45 per cent silica, 15 per cent magnesia, and 10 per cent water. Unlike most minerals it exists in the form of extremely fine fibers 1/16,000 to 1/25,000 of an inch thick. These fibers are embedded in serpentine rock, look like clusters of thin, white hairs frozen into a block of ice. The rock lies anywhere from a few feet to several hundred feet beneath the earth's surface. It is quarried either from open pits or from underground mines which may go down to a depth of 1,000 feet. The asbestos-bearing rock is dynamited into small pieces and the asbestos fibers are picked out of the debris.

Until about 1890 asbestos miners did their picking by hand and salvaged only the comparatively long fibers—"long" meaning from three-fourths of an inch to several inches. The merit of the long fibers was that they could be woven like a textile. But very little asbestos is found in long enough fibers to repay hand picking. So the asbestos man was throwing away about 98 per cent of his asbestos and getting fancy prices for the remainder as a rare and luxurious product. Then it was found that even short asbestos fibers could be combined with wood pulp to make asbestos paper, with cement to make asbestos shingles, and with magnesia to make asbestos insulation. None of these processes required weav-

ing and short fibers were adequate for them. So what had previously been low-grade ore was now useful, and mechanical rock crushers moved in to take the place of the old hand pickers. The long fibers are still highly prized, currently selling up to \$450 a ton. And some of the crushed-rock fiber, long enough for spinning, sells from \$90 to \$100 a ton. But from 90 to 95 per cent of contemporary asbestos is produced in the form of short, unweavable fibers which sell all the way from \$12 to \$75 a ton, with \$35 a ton a fair average.

Asbestos is primarily a Canadian product, Canada supplying about 225,000 tons in a normal world production of about 350,000 tons. Russia, with some 50,000 tons, is second-largest producer. Most of the remainder comes from Rhodesia and British South Africa, but very little Russian or African asbestos jumps freight-rate barriers and enters the U.S. And one of the largest Canadian producers is the Canadian Johns-Manville Co., old T. F. Manville having long ago assured his company of an ample supply of its chief raw material. Johns-Manville quarries from 50,000 tons in bad years to 115,000 tons in good years and its production has run as high as 40 per cent of the total Canadian production.* The mine is appropriately situated at Asbestos, Quebec, a com-

[Continued on page 135]

*Besides Johns-Manville two other U.S. companies—Keasbey & Mattison of Ambler, Pennsylvania, and Philip Carey of Cincinnati—have Canadian asbestos mines. Keasbey & Mattison was for many years dominated by old Doctor Mattison, now past eighty and a pioneer asbestos man. In January, 1934, it was taken over by Turner & Newall, a big British company whose production comes mostly from the South African and Rhodesian mines already mentioned. Philip Carey is managed by able George Crabbs, but the Carey business is about 50 per cent roofing and rather more asphalt than asbestos. Largest pure asbestos producer is Asbestos Corp., although its edge on Johns-Manville is very small and may have altogether disappeared during the depression. Asbestos Corp. is a merger of several Canadian producers who got in on the ground floor of the Canadian asbestos industry (about 1880).

pany town with some 5,000 population. It is an ultramodern quarry with electric locomotives and a five-mile private railroad running to the tracks of the Canadian National. Asbestos can be produced for less than \$35 a ton and Johns-Manville has seldom lost money on its mining operations. Johns-Manville mines all the asbestos it uses (except for occasional purchases in long fibers) and has a little left over to sell to its competitors.

There are only five companies in Canada whose production amounts to anything and as Carey, Keasbey & Mattison, and Johns-Manville are producing mostly for their own consumption, the asbestos buyer is purchasing in a very narrow market with relatively stable prices. Which is one reason why, although there are some fifty asbestos manufacturers, few of them are of much individ-

Morgan Management

[Continued from page 132]

ual importance. The only large U.S. companies besides Johns-Manville, Carey, and Keasbey & Mattison are three specialty outfits that manufacture brake linings, clutch facings, and other automotive accessories. Yet in their own field they do a very flourishing business; one of them—Raybestos-Manhattan—making at least twice as many brake linings as Johns-Manville itself. But Johns-Manville remains the big, self-contained asbestos manufacturer—as well integrated with its serpentine rock as U.S. Steel is with its coal mines and iron ores.

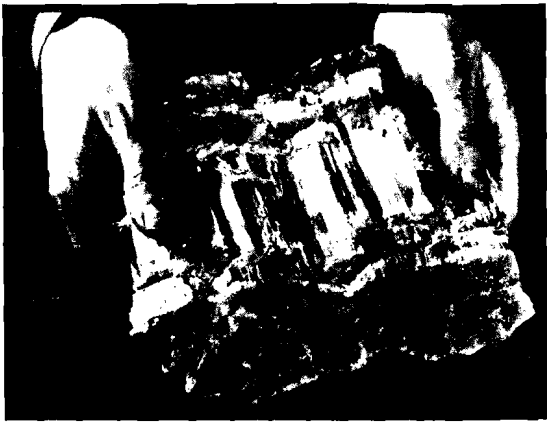
plying this product is Johns-Manville's biggest single job.

"Eighty-five per cent magnesia" consists, as the name implies, of 85 per cent magnesia, also 15 per cent asbestos. Magnesia is a substance derived from a type of limestone. It contains masses of minute air cells which make it a very poor conductor of heat. As far as insulating value goes, 100 per cent magnesia would be excellent, but magnesia does not possess any structural strength, does not hold itself together well enough to be fabricated. But in a mixture of magnesia and asbestos the asbestos fibers supply the necessary reinforcement or binding, and the combination can be shaped into strips for covering pipes or blocks for covering boilers. Cotton or silk fibers would provide the same binding effect but of course could not stand high temperatures. The proportions of magnesia and of asbestos have been worked out over many years of trial and error and are now standard all over the world. Here is a good example of a point that comes up concerning many other Johns-Manville products—the identity between "85 per cent magnesia" made by Johns-Manville and "85 per cent magnesia" made by anybody else. Keasbey & Mattison and the Ehret Magnesia Mfg. Co. also make "85 per cent magnesia" which is indistinguishable from Johns-Manville's. Yet Johns-Manville does two-thirds of the total U.S. "85 per cent magnesia" business because it is older and bigger and has the widest

[Continued on page 136]

Magnesia plus

HAVING brought its asbestos down from Canada to Manville, New Jersey, or Waukegan, Illinois (which are the two largest of Manville's ten plants), what does Johns-Manville do with it? There are several hundred answers to this question but we have already seen that the most important answer is insulation. For thirty-five years the standard insulation for the U.S. pipe and the U.S. boiler has been a product known as "85 per cent magnesia," and sup-



PRODUCT AND SOURCE

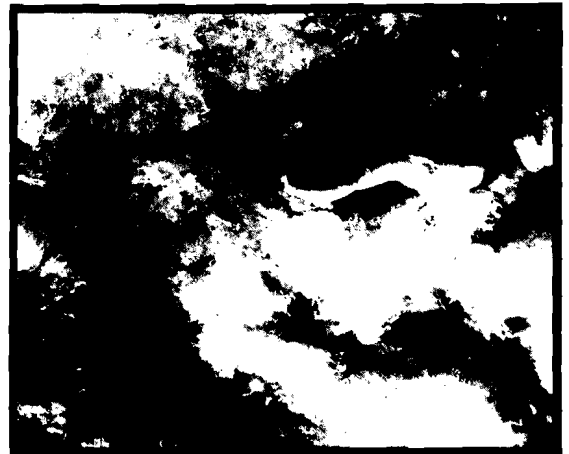
From Johns-Manville's quarry at Asbestos, Canada—it was a hill when they started working on it but now it is a hole 250 feet deep—comes the asbestos which goes into about two-thirds of Johns-Manville's products.

Here is a chunk of serpentine rock, containing asbestos fibers which are from 1-16,000 to 1-25,000 of an inch thick. The fiber is extracted by crushing the rock. To the right is a general view of the quarry which in better times has produced as much as 115,000 tons of asbestos a year.



\$150 A TON TO \$12 A TON

... is the spread in asbestos prices between the long fiber on the right and the short fiber on the left. The long fiber is more valuable because it can be woven into asbestos cloth and also because there is so little of it. Only about 5 per cent of asbestos is long enough (three-fourths of an inch or more) for fine textiles. Johns-Manville has very little long fiber in Canada but has some in an Arizona quarry which is currently shut down.



"Management by Morgan"

[Continued from page 135]

connections. In railroad insulation—the biggest single field for "85 per cent magnesia"—Johns-Manville has probably an even firmer grip on the business. It is a large freight shipper and railroads like to buy from their own large customers. And if there were any railroads to which old T. F. Mauville had not gained an entrée, the gaps have no doubt been remedied by the Morgan association. Keeping on good terms with the big customers is an important item in the Johns-Manville operating technique, as about 20 per cent of its customers buy about 80 per cent of its goods.

Heatproof microbes

ASBESTOS is not a good insulation material for temperatures over 1,000° Fahrenheit. Beyond this temperature the water content is heated out and the material loses its strength. Doors in crematory furnaces are often made of an asbestos compound and last indefinitely despite high temperatures. But they become brittle and if hit with a hammer would smash into pieces. So for livelier uses at high temperatures something even more heatproof than asbestos is needed. And Johns-Manville acquired this something in 1928, as part of its horizontal expansion under Mr. Merseles. It is called *Celite*, a tradename for a material more generically known as diatomaceous earth. Diatomaceous earth comes from *diatoms*, which are the piled-up remains of millions of microscopic forms of plant life that flourished in the seas and swamps of the prehistoric world. As generation after generation of diatoms died and the earth's more modern crust formed over them, their skeletons were squeezed into a rock-like formation. Like magnesia, the caked diatoms are extremely porous and therefore poor conductors and they are impervious to heat at high temperature. Prior to 1928 the diatoms were being commercially exploited chiefly by the Celite Co. which owned 2,200 acres of diatoma-

ceous earth at Lompoc, California, and was responsible for between 80 and 90 per cent of all the diatoms excavated in the U.S. In 1928 it had sales of \$4,000,000 and profits of \$500,000. Johns-Manville bought it for cash, price not announced, and so became the big factor in diatomaceous earth. The diatoms are used in blocks, either directly as carved out of the deposit or after having been reduced to a powder and remolded into blocks under heavy pressure. They are used for temperatures ranging from 600° to 2,500° Fahrenheit, are particularly applicable to the insulation of turbines in power plants. Diatomaceous earth is also used as a filter-aid. Nearly all the sugar refined in the U.S. is strained through diatomaceous earth. Last year the sugar industry used about 21,000 tons of diatoms, nearly all supplied by Johns-Manville.

ASBESTOS is too high priced an insulator for low temperatures—i.e. for refrigeration purposes. So in 1929—while still expansive—Johns-Manville rounded out its insulation products with another purchase, this time of a low-temperature insulator. The company acquired (also for cash, also for an unannounced sum) was the Banner Rock Products Co. of Alexandria, Indiana. It manufactured products known as rock wool and rock cork. There is no wool in rock wool and there is no cork in rock cork, but rock wool looks like wool and rock cork competes with cork so the names are not fundamentally inaccurate. Rock wool is made from a kind of silicon rock of which the Banner Rock Products Co. had large deposits around Alexandria. The rock is melted and the molten mass is poured through jets of compressed air and steam (see page 88). The steam blows the molten rock into thousands of tiny fragments which settle down and cool off into a light, fluffy mass (see page 88) that certainly looks very much like wool and not at all like rock. Rock wool is used

[Continued on page 138]



DISTINGUISHED

for its

ENGINEERING TRADITION

A complete and closely-knit organization of designing engineers, chemists, physicists, inspectors, and metallurgists has enabled Harrisburg to make a series of notable contributions to the forged and seamless steel industries of America. Harrisburg is proud to have been thus able to share in bearing the baton of leadership. With complete production facilities available, Harrisburg's technical staffs have and are effecting notable economies for its customers. Harrisburg products: Open Hearth Steel; Drop Forgings; Steel Pipe Flanges; Seamless Steel Cylinders, Pipe Couplings, Bull Plugs.

HARRISBURG

[Harrisburg,
Pennsylvania]

PIPE & PIPE BENDING CO.

Morgan Management

[Continued from page 150]

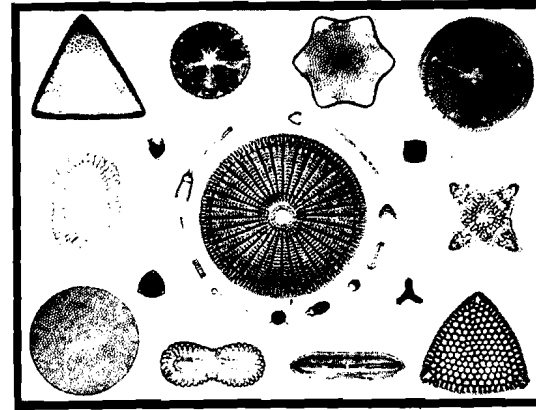
to insulate houses against the ordinary extremes of summer and winter heat by blowing it in between the outer and inner walls of the house. In the form of rock cork (which is rock wool mixed with asphalt and pressed into sheets) it is used in cold-storage plants, ice houses, and household refrigerators.

ROCK wool and rock cork are good examples of the variety of Johns-Manville competition. Johns-Manville has a very large low-temperature competitor in the form of the Armstrong Cork Co., the big cork and linoleum corporation which imports its own cork from Spain and Portugal. Armstrong linoleum might well lie down with a Johns-Manville floor, but Armstrong cork and rock cork are vigorous competitors, and Armstrong, though recently unprosperous, is about as large a company as Johns-Manville itself.

An even sharper example of Johns-Manville's strange tradefellows is seen in a competitive insulating material that has appeared only since the depression and that attacks Johns-Manville not only on the low-temperature front but up the temperature scale through the ranges long ruled by "85 per cent magnesia." The new arrival is

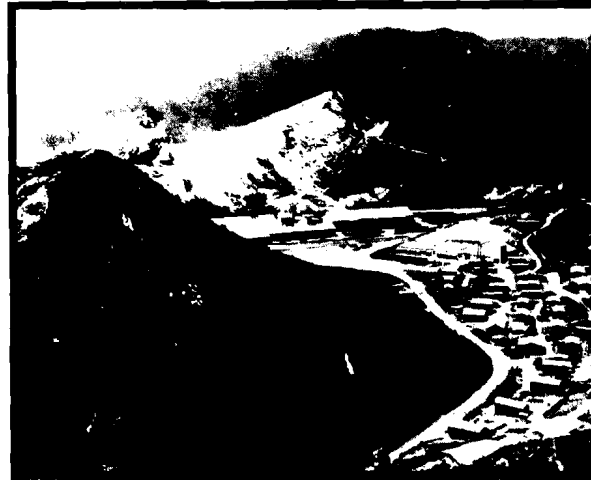
aluminum. This sounds like a strange insulating material, because aluminum is a very good heat conductor. Yet in the form of extremely thin and highly polished sheets it makes excellent insulation. For the polished surface reflects the heat instead of absorbing it and very little heat can get through a series of such surfaces with air spaces between them. Any shiny metal in separated panels would turn the same trick, but aluminum is the only practical candidate because it is light, it keeps its polish, and it can be made in

[Continued on page 147]



DIATOMACEOUS EARTH

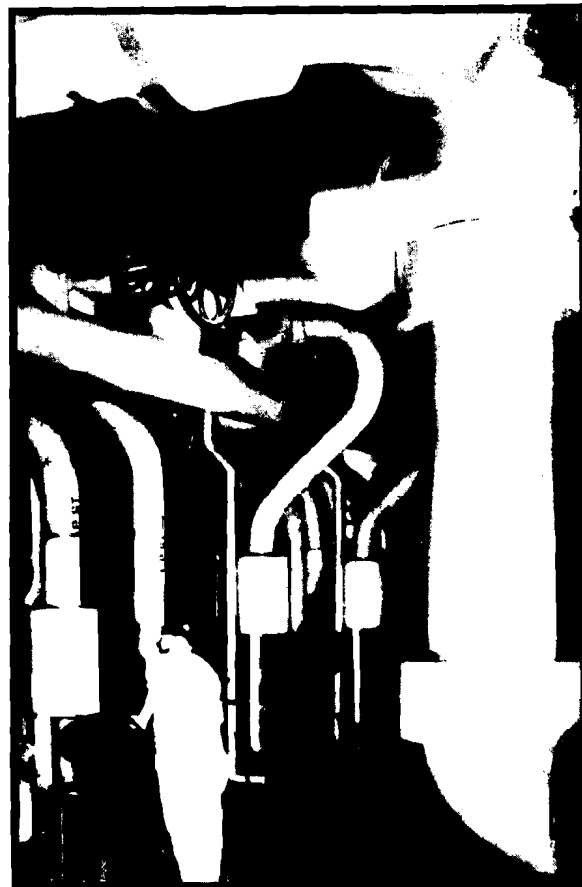
... comes from Spaniard Canyon in Lompoc, California (left) and looks, under the microscope, like the picture above. It is composed of the fossilized remains of unicellular plants so small that 40,000,000 species may be found in a cubic inch. The plants are called diatoms, hence the name, diatomaceous earth. Celite is the Johns-Manville tradename for it. Celite is an ideal high-temperature insulator because it is so porous that it does not conduct heat and has a melting point of nearly 3,000° Fahrenheit. And nearly all the U.S. sugar production is strained, using diatomaceous earth as a filter-aid.



L. S. Lincoln

SOMETHING OLD AND SOMETHING NEW

... in Johns-Manville's many-sided life. The old (on the right) is pipe insulation, the scene being the underground regions in Manhattan's Grand Central Terminal. The pipes are covered with the "85 per cent magnesia" shown on page 88. The new (above) is an example of a Johns-Manville office, the scene being a part of the Johns-Manville premises at Fortieth Street and Madison Avenue, Manhattan. Transite walls (dado covered with oak veneer) are clamped on their own steel framework, eliminate plaster. And the transite walls, plus asphalt-tile flooring and rock wool in the ceiling result in soundproof inclosures. Transite office units are one of Johns-Manville's hopes for the future.



Bonke-White

sheets as thin as 3/10,000 of an inch. A Merchants Despatch refrigerator car was recently put into operation with 28 pounds of aluminum doing an insulation job which would otherwise have required approximately 2,000 pounds of cork or hair felt. A Delaware & Hudson locomotive went into commission carrying 13 pounds of aluminum instead of 1,200 pounds of magnesia blocks. The U.S. Navy, large user of cork, magnesia, and asbestos insulation, is particularly interested in aluminum insulation, naval architecture having become so concentrated on the problem of building ships within specified weight limits. The cruiser *New Orleans* has 3,500 pounds of aluminum insulation compared to more than 200,000 pounds of cork and magnesia products.

Chief among the companies selling aluminum insulation in the U.S. are Alfol Insulation Co., which holds the U.S. patents on the original German aluminum-insulation development and the Reynolds Metals Co., whose President Richard S. Reynolds is a nephew of the late R. J. Reynolds of Camel cigarettes. And the Aluminum Co. of America, though not marketing aluminum insulation, is well pleased with the fine new market for aluminum in thin and shiny form. Aluminum insulation has no possibility of making asbestos (or cork) insulation archaic: like all new products it has troubles of its own and its lack of poundage is no factor in stationary insulation where the problem of transporting the insulator does not arise. But its invasion of railroad and also of battleship insulation is particularly annoying to Johns-Manville, which had the U.S. railroads and the U.S. Navy both pretty well sewed up.

This, in outline, is the insulation busi-

Morgan Management

[Continued from page 158]

ness which we have already described as bringing in at least one-third of Johns-Manville dollars. Cold insulation and insulation of temperatures higher than 1,000° are still a small fraction of the total insulating business, the bulk of which is still in hot (but not superhot) pipes and boilers. Best individual customer is the railroad, which may account for a quarter of the whole business; most important single product is "85 per cent magnesia," the backbone of the industrial insulation trade. So we have seen where possibly \$7,000,000 of Johns-Manville 1933 sales of \$20,000,000 came from. Incidentally this figure and all similar figures are strictly unofficial as Johns-Manville has still a fine old family feeling for reticence about the nature and parts of its business. Its balance sheet and earning statement, full of large figures, could hardly be called personally conducted tours through Manville's business.

Four walls and a roof above

NOT everybody insulates a pipe but everybody is familiar with a roof and nearly everyone who has heard of Johns-Manville knows that it makes asbestos shingles. But Manville's asbestos shingles are not a large portion of its total business or even of its total roofing business. If shingles were described like insulation, they could be called "67 per cent cement," for the asbestos shingle is about two-thirds cement and

one-third asbestos. The asbestos shingle is a very fine shingle, but it costs one and one-quarter times as much as an asphalt and one and one-half times as much as a wood shingle. So, from a residential standpoint, the usual home owner is not going to put on asbestos shingles unless he is particularly intrigued with asbestos' fire-resisting properties. Furthermore, if he is the unusual home owner who does not care how much he spends for his roof, he will probably get himself a slate roof, so asbestos is expensive rather than exclusive. Johns-Manville has a strong position in the asbestos-shingle industry (Carey, Keasbey & Mattison, and Ruberoid are the competition), may make 50 per cent of total production. But it is doubtful whether it sold more than a million dollars' worth of asbestos shingles (5 per cent of total sales) in 1933.

Asphalt is the really big roofing material, especially for factories. And Johns-Manville is a big asphalt roofer. Asphalt is derived mostly from petroleum, being the thick substance remaining when the refiner has extracted all the more volatile constituents. Johns-Manville buys its asphalt, integration not being necessary because asphalt is so cheap and plentiful. From the same reasoning, however, it follows that there are plenty of asphalt roofers and asphalt competition is so severe that the profit margin is probably under 2 per cent. To many a big petroleum or chemical company asphalt is a byproduct and sold at the price of such. Thus in asphalt Johns-Manville runs into a whole new line of competitors, including Flintkote Corp. (Royal Dutch-Shell), American Tar Products (Koppers Gas & Coke), and Barrett Co. (Allied Chemical & Dye). Not to mention independent roofing companies such as Bird & Son and Certain-Teed Products. However, Manville remains a large asphalt roofer and asphalt may come to 20 per cent of its total dollar sales. Adding the asbestos roofing business—which includes not only shingles but also roll roofs of combination asphalt and asbestos—roofing in general should come to about a quarter of Manville's trade. So roofing should have brought in about \$5,000,000 in 1933, which with \$7,000,000 from insulation amounts to \$12,000,000 of the \$20,000,000 total. But the roofing dollars were harder to get, were not more than one-fifth as profitable as the insulation dollars.

Four-wheeled bonanza

THE most important Manville item after insulation and roofs is brake linings. Here asbestos again comes into its own, for the four-wheel-braked automobile suddenly slowing down from sixty miles an hour to no miles an hour generates so much friction that a sturdy heat resister is strongly indicated. Woven brake linings are made of about 80 per cent asbestos, and brake linings, with their large asbestos content, are

[Continued on page 142]



Bourke-White

CEMENT AND FIBER FOR SHINGLES

I'm
no
ROBOT!



Glacier National Park offers line fly fishing

● I've been driving myself day and night. Thinking, planning—helping shape up codes and shorter hours for everyone but myself. I've noticed men cracking under the strain. That's a pity, to crack up after coming through the storm. Well, I'm no robot either. I can't go on forever being an "iron man." So I'm leaving for a vacation in the Glacier Park Country. Got my old guide lined up. Have reservations on the Empire Builder. Taking my son and another lad along. Do them good, too.

Take that western trip this summer—never before so cheap

Great Northern offers round trip fares too low to ignore. Spend a vacation in the Glacier Park country, or stop off and make the *Logan Pass Detour* through the heart of the park in 26 hours on your way to Pacific Northwest, Alaska or California. See nearest Great Northern agent or write A. J. Dickinson, P. T. M., Room 728 Great Northern Ry. Bldg., St. Paul.

GREAT NORTHERN

Route of the
EMPIRE BUILDER

to Glacier Park, Pacific Northwest,
Alaska, California



"Management by Morgan"

[Continued from page 141]

the largest single users of asbestos. They may account for as much as one-third of the total dollar volume of asbestos products. But not for one-third of Johns-Manville volume. For either because it thinks of itself as mostly a building-material company or because it has scattered its energies over so many fields, Johns-Manville does not occupy a position in brake linings comparable to its general position in the asbestos industry. By far the largest brake-lining maker is Raybestos-Manhattan Inc. (The Manhattan part is a rubber company, was added in 1929.) Raybestos has an unimpressive plant in Bridgeport and no ambitions toward being a General Motors of anything. But even in 1932 Raybestos-Manhattan had sales of \$8,000,000 of which probably half were supplied by Raybestos brake linings and clutch facings. Johns-Manville may be either a very poor second to Raybestos or a close third to the Thermoid Co., another asbestos-and-rubber combination specializing in brake linings, fan belts, belting, and hose. The 1934 brake-lining business should be a good deal better than the 1933, partly because of increased new-car production and partly because there are millions of old U.S. automobiles whose brakes are so bad that it seems impossible for their owners to postpone re-lining for another twelve months. But brake linings are not more than 5 to 10 per cent of Manville business, could hardly have come to more than \$1,500,000 in 1933.

So by now we have

Insulation . . . \$7,000,000

Roofing . . . 5,000,000

Brake Linings . . . 1,500,000

which leaves \$6,500,000 still to come. But:

Here sales spread out

AFTER brake linings, Manville sales diverge out into the widest variety of structural and industrial and miscellaneous products. There is a considerable flooring business, ranging from big asphalt-block floors for warehouses and terminals to

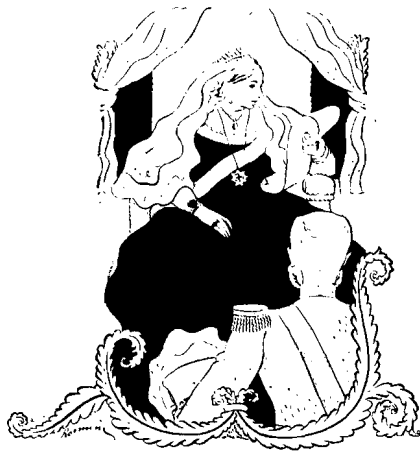
asbestos and asphalt tiles in all manner of decorative effects. There is a line of refractory cements for the inside walls of boilers and furnaces. There is packing for all kinds of machinery operating under temperatures too high for rubber or leather packing. There is a concrete-waterproofing business, illustrated by the Belle Isle Bridge at Detroit and the new Philadelphia subway. And there is an immense variety of individual products. There are few forms of protective surfaces in which a Johns-Manville product is not represented. And in addition to insulating against heat and cold and water and steam and fire, Johns-Manville also insulates against sound.

Hush for sale

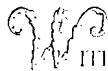
WE HAVE mentioned the Johns-Manville acoustical products at the end of the list, partly because they are the most recent starters and partly because they cannot as yet be making a great contribution to dollar sales. Heat insulation is usually a matter of obvious necessity; sound insulation is often considered a matter of convenience, and an expensive convenience as well. So the sound-stifling business, which was just dawning in 1929, has had its growth badly stunted by the depression.

To be sure, Johns-Manville's own offices at Fortieth Street and Madison Avenue are a study in applied acoustics, but then Johns-Manville has obviously a special interest in the problem and is using its offices as a (very effective) showroom. The floors are surfaced with asphalt tile, itself a good sound deadener. The walls contain transite sheets, transite being an asbestos and cement mixture of much the same composition as an asbestos shingle. But greatest sound deadener is the ceiling, which is Sanaoustic Tile. (This was another 1929 acquisition.) Sanaoustic Tile consists of rock wool in metal pans, the pans being suspended from iron bars that stretch from wall to wall. It absorbs 82 per cent of noises as

[Continued on page 141]



From the Emperor Franz Josef to Queen Victoria of Great Britain on the occasion of her Diamond Jubilee



WILL a gift such as no one in all of Europe could have equalled. Franz Josef honored the fiftieth year of Queen Victoria's reign—fifty bottles of choice old Hungarian Tokay wine from his famous Hapsburg cellars.

For almost four hundred years—Tokay has occupied a place of undiminished brilliance among the great wines of the world. No other can match its tremendous aromatic force or its natural, unfortified strength. No other can approach the volume and majesty of its flavor, or the rich and prolonged after taste. "From humble Port to imperial Tokay," wrote James Townley, in 1750. It is the supreme experience in wine.

Our first shipment of this rare and noble wine has been received in this country, and, due to altered economic conditions in Central Europe, is now offered at a very reasonable price. The importation consists of Szamorodni, a dry and very strong Tokay—the perfect aperitif and an excellent heavy table wine; Edea Szamorodni, a strong, medium sweet, beautifully finished wine; Aszu of both 3 and 5 Puttonyos richness—"the most famous dessert wine in the world"; and even a few bottles of the superb Special Vintage Aszu of the great years 1880, 1904, 1908, 1915. All are products of the more famous vineyards which have joined together as the Tokay Winegrowers' Association, supervised by the Hungarian Minister of Agriculture. A government seal is affixed to every bottle so controlled.

Much of the history of these wines, the methods of their making, and the traditional way of serving them have been published in a brochure which will be sent you at your request.

In NEW YORK, these wines are available from Bellows & Company, Inc., Charles & Co., Dyer & Connell, Inc., Fortnum & Mason, Park & Tilford Import Corporation. In NEW ENGLAND, S. S. Pierce Co., Boston.

**R O Y A L
T O K A Y
W I N E S**

of Hungary

DANUBE PRODUCTS, INC., 43 EXCHANGE PLACE, NEW YORK, N. Y.
This advertisement is not intended to offer this product for sale or delivery in any state wherein the sale or use thereof is unlawful.

"Management by Morgan"

[Continued from page 142]

compared to about 2½ per cent absorbed by ordinary plaster. There is certainly a notable hush about the Johns-Manville premises and no doubt silence contributes to efficiency. Nor is silence the only benefit resulting from what Johns-Manville calls its "transite office units." The transite panels are hung on to the inside wall, can readily be taken down and put back again. If a tenant who has had his transite partitions covered with an oak veneer moves out and someone moves in who wants a pine surface, the change is quickly and readily made with no plastering to do. As office-building people figure that occupants "turn over" every thirty-three months, transite flexibility is an important item. But in general, soundproofing is on somewhat the same basis as air-conditioning (the Johns-Manville offices are also air-conditioned): its merits are universally conceded but its costs are stubbornly resisted. Many corporation purchasing agents have denied their executives the benefits of soundproofing because of the luxury price that Johns-Manville sets on its equipment. High prices have been the greatest hindrance to noise abatement. In churches, gymnasiums, swimming pools, and other centers of reverberation, Johns-Manville has installed many acoustic treatments; so also in hospitals where silence is particularly at a premium. But meanwhile Celotex and U.S. Gypsum remain the largest wall-board and partition companies.

1934's news

MOST radical of Johns-Manville's new products is the factory-fabricated house which it expects to bring out within the next year. Johns-Manville is a logical prefabricator because it can supply about 75 per cent of the house out of its own factories. The house is still in the experimental stage and definite information on it is lacking. But it will have transite walls, transite floors with veneer or tile finish, and a choice of a flat as-

phalt roof or a peaked asbestos-shingle roof. It will be held up and together by a steel framework, source as yet undecided. Source of plumbing and heating has not been selected but the American Radiator Co. has special bathroom and heating equipment for prefabricated houses and its Chairman, Clarence M. Woolley, is a Johns-Manville Director. There will probably be no cellar. The Radiator company has a combination stove-and-furnace oil burner which goes on the ground floor—developed in Radiator's own prefabrication experimenting. There will be four-, six-, and eight-room houses, one and two stories, and the plans will be sufficiently flexible so that all the houses made on the same general lines will not look exactly alike. Prices will be "as low as possible"—presumably not more than \$5,000.

All of which is not without its significance in the housing industry. It is now a year and a half since FORTUNE published its famed first account of a project for the mass production and distribution of factory-fabricated housing. Since then the two small pioneer companies have progressed to the point of having built (and sold) some half dozen houses apiece. Both—American Houses of New York and General Houses of Chicago—are still in business, with improved New Deal prospects— for in rising field-labor costs, factory fabrication flourishes. Other and more impressive names have sponsored the prefabricated idea (notably American Rolling Mill Co.) and the exhibits at last year's World's Fair gave the movement impetus. But the enlistment of great, conservative Johns-Manville under the banner should give prefabricated housing a new impetus.

What now?

ALLOWING for the difference between the conditions of 1927 and the conditions of 1934, Johns-Manville may be said to have completed a full

[Continued on page 146]



“
She was ridin' like the Wind...
”

SHINING EYES open wider as Grandpa tells of the great prairie fire and of Grandma's heroic ride for life. That was back in '74. How clearly he sees her—“ridin' like the wind,” chased by the fearful, roaring flames.

They lived happily to celebrate their Golden Wedding—sweethearts always. Now he is “riding out the race” alone—living in beautiful memories—patient, serene. And no little part of his comfort comes from the fact that a CLARK Vault was his last earthly tribute to her.

The New CLARK Custodian

The new CLARK Custodian, first and only one-piece metal grave vault, typifies the modern trend in burial equipment. Its rich design is Grecian, with classic Ionic pillars. Softly flowing curves give added beauty and strength.

We form each CLARK Custodian, by an exclusive process, from one single piece of specially processed, rust-resisting metal. Generations of service will not cause it to c-r-u-m-b-l-e.

We use the time-tested, Air-Seal construction which was pioneered by CLARK. It is based upon the same natural law that guards the men in a diving bell on

the bottom of the ocean. Each CLARK Custodian is critically tested under 5,000 pounds of water. Even a pinhole leak is discovered by this test.

The Name “CLARK”

The name “CLARK” on a metal vault is your assurance that the vital air-seal has been tested—that the scientifically processed metal is as specified—that the workmanship is without fault or blemish. Insist on the CLARK. No honorable funeral director will attempt substitution.

The new CLARK Custodian is offered by leading funeral directors everywhere. Also, CLARK Standard and CLARK Solid Copper Vaults. Prices are always reasonable. A choice of appropriate colors is available to any funeral director without delay. Every CLARK Vault is warranted for 50 years or more.

FREE! “My Duty”—Some day a friend may need your help and counsel in the hour of great need. Do you know what to do? Our booklet “My Duty” tells—simply and clearly. Write for it now. It's free. The Clark Grave Vault Company, Columbus, Ohio, Western Office and Warehouse: Kansas City, Missouri.



THE NEW

CLARK
CUSTODIAN

This trademark is on the end of every genuine “CLARK” METAL Vault

THE MODERN, ONE-PIECE GRAVE VAULT

“Management by Morgan”

[Continued from page 144]

turn of the wheel since its 1927 change of ownership. At the earlier date everyone was assuming that business was going to be good and for two years the assumption was certainly correct. Today no one is making definite prophecies and the further ahead one gazes the more obscure becomes the prospect. But with this important qualification much of the 1927 prospectus is again emerging, and on a sounder if a less spectacular basis. The Morgan ownership still remains. The management is not as Morgan-molded as popular imagination pictures it, but it is a better and more consolidated management for having been left to work its own way out of the depression. As to the General-Motors-of-the-building-industry idea, no new merger rumors have arisen and here some of the paint on the old canvas seems to have permanent-

ly faded. But the company has a much more complete line, at least of insulation, than it sold in Mr. Manville's day and its position in the older forms of asbestos insulation has, if anything, improved. Meanwhile there remain the possibilities of the future—air-conditioning, with its demand for better insulation; sound-proofing, which should generate more dollar volume when more office owners again have money jingling in their pockets; the prefabricated houses, which put John-Manville among the pioneers of a business that is subject to almost unlimited expansion. The (with apologies to Mr. Brown) new management has come successfully through one of the most trying experiences that a new management could well have encountered. Perhaps it can now pick up where Mr. Merceles and Prosperity left off.

Not to Eat, Not for Love

[Continued from page 95]

cruelty laws to an old, honorable, and patrician pastime. It is the timid, weak-spirited bourgeoisie, they say, who take away cockfighting from both their interiors and their betters.

“What happens to the dung-hill chicken?” a cocker will exclaim. “At best, his neck is wrong to fit him for the family dinner. At the worst, he is mutilated and fattened, then sent off to a poultry house where pickers with sharp knives slash the roof of his mouth, so that he may bleed to death slowly while he is stripped of his feathers.”

To the sportsman a game-cock's death is triumphant and exalted. Even cockers grant that the bird is stupid. Probably he feels no pain—only an irresistible urge to annihilate the enemy who stands for an abstract challenge to his supremacy. Out of the pit, he is well fed and housed, parades at his ease in a small universe of his own. Perhaps three times in a season he fights, and if he is powerful enough to sur-

vive, his taste for battle is only whetted. He may live four years (some cocks have lived and fought to be eight) before age and boredom make a victim of him. Then he dies, still in such fury of hatred that no spectator can pity him. And a score or so of gamblers and poor farmers, a sprinkling of fine gentlemen, are happy. To all this the A. S. P. C. A. makes no answer. But faithfully, each year, it gathers up its unrepentant horde of blue-blooded birds. Sometimes (in the great cities) it puts them to die in lethal chambers. More often it turns them over to the police, who wring their necks to feed prisoners or the poor. Many a sergeant who knew no better has locked his sullen flock of criminals in a cell overnight, returned in the morning to find them dead. For game-cocks love nothing better than to fight: like sailors ashore, they can imagine no happier paradise than one in which rages an endless free-for-all, ending constantly in death.