



[Alvin W. Boese Papers.](#)

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You could hardly blame me for looking at it through a research man's eyes. I'm sure, for example, that if one of your research people found himself in a Chicago night club... watching an Egyptian dancer... her gyrations would no doubt stimulate his mind in the direction of developing a new type washing machine agitator!

We're rather flattered at 3M that you invited us back this year for your Presidents' Meeting. Last year Bert Cross, executive vice president of our Graphic Products Group, told you the Thermo-Fax story. If Bert was smiling then, he's got more cause to smile now, because Thermo-Fax is doing a fine job for us. About all I can say... as the person who talks research budgets to the Management Committee... is that I'm awfully glad that Thermo-Fax came along.

You know, 3M faces the same problems as you do when it comes to selecting worthwhile research ideas. In a good research lab there are normally many more ideas than time to work on them. Of necessity, you've got to choose some for ^kexploration... and discard others. We don't make the claim that all our ideas are researched, because they aren't.

The 64 dollar question is: "Which ones are the good ones... the ones worth researching?"

We don't have a crystal ball or magic formula for determining this. But there is one good guide...and that is...we do not attempt to pre-judge a man's idea. If a man has an idea and you discard it as no good, then you've made certain his idea won't get anywhere.

I don't mean, of course, to say there aren't some ideas which... on the face of them...are unsuitable. For example, we wouldn't deliberately try to develop a product that would be in direct competition with a large customer. Neither would we try to develop a product which gave every indication of being far too expensive for the intended market. We rely on our research staff to throw out these ideas themselves..., not depend on top management to throw them out for us.

And a well-trained research staff will do this, too, if they are kept constantly in touch with market trends, needs and wants...by frequent contacts with market research people.

How, the, do you select the research ideas to be worked on? Well, I can only tell you the way we do it. It's pretty simple. We bet on people...people who are enthusiastic about their ideas. We do this by encouraging our research people to try out their own ideas without permission. Now, this isn't novel.

I guess there's hardly a research lab that doesn't talk about... something like 10 percent free time for exploratory work. We use the figure, 15 percent. At any rate, the important thing is to give a man time to work on his own ideas. It not only encourages new ideas, it also tends to prevent feelings of frustration. Creative minds rebel against any effort toward regimentation.

Give a man time to work on his own ideas and you won't have to pre-judge ideas. In our company it's left up to the researcher himself. If he's got an idea, we expect him to do a little work on it...in order to get enough information to serve as a basis for judging its merits.

He can have sufficient funds to find the answers to some of the questions he knows will be asked. And when he is asked some questions, we expect factual answers... not "I think"... "I believe"... or "I would predict." These aren't very convincing phrases to an administration head charged with maintaining a budget on schedule.

With time to work on his new idea, the researcher will often discover facts which lead him to drop it all by himself. There are many ideas at 3M that ^I probably never hear about. When this happens, it's the best possible situation for maintaining good morale. The research man is much happier when he reaches these conclusions by himself... rather than feel "the boss won't let me try."

On the other hand, if his enthusiasm for the idea grows to the point where he needs more funds than he can spend on his own... he is by this time at least armed with some experimental proof that the idea has merit. He can defend himself, so to speak.

And what if his idea fails after a great deal of work? Well, 10 failures are just as good a reason to give a man a pay raise as one success. He's trying.

It's right at this point where our "betting on people" comes in. Even if we don't share his convictions...and we probably don't at the start...we give a researcher money to go ahead for three to six months, his idea being subject to review at the end of that period. After all, looking for a new product or process is like trying to find a swan in a snow storm.

If he continues to be enthusiastic...and either he does, or he's begun to have some doubts of his own by this time...we permit him to continue. This policy has paid off for us.

3M has many products on the market today which figuratively did not even exist yesterday. Twenty-five percent of our last year's sales came from products researched, developed and marketed in the last five years. That amounts to 94 million dollars.

Total research expenditures at 3M in the last 12 years were 100 million dollars, with more than half of that being spent in the last four years. Management at 3M knows that for each dollar they've spent on research, 30 dollars have gone into the till from new product sales.

And now let's get into 3M's Mistlon Story...which should give you some idea of what we mean by betting on people.

Although Mistlon was the original product, to us it's important because it was the beginning of a new technology...a technology that has produced a number of products we didn't even dream about at the start...and it looks like it will produce more.

Here are some of the things that have come out of our Mistlon technology:

(POINT OUT EACH ONE TO AUDIENCE)

Three kinds of decorative ribbon for gift wrapping: Sasheen...

Lacelon...and Decorette.

Gift Wrapping paper.

Electrical insulating tape with a synthetic fiber backing.

Grass mat.

SOURCE?
has this
been verified
only-wise?

I would think
this reference
to the
mistlon
samples
at their
places would
be helpful
here in
launching
this part
of the talk

Scotch-brite scouring pads for the home...and low density
abrasive pads for floor scrubbing and polishing machines. -

Scotch Brand dusting fabric.

Dust masks for use by wood finishers and other tradesmen.

And even skull caps for Siamese twin pinheads...our lab men
insist that these are non-woven brassiere cups. They've even
got a manufacturer interested in that story!

It all started back in 1940. We were looking for an improved
backing for electrical insulating tape, and synthetic fiber seemed
a likely avenue of approach.

About that time our masking tape was being used as an electrical
insulation tape. But the wood pulp backing corroded copper wire.
We felt we had to get a synthetic fiber-backed tape that would have
no tendency to corrode copper.

We asked Eastern paper mills to develop a suitable material, but
it didn't work out. So our Tape lab bought a bench model paper
beater and a small sheet former, and prepared to conduct its own
paper-making experiments.

*maybe
you said
where would
we say that
this one
brake the
project better
in eight months*

A lab worker named Alvin W. Boese was asked to acquaint himself with the art of paper making. He accepted the challenge...was given a free reign...but couldn't come up with the right tape backing...at least not while working with the conventional water process used in paper making. Synthetic fiber didn't bond with wood pulp fiber, so Boese couldn't get a uniform paper sheet. It wasn't very strong, either. In fact, it was ~~no~~ good at all. So the researcher began experimenting with carded synthetic fibers and finally developed a process you might call dry paper-making...using some of the methods the textile industry uses in making cloth, except there was no weaving involved. After many attempts, Boese found he could bond synthetic fibers together with heat...making a non-woven sort of batting. It was named Mistlon. He had come up with a process which at the moment produced nothing very worthwhile. But the research man thought it had possibilities.

This rostrum I'm standing behind is draped with Mistlon. Take a look at the sample you have. Try tearing it.....rips pretty easily, doesn't it? You couldn't say it's attractive. If you didn't already know it made a success story possible, how much would you be willing to pour into it...if after 10 or 11 years of effort, that's all you had to show?

If your answer is "Nothing," you're a member of what used to be the majority at 3M...and nobody would be in a very good position to criticize you, either.

Well, one day Boese was walking in downtown St. Paul. Pausing to watch a store window display man at work, he got the idea that maybe window trimmers could use Mistlon for decorating. Right at that point, electrical tape backing got sidetracked for several years. We turned out more non-woven batting, dyed it and sprinkled flecks of tin foil on it to add some sparkle. Later we got the idea of slitting the material and making a ribbon.

It didn't take Boese long to find out that in ribbon form, his non-woven batting didn't have the tensile strength it needed. It broke easily. It also had a dull finish, no sheen. Frankly, it looked like a piece of unfinished yard goods. As a product, it was wobbly as a new colt.

But Boese was an intense advocate of his idea. He could visualize decorative ribbon as a profitable companion line to 3M's already established line of decorative tapes. This relationship between the two lines is what kept management so patiently interested in the project. And we worked hard to strengthen this one, lone link. While Boese busied himself with Mistlon, a fellow worker began experiments with a small fiber spinning machine...to provide new kinds of fibers and longer fibers for Mistlon experiments.

In this process, a glorified shower head, mounted at the top of a tower, sprayed fine streams of resin downward. As they fell through a heated pipe called a curing oven, the solvents evaporated and the streams of liquid became dry fiber. They were stripped on to a roll beneath the curing oven.

One evening a lab worker put a sheet of cardboard under the spinning head, before going out for a bit to eat. He didn't want the liquid to drip on the oven and clog it. Although the spinning head was normally kept in a fixed position, somehow it had become loosened and was swinging in lazy circles over the cardboard.

When the lab man came back, he noticed the dried fibers had formed an attractive lace-like pattern on the cardboard. At once he recognized the possibilities and a new product was born...they called it Lacelon.

It was encouraging, but Lacelon had the same basic defect Mistlon had...it lacked strength. So Boese continued to have his hands full trying to keep his project alive. It was going deeper and deeper in the red and ribbon at 3M was doomed unless a way could be found to make Mistlon and Lacelon stronger and more attractive.

Boese got another bright flash. "Why not use Mistlon for a base... and lay yarn lengthwise on it? Bond it together with a plasticizer and heat?"

Then he went out and bought a one-pound spool of yarn, 50 sewing machine bobbins and a 10-cent fine-tooth comb. Using a makeshift set of hot rollers, he began bonding yarn to a roll of Mistlon.

No one was more startled by the results than Boese was. Yarn on Mistlon produced a ribbon with an attractive, bright sheen...and it was strong stuff. The dry paper making technology had made our Sasheen ribbon possible. It was Sasheen that brought the ribbon project out of the woods.

The lab saw at once that this same principle of bonding yarn to Mistlon could do wonders for Lacelon, too. So they applied a strip of it down the center of Lacelon,...giving it new strength and eye appeal. The new combination was named "Decorette."

Now the men turned to developing a suitable dye process. They couldn't use the textile industry's method of immersing the fabric in dye. It had to be dyed during the manufacturing process. They even tried printing the color on, but results were not very exciting. The dye problems can be illustrated with our efforts to make red ribbon. Before lab men found the dye now used, 6,000 batches were cooked up...working with more than 450 types of dyes. They used up almost as much red dye as the accounting department used red ink on the project's bookkeeping records.

But finally...13 years after Boese was told to acquaint himself with the paper making industry...his ribbon project began pulling its own weight. It soon wiped out all its losses, and on January 1, 1954 the Gift Wrap and Fabric Division was formed.

Management had bet on a man enthusiastic about his idea...and won. Anytime that man would have wanted to drop the whole thing, he could have...with no criticism. Nobody urged him on; he bucked experiment failures himself and fought for the life of his project. He didn't hesitate to tangle with an administrative operating head, either, who wrote a memo to top management concerning the project. This was after Boese had spent seven years on it. The memo pointed out ribbon's failures to come through and outlined three recommendations:

One -- Quit the manufacturing of ribbon.

Two -- Dispose of the inventory.

Three -- And in these words: "Get the hell out of the ribbon business!"

You might think such a memo would get the project kicked right out the window. Why didn't it? Well, you just can't do that to a man who washed beakers in the laboratory on his wedding day! Here was one guy who thought he could take the project someplace and turn it into a moneymaker...the man with the idea.

You've heard the terms Mistlon, Lacelon, Decorette and Sasheen mentioned throughout the talk. They're all milestones in the development of a new technology. The original, Mistlon, has lost its identity as a product. But the technology it made possible contributed to numerous other products. That's what happens when you expose a technology to many people. Each contributes to it... makes it grow. It's a process of evolution. And the process didn't stop with ribbons, although Boese has since confined himself almost exclusively to that line. The technology is responsible for 3M's synthetic fiber-backed electrical tape. Boese finally nailed down this original goal just three years ago.

It has given us Grass Mat..., grass seeds stuck to a Mistlon-type mat...which makes it possible for you to actually roll out a grass seedbed in your yard. It has given us Scotch Brand Dusting Fabric... which is actually the closest related product to the original Mistlon.

And the Mistlon technology also led us to low-density abrasives... Scotch-Brite we call it... home scouring pads and pads for scrubbing and polishing machines. This is nothing more than a thick pad of Mistlon that's had a grit-bearing phenolic resin blown into it as it passes through the maker.

A couple weeks ago I asked the Director of our Abrasives Division laboratory if we could have had Scotch-Brite without Mistlon. "Not in a hundred years," he said.

It's difficult to see any connection when you look at a piece of Mistlon alongside a Scotch-Brite scouring pad. But the connection is very real... and very encouraging. Not long ago a large detergent manufacturer ordered several million Scotch-Brite scouring pads to use in a promotion that's going on right now.

All the products I've mentioned are made of non-woven fiber... Boese's first breakthrough, which we refer to as Mistlon.

I'd like to add a footnote to the Mistlon story... an anecdote about Al Boese. In his case, management wasn't betting on a formally trained scientist. In his early days with the company he was a sandpaper inspector.

It was his job to inspect the sandpaper at 500-yard intervals as it came out of the maker. But Boese liked to read. One day the production manager walked up and discovered the inspector reading a book... and over 2,000 yards of sandpaper had rolled through the maker without an inspection.

The manager told his superiors, "That man is no good to us!"

Boese later took a leave of absence. He wasn't so sure anymore that he wanted to make his future with 3M anyhow.

So he joined his father, a landscape man. For about two weeks

he spread fertilizer on sod, then decided to come back to 3M.

We're mighty glad he did.

Well, I've been doing a lot of talking about experiments and research projects. In your minds, you very likely have a picture of elaborate and expensive laboratories in which the Mistlon and subsequent work was done.

I should point out that the work of Boese and his associates was done in humble surroundings with makeshift equipment... not in fancy labs. We have those, too, of course. But in our research organization there is room for both the tinkerers and the formally educated scientific minds. The tinkerers operate in what we call Profab... Products Fabrication laboratory. They work in an old creamery building, build what they call Rube Goldberg machines... and refer to themselves as practical research men. Give them a few lengths of pipe, a couple of two-by-fours and maybe a piece or two of steel and they're in business.

Our Central Research, which services Divisional laboratories and does fundamental research, is a more formal setup. It's our workshop for the formally educated scientist...the housing for intricate research equipment.

Divisional research laboratories are also formal labs and each one confines its work to the problems and products of its own Division. ^{largely}

It's fairly common for men to follow their projects right out of Central Research and Profab into the Divisions that take on the products or processes. For example, Boese followed his ribbons over to the Gift Wrap and Fabrics Division laboratory. A Central Research man who had worked on a titanium grinding process went with his project to the Abrasives Division lab. Technical personnel filter throughout the organization to permit them to work on and further projects they've developed from the start.

*Conversational
is*

We also see to it that our technical personnel have an opportunity to exchange ideas. Next week 1,500 of them from throughout the company will meet in their 10th annual Tech Forum.

Being a profit-conscious company, we are becoming more and more aware of the need for increased fundamental research...basic research. High-profit products can come almost only from basic research.

You can't get a basic position by swiping something from somebody else. Big business can't rely on universities to do all the fundamental research work for them. We've got to get our feet wet... good and wet.

Certainly basic research in industry must be related to coming up with saleable products.

But it must also be recognized that basic research turns up a great deal of information that is commercially useless. But when the wheat is separated from the chaff, what you have left is highly productive. Good ideas don't just jump into test tubes and label themselves. They're developed slowly... many times by combining previously unrelated facts into a theory that can be explored scientifically. The world needs new knowledge and industry is obligated to provide its share.

Germany is a good example of how a nation can benefit from industrial basic research. Twice she was knocked flat. Twice she came back from zero. In Germany there is an appreciation and understanding of basic research that we in this country have never had. The German chemical industry recognizes a 20-year payoff time on basic research. Take a look at some of the world's outstanding examples of basic research. What we call Cellophane was pioneered in France; Lucite and Plexi-Glass came from Germany, as did our

own Magnetic Tape; Dacron came from England; DDT came from Switzerland.

I don't believe in looking under all the chairs for bogeymen, but it's evident that Russia is very, very strong in basic research. Basic research has got to mean more to us than just products...it's got to mean national survival, too.

Let men probe the area of fundamental research. The odds are better than 50 to 1 that they will find something entirely different from what they started to seek. And if you're searching for gold and find diamonds...is that bad?

Industry has a tradition to overcome. There are so many who leave school today thinking they can no longer do what they would like to do. The emphasis is on practical ideas. If industry will say to these people, "We want you to retain your curiosity...follow up everything that tickles your imagination..."...That's all it takes to send a man into fields now unknown. If he becomes excited with an idea, bet on him...and as long as he holds his enthusiasm, continue to bet on him. One good research idea...can give your company a whole new Division!

Thank you.

NNNN WRSV TADM 38 8/10/62
ALGONQUIN HOTEL
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NYC NEW YROK

WILL NOT ARRIVE NEW YORK UNTIL TUESDAY AUG 14. AND WILL STAY ONLY
THE ONE NIGHT PLS CANCEL RESERVATION FOR SUNDAY AND MONDAY

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TADM 220-8 1515

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38

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MONDAY.

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220-8W

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<p>ALGONQUIN HOTEL 59 WEST 44TH ST. NEW YORK, NEW YORK</p> <p>PLS RESERVE SGL FOR SUNDAY, AUGUST 12 THROUGH TUESDAY, AUGUST 14.</p> <p>A. W. BOESE 220-8W</p> <p><i>Ref Conc 18</i></p>				

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Minnesota Mining & Manufacturing Company

INTER-OFFICE CORRESPONDENCE

ST. PAUL, MINNESOTA

Subject:

December 8, 1954

M E M O R A N D U M

The following change in hotels has been made for our January Sales Meeting:

Terrace Plaza Hotel instead of the Gibson Hotel

Cincinnati, Ohio

CEP
C. E. Poole
Sales Manager
Ribbon Division

bjg

cc: A. W. Boese - 27-1
Shirley Clevenger - 42-2E
Adele McCollom - 42-2W
C. A. Parsons - 42-2W
T. E. Phillips - 42-2W
A. H. Redpath - 42-2W

CONFIDENTIAL

7 y
MINNESOTA MINING AND MANUFACTURING COMPANY

March 30, 1955

Albany Felt Company
Albany, New York

Attention: Mr. Winston Sizer, Sales Manager

Gentlemen:

C
O
P
Y
With reference to our discussion in St. Paul with Mr. Gallagher on our problem of padding on an emulsion to a viscose acetate web utilizing one of your wool belts, we would like to present the following information to assist in your survey of the problems:

- 1) The problem is briefly concerned with proper specification and construction of a belt which will give a uniform pad-on weight of the plasticizer solution to the carded viscose acetate web. Our pad-on moisture is initially too high and then as the belt ages the moisture drops to a point where we get sticking of the web to the belt and sleeve. This variation in pad-on moisture not only complicates our drying problem, but also causes other difficulties in processing of the finished product.
- 2) A sample of the plasticizer solution was sent to you by Burt Frank from Fairmont on Friday of last week. In addition, we sent you a belt which had been in operation and processed up to 200,000 sq. yds. of material. This was roughly 2½ days operation. The analysis of the plasticizer solution is approximately 84.5% water, 1.5% polyvinyl alcohol, .15% triethylene glycol, and 13.85% sanitizer #8.
- 3) We have noticed the accumulation of a thick adhesive material in the pan containing the plasticizer solution. This material appears to accumulate on the belt during the pad-on operation. We are of the opinion that this material is one of the causes of plug up and consequently short belt life. A sample of this material was also sent to you from Fairmont. Our Laboratory is of the opinion that this material is a hydrolized polyvinyl alcohol. This is only opinion and has not been verified.
- 4) We are also attaching a drawing showing the construction of the equipment we use for padding on the plasticizer to the web utilizing your wool belts.
- 5) Mr. Gallagher was of the opinion that some type of treatment to the surface of the belt and sleeve would be justified in order to reduce the sticking problem. Also, after your investigation it might show that a different type belt construction would be in order - - maybe a combination of wool and synthetic material. We felt one of the chief problems was that of washing the belt, probably by use of sprays in order to keep it sufficiently clean to have a more uniform pad-on moisture and, in turn, increase the life of the belt.

I believe these are some of the problems that we wanted you to investigate in your laboratory and then advise us.

March 30, 1955

- 6) The ideal specifications for a belt would be one which would give us a uniform add-on moisture of either 150% or 200% maximum, if such is possible. In addition, we think the belt life should be at least 2 weeks, preferably 4 weeks. (From 4 to 6 hours shutdown time is required every time we change the belt). In the meantime, as you can expect, we have to keep operating and do research work in order to improve our technique and make changes as we go along to improve the process. That is why it has been so important that you keep us supplied in wool belts from day to day.
- 7) Our present practice is to use a detergent washing setup for the belt at the beginning of its use. A copy of this procedure is attached.
- 8) We are designing and building an experimental setup in the pilot plant in St. Paul which we will experiment with belts 20" in width, of the same length. We will expect to order some of these belts from you from time to time.
- 9) We are attaching some of the operating data accumulated from utilization of these belts for your information.

Mr. A. W. Boese and Mr. L. W. Brown plan on being in your plant on April 4th to discuss this problem with you in greater detail. Since this process is of a confidential nature we ask that you treat it in that manner.

Thank you for your cooperation and we will look forward to your assistance in arriving at an early solution to this problem.

Yours very truly,

F. B. Richerson
Division Engineer

dmv

Attachments

cc: A. W. Boese ✓

Wm. Gallagher, 1260 North Dearborn St., Chicago, Ill.

At maximum pressures on both nip rolls the add-on with a new belt is 360% of which 15% is PVA and plasticizer. The auxiliary nip roll pressures are approximately 45#/inch of roll face. The roll faces are 88" wide. The main nip roll pressures are 100#/lineal inch of roll face.

When we reduce the main nip pressure to approximately 50#/lineal inch the total add-on is approximately 320%.

As the belt runs in the machine the add-on gradually decreases. When the add-on reaches the 300% point the main nip roll pressures are increased to 75#/lineal inch which raises the add-on. When the add-on reaches the 300% point again the pressures on the main nip are increased to 100#/lineal inch, the maximum, and this again raises the add-on over the 300% mark. When the add-on again decreases to 300% the auxiliary nip pressure is reduced to 35#/lineal inch, and this pressure is reduced as the add-on decreases to a minimum pressure of 18#/lineal inch. At lower pressures than this, the web sticks to the wool apron. The machine is then run with the auxiliary nip at 18#/lineal inch pressure and the main nip at 100#/lineal inch pressure until the add-on reaches a 250% figure. At this point the belt is changed as at a little lower than this the web begins to stick to the wool sleeve.

GENERAL INDUSTRIAL CORP.
310 N. PULASKI STREET
CHICAGO 7, ILL.

IGEPAL CO-630

RECIPE FOR MENDING FELT

FOR FELTS FILLED WITH FINE

Dissolve -

7 pts. IGEPAL CO-630

in

10 gal. water

To this add -

20 qts. Sovaesol #75 (Wadham's Oil) or Stanosol (Standard Oil)
and make up to 50 gallons

Apply on felt and rinse

FOR FELTS FILLED WITH CLAY

1) Apply: 1% solution inhibited hydrochloric
acid and rinse

2) Apply: 3-1/2 pts. IGEPAL CO-630

in

50 gallons warm water and rinse

FOR FELTS FILLED WITH SILT

Dissolve - 50 pts. alk and

3-1/2 pts. IGEPAL CO-630

in

50 gallons water

Apply and rinse

FOR ORDINARY FELT WASHING AND BREAKING IN A NEW FELT

Dissolve - 3-1/2 pts. IGEPAL CO-630

in

50 gallons water

Apply and rinse

Bocour Co. N.Y.

Bocour Paints

Magna Acrylics

Raymond Hendler
c/o KLIPPEL 647 BROADWAY-NYC 12
(studio)

c/o GOLBE
110-42 64th AVE.
FOREST HILLS 75, N.Y.
TW 6-5054 - home
CH 3-8575 - office
(in-law's)

Parsons sch. of design
54th St.
NYC

8"-10" 2 glossy prints black + white

135 mil transparency

I T I N E R A R Y

TUESDAY, AUGUST 14

En Route to New York
Northwest Flight #216
Leave 12:30 Arrive 3:50

Algonquin Hotel

WEDNESDAY, AUGUST 15

Meeting with Sara Little

Park Plaza Motel

En Route to Detroit
American #925
Leave 8:00 p.m. Arrive 8:33 p.m.

THURSDAY, AUGUST 16

Luncheon Meeting - S. S. Kresge

En Route to St. Paul
Northwest #59
Leave: 6:15 p.m. Arrive 8:05 p.m.

TELEPHONE:
REC'D 2-9459
JUN 2-1893

JOSEPH V. SHERMAN
CONSULTING ECONOMIST
280 BROADWAY
NEW YORK 7, N. Y.

June 5, 1959

Mr. Herbert P. Buetow, President
Minnesota Mining and Manufacturing Company
900 Bush Avenue
St. Paul, Minnesota

Dear Mr. Buetow,

I have been asked to write an article on non-woven fabrics for publication in "Harron's National Business and Financial Weekly." In this connection, will you please give me a brief summary covering the following points with reference to Minnesota Mining and Manufacturing Company:

1. Mention of the more important non-woven fabrics produced and their principal uses or markets.
2. Present importance of non-woven fabrics to the Company from the standpoint of sales and earnings.
3. How do you regard the future outlook for this segment of your business?

Your courtesy in sending me the above information within a week will be greatly appreciated.

Very truly yours,

JVS:vl

Department Store Survey

a. No. of stores in survey - 360

b. Est. & Volume by brand

3M	452,000	35.5%
CP's	275,000	21.6%
Texlors	111,000	8.7%
Academy	2,000	.1%
Hollywood	9,000	.7%
Satin	397,000	31.1%
Martle Page	10,000	.8%
Ribbmages	14,000	.8%
Delaware Ribbons	5,000	.4%
W.E.R.	1,000	.1%
Texskins	3,000	.2%
Total	1,275,000	100.0

c. Ribbons used for:

Free Wrap	-	122
Paid Wrap	-	124
Both	-	114

d. Purchases -

Direct	-	92
Buying Office	-	57
Local Dist.	-	258

} Numerous purchases through more than one source

e. No. of accounts 100% 3M - 36
 " " " shared - 260
 " " " buying no labels - 64

DATE	EXPLANATION	CHARGES	PAYMENT OR CREDIT	BALANCE
	PREVIOUS BALANCE			86.24
				86.24
	HOTEL <i>Algonquin</i>	pd 3/16 CR 1981		

WE HEARTILY APPRECIATE YOUR PATRONAGE

Ben B. Bodne
PRESIDENT-OWNER

PLEASE PAY
LAST AMOUNT