

Alvin W. Boese Papers.

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Prospertine Cuca Mr. W. L. Harrison December 7th, 1944 Perkins-Elmer Company Springdale, Conn. TIN5 ST. PAUL GENERAL SALES Attention: Mr. Robert Sheahan Dear Mr. Sheahan:-At the suggestion of Mr. Boese, am sending along to you the following memo received from Mr. A. E. Saaf and which we would appreciate your taking care of:-"Please send Mr. W. L. Harrison, Perkins-Elmer Company, Springdale, Conn. a sample of our "SCOTCH" Plastic Web and any physical data available, as well as prices. I left small quantity sample here and he seemed very interested." Thank you for your prompt handling of the above matter. Yours very truly, S. Bjorkstrom Sec'y to Mr. McLeod cc:- Mr. A. Boese, St. Paul Mr. A. E. Saaf P.S. - Upon checking in Dun & Bradstreet, cannot find the subject accounts name listed. However, Mr. Boese said that they might be sub-contractors and, therefore, wouldn't be listed or perhaps they are a very small outfit. In the event you need further information regarding the subject's operations or line of business, would suggest that you write directly to Mr. Saaf for such data.

The secret county 2008。由于1000年,1000年,1000年,1000年 DEC AM 7 51 9 CONTROL CASTONIA CONTROL SERVICE residenti de cion . de una decedada ALBERTA TRANSPORT attended out boy no posterior and some to be a see to ment of the property to the test the test that the property of the pour of the same of the state of the state of the same of t the staff of the telling like the language is the as a printleve Lindon today tray beneda en . The first words and 16 . All labels deciral total out any around TIME TOP LINE contracted to sould be ble. Teleco Vist in Joseph Training P. J. * Charles and Louis . decreased to the first and the second of the accounts made Makels. Breakers are Foote said test a cy and all the first that the line of the state Shirt was a two kind and on the west of the west of the best of r Mine of a trace, well during a feet the course dissolution

11-10-44 TRAS Castof Heatch Planticlleb" suspend 36 6x6" sheets at. 135 = . 375 per 100 at. 8 22,5 11 11 11 = .438 26,28 7×6 30.6 26 7×7 40.5 8X8 .08/200 jackaze Lens Driver : Co. Policy Re. Cost. Etc.

Minnesota Mining & Manufacturing Company m. h.s. Drew INTER - OFFICE CORRESPONDENCE SAINT PAUL, MINNESOTA November 10, 1944 Subject: Jarge - Tues we were have to pay -ASO Mr. A. S. Drew. Cellulose Tape Manager Boston Office Dear Al: May I call attention to the fact that November 15, is the deadline for an order to be forthcoming from American Optical Company for "Scotch" Plastic Web? Best Regards. Yours very truly, AWB/s cc: Mr. R. G. Drew Mr. R. F. Sheahan 11/13 Dick - of we don't get an order for Agt. Buse it will cost no both a dimbe -USD A O Says - NoT interested Cost over present material Plus The fact They believe ours is not as good Guess we pay with Dorints

ENTERED NOV 15 1944

- Subject

THE RESERVE OF THE PROPERTY OF

umactoranti Con

Coment Mr. God. 45 Grant God. 45 Prospetine Customers October 28, 1944

> Hercules Powder Company Cellulose Products Department Wilmington, Delaware

> > ATTENTION: Mr. Koch

Gentlemen:

Mr. Boese has informed me that the samples of "Scotch" Plastic Web sent you on June 8 have proved interesting. In accordance with your request we are sending further samples of "Scotch" Plastic Web with ream weights of 8, 16, and 24 pounds.

We should like to know the results of your tests and receive samples as was done in the past.

Yours very truly,

MINNESOTA MINING & MANUFACTURING COMPANY

E. F. Michl -

EFM/s

cc: Mr. R. G. Drew

Mr. A. W.Boese

Mr. Roch and ha Dec. 5 that he would report results in a letter. not received as of Jan. 10.

Mr. 6.

MINNESOTA MINING & MANUFACTURING COMPANY Pon Estethic AIR MAIL NEW YORK, N. Y. SPECIAL DELIVERY Subject: General Electric Company September 11th, 1944 Bridgeport. Conn. ST. PAUL GENERAL SALES Attention: Mr. Al Boese Dear Al:-The attached letter is self-explanatory. We were sorry indeed to learn that they no longer are interested in our "lintless" tissue paper. Yours very truly, E. R. McLEOD Sales Manager "SCOTCH" TAPES DIVISION ERM: SB

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MINNESOLV MINING 8 MYNOTEVELONDENCE CONVENCE

APPLIANCE AND MERCHANDISE DEPARTMENT



1285 Boston Ave. Bridgeport 2, Conn.

September 8, 1944

Minnesota Mining and Manufacturing Company 155 Sixth Avenue New York City, N. Y.

Gentlemen:

Att: Mr. E. R. McLeod

We checked up by Pioneer Products Division and found that the reason they did not place the order for the lint-less tissue paper was due to the fact that the cost was entirely out of line and, therefore, could not be considered for this reason.

Very truly yours,

GENERAL ELECTRIC COMPANY

WG Taylor:mbh

Co principales cc: Mr. R. G. Drew Mr. B. S. Cross Mr. R. F. Sheahan Mr. E. F. Michl "Scotch" Plastic Web September 7, 1944 MR. W. F. RIHM: Your letter of September 6, requesting information concerning "Scotch" Plastic Lens Tissue has been received. The official name for our product for industrial uses is "Scotch" Plastic Web. This name supersedes "Scotch" Plastic Lens Tissue. Our material is available in 8", 16" and 24" widths. At present we are making it up 1000 square feet to the roll which means 1500 lineal feet per 8" roll, 750 lineal feet per 16" roll, and 500 lineal feet per 24" roll. The reason for all the orders being \$15 is that the above roll sizes were given and the orders have all called for one roll. It is probable that for the present this will be our smallest order. Yours very truly, A. W. Boese AWB/s

Minnesota Mining & Manufacturing Company INTER - OFFICE CORRESPONDENCE SAINT PAUL, MINNESOTA L.T. September 6, 1944 Subject: MR. AL BOESE, Carfab Lab Dear Al: We would appreciate it if you would give us more information concerning Scotch Plastic Lens Tissue. First of all we would like to know the various widths that it is available in as well as the length of rolls. Undoubtedly you have taken into consideration the possibility of manufacturing this item in certain widths and lengths for the sake of uniformity, and if we could have all available information on this we would then be able to handle the orders in a more intelligent manner. We notice that most of the orders that are coming in are for a minimum dollar amount of \$15.00. Are the people who are selling this merchandise setting the \$15.00 figure as a minimum amount to be purchased, as we understand it from Mr. Cross that this material is to be billed at 12¢ per square foot? Upon receipt of the information that we are seeking, we will post the various people in our department here so that anyone will be able and familiar to handle any orders calling for Scotch Plastic Lens Tissue. Yours very truly, New Products Division wfr/ec cc-- Mr. Bert S. Cross

Pros. Customers: Jen. Eduther "Scotch Plastic Web" August 25, 1944 MEMORANDUM Mr. McLeod called from New York concerning a request from General Electric for information and prices on "Scotch Plastic Web." They had been shown a sample of our material some time ago and stated they were in immediate need of some material. Price quoted to them was \$15 per thousand square feet. They requested material in sheets 10" x 12" if possible. I told McLeod we could furnish the material in rolls 12" wide, but not in sheets. He will see them Monday, August 28, and report results. A. W. Boese CC: Mr. A. G. Bush Mr. R. G. Drew Mr. B. S. Cross Mr. R. F. Sheahan Mr. E. F. Michl Mr. W. Rihm Mr. W. Walden The Day Difference THE SHIP HAVE O

Phrys. Customers gripe. August 3, 1944 Mr. A. H. Butz, Regional Sales Manager St. Paul, Minnesota Dear Al: This will acknowledge your Air-Mail-Special-Delivery letter of August 1st on the subject of the proposed visit of Al Boese to New England. I should be very pleased to make arrangements for Joe Raybeck to take Mr. Boese to the American Optical Company in Southbridge, Mass. I am sure Al Drew will be very pleased to see to it that Mr. Boese is properly introduced at Polaroid. You may be sure we will do everything possible to make Mr. Bosse's visit to this territory as pleasant as possible. Kindest regards. Very truly yours, John H. Hargreaves JHH/maw Division Sales Manager. cc/A. S. Drew Al Boese R. W. Mueller, New York

MINNESOTA MINING & MANUFACTURING COMPANY Len Quinter : INTER - OFFICE CORRESPONDENCE SAINT PAUL, MINNESOTA

October 12, 1944 Subject; SÇOTCH" Plastic Web

TO: ALL BRANCH OFFICE MANAGERS

We are in the process of doing some market research work on "SCOTCH" Plastic Web by sending a mail questionneire to 2000 optometrists throughout the country.

Mr. Halpin has suggested that you should be acquainted with this new product so we are sending you a sample of "SCOTCH" Plastic Web and the questionnaire for your information.

Very truly yours,

HoBenn

H. L. Benn

Sales Research Dept.

hlb/mgp

cc- Mr. B. J. Cross

Mr. A. W. Boese - St. Paul

All Sales Manage rs

PLEASE DELIVER TO:

al Boese Would you take care of the gentleman. for Lave the Ocagies Junich he speaks

Gran. Rus. Am Optical **American Optical Company** Scientific Instrument Division Buffalo II. New York September 21, 1945 Minnesota Mining & Mfg. Co. 900 Fauguier St. St. Paul, Minnesota Attention: Mr. Howard L. Hoover Gentlemen: Enclosed is a copy of a letter that we wrote you on September 6. To date we have not heard from you. Would you please give this your immediate attention. Very truly yours Development Engineer George Schenk HK Manufacturers of SPENCER Scientific Instruments

Priso Cust. am. Exterist cc: Mr. R. G. Drew Mr. B. S. Cross Mr. E. F. Michl Mr. R. F. Sheahan Mr. W. Rihm Mr. A. S. Drew, Boston September 12, 1944 Mr. B. J. Rubenstein American Optical Company Southbridge, Massachusetts Dear Mr. Rubenstein: In re-reading the letter sent you on August 30, describing the properties of "Scotch" Plastic Web, I find that I neglected to quote prices but shall do so now. In lots of: 25,000 square feet - .01-1/2¢ /sq/ft.
10,000 " " .01-3/4¢ " " " .02¢ Material is furnished in 8", 16" and 24" widths, 1000 square feet to the roll. Yours very truly, MINNESOTA MINING & MANUFACTURING COMPANY Alvin W. Boese AWB/s P. S. - Al Drew: Bob Sheahan and I will be East next week and I shall call you when we get to Rochester - probably Tuesday, September 19. AWB.

Minnesota Mining & Manufacturing Company INTER - OFFICE CORRESPONDENCE BOSTON, MASS. 9-6-44 Subject: "SCOTCH" Plastic Webb Pros. Custimers is Onen aptical ST. PAUL GENERAL SALES Att: Mr. A. W. Boese Dear Sarge:-There's a note in here signed "Al" advising that pennies were being put in a piggy bank in order to pay for a drink due when an order is received. Because we have a little wager, I am assuming that you are the writer of the note, and if that assumption is correct. I would like to respectfully remind you that the time limit of sixty days starts only when we are in possession of all the sales talk necessary to pour on the Purchasing Agent of American Optical Company, Southbridge, Mass. Maybe such ammunition is now in the mail, but if so, it has not yet been received in Boston. Regards. Yours very truly, Sales Manager, "SCOTCH" TAPES DIVISION ASD:mph Copy of your letter to American Optical Company just received. Sounds good, but I doubt if Mr. Rubenstein remembers the prices quoted him - I'm sure I don't. When you quote him will you also send us a copy? 1 35

MINNESOTA MINING & MANUFACTURING COMPANY

GENERAL OFFICES
AND
LABORATORIES
SAINT PAUL, MINNESOTA

FACTORIES
SAINT PAUL MINNESOTA
DETROIT, MICHIGAN
WAUSAU, WISCONSIN
AKRON, OHIO

Abrasive Paper and Cloth Originators of Waterproof Sandpaper Under the "Wetordry" Brand



"SCOTCH" Cellulose TAPE

Masking tape and other pressure sensitive adhesive tapes for industrial and consumer use under the "SCOTCH" Brand

OFFICES AND WAREHOUSES

CHICAGO
DETROIT
BOSTON
NEW YORK
PHILADELPHIA
ST LOUIS
SAN FRANCISC
LOS ANGELES
SEATTLE
HIGH POINT
CINCINNATI

900 FAUQUIER AVE.

SAINT PAUL 6, MINNESOTA

September 15, 1944

Dear Sir:

We would like to have your help on a problem with which we are faced. In this envelope are twenty-five sheets of a lint-free lens tissue which we have developed in our laboratories but have not as yet marketed.

However, as we do not know very much about the optical business we thought we would find out about it from someone who was an expert-you, the optometrist.

If you would take a few minutes of your time to try our lens tissue and then answer the following simple questionnaire we would appreciate it very much.

Very truly yours,

MINNESOTA MINING AND MANUFACTURING COMPANY

H Lo Benn

H. L. Benn

Sales Research Department

cs1/jmb

1.	Do you use a lens tissue?
	(a) If not, what do you use to clean lenses?
	(b) If yes, what brand?
	(1) What do you pay for it?
	(2) What do you like about your present brand?
	(a)
	(b)
	(3) What don't you like about your present brand?
	(a)
	(b)
	(4) How much lens tissue do you use per month?
	Number of sheets?
2.	How do you like our lens tissue compared to the method of cleaning
	lenses you now use?
	(a) Better(b) About the same(c) Not as well
3.	What do you like about our lens tissue?
	(a)
	(b)
4.	What don't you like about our lens tissue?
	(a)
	(p)
5.	Would you buy our lens tissue if it were marketed?
6.	Comments-
7.	Signed Date

Thanks a lot for your cooperation!

TLAS August 26, 1944 "Scotch Plastic Lens Tissue" Mr. F. K. Swenson Buffalo Office With reference to Mr. W. F. Rihm's letter of August 24, concerning the price of Scotch Plastic Lens Tissue, we have set a price of \$15 per thousand square feet. This can be furnished in widths of 8", 16", and 24" rolls. An AAl priority is required, as Mr. Rihm informed Yours very truly, A. W. Boese AWB/s cc: Mr. A. G. Bush Mr. R.G. Drew Mr. B. S. Cross Mr. R. F. Sheahan Mr. W. F. Rihm

Minnesota Mining & Manufacturing Company
INTER-OFFICE CORRESPONDENCE

MINNESOTA

TLA.5 August 3, 1944 Subject: MR. AL BOESE: Attached is a wire which is self-explanatory. If by Monday when you return, you do not have the list of names to be sent in by Mr. Ware, please see me and I will arrange to have it made available for you in Rochester when you arrive. I know that John Ware cannot make these calls with you, but I discussed these things with Dick Carlton, and he felt that this would be satisfactory. Yours very truly, A. H. Butz Regional Sales Manager AHB: js

COPY OF TELEGRAM RECEIVED

PUP21 LG SER WUX NEWYORK NY AUG 3 1944 1222P

MINNESOTA MINING AND MFG CO, A H BUTZ

WARE IN ROCHESTER THIS WEEK CANNOT BE THERE NEXT WEEK

HOWEVER HE IS PAVING WAY FOR MR BOESE AT COMPANIES

MENTIONED LIST OF NAMES MR BOESE WILL BE INTERESTED IN

ARE DUE IN TODAY FROM WARE WILL ADVISE FURTHER

NY BRANCH MUELL ER.

August 1, 1944 AIR MAIL SPECIAL DELIVERY Mr. J. H. Hargreaves Boston, Massachusetts Dear Jack: Attached is a copy of a wire which partially explains this letter. Al Boese who has been working on a new product for some time is ready to make some market investigations and wishes to call on a number of optical houses. I wired Bob Mueller and asked for John Ware's assistance in three important plants in Rochester, New York. It is also considered very desirable to call on the American Optical Company, in Southbridge, Massachusetts. I do not know yet just when Mr. Boese can leave Rochester, but he will telephone you as much in advance as possible and hope this can be at least two days before he leaves Rochester. If you can arrange to have Joe Raybeck meet him at the Bancroft Hotel in Worcester and introduce him to whomever he knows best at the American Optical Company, it will be very much appreciated. I do not know how much time Mr. Boese will like to spend at the American Optical Company, but once he has been properly introduced, it will no longer be necessary for Joe to stay with him. He, I assume, can secure transportation from Southbridge to Worcester and then to Boston or perhaps directly from Southbridge to Boston. He wants to call at Polaroid also while on this trip, and I presume that Al Drew or one of the cellulose tape men might be of more assistance at Polaroid than one of the abrasive salesmen. In any event, will you please discuss this with Al Drow and decide who can best assist you at Polaroid. I am sorry that this plan could not be made more definite now, but it is difficult to determine how much time will have to be spent in each plant when investigating the merits of a new product. It may take very little time or a great deal, and no one here can guess in advance which it will be. Anything you can do to assist will be very much appreciated. I am attaching a small sample of the product. Yours very truly, AHB: js A. H. Butz Regional Sales Manager c.c. Mr. Al Boese Mr. R. W. Mueller



THUR HEAVORD BY STAY SAY.

RELEAT WHITE UPPERS ARE USED ON

CONFIRMATION OF TELEGRAM SENT

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Minnesota Mining & Manufacturing Company INTER - OFFICE CORRESPONDENCE SAINT PAUL, MINNESOTA Subject: Prod. Jem den Prosp. Customens; Eastman July 20, 1944 SPECIAL DELIVERY VIA AIRMAIL: 6 Mr. G. Brady Buffalo Office Dear Scotty: If it is possible, please find out at your earliest convenience the amount of lens paper used by Eastman, Bausch & Lomb and Wollensak, for both wrapping and packaging. Best regards. Yours very truly, AWB/s MR . AL BOESE: Dear Al: Bausch & Lomb Company are using about 300 reams a year and the Wollensak Optical Company are using a commercial 10" roll, 1000 yds. in length a year. I have no report on Eastman Kodak Company as Mr. J. Burns is on vacation, and I have no other source of information. The Wollensak Optical Company have found a lint free rag which serves their purpose better than paper and, for this reason, are not consuming a great amount of paper. Best regards, De Baly

Parop Cours August 24. 1944 Bastman Kodak Company Hochester, New York MR. F. K. SWENSON 3M Company, Buffalo This will acknowledge and thank you for your August 21 letter addressed to Mr. Bert S. Cross. We wish to advise that the subject's order has been entered for production and will be shipped on or before August 28. In this particular instance this order did not carry a priority rating, but we have sufficient material on hand to honor this order without a rating. In the future we would suggest that if orders are received from the subject concern for our "Scotch" Plastic Lens Tissue. we insist on receiving the highest possible priority rating. We will undoubtedly have a definite price structure with several days and chances are you will be advised of this by Mr. Al Boese or else from someone else in our office here at St. Paul. Yours very truly. W. F. Rihm wfr/ec New Products Division cc-- Mr. Bert S. Cross Mr. Al Boese

Prosp. Cust. cc: Mr. R. G. Drew Mr. A. G. Bush Mr. B. S. Cross Mr. R. F. Sheahan Mr. Walter Rihm Mr. E. J. Michl
Mr. H. Waldron Seconds on the August 25, 1944 engasand Chestra is the manager of the a transfer that the character is an about the contract of the contract Eastman Kodak Company that had been the bear the decounted. Camera Works Rochester, New York acar and the property salutation tale of one ATTENTION: Mr. Baines Gentlemen: Covers on the restaurant for the contract of the co On August 11, I called on Mr. M. D. Lee of your Industrial Engineering Laboratory to show him a lint-free, waterresistant tissue which we have developed for the optical trade. The name of this material is "Mootch Plastic Web." Mr. Lee suggested that Mr. Garson Meyers be contacted. However, Mr. Meyers was on vacation so I discussed this material with Mr. J. M. Keating, who promised to see that the right people received samples to test. This letter is to inform you of the contact made in your division. A sample is enclosed for your inspection. This material can be furnished in the following rolls: 8" x 1500 feet 16" x 750 feet 24" x 500 feet The price of this material is \$15 per thousand square feet. We would be pleased to receive a trial order for any experimental work you may desire to conduct. Yours very truly, MINNESOTA MINING & MANUFACTURING COMPANY A. W. Boese, AWB/s Encl.

Pras. Customers: October 11, 1944 Eastman Kodak Company Kodak Park Works Re: Scotch Plastic Web MR. G. J. BRADY AIR MAIL Dear Skotty: The attached letter to Mr. Lee is self-explanatory. I wish you luck. We appreciate the assistance you provided us in our recent contacts with Eastman Kodak. Keep up the good work. Sincerely yours. RFS: ASM R. F. Sheahan cc- Mr. A. W. Boese

INNESOTA MINING & MANUFACTURING COMPANY
INTER - OFFICE CORRESPONDENCE
BUFFALO, N. Y.
Oct. 12, 1944

Subject:

Subject:

MR. A. W. BOESE:

Dear Al:

Mr. M. D. Lee of Eastman Kodak Company called me today to say that he has not received an answer to his recent inquiry on "SCOTCH" Plastic Web which I forwarded to you in my letter of September 26.

You no doubt recollect that Mr. Lee has been instrumental in promoting tests on "SCOTCH" Plastic Web at Kodak Park, and, consequently, he has been receiving numerous inquiries on it.

I would appreciate your dropping Mr. Lee a line on any recent developments on "SCOTCH" Plastic Web inasmuch as I had told him you had planned to be in Rochester the week of October 9.

Hoping you haven't had any more trouble with your arm and that I will see you soon.

Best regards,

Prospertine Customers: "Scotch" Plastic Web. November 4, 1944 Memorandum Talked to Scotty Brady by phone yesterday. He reported on the following calls: Eastman Hawkeye Works Mr. R. Guilford, Superintendent This is the largest lens division of Eastman and the contact was made through the good offices of Mr. M. Lee, Industrial Laboratory. Mr. Guilford had not had a chance to test our samples in all his departments, but had tested them in one where the results were fair. He stated that some fibers were either cut or shaken loose during the cleaning operation and this was undesirable. Mr. Brady is to check and determine whether this cleaning operation is during a preliminary operation, before the edge of the lens is ground smooth. An 8" wide, 50 yard roll, is being sent to Mr. Guilford to test in the rest of his departments. Defender Film Company Mr. Towle, Purchasing Used our paper as a diffusing medium for filter plates. were very successful and after their present supply of paper is used, they will use "Scotch" Plastic Web. This use should apply to all of the film manufacturers and after more complete information as to how Defender uses our material, we will contact the balance of the field. A. W. Boese cc:Mr. R. G. Drew Mr. A. G. Bush Mr. R. F. Sheahan Mr. B. S. Cross Mr. E. F. Michl Mr. G. Brady, Rochester

MINNESOTA MINING & MANUFACTURING COMPANY Prospertine Customers: BUFFALO, N. Y.

INTER - OFFICE CORRESPONDENCE

Nov. 7. 1944

Eastman Kodak Co., Hawk-Eye Works Subject:

MR. A. W. BOESE

Dear Al:

As I related per our telephone conversation last week, Mr. Guilford of above account received only one report from one department on the tests of "SCOTCH" Plastic Web. He stated that the tests were not sufficient for a true evaluation and would need a larger sample of "SCOTCH" Plastic Web for tests.

I believe that you may have shipped this larger sample to Mr. Guilford at this writing.

Best regards,

G.TB: MB

G. J. Brady

Prospertine Customens. November 8, 1944 VIA MAIL Mr. R. Guilford Hawkeye Division, Eastman Kodak Company Rochester, New York Dear Mr. Guilford: Our Mr. Brady has asked that additional samples of "Scotch" Plastic Web be forwarded to you for testing in your Lens Division. Accordingly, on November 7, a roll 8" wide x 50 yards was forwarded to you, air mail. We await with interest your report on the out come of the tests. Yours very truly, MINNESOTA MINING & MANUFACTURING COMPANY A. W. Boese AWB/s cc: Mr. R. G. Drew
Mr. R. F. Sheahan
Mr. B. S. Cross
Mr. G. Brady, Rochester
Mr. E. F. Michl

MINNESOTA MINING & MANUFACTURING COMPANY
INTER - OFFICE CORRESPONDENCE
BUFFALO, N. Y.
Nov. 18, 1944

Subject: Eastman Kodak Co.
Hawk-eye Works

MR. A. W. BOESE

Dear Al:

I am sorry to state that I have been unable to contact Mr. R. Guilford of above account. I have tried Thursday, Friday and Saturday of this week. I will try again next week after I return from Elmira.

Best regards,

G. J. Brady

GJB: B

Prospection Curs. January 20, 1945 Fastman Kodak Company Kodak Park Works Rochester, New York Attention: Mr. M. D. Lee Dear Mr. Lee: Industrial Engineering Laboratory We thank you for the time and attention given to our Mr. A. W. Bosse, Director of our Carfab. Laboratory, in the interest of Plastic Web. I wish also to express my appreciation for the courteous treatment extended me during my recent visit to Rochester. At the request of Mr. Boese we take this opportunity to quote you prices on our Plastic Web as follows: - 4,999 square feet .02 square foot - 9,999 5,000 . . .0175 " 10,000 - 24,999 .015 # 25,000 - 39,999 ** 40,000 - 49,999 ** .0125 " .01125 Terms: 2-10-prox. In the event of larger purchases totalling 150,000 square feet to be taken over a 90-day period in single lots of 50,000 square feet each or more, we quote lo per square foot. We very much appreciate the interest you have shown in our product. We do hope with this price schedule you will be able to adapt our product to your diversified use throughout the Eastman Kodak plant. We trust you will favor us with an order. Yours very truly, MINUESOTA MINING & MANUFACTURING COMPANY R. F. Sheahan Sales Manager Chemical and Color Division RFS: ASM cc- Mr. A. W. Boese

Prospective Customeros Eastman Kadak March 29, 1945 VIA AIR MAIL Mr. R. Guilford Eastman Kodak Company Hawkeye Division Rochester, New York Dear Mr. Guilford: We have not as yet had a report from you on the trial samples of 3-M Plastic Web for lens cleaning. I plan on being in Rochester on April 5, and Mr. Brady and I would like to call on you that morning. We have some further developments which I think might be of interest to you. Yours very truly, MINNESOTA MINING & MANUFACTURING COMPANY A. W. Boese AWB/s cc: Messrs. R. G. Sheahan G. J. Brady J. A. Borden C. C. Smith R. G. Drew

Lens Liver: LAM.S. market Jenny I Plantic Keel co-Mr. G. H. Halpin Mr. R. G. Drew Mr. A. W. Bosse . July 15, 1944 Carded Paper Survey MR. BERT CROSS As you requested I am proceeding with the market research project on carded paper. We have made a search of the available statistical sources to try and get potential volume figures but have not found anything of any value so we will have to make our own survey, both as to potential volume and the acceptability of our product in the suggested markets. We also hope to find uses for carded paper which have not already been suggested. The suggested uses for our carded paper have been as follows: 1. Optical 2. Precision instrument 3. Polished surface, as an example metal surface or polished plastic surface 4. Stencils (A. B. Dick Company) 5. Medical, non-linting bandages, sanitary pad covers, dental use. 6. Consumer rolls for various home uses 7. Display work, such as department store windows S. Greating cards 9. Floral tissue 10. Electrical field, such as coil winding, sleeve manufacturing 11. Packaging field With the exception of the electrical insulating use, I believe that we can make our complete survey using the mail questionnaire technique. Past experience indicates that a properly constructed, interesting mail questionnaire brings in about 25% replies. However, with the offer of some premium for answering the questionnaire the replies have increased to as much as 50%. I believe that we should offer a pocket dispenser and a roll of Scotch Tape to all respondents as it is imperative that we get as large a response as possible. Because we know so little about the markets involved, and the number of prospects in each market is not too large to be covered by sail at a reasonable cost, I hesitate to take a chance on a sampling procedure, especially with a possible 25% reply. The suggested procedure is as follows: 1. Buy a mailing list for each market in which we are interested 2. From Dun & Bradstreet get the financial rating of each firm to get an indication of the size breakdown of the industry which can be compared with the usage by size groups 3. Construct a separate questionnaire for each market to be surveyed, the questionnaire to be designed to find out the following: .

QUESTIONS ABOUT YOUR BUSINESS

1.	How many patients do you serve a month?	
2.	How many dispensing tables do you have?	
3.	Do you use a lens tissue?	
	a. If yes, what brand?	
	b. What size sheet? c. What do you pay for it? per d. What do you like about your present brand?	
	e. What do you pay for it? per	
	d. What do you like about your present brand?	
	1,	
	2.	
	3	
	e. What don't you like about your present brand?	
	1.	
	2	
	3	
	f. Now much lens tissue do you use per monthNo. of dollar value	f sheets
h	Do you use a lens cleaning fluid?	
**	a If was what brand?	
	a. If yes, what brand? b. What ingredients does it have?	
	At a season weeks a season as	
5.	Do you sell either a lens tissue or a lens cleaning fluid to y If yes, what sales promotion do you give t	our patients?
	1.	
	2	
	3	
6.	On any supply item you sell to your patients what % mark-up do	you get?
7.	Do you usually buy your supplies directly from the manufacture	r or from a
	Jobbert If a Jobber, would you mind giving us his name City State	e and address.
	QUESTIONS ABOUT OUR PRODUCT	
1.	How did you like our product compared to the one you are now Check one 1. better 2. about the same 3.	using? not as well
•	What do you like about our lens tissue?	
6.		
	1.	
	ş	
	3	
3.	What don't you like about our lens tissue?	
	2	
	3	

3.		
4. 5.		
Any other comments?		

Thanks alot. Now just drop this in the self addressed envelope (no postage necessary) and you'll receive by return mail the pocket dispenser and roll of "Scotch" tape we have reserved for you.

Very truly yours,

MINNESOTA MINING & MANUFACTURING COMPANY

Harket Lurrey cc: Mr. R. G. Drew Mr. B. S. Cross June 23, 1944 Lens Tissue Mr. Howard Benn: You have requested the following information preliminary to starting a market research program on lens tissue: Properties of the paper. Approximate cost.
Approximate cost at various volumes of production.
Approximate cost at various volumes of production.
Approximate cost at various volumes of production. a) Known competitors. b) Properties of our product vs. competitors' product. 1) Properties of the paper: This question will be answered under 4-b. 2) Approximate cost: In considering the cost of our paper, we have a basic raw material cost of .527¢ per #, or for an 8# / ream of paper, .015¢ / square yard. Our manufacturing costs with our present equipment will be approximately .45¢ / #, or .013¢ / square yard. In our trial runs, waste has averaged less than 10%. A present cost of .032¢ / yard is, I think, a reasonable one, excluding slitting and packaging. As the raw material cost is fixed at present and does not vary with the volume used, our cost will be lowered by faster and more efficient operation. When we operate at full or 60" width our production costs should be about .18¢ / # or a total cost of .707¢ / #. A square yard cost including waste but not including slitting or packaging will be .023¢ / yard. 3) Approximate cost at various volumes of production: As our fiber raw material costs are fixed, this will depend on our efficiency of operation and ability to speed production. With five machines at present production rates, we should be able to operate at .06 to .08¢ / #. This would make our paper cost .018¢ / square yard. Other factors such as reducing our fiber costs and using waste fibers are being considered, but are not developed to a stage where we can consider them as a means of reducing costs. 4) Markets that have been considered: Optical. Precision instrument. 3) Polished surface, as an example metal surface or polished plastic surface. 4) Stencils (A. B. Dick Company). 5) Medical, non-linting bandages, sanitary pad covers, dental use.

Mr. Howard Benn -2-June 23, 1944 Consumer rolls for various home uses. Display work, such as department store windows. Greeting cards. Floral tissue. 9) Electrical field, such as coil winding, sleeve manufacturing. 11) Packaging field. 4-b) General properties of our paper: 1) Non-linting. 2) High wet strength.
3) Can be non-corrosive (higher cost).
4) Heat sealing properties. Attached is a list of competitive material with costs and also a summary of comparison of our product with competitors'. I am attaching a file and notes which may be of interest. Yours very truly, A. W. Boese Carded Fabrics Laboratory ARE/s Encls.

TTA5

UU-P-313a

JULY 30, 1943

SUPERSEDING Fed. Spec. UU-P-313 August 22, 1938

FEDERAL STANDARD STOCK CATALOG

Section IV

(Part 5)

FEDERAL SPECIFICATION

FOR

PAPER: LENS, TISSUE*

This specification was approved on the above date by the Director of Procurement, for the use of all departments and establishments of the Government, and shall become effective not later than November 1, 1943. It may be put into effect, however, at any earlier date after pomulgation.

A. APPLICABLE SPECIFICATION.

A-1. The following Federal Specification, of the issue in effect on date of invitation for bids, shall form a part of this specification: UU-P-31—Paper: General Specifications.

B. TYPE AND GRADE.

B-1. Only one type and grade of lens paper is specified herein.

C. MATERIAL AND WORKMANSHIP.

C-1. Material.—Paper, lens, tissue, shall be suitable, both wet and dry, for cleaning lenses and other parts of optical instruments, and also for other cleaning purposes requiring high-grade tissues.

D. GENERAL REQUIREMENTS.

D-1. Shall be of a high degree of softness, and free from abrasiveness, lint or dusting. It shall have clean-cut edges. It shall be creped in one direction.

D-2. Bid sample.—A sample consisting of not less than 20 sheets, 20 x 30 inches, shall be submitted with bid for inspection to determine compliance with paragraph D-1.

549256-43

^{*}Certain provisions of this specification are intended to conserve critical or strategic materials. When the present emergency is over, this specification will be considered for revision.

E. DETAIL REQUIREMENTS. E-1. Stock.—100 percent bleached chemical wood fibers. E-2. Ash.-Not more than___ ____percent_ 0.5 E-3. Acidity.—pH value not less than_____ E-4. Weight (creped).—24 x 36, 500_____pounds_ 16.0 E-5. Tensile strength.—Not less than, grams per 15 mm width: Machine direction, dry_____ 415 E-7. Absorption.—Not more than____seconds_ 5 E-8. Size. -20 x 30 inches, 71/2 x 11 inches, or 3 x 5 inches unless otherwise specified.

F. METHODS OF SAMPLING, INSPECTION AND TESTS.

F-1. All tests not herein specified shall be made in accordance with the latest issue of the standard methods of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York, New York.

F-2. Paper from not less than five packages shall be tested, and the average of the test results compared with the requirements of Section E.

F-3. Acidity.-The pH value shall be obtained by hot extraction procedure of the T. A. P. P. I. Method T 435m, Hydrogen Ion Concentration of Paper Extracts.

F-4. Wet tensile strength.—Shall be determined according to the T. A. P. P. I. Method T 456m, except that the Finch attachment mentioned under "Additional Information" of the method shall be

F-5. Absorption.—The absorptiveness shall be determined as folfollows: Make a pack consisting of six strips cut 6 inches by 1 inch. Place the long direction of the pack around a cylinder approximately 2 inches in diameter. Apply tension to the pack by suspending a weight of 10 grams to each of the two ends of the top strip of paper. Fill a pipette with water at a teperature of 21° C. Hold the pipette at an angle of about 30° with the horizontal, with the tip nearly in contact with the paper, and allow .05 ml of water to flow on the pack equidistant from the sides. While the water is flowing, keep the tip of the pipette in the drop of water until delivery of the water is completed. Measure the rate of absorption in seconds from the start of flow of water until the drop of water is completely absorbed, as indicated by nor further reflection of light from it when viewed at an angle. At least ten tests shall be made on not less than three different packs.

G. PACKAGING, PACKING, AND MARKING FOR SHIPMENT.

G-1. Packaging.—The paper shall be wrapped in one-ream packages with heavy chipboard on both sides, of the same size as the paper, and securely banded with paper tape.

G-2. Packing.—Unless otherwise specified, the subject commodity shall be packed in substantial commercial containers of the type, size and kind commonly used for the purpose, so constructed as to insure acceptance and safe delivery by common or other carriers, at the lowest rate, to point of delivery called for in the contract or purchase

G-3. Marking.-

G-3a. Packages.-Ream packages shall be marked with the name

of the material, size, quantity, and the contractor's name.

G-3b. Shipping containers.—Shall be marked with the name of the material, size, and the quantity contained therein as defined by the contract or order under which shipment is made, the name of the contractor, and the number of the contract or order.

H. REQUIREMENTS APPLICABLE TO INDIVIDUAL DEPARTMENTS.

H-1. The following departmental specifications in effect on date of invitation for bids shall form a part of this specification:

H-2. Army.-U. S. Army Specification No. 100-2, Standard Specification for Marking Shipments, copies of which may be obtained without cost upon application to the Quartermaster Corps, War Department, Washington, D. C.

H-3. Navy.—Navy Department General Specifications for Inspection of Material, copies of which may be obtained without cost upon application to the Bureau of Supplies and Accounts, Navy Department, Washington, D. C.

H-4. Marine Corps.—Instructions issued by the Quartermaster's Department, U. S. Marine Corps, 1100 South Broad Street, Philadelphia. Pennsylvania.

I-1. Purchasers should exercise any desired options offered herein

and should specify the size required.

I-2. Federal Specifications do not include all types, classes, grades, sizes, etc., of the commodities indicated by the titles of the specifications, or which are commercially available, but are intended to cover the types, etc., which are suitable for Federal Government require-

I-3. An index of Federal specifications may be purchased as noted in paragraph below, price to be obtained from the Superintendent of Documents.

I-4. Copies of this specification and of UU-P-31, may be obtained upon application, accompanied by money order, coupon, or cash to the Superintendent of Documents, Government Printing Office, Washington, D. C. Price 5 cents each.

Notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

U. S. GOVERNMENT PRINTING OFFICE: 1943

For sale by the Superintendent of Documents, U. S. Government Printing Office Washington, D. C. - Price 5 cents

Triacetate in Lens Tissue. May 26, 1944 DR. W. E. SOHL: I would like to point out some of the advantages of Triacetate coated Viscose fibers which could be plasticized so as to have self-bonding with heat and pressure. For lens tissue, at present, we use a mixture of 70% plasticized cellulose acetate fibers and 30% viscose fibers. The viscose fibers are added to give strength. It is the characteristic of plasticized cellulose acetate fibers to lose strength and become brittle when heated to the necessary bonding temperature affected by heat that our paper would be sufficiently bonded and have the additional strength of the viscose core. Another advantage, and a very important one, is the insolubility of Triacetate in acetone. At present many of the optical people use acetone in their final cleaning operation. Our product, because of its extreme solubility, cannot be used. Our prime interest in fibers is in the low deniers of 1.5, but it would be advantageous to have 3-denier if the lower is not possible. An additional advantage is that this program starts us on a course of tailor-making fibers for the purpose of manufacturing paper and may point to additional methods of getting the best possible fibers for this purpose. Yours very truly, A. W. Boese AWB/s cc: Mr. R. P. Carlton Mr. R. G. Drew Dr. H. N. Stephens Mr. B. S. Cross Mr. E. F. Michl

May by the American Messuring Instrument RE: Your letter of April 13. April 20, 1944 AIR MAIL W. Fleischhauer Sales Dept. New York This will acknowledge your letter under subject date regarding the subject's desire to purchase thin, porous sheeting of tissue paper. We wish to state that at the present time our out-put is very limited, end we would need an AA-1 priority before any orders could be filled. Another fector which must be taken into consideration before we could enswer whether or not we would be able to fill an order is: In what form do they require the material, sheets or rolls; in what dimensions, and in what yerdege? Upon receipt of this information we can advise whether or not we can furnish the desired meterial and at what price. We trust that this is the information that you are seeking. Yours very truly. W. F. Ribm New Products Division WER/bd co-- R.G. Drew Al Boese V Bert S. Cross J. Wallick W. McMahon P.S. We are enclosing copy of letter which was received from our branch in New York. Before a reply was given to this letter, we contacted Mr. Boese who in turn talked to Mr. R.G. Drew. Mr. Cross' secretary furnished us with a copy of memorandum covering conversation with Mr. Jim Schmidt of the Newhouse Paper Co. which was written March 15 by Mr. Cross. We kept this memorandum in mind in answering the original inquiry. W. F. R.

10 x 30 love 10-487. April 13, 1944 SUBJECT: American Meesuring Instrument Corp. 240 West 40th St. New York City, N.Y. ATTN: SPECIAL PRODUCTS DIVISION ST. FAUL GENERAL SALES We have a written request from the subject account to pass on to them information concerning lens tissue after being advised by the Worman Company in New Rochelle, N.Y., that we made this material. We would appreciate your advising by return mail whether we do manufacture something of this sort. They claim the material is a very thin porous sheet of tissue paper. They are inquiring about this for wrapping very highly polished steel blades. We would look forward to a very early reply. Very truly yours, NEW YORK OFFICE W. Fleischhauer Sales Department WF:RW ec-- J. Wallick W. McMahon

Minnesota Mining & Manufacturing Company INTER - OFFICE CORRESPONDENCE Prospertine Cust; SAINT PAUL, MINNESOTA Subject: Memorandum of Conversation with Mr. Jim Schmidt of NewHouse Paper Company. March 15, 1944. Mr. Schmidt indicated that he had a customer for our lintless lens paper for the polishing of optical instruments outside of the Twin City area. The size of the sheet to be about 17" x 22". Mr. Schmidt indicated that they have been selling a light weight paper in lots of 25 to 35 thousand sheets but the paper that they had been selling was not satisfactory because it did create a linting condition on the lens. Mr. Schmidt happened to know our Mr. Quint Noonan and had seen a small sample of our material and since it looked like it would do the particular job that he has in mind he became very much interested in it. I told Mr. Schmidt that at this particular time we did not have a cost figure that meant anything to us, that we would be willing to accept an initial experimental order on the basis of a selling price somewhere around 6 to 7 dollars per 500 sheets of material. Mr. Boese has indicated that this was a 7-1/2 lb. per ream paper based on a 500 sheet ream 24 x 36, and that the actual cost price probably would be somewhere around the 75¢ per pound figure since this was a 70% cellulose acetate and 30% viscose sheet, cellulose acetate selling for 65¢ per pound, and the viscose selling for 24¢ a pound. If we can get a good size run in the house we should be able to better estimate what the costs are going to be and how much we should sell the product for. Bert S. Cross Manager of New Products Div. BSC: kk cc-Mr. R. G. Drew Mr. Al Boese Ed Johnsa. U. S. Bedding, Mester 7221 1.85 - 220

Gres, but; Minnesota Mining & Manufacturing Company Mine INTER-OFFICE CORRESPONDENCE BUFFALO, N. Y. 12/20/43 Subject: ST. PAUL GENERAL SALES Attention: Mr. A. W. Boese, Carfob Lab. Dear Al: I contacted Mr. Ferguson of Spencer Lens this morning in regards to the sample of lens polishing material left their by you some time ago. Mr. Ferguson informed me that they could not use this material as it was too hard and did not hold up as long as the material they are now using. Sorry for the delay on giving you this report but have been out of town for the last month. Yours very truly, MINNESOTA MINING & MFG. CO. W. H. McCadden WM:Z Sales Dept., Buffalo

Properties Cust:

MINNESOTA MINING & MANUFACTURING COMPANY

GENERAL OFFICES
AND
LABORATORIES
SAINT PAUL, MINNESOTA

FACTORIES
SAINT PAUL, MINNESOTA
DETROIT, MICHIGAN
WAUSAU, WISCONSIN
AKRON, OHIO

Abrasive Paper and Cloth Originators of Patented Wetordry Waterproof Sandpaper



Masking Tape and other Patented pressure sensitive
fibre adhesive tapes for industrial uses

CHICAGO
DETROIT
BOSTON
NEW YORK
PHILADELPHIA
ST LOUIS
SAN FRANCISCO
LOS ANGELES
SEATTLE
HIGH POINT
CINCINNATI

IS LOMBARD ST.

PHILADELPHIA, PA.

December 4, 1943
Baltimore, Maryland

Dear Al:

Thanks for your letter of November 10, 1943. Was very interested in the report of the balance of your grip.

HE IN MERCHAN, MILE, BELLEVILLE

Parden my delay in answering - but until yesterday I was unable to make any fellow-ups on our joint calls.

Contacted Washington Institute of Technology. They like our "plastic paper" immensely, but have decided not to substitute it for Crocus cloth new being shipped into the field with their commutators. The reason is that there is an uneven contraction of the diverse plastic and silver elements involved. This means that a certain amount of abrasion must be obtained from the final cleaning material, and, of course, plastic paper has no abrading qualities.

Engineering & Research Corp., Riverdale, Md., have not been able to conceive of any application at their plant.

Felge Engineering Service, Bethesda, Md., have not used the sample material you submitted. Mr. Felge is very enthusiastic about the lint free and scratchless characteristics of our product. He wanted to order a supply at once.

As soon as pollible, I will centact Naval Gun Factory, Wash., and American Instrument Company, Silver Springs, Md., to follow up on samples summitted.

While at National Advisory Committee on Aeronautics, Langley Field, Va., recently, I had several brief discussions concerning plastic paper. The response was enthusiastic. They have been told that "optical tissue" is no longer obtainable and they don't care a little bit about Kleenex - provided to them as a substitute.

The Nerfelk Navy Yard, Pertsmouth, Va., also has an "Optical Department" and is keenly interested in our product.

Aberdeen Proving Ground, Md., is also interested. I left a substantial sample with Mr. G. T. Miller, Purchasing & Accounts

Branch, Purchasing Section. He would appreciate full data.

Same should be addressed to Commanding General, Aberdeen Proving

Ground, Md., Attention: Mr, G. T. Miller, etc.

nden ere "nedlovni sinderilo divella doa e eri in mole marravio si Jain moleculo so Un ado o la jaraban, ranga, er muse (1.

Have held back in spreading the gospel as breadly as I would have liked to have done. This was due to your having cautioned me not to risk expanding our market beyond immediate anticipated productive capacity.

If you can send me the history of the development of this product - and also laboratory data as to characteristics, probable applications, etc., etc., I can undoubtedly unearth additional possibilities. An absorbant non-linting tissue similar to Kleenex is an idea suggested by Martha. For instance, Pond's Cleansing Tissue is less irritant to many heavy nose blowers, because of its greater freedon from lint, than is Kleenex, etc., etc.

There has been no change at all in regard to my interest in handling the sales of this product. Would you suggest that I write Mr. McKnight, Bush, Duke, or some one else in order to register my interest and application for the job? I will hold the entire matter in confidence pending your advice.

Martha and I enjoyed your visit immensely, and hope the next will not be long delayed. We've still got lots of sunshine, no snew, and - so far - it's not been really cold. Come on down and thaw out with us.

Best regards,

Fan.

P.S. Since writing the above, I have contacted Mr. Delvin, Optical Shop, Navy Yard, Washington. He was tied up with Naval officials, so I could only shake hands with him. He turned me over to his assistant, who told me that they had to use a good deal of acetone in their lens work. In their applications, of course, pur plastic paper was not successful. Their other applications, where water or alcohol can be used, are not very heavy from a volume point of view. Their biggest interest in our material is as a wrapping material, provided price is not prohibitive.

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the first water water, early and a sound the first state of the state

. K.E/S.

CONTRACTOR TO SECURE

cc-Philadelphia Movember 23, 1943 War Department Aberdeen Frowing Ground, Maryland hef: Your request for quotation number 3925 Dated Hoverbor 18 Contlower: This will acknowledge receipt of the above request for quotation wherein you request that we quote you on the following: 100 pade of lone Cleaning Paper, 4" X 6" Mastman or equal. Our company has been deing considerable experimental work with Lone Cleaning Paper; however at this time we do not have this perfected to the point where we can submit our quotation. to hope to be in a position to quote on this material in the near future and we would cortainly appreciate it if you would leave our ness on the list of possible sources for this material. Is there a specification covering this Lens Cleaning Paper and if so do you have a copy or could you advise where we could obtain a copy? Tours very truly. MINNESOTA MINIMO & MANUFACTURINO COMPANY A. J. Schnak Chief Clerk a.d. abyh NOTE PHILADELPHIA, SALESMAN, BOESE: If possible I would appreciate it if you could investigate to determine who is to receive this order and at what place.

Proa: Suggertede U Lons Tissue Product cc: Mr. R. G. Drew Mr. W. L. McKnight Mr. B. S. Cross Mr. E. J. Michl September 20, 1943 Mr. John Pearson Mr. R. P. Carlton: Recently I called on several opticians, photo supply houses, and industrial users of tissues for cleaning lenses and small machine parts, in the Twin Cities. In classifying these firms, I have divided them into jobbers and those who utilize the tissue in their business. The jobbing trade is, I think, a postwar development, while the direct users are mainly in highly essential manufacturing. The optical shops, as a whole, were not overly enthusiastic about using tissues. Some used a special type of non-linting cloth. while others used a handkerchief. Several used tissues of the Kleenex type and claimed they did not have any great difficulty with linting. With the right sales campaign, this trade could probably be sold a non-linting tissue which could be used wet. Of the photo supply houses, Mr. Fisher, of Fisher Photographic Supplies, St. Paul, was very interested. He stated that the ideal lens tissue should be non-linting, have no harsh or abrasive material present, and have the ability to hold together when used wet, and should not fill the pores of the glass or leave any surface film. We know our paper has all of these qualities with the possible exception of the last, and tests now being run will tell whether the plasticizer used in the fibers will leave a film on the lens surface. Mr. Fisher suggested that the Willoughby Supply Company, New York and Hornstein, Chicago, could give us the economic and volume information insofar as the photo field is concerned, as they are the largest photo supply houses in the United States. Also, if we wanted our material tested, that the Carl Zeiss Company, New York and C. P. Goerz Lens Company, New York, would be in a position to thoroughly evaluate our paper for lens work. He thought that our product should fit in nicely with the postwar development of synthetic resin lenses, which are much softer than glass and as a result, more care has to be taken in cleaning and packing. Several manufacturing opticians in Minneapolis indicated interest in our materials of a non-linting and water-resistant quality. They wash the lenses after grinding and use towel material for drying but this leaves a certain amount of lint. -1-

Mr. R. P. Carlton -2-September 20, 1943 Of the large industrial users, there are two in the Twin Cities: Minneapolis Honeywell, Minneapolis, and Buckbee-Mears, St. Paul. Both of these firms are in direct war work. Buckbee-Mears' project consists of putting the crossed hairs on the sighting lens of bomb sights. They use Birdseye diaper material or Celanese cloth for cleaning the lenses. According to Mr. Long, who is in charge of their production, they have not tried any tissues. The lenses are packed in small paper envelopes which have a cotton lining. He stated that they did not have much trouble with lint, but would be glad to test our material if we could assure them that it would not scratch. Minneapolis Honeywell are by far the largest lens people in the Twin Cities Area. I talked to Mr. Paul Clarke, an engineer, and Mr. Starkey, methods engineer. Both of these men stated that lint was one of their major problems. They have tried many different tissues and cloth and ended up with Birdseye disper material, of which they use 7,500, 10" x 10", pieces per day. They were very interested in the samples I showed them and started tests immediately which will take about two weeks to complete. Mr. Starkey thought they would have other uses for it such as small envelopes for storing and wrapping lenses. He said that it is becoming very difficult to get the wiping cloths they use, and if our material worked satisfactorily, they would be in a position to give us an AA-1 priority rating. In discussing volume, they estimated that it would be in excess of 1,000 yards per day. It looks as though we should be able to find a very good war market for our tissue as other lens companies, such as Bausch & Lomb, would have the same problems of finding non-linting material for wrapping and cleaning, and it is my opinion that we should start the ball rolling to obtain a 60" wide calender to process this material. Mr. Pearson is writing a field report on the outcome of our contacts with various makers of calenders. An interesting sidelight on the Honeywell call was Mr. Starkey's information that several weeks ago a Mr. Clure, from Kendall Mills, called and showed them a cotton-acetate sheet for lens tissue. This tissue was unsatisfactory for the job because of the harshness of the cotton and the chances that small abrasive particles might be held in the cotton webs. This is the first direct contact which we have had with the Kendall material, and it is interesting to note that Kendall Mills and 3-M are visualizing the same markets for a synthetic paper. According to their patents, they are on a lower scale of binding fibre concentration than the 3-M product with the exception of their tea bag material, which is very similar to our tissue in structure. If there is any negotiation for license agreements on tape with Bauer & Black, it would perhaps be worth while to have our interests in the synthetic paper field clearly in mind as the uses of this product are closely allied with new types of tape, such as Electrical or Packaging, as well as the direct uses in other fields. Yours very truly, A. W. Boese AWB/s Products Fabrication Laboratory

Minnesota Mining & Manufacturing Company INTER - OFFICE CORRESPONDENCE SAINT PAUL, MINNESOTA October 15. 1943 Subject: Via Airmail Mr. A. W. Boese Algonquin Hotel New York, N. Y. Dear Al: This is to confirm shipment to you of two lots of lens tissue. The first lot of 23 rolls (10 yards / roll) is the 75-25, 3denier acetate - 1.25 denier viscose paper. The second lot of 5 rolls (5 yards / roll) is a 75-25 mixture of 3-denier acetate and 1.5 denier acetate. No rolls of straight 3-denier acetate were made. Mr. Anderson of Benson Optical and I had quite a chat. He stated that the paper you gave him was much better than any papers formerly used. He also said that for polishing plastics it was excellent and that price would not be too important. On the other hand, price would be important for glass cleaning, but he liked the fact that the paper could be used with their waterbase lens cleaning solution without disintegrating as other papers do. He suggested two forms for dispensing - a pocket size book for general use, and a napkin box dispenser for home use. He requested a few more yards to show to one of his biggest customers. He didn't seem impressed by the 60-40 acetate - cotton combination because it was stiff and harsh, whereas the other paper was very limber and soft. If you need more samples of any type just send word along and we'll get them to you as soon as possible. Incidentally, in making the first lot of paper we ran continuously for one hour and ten minutes, and stopped only because a fuse blew. Sincerely, EJM/s

Prospective Cura Fisher Photo 11 A.5 Talked to Mr. Juster tissue, Mr. Friher had very from againing what these shouldbe. The tissue should be first of all free from abrasive materials. There should not being any coating or residue on the piles which will tend to leave a film on the glassor fell my the minute poresof the line. The tissue should not give offlint.

I told him that the qualities we feel our tissue has over a proper juice was lint free and the ability to be used wet. He immediately said that this quality would be very neefer as the lense could be wanted free of dust and wyred clean, Mr. I ishe had no idea of what the value would be but suggested we contact the two largest ghote gabbers in the country Wildonghay- New york City Hornsteins - Chicago If we want to text the material for quality he suggested the following firms. Carl Zeis-New york East man Kodak Co Grenz - new york

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UU-P-313a

JULY 30, 1943

SUPERSEDING Fed. Spec. UU-P-313 August 22, 1938

FEDERAL STANDARD STOCK CATALOG

Section IV

(Part 5)

FEDERAL SPECIFICATION

FOR

PAPER; LENS, TISSUE*

This specification was approved on the above date by the Director of Procurement, for the use of all departments and establishments of the Government, and shall become effective not later than November 1, 1943. It may be put into effect, however, at any earlier date after pomulgation.

A. APPLICABLE SPECIFICATION.

A-1. The following Federal Specification, of the issue in effect on date of invitation for bids, shall form a part of this specification: UU-P-31—Paper; General Specifications.

B. TYPE AND GRADE.

B-1. Only one type and grade of lens paper is specified herein.

C. MATERIAL AND WORKMANSHIP.

C-1. Material.—Paper, lens, tissue, shall be suitable, both wet and dry, for cleaning lenses and other parts of optical instruments, and also for other cleaning purposes requiring high-grade tissues.

D. GENERAL REQUIREMENTS.

D-1. Shall be of a high degree of softness, and free from abrasiveness, lint or dusting. It shall have clean-cut edges. It shall be creded in one direction.

D-2. Bid sample.—A sample consisting of not less than 20 sheets, 20 x 30 inches, shall be submitted with bid for inspection to determine compliance with paragraph D-1.

549256-43

^{*}Certain provisions of this specification are intended to conserve critical or strategic materials. When the present emergency is over, this specification will be considered for revision.

FEDERAL STANDARD STOCK CATALOG

E.	DETAIL REQUIREMENTS.	
E-	1. Stock.—100 percent bleached chemical wood fibers.	
E-	2. Ash.—Not more thanpercent_	0. 5
E_	3. Acidity.—pH value not less than	5. 0
E_	4. Weight (creped).—24 x 36, 500pounds	16.0
E-	5. Tensile strength.—Not less than, grams per 15 mm width:	
	Machine direction, dry	15
	Machine direction, wet 1	45
	Cross direction, dry 2	
E-	6. Stretch, creped direction.—Not less thanpercent	20
E-	-7. Absorption.—Not more thanseconds_	5
E-	-8. Size.—20 x 30 inches, 7½ x 11 inches, or 3 x 5 inches	
	unless otherwise specified.	

F. METHODS OF SAMPLING, INSPECTION AND TESTS.

F-1. All tests not herein specified shall be made in accordance with the latest issue of the standard methods of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York, New

F-2. Paper from not less than five packages shall be tested, and the average of the test results compared with the requirements of Section E.

F-3. Acidity.-The pH value shall be obtained by hot extraction procedure of the T. A. P. P. I. Method T 435m, Hydrogen Ion Concentration of Paper Extracts.

F-4. Wet tensile strength.—Shall be determined according to the T. A. P. P. I. Method T 456m, except that the Finch attachment mentioned under "Additional Information" of the method shall be used.

F-5. Absorption.—The absorptiveness shall be determined as folfollows: Make a pack consisting of six strips cut 6 inches by 1 inch. Place the long direction of the pack around a cylinder approximately 2 inches in diameter. Apply tension to the pack by suspending a weight of 10 grams to each of the two ends of the top strip of paper. Fill a pipette with water at a teperature of 21° C. Hold the pipette at an angle of about 30° with the horizontal, with the tip nearly in contact with the paper, and allow .05 ml of water to flow on the pack equidistant from the sides. While the water is flowing, keep the tip of the pipette in the drop of water until delivery of the water is completed. Measure the rate of absorption in seconds from the start of flow of water until the drop of water is completely absorbed, as indicated by nor further reflection of light from it when viewed at an angle. At least ten tests shall be made on not less than three different packs.

G. PACKAGING, PACKING, AND MARKING FOR SHIPMENT.

G-1. Packaging.-The paper shall be wrapped in one-ream packages with heavy chipboard on both sides, of the same size as the paper, and securely banded with paper tape.

G-2. Packing.—Unless otherwise specified, the subject commodity shall be packed in substantial commercial containers of the type, size

FEDERAL STANDARD STOCK CATALOG (Section IV, part 5)

and kind commonly used for the purpose, so constructed as to insure acceptance and safe delivery by common or other carriers, at the lowest rate, to point of delivery called for in the contract or purchase order.

G-3. Marking.-

G-3a. Packages.—Ream packages shall be marked with the name

of the material, size, quantity, and the contractor's name.

G-3b. Shipping containers.—Shall be marked with the name of the material, size, and the quantity contained therein as defined by the contract or order under which shipment is made, the name of the contractor, and the number of the contract or order.

H. REQUIREMENTS APPLICABLE TO INDIVIDUAL DEPARTMENTS.

H-1. The following departmental specifications in effect on date of invitation for bids shall form a part of this specification:

H-2. Army.—U. S. Army Specification No. 100-2, Standard Specification for Marking Shipments, copies of which may be obtained without cost upon application to the Quartermaster Corps. War Department, Washington, D. C.

H-3. Navy.—Navy Department General Specifications for Inspection of Material, copies of which may be obtained without cost upon application to the Bureau of Supplies and Accounts, Navy Department, Washington, D. C.

H-4. Marine Corps.—Instructions issued by the Quartermaster's Department, U. S. Marine Corps, 1100 South Broad Street, Philadelphia. Pennsylvania.

I. NOTES.

I-1. Purchasers should exercise any desired options offered herein

and should specify the size required.

I-2. Federal Specifications do not include all types, classes, grades, sizes, etc., of the commodities indicated by the titles of the specifications, or which are commercially available, but are intended to cover the types, etc., which are suitable for Federal Government require-

I-3. An index of Federal specifications may be purchased as noted in paragraph below, price to be obtained from the Superintendent of

Documents.

I-4. Copies of this specification and of UU-P-31, may be obtained upon application, accompanied by money order, coupon, or cash to the Superintendent of Documents, Government Printing Office, Washington, D. C. Price 5 cents each.

Notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture use or sell any patented conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

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For sale by the Superintendent of Documents, U. S. Government Printing Office Washington, D. C. - Price 5 cents

UU-P-313a

JULY 30, 1943

SUPERSEDING
Fed. Spec. UV-P-313
August 22, 1938

FEDERAL STANDARD STOCK CATALOG

Section IV

(Part 5)

FEDERAL SPECIFICATION

FOR

PAPER: LENS. TISSUE*

This specification was approved on the above date by the Director of Procurement, for the use of all departments and establishments of the Government, and shall become effective not later than November 1, 1943. It may be put into effect, however, at any earlier date after pomulgation.

A. APPLICABLE SPECIFICATION.

A-1. The following Federal Specification, of the issue in effect on date of invitation for bids, shall form a part of this specification: UU-P-31—Paper; General Specifications.

B. TYPE AND GRADE.

B-1. Only one type and grade of lens paper is specified herein.

C. MATERIAL AND WORKMANSHIP.

C-1. Material.—Paper, lens, tissue, shall be suitable, both wet and dry, for cleaning lenses and other parts of optical instruments, and also for other cleaning purposes requiring high-grade tissues.

D. GENERAL REQUIREMENTS.

D-1. Shall be of a high degree of softness, and free from abrasiveness, lint or dusting. It shall have clean-cut edges. It shall be creped in one direction.

 \tilde{D} -2. Bid sample.—A sample consisting of not less than 20 sheets, 20 x 30 inches, shall be submitted with bid for inspection to determine compliance with paragraph D-1.

549256-43

^{*}Certain provisions of this specification are intended to conserve critical or strategic materials. When the present emergency is over, this specification will be considered for revision.

UU-P-313a-3

(July 1943)

E DETAIL REQUIREMENTS.

	Stock.—100 percent bleached chemical wood fibers.	
E-2.	Ash.—Not more thanpercent_	0.5
E-3.	Acidity.—pH value not less than	. 5.0
	Weight (creped).—24 x 36, 500pounds	16.0
E-5.	Tensile strength.—Not less than, grams per 15 mm width:	
	machine direction, dry	415
	Machine direction, wet	
	Cross direction, dry	285
E-6.	Stretch, creped direction.—Not less thanpercent	20
E-7.	Absorption.—Not more thanseconds_	5
E-8.	Size.—20 x 30 inches, $7\frac{1}{2}$ x 11 inches, or 3 x 5 inches	
	unless otherwise specified.	

F. METHODS OF SAMPLING, INSPECTION AND TESTS.

F-1. All tests not herein specified shall be made in accordance with the latest issue of the standard methods of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York, New York.

F-2. Paper from not less than five packages shall be tested, and the average of the test results compared with the requirements of

Section E.

F-3. Acidity.—The pH value shall be obtained by hot extraction procedure of the T. A. P. P. I. Method T 435m, Hydrogen Ion Concentration of Paper Extracts.

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Notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

U. S. GOVERNMENT PRINTING OFFICE: 1943

For sale by the Superintendent of Documents, U. S. Government Printing Office Washington, D. C. - Price 5 cents

Prospective Cost: Jeffries agetical Co. - Munneapole's mins Talked to a lady who cleaned the lense The grind glasses for Options and water and dried with a towel . Home trouble was experienced with lint and they would be dis integrate on being wet.

as no tissue is used at present the amount they would require couldnot be determined

Prospectione Cust. Municipalis Honogwell Dries. II A.S Jalked to Mr. Paul Clark and mr. Starkey Mithools Engineer who is in charge of the optical so ent. I showed a small sangell of our payer and they displayed ummediate interest. mr. starkey stated that to date they have not solved the list problem and have settled an Birls Eye drager material, 7500, 10"x10" gereals are und in a day. I here are not dis caroles but laundered and moed over. The cloths are only used once to eliminate any charact of and material and will give us a report in two weeks the states factory they will be very interested in our stassing gtassui. not cluve of Kerderl mills had been there some time ago with a acctate cotton sheet to test, I he sheet was to rough and lift a residere on the line. I his is the first actual commercial contact we have made with the Kendal material. I has seems to indicate aggressions andheir part in commercialnying Their palents and is in my agenion very mige or tank

August 13, 1943 Lens Tissue Wright Field ST. PAUL GENERAL SALES: Attn: D.W. Maher Dear Denny: In accordance with yours of the 4th, I made some inquiries at Materials Laboratory and the Photographic Unit at Wright Field on Lone Tissue. It is an item that they are quite fusey about, and they seem to consider a type of soft linen cloth the best for their purpose. However, they have found the special tissue to be satisfactory and due to the lack of availability of cloth they are interested in the tissue. Could find no one to give me any figures on the dollar volume, nor of the unit cost of the tissue, and it was suggested that we sight get quicker and more definite information by going to such people as Bausch-Lomb, or possibly Bastman Kodak. They believe here that any of the photo supply houses carry these items in stock. If you have any available, samples, send me a few and I will see if I can get any further reaction from others in the Photographic Lab, than those whom I have already talked to. Yours very truly. CINCIHNATI OFFICE R.R. Eiller Sales Dept. RRH/cd ce: Mesars, R.G. Drew B.W. Lueck 製。 Hurd レ Chicago

Lans Tissue Lens Prince: August 4, 1943. priggisted treen Mr. R.R. Miller Dear Bob: Werren Hurd, who is one of our leading laboratory men engaged in work on "SCOTCH" Tapes, has asked me to write to you in regard to lens tissue as is used by the Army Air Forces, in connection with their serial photography work and in the polishing and handling of their optical equipment. Mr. Hurd has been interested for some time in the development of an inexpensive, readily available lens tissue, and the indications are we have a satisfactory product. Could you advise us whether we might expect a favorable reception should we introduce this new product; can you give us some idea of the price the Air Forces are in the habit of paying for lens tissue, and are they having any trouble in promptly securing quantities sufficient for their needs? If you find any other pertinent information concerning this product it will certainly be of great help to us. We will be greatly obliged to you for your usual prompt cooperation. Yours very truly, D.W. Maher General Sales Department, St. Paul "SCOTCH" Paper TAPES Division DWM: AD cc - Messrs. R.G. Drew B.W. Lucck W. Hurd

Lens Tresure: Market Survey

	1 races personal
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7 Pri Ti 6-8-25-3-67-78-79	20
3. Printing 6 -8 -27 -33 -67 -9 -13 (22) -3 -64-65 4. Liked Clamy 1-2-3-6-50 -9-13 (22) -23-30-	-20 1 86.91- 93-94-99
9. Leked dearny 1-6-3-6-11.	
5 notliked 4'-15	24
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8 Instrument cleaning - 14-49	7
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TIAS Fens tussue 11/16/43 out line time is the only one which can be used with out they be windered

· I dankthees Linky

2 Ross

3 Acetate

4 Eastman

5 Troy a

Lens precue 11-16-43 I his test is to show the velative ments of various less trans paper now on the market. method: Worker mach squares were marked offer a large plack glass gelate with cellulose tape. a drop of Jens Cleaning solution (Typ- Tops bought from John Keller Ogetenretriet) this solution is manufactured by Gladden Chemical Co. At. Paul Minn. His a gerfuned liqued and is probably water with a rlight amount of alestol added. One drop of the solution was put in each equare with an age drogegest, Each square was a disher with a lens treame in vertical and horizontal strokes until the liquor film Tollowing and the secults. 1. Faultheas Lens Paper - Junes At, Paul a very rope day proved rope wheel.

I pris gazer left a fair anount of list degenant.

Jong fibers were detached from the abert and degenanted
on the plate. also a small amount of plaky particles
were deposited. good job with this trype of eleaner

disagreen .

2. Ross I usine: I his tersue did not leave any petrous but although some flake was a year and. The strength of the the sheet was lost when wet but it did not dis intigrate Offelow back of this treame is its denerty. If any above material was present it would well it accors the surprise rather than go esking it mys in the enterstices of the web.

3 Our time no 8-lot 8 75% 3 den, 1/4 stagele plant acitate - 25% 1. 25 de Var It held its strength well when wet. This sheet picks up the solvent slower than did the pages. 4 Eastman gaper. - Packed in a small broklet weld in their retail stores Very poor from linting stand point The govert of all the tisines 5 1 Trøya Dissul Left some lint. Tibers and flake. as discribed Ross France autate Pages Troya hisne Jankless Eastman

Jens Insiene 11-17-43

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soft-yord working quality

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3 Does not lint

1 oft. - slightly harsher than no!!

4.

5. Does mot lint Very Harsh Comparable It to mo 2 all papers truste better absorbent -2. Ameno when wed with polvents other Than water 3,

Jens tissues - Acratating 11-17-43

Of friete lens reading glass made in
England was palished with our paper, Boas tissue
Jank less tissue left large very depuid

Ho to satches.

Our paper CF8 lot 8 did not scratate

Jank these tissue ded not scratate but left
a dy osit of list.

Tonga tissue scratated

... Removing oil from Senor glass surface There was no film visible film left on the surface no link was light. The Ross tresure left the vil no peretration of the payer by the ail taking place. remove the bil but leave a residue of lint.

absorption test

dropped on a three inch aguare of black plate glass. The elapsed time taken to completly absorb this drop of cleaner by subbing with a lens tiere.

Forstierne 10 records

Baultless 6 records

CF5 10 records

CF5 10 records

From an absorbent angle Jault less tissue is the best However the amount of thint left by this abset makes it undisitable for the cleaning use. Ross tissue was better than the actute gayer but only slightly. Its havehness makes undesirable for lens wying.

of the solvent

alower but does not lind.

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and mineapalis. Options in At. Paul glasses wing materials as , light cotton clother, cleaner or a klean transvercheig. Some wex the glass to clean atters does not. might interest these grapes in it.

Buchbre Meers Talked to a mr. fong. They do some type of level work for the army and navy exactly what I could not find ant. Birdseye cloth and also a lint lies cloth put ant by Celanise Corporation Mr. Jong stated that with the materials used they did not have a serious lint problem He thoughtour goger seemed a little harsh and would not conform to the surface as cloth would. that it will not scratch the level. Their lune are parked in a kmall project envelope fined with a thin love but a gentlon an eighty gave microscope is used to exami for but and scratches Mr Long did statedefinitly that lint could not be talerate on the sense.

illans but 6-16-43 IIAS (1. 50% relain viseval a Easier to handle 2. 60 - 40 but for but 3. Janetless small prices of list 4. 1.5 dances

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Scall of Hardness I Tale V rock salt 4/2 To 6/2 glass

18 Diamond

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1 Ross Does not lint subsclean
2 Eastman Dismitegrates into separate fators
4 CF9-1 Didnot lint

TIAS

DEPARTMENT OF COMMERCE Washington

Jens Tusue

November 9, 1943

A revised Federal specification for lens tissue, used in cleaning lenses and other parts of optical instruments, covers a new type of tissue that costs less and goes further, the Department of Commerce announces. It was developed by an American manufacturer in cooperation with the Navy Department and the National Bureau of Standards.

Japanese tissue, on which the original specification was based, is no longer available. The armed forces needed a substitute. The requirements for this paper are severe. It must be very soft, free from abrasive particles, lint and dusting, and very absorptive.

Laboratory tests demonstrated that the American product is fully equal to the Japanese in all these respects. In addition, it has a high degree of wet strength imparted by treatment with a synthetic resin, plus superior dry stretch imparted by creping.

Use by the Navy Department has proved the suitability of the American-made paper for the intended uses.

The American substitute costs \$300 per ton, compared with \$1700 for the Japanese product and much less of it is required for a given cleaning operation.

The Japanese likewise have lost out on stencil tissue. Formerly all high grade stencil tissue was made by hand in Japan. A few years before the war an American manufacturer, using cordage length manilla hemp, developed a machine-made tissue that is equal in all respects to the Japanese product.

When war developments interfered with the supply of cordage length hemp for this use the manufacturer substituted other fibers. That the

That the substitute proved satisfactory is evidenced by the severe requirements of the Federal specification, which are based on tests of stencil tissue made from these fibers. For example, in duplicating quality stencils made from this paper must be capable of producing not less than 5000 legible copies.

December 14,1943.

lw

Directive from Ovankful arrenal aldine Pager Co, Capt. aa Sundfor 373 yeth new york ener with Solax · Victory land Answel Disnoer Dire Clay Go. salt Jake City fews Paper 495 8 Denver new york 1/2 Mantauk a & Macdam Co. In. Brooklyn gestial start

11-4-43 1195 Jens Clianny Visser met free commot hold abracine Cleaning + Cheneral Brogertis mechanica qualities about that Cherry solvents. Tensel) strong enough to handle Tear I'm Maningaperation recitive to alrohal density- Open enough to allow Zyline surfice reardie on film to become Water imeched in interestices but dence enough sot to allow all from a plant force popul is reached to above polvents hands to contact lense am placeting is is I edge cut from lens? present it tends to go uto solu. and least a sustan amplion Tedefine resistence to alling an less edige fiber sage What weight paper is best Jos wiging synthitic less. Viscose files polish better denity plant Butyl Carfietal for plant.

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Sub: Lenses C. H. 33: P 9010"

Cleaning aptical treated clothe

Title: Treated cloth suitable

for cleaning aptical lenses.

altilio Panissidi

Ref: U.S. 2,166,570 July 11, 1939 (01937)

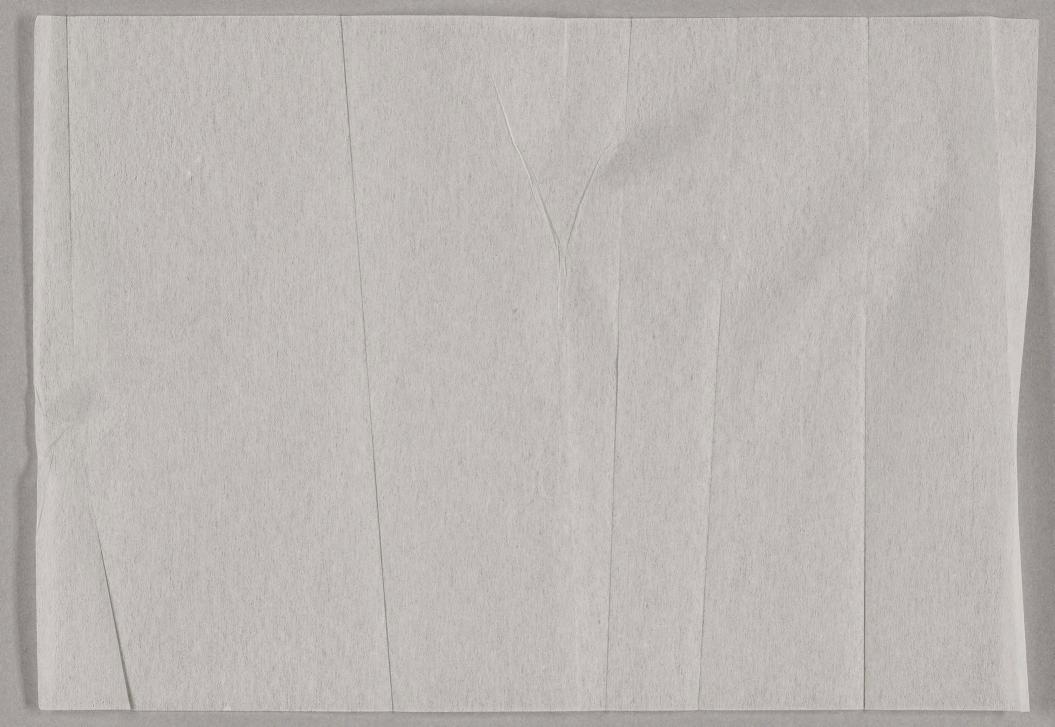
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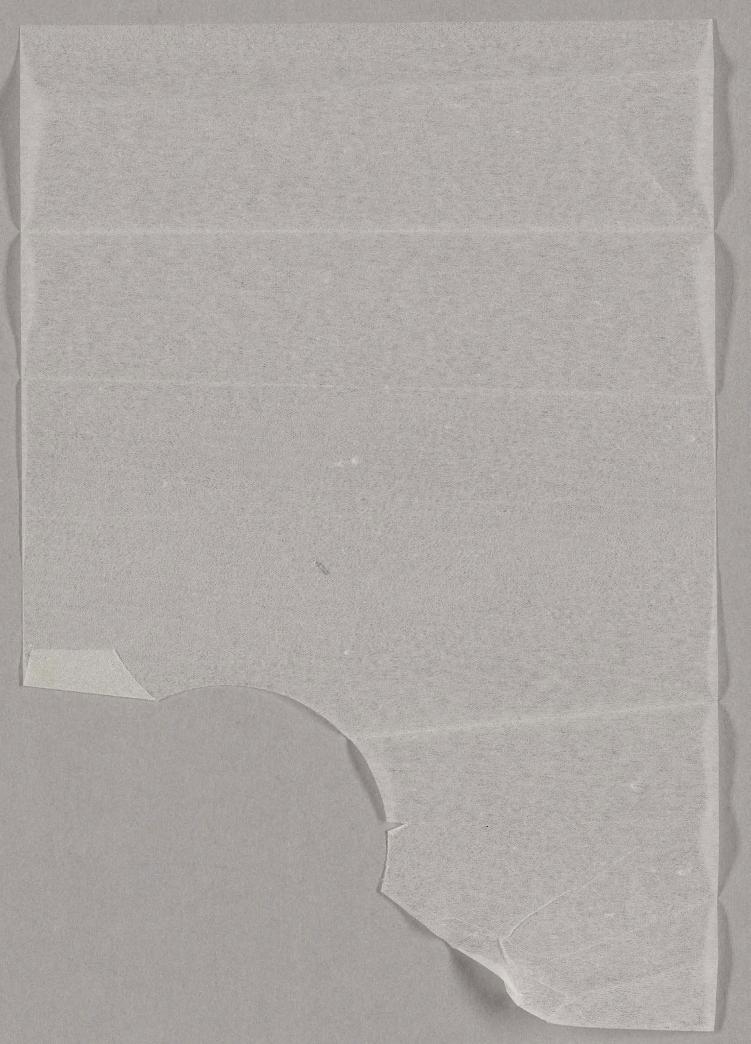
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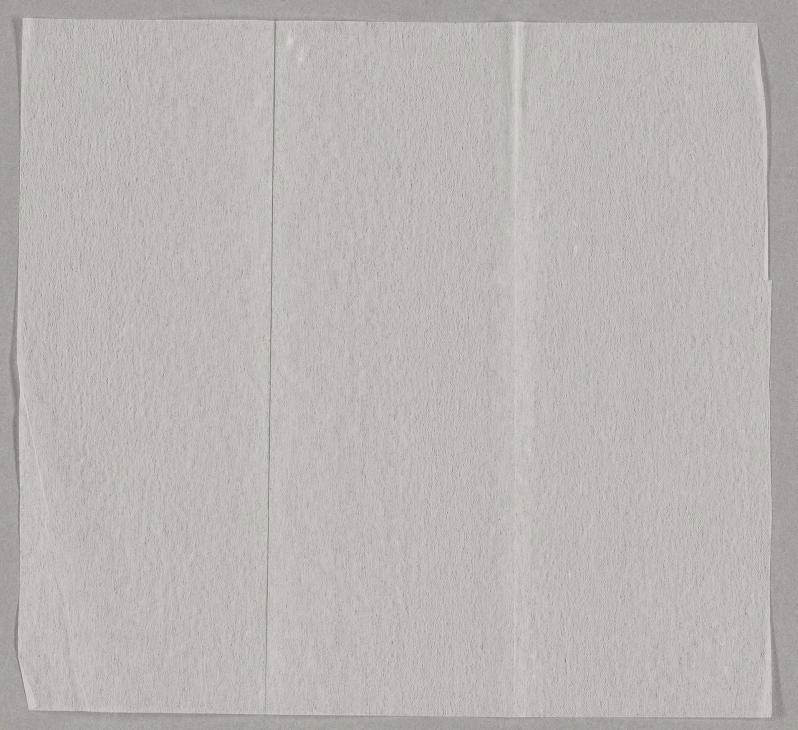
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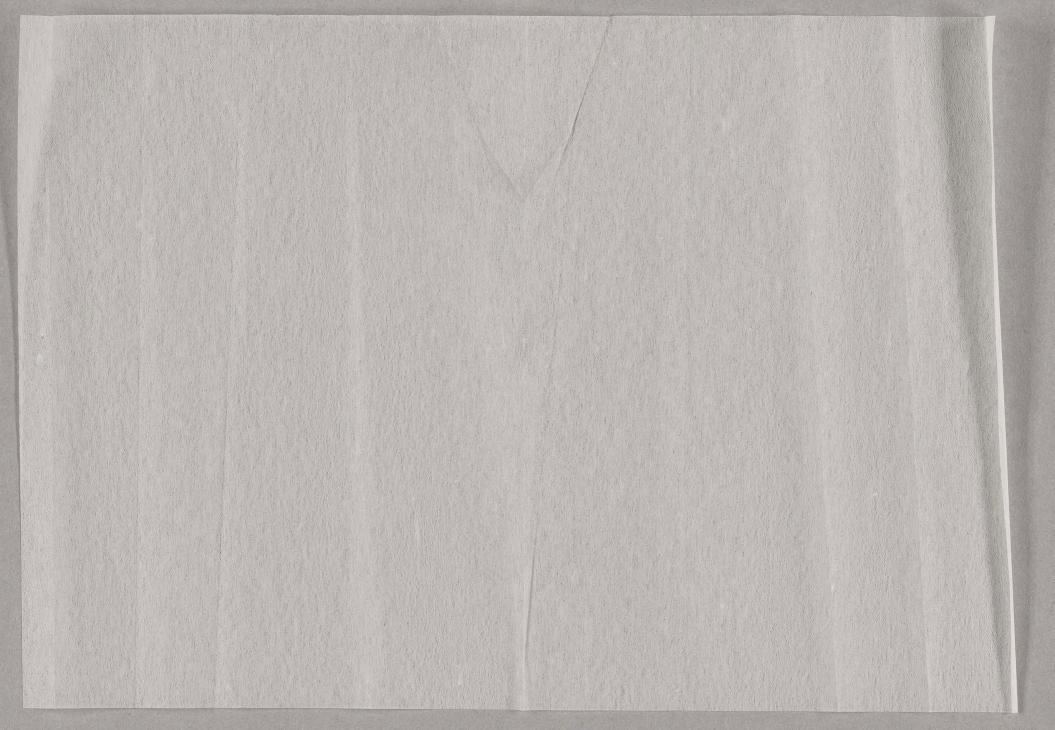
H. REEVE ANGEL & Co.

7 TO II SPRUCE STREET NEW YORK, N.Y.









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A. E. MACADAM & CO., INC.



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Garden City 3028



