EA109740253 BC

PLAINTIFF'S EXHIBIT JM-2042

Mvl. Pkg. Frict. Matls. Plt.
January 3, 1968

Ind. Eng File. / D Smurl.

CONFIDENTIAL

MEMORANDUM:

DUST CONTROL - TEXTILES
FEEDING LAP AT CARDS
ASSIGNMENT B.14, C.1 & C.2

An initial experiment of feeding organic lap with a top layer of upgraded J.M. 3T fiber into a single 48 inch card has successfully produced 8-cut roving.

The concept of feeding all cards with lap and upgraded fiber instead of a blend appears practical and warrants consideration of further experimental work to determine potential problems. (Estimated T.P. cost to continue experimentation - $5,000 - $7,000).

If this project is undertaken and carried to a successful conclusion, whereby the feeding of cards is converted to the use of organic lap and upgraded fiber, the Plant would realize a significant reduction in operations that produce dust and the number of operators required to come in contact with asbestos.

The attachment outlines a two phase approach to a potential installation of feeding lap and upgraded fiber to the cards which would significantly reduce the dust and asbestos contact hazard.

In addition, the attachment includes the procedure used to make the initial tests and a summary of Remarks on using laps.

Further experimentation will be held in abeyence pending the results of other less costly methods of handling the blended stock from the blending operation to carding.

D.H. Smurl.
D. H. SMURL
IND. ENGRG. DEPT.
MANVILLE PLANT
PKG. & FRICT. MATLS.

DHS:bh
Attach.

CC: E. E. Wells
C. L. Stake
C. J. DeMiase
R. W. Lane
E. M. Fenner
C. L. Schoeckler
B. S. Margulies
F. Kopyta
J. Goldfield
J. J. McCarthy
J. A. Ancellotti
F. Brandt-DFE
W. Harmonter-DFE

ATTACHMENT

January 8, 1968

DUST CONTROL - TEXTILES
PENDING LAP AT CARDS

OBJECTIVE: To suppress dust and reduce the number of employees required to handle asbestos during the preparation of in-process stock used for carding.

AREA: Immediately after asbestos fiber is upgraded to and including the feeding of stock into the cards.

METHOD: There are two (2) methods of accomplishing the objective as both can be used as a first and second phase.

PHASE I - Manual Filling of Card Feeders

PHASE II - Mechanical Filling of Card Feeders

PHASE I - MANUAL FILLING OF CARD FEEDERS

A. Summary of Operation

1. Mechanical filling of plastic bags with upgraded fiber. The asbestos fiber would be obtained immediately after upgrading.

2. The closed bagged asbestos fiber would be hauled into the present bag trucks.

3. The truck and bagged fiber would be transported to the individual cards.

4. The upgraded fiber would be dumped out of the plastic bags into the card feeder hoses.

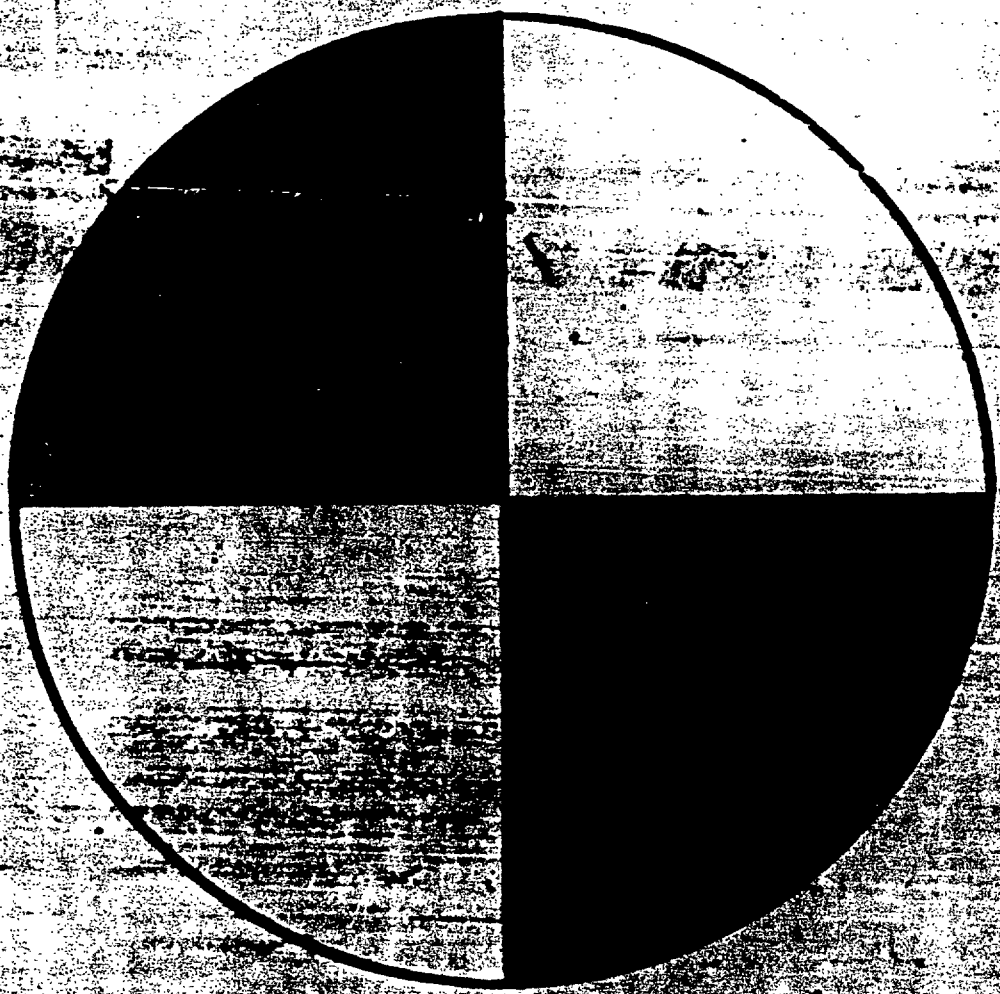
5. The empty bag would be transported to the individual cards.

6. The bag would be fed onto the carding input conveyor.

7. The upgraded fiber would be metered at a constant rate onto the bag.

8. The bag with a top layer of upgraded fiber then would be fed into the card.

RETAKE TARGET



ATTACHMENT

January 8, 1968

DUST CONTROL - TEXTILES
FEEDING LAP AT CARDS

OBJECTIVE: To supress dust and reduce the number of employees required to handle asbestos during the preparation of in-process stock used for carding.

AREA: Immediately after asbestos fiber is upgraded to and including the feeding of stock into the cards.

METHOD: There are two (2) methods of accomplishing the objective or both can be used as a first and second phase.

PHASE I - Manual Filling of Card Feeders

PHASE II - Mechanical Filling of Card Feeders

PHASE I - MANUAL FILLING OF CARD FEEDERS

A. Summary of Operation

1. Mechanical filling of plastic bags with upgraded fiber. The asbestos fiber would be obtained immediately after upgrading.

2. The closed bagged asbestos fiber would be loaded into the present box trucks.

3. The truck and bagged fiber would be transported to the individual cards.

4. The upgraded fiber would be dumped out of the plastic bags into the card feeder hoods.

5. The upgraded lap would be transported to the individual cards.

6. The lap would be fed onto the carding input conveyer.

7. The upgraded fiber would be metered at a constant rate onto the lap.

8. The lap with a top layer of upgraded fiber then would be fed into the card.

PHASE I - MANUAL FILLING OF CARD FEEDERS (cont'd)

3. Accomplished by this method of operation

1. The dust and housekeeping problems would be significantly reduced.

a. The present lofty blend of organic carrier and upgraded fiber would not be transported in open box trucks.

b. The present fiber blend take-off operation would be eliminated.

c. Less asbestos dust would be generated since the fibers would be bagged and the bags loaded and transported in trucks.

2. Physical contact with asbestos would be reduced due to:

a. Elimination of one (1) fiber blend take-off operator who, at present, packs down the blend with his hands.

b. Use of plastic bags to store and transport upgraded fiber would reduce physical contact by three (3) stockers who, at present, pick up and handle of blend to fill the card fiber feeder boxes.

c. The use of bag filling equipment coupled to the operators would prevent physical contact with asbestos.

3. Potential cost reduction due to:

a. Elimination of one (1) fiber blend take-off operator. Savings estimated at $20,000/yr.

b. Undetermined savings due to possible rarely and reallocation of work and number of cards assigned to the card tenders, fixers and grinders as a result of a major method change.

PHASE I - MANUAL FILLING OF CARD FEEDERS (cont'd)

C. Critical Details

1. The existing equipment used to make the organic lap might not be capable of supplying satisfactory and consistent weight lap.

2. The existing card feeder boxes may not be adaptable to supply constant and even amounts of fiber onto the lap.

3. Scheduling and supplying various weight laps may be a problem.

4. The results of using double cards, at present are unknown. However, no problems are anticipated.

D. Anticipated Trouble Areas

1. Employee resistance to change.

2. Engineering and metrical methods may not have practical solutions.

3. Potential high cost if a new type of card feeder box is necessary.

PHASE II - MECHANICAL FILLING OF CARD FEEDERS

A. Summary of Operation

1. Mechanical conveying of upgraded asbestos fiber to each card feeder box.

2. Organic lap would be transported to individual cards.

3. The lap would be fed onto the carding input conveyor.

4. The upgraded fiber would be metered at a constant rate onto the lap.

5. The lap with a top layer of upgraded fiber would be fed into the card.

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PHASE II - MECHANICAL FILLING OF CARD FEEDERS (cont'd)

B. Accomplished by this method of operation

1. The dust and housekeeping problems would be significantly improved because

   a. The present lofty blend of organic carrier and upgraded fiber would not be transported in open box trucks.

   b. The present fiber blend take-off operation would be eliminated.

   c. Significantly less asbestos dust would be generated since the upgraded fiber would be transported on conveyors which can be equipped with adequate dust control.

2. Physical contact with asbestos would be reduced due to:

   a. Elimination of one (1) fiber blend take-off operator as described under Phase I.

   b. Elimination of three (3) stockers, not required, since the fiber would be mechanically conveyed to the card.

3. Potential cost reduction due to:

   a. As described under Phase I - the elimination of one (1) fiber blend take-off operator.
   Savings estimated at - $10,450/yr.

   b. In addition, the elimination of an estimated three (3) stockers.
   Savings estimated at - $19,100

   TOTAL SAVINGS a & b above - $29,550

   c. As described under Phase I - undetermined savings due to possible restudy and re-allocation of work and number of cards assigned to the card tenders, fixers and grinders as a result of a major method change.

The attached photograph shows the hand preparation of the lap and fiber



ATTACHMENT -7- January 8, 1958

The attached photograph shows the rolled up rayon lap and uncrimped fiber and [illegible] fiber used as a separator. The lap and fiber are on the input feed apron of a single card. The material was successfully fed into the breast section of the card and successfully produced 8-cut roving.

Feed table speed - 1.5 minutes/foot.



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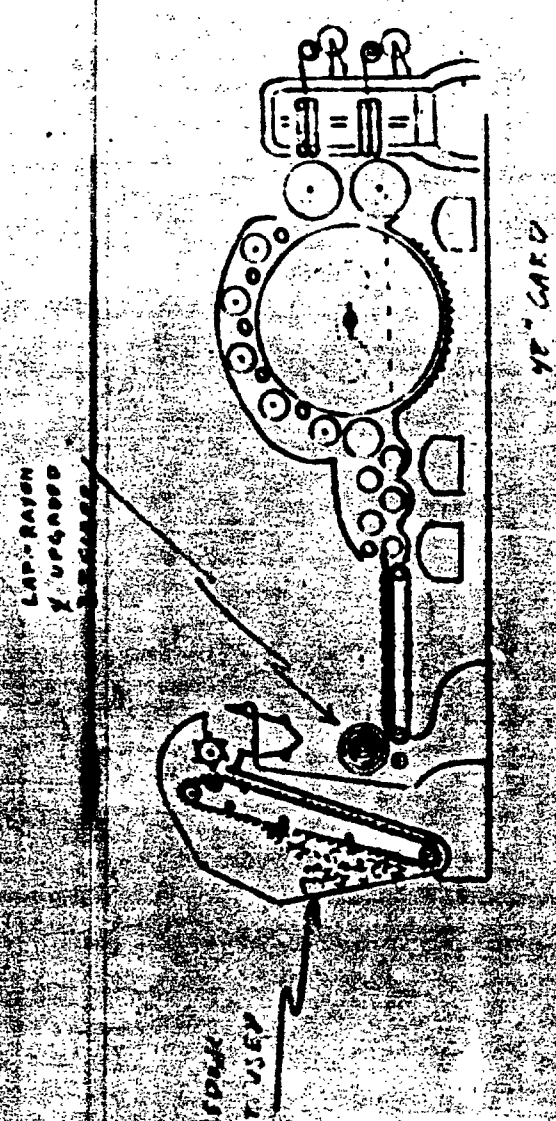
The attached layout is a side elevation of the method used to feed the lap into a single card.

BY DH Smith DATE 12/62 SUBJECT LAP & UPGRADED FIBER FED TO SINGLE CARD SHEET NO. ____ OF ____
CHKD. BY ____ DATE ____ JOB NO. ____



ATTACHMENT -9- January 8, 1968

REMARKS:

1. The preliminary test was made on existing equipment with no modifications to the card except that the feed box was inoperative and the lap and asbestos was substituted for it.

2. This project is one of the assignments of the Dust Control Task Force.

3. J. Goldfield - DPE has indicated that Turner Brothers, England, feed their cards with lap and fiber.

4. W. C. Atkinson believes the American Asbestos also feed their cards with lap and fiber.

5. Estimated cost of a T.P. to continue further tests - $5,000-$7,000.

6. Further experimentation will be held in abeyance pending the results of other less costly methods; i.e., handling blends in plastic bags and bagging station for blended fiber.

INDUSTRIAL ENGINEERING DEPT.
PRD. & PROCT. MATLS. MANVILLE

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Set of 1 card with 5 pairs of rollers cal'd for coarse asbestos yarns.

with automatic feeding and weighing apparatus, evant train and tape condenser with disc rollers.

2 pairs of rubbers model 9.

