GENERAL ELECTRIC
ELECTRONICS DIVISION

SUBJECT

COPIES: EO Peterson
FD Schnoor

Electronics Park - November 18, 1955

Mr. L. D. Miles
Manager - Value Analysis
SCHENECTADY

Dear Larry:

It was a pleasure to get your letter of November 14th in which you indicated that Fred Schnoor and Eric Peterson had made a real contribution to the meeting you held several weeks ago. As you know, I have been following the work of the Value Analysis people with a great deal of interest and feel that they are making real contributions to the Department.

The attachment which showed the possible savings on a refrigerator was very illuminating, although you may be assured that I will not disclose any of the dollar figures. However, it is an indication of how much can be done to bring out better products at lower costs. I might also add that these same men are continuing to come up with new ideas in our own Department in spite of the fact that they have already come up with so many improvements.

Best regards,

H. Riegelman

HR:br

Value Analysis Study of Refrigerator

NOVEMBER 1, 1955

Mr. L. D. Miles
OFFICE

The following components were analyzed and suggestions submitted to the Louisville Engineering Department as follows:

MAGNET - The present cost of the Magnet is $1.10 each. By comparing this Magnet with the magnet from Arnold Engineering Company, a cost of 80¢ seems much more in line. The General Engineering Laboratory believes that 1/6 th of the Magnet can be removed without harming the function. A suggestion that a malleable iron insert with a magnetic pole at each end be substituted, seems to be the most beneficial. The cost of this would be 65¢ (estimated) making a savings of 42¢ per refrigerator or an annual estimated savings of $315,000.

LATCH ASSEMBLY NUT - The present machine nut is costing $3.20 per hundred. It is felt that a Palnut will perform the same function for approximately $1.00 per hundred. Savings of $33,000 is estimated.

POLE PIECE ASSEMBLY - The present cost is 10¢ each. By reducing the thread length to 1/2 by counter-boring the hole the rest of the way, the price could be reduced considerably. It is suggested that the set screw be eliminated and a Locktite fastener be used. This would result in a savings of $7.00 per hundred and an estimated savings of $75,000 per year.

MAGNETIC LATCH HOUSING - The present part is supplied as a die cast. The present cost is $12.60 per hundred. Gries Reproducer, Inc. can produce the part as is for $4.50 per hundred. A proposed drawn shell would cost $3.00 per hundred. By utilizing the Gries casting and an eyelet in place of the chrome finish, the part could be supplied for $2.50 per hundred. This results in an estimated savings of $151,000 per year.

LATCH KEEPER - The present coined Latch Keeper is costing 15¢ each. It is proposed that a rolled Latch Keeper be purchased from Grammes & Sons of Allentown, Pennsylvania for $8.00 per hundred. The estimated annual savings - $52,500.

EGG BASKET SLIDE - The present Slide costs $3.40 per hundred. It is felt that the same function may be performed by incorporating a bump on the inner liner of the door eliminating the slide. This would result in a savings of $13,200.

DOOR GASKET - We are paying 13¢ per joint for having the vendor heat weld the gasket. It is estimated that if this operation were performed in Louisville, the cost would be 32¢ per gasket. This would result in an estimated annual savings of $150,000, plus an additional savings in changing of the gasket material tools.

DRIP TRAY ASSEMBLY SHELF HINGE - The present Hinge Assembly is costing $8.00 per hundred refrigerators. It is suggested that buttons be molded on the shelf with indentations in the tray eliminating these heavy pieces. The estimated savings would be $24,000 per year.

DOOR STOP - The present Door Stop is costing $8.53 per hundred. It is suggested that this Door Stop be eliminated and the stopping feature incorporated in the door at no extra cost. A savings of $25,500 is estimated.

LOWER PIVOT SCREW - The present screw is a machine part costing $2.95 per hundred. A cold headed roll threaded pin can be supplied for $1.40 per hundred. A savings of $4,600 would result.

EVAPORATOR REAR SUPPORT - The two supports at present are costing $9.20 per hundred. It is felt that one Rear Support located in the center would do the job. This new cost would be $4.60 per hundred with an estimated savings of $13,800 per year.

GASKET RETAINING STRIPS - The present Retaining Strips are costing $38.00 per hundred refrigerators. It is suggested that the present stainless steel Rear Supports be replaced with aluminized steel. It is also suggested that the Strips be eliminated entirely. It is felt that the Gasket may be held in place by incorporating a lip in the Inner Liner and enlarging the Holding Lip in the Gasket to conform to the groove. This suggestion, if adapted, would result in an annual savings of $285,000.

TOP HINGE - The present Hinge is costing $19.50 per hundred. Geometric Stamping will supply it for $8.50 per hundred. Estimated Savings - $300,000 per year.

WIRING HARNESS - The present Wiring Harnesses are purchased as component parts and assembled in Louisville at a cost of approximately $1.25 per refrigerator. Accessory Equipment Department in Bridgeport, Connecticut is quoting on a completely assembled Harness at 87½ each. This could result in a savings of approximately $280,000.

MONOGRAM SIGNATURE - The present individual letter signature is costing 65¢ per box. A plastic nameplate with anodized aluminum insert and with excellent appearance can be supplied in three pieces for approximately 26¢. If this signature is accepted in all models, a savings of $292,500 would result.

MISCELLANEOUS

1. Aluminized Steel - The possibility of using aluminized steel to replace the anodized aluminum present in the Door Trays, the Shelves, etc. was discussed with the Transformer Laboratory in Pittsfield. All information on this was referred to Louisville.

2. Steel Egg Rack - The present Rack is costing 16¢ in stainless steel. The price could be reduced 1/3 if anodized aluminum wire were used.

3. Capillary Tube - This Tube is now being soldered to the Evaporator Tube. It is suggested that the Evaporator Tube be lanced at each end. The Capillary Tube would then be inserted through the lance, pulled through the tube and then out the lance at the other end. It could be brazed at the entrance and exit stop only and eliminates brazing the entire length of the tube.

4. Evaporator Front Support - It is suggested to either use a screw grommet with 1 5/8" screw or with 5/8" screw.

5. Spacer Clip - We are using a Spacer Clip to position the Inner Liner with respects to the Outer Liner. We are also using a Breaker Clip to hold the Breaker Strip to the box. It should be possible to fabricate a contribution clip that would perform the same job as that of the Spacer Clip.

6. Front Panel Assembly - The Front Panel has the function of facilitating unscrewing the compressor support nut. It is suggested that this nut be unscrewed from the botton and that the Panel be made an integral part of the front of the refrigerator.

7. Wiring Harness - The Accessory Equipment Department is working on a new switch which would lower the cost of their present quotation by 2¢. By the use of a new plastic lamp holder, as well as the switch, the assembly can be lowered an additional 8¢.

The above items are those which seem to the group analyzing this product, to be the most feasible, and economically favorable.

All pertinent information including sketches, quotations, samples, etc. have been turned over to Mr. Loren Gray of the Household Refrigerator Department.

If any additional information is desired, I have it readily available.

E. H. Kittle, Specialist
Plant V. A. Practices
Value Analysis Services
Bldg. #32-G, 2nd floor -

EHK:gvf

SCHENECTADY
November 14, 1955

Mr. Herbert Riegelman, General Manager
Radio & Television Department
SYRACUSE, NEW YORK

We would like to register a strong compliment for two of your men, Fred Schnoor and Eric Peterson, who were loaned by their managers to us to assist on a special Value team for a few days a couple of weeks ago.

The situation was significant. The Refrigerator Department wanted to determine whether full-time professional Value Specialists could indeed remove large amounts of unnecessary cost after their own components men, specialists in their own lines, had done the normal engineering and cost reduction jobs.

They sent a refrigerator to Schenectady. We assigned three men to it who had never seen a refrigerator--excepting in their homes--and enlisted the professional assistance of your Value Analysis trained messrs. Schnoor and Peterson. In an adjacent room, six refrigerator engineers were taking the three weeks' Value Analysis training course so that they could be called in for functional information and advices from time to time just as a team of Value Specialists operating in their own area call in the responsible technical people.

As a result, work was initiated on eighteen items. Your two men either initiated or helped substantially to carry forward seven of the items as listed on the attached sheet. All of these tangible suggestions were taken back by the refrigerator engineers, in fact, many were telephoned back so that work could proceed before the end of the seminar.

Through the assistance of your managers in making these men available for a few days, your department has helped them in the proper evaluation of the effectiveness of full-time professional Value Specialists.

L. D. Miles
Manager - Value Analysis

LDM:AEM
Att.

Substantial Contributions By Both Eric Peterson and Fred Schneer

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	Expected Annual Increased Profit
New magnet door holder-- Iron center instead of continuous magnet	$300,000
Latch Assembly (already accepted)	30,000
Pole Piece Assembly	45,000
Housing for Magnetic Latch	150,000
Door Gasket Mold corner in plant instead of purch.	15,000
Latch Keeper Assembly From 15¢ to 3¢	53,000
Monogram Signature 65¢ to about 20¢ depending upon stylist approvals and changes Approx.	300,000

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Because it is inherent in the Value Analysis system that no dollar savings are claimed or added, this dollar information was not spelled out on the suggestions provided to Louisville and we, therefore, would like these dollars to be considered strictly confidential. It was felt, however, it was essential to include them so that the contribution of Eric and Fred could be properly understood by their managers.

L. D. Miles/m