

12 MINIMIZERS OF BENEFITS FROM "COST REDUCTION" EFFORT

1. Unless full time, competes with their job
2. Same people
3. Man responsible from each function
The judge - is there - before evidence prepared - after precedent established
4. Normally must comment at once.
Hesitation may appear to be weakness
5. No new information
6. No real time for individual study.
7. No intense creative studies which bring up dozens of alternates
8. No tangible \$ signs on several alternates for his evaluation.
9. No time between meetings to do real work.
10. Few if any of the dozens of specialists who might apply their specialties have done so.
11. Any answer except no means more ill spared time must be put on it.
12. Generally must work within basic habit patterns. Cannot concentrate fire power to use vastly differing approach at fraction of cost.

L. D. MILES

Easton, Maryland

business

Some save a buck... Miles saved millions

By JACK BOWIE
Staff Writer

ROYAL OAK — Give him enough time, and Larry Miles can save you a million. Or eight million.

In fact, over a career of nearly four decades the developer of "value analysis" has saved U.S. and foreign businesses billions. His art, elevated to near religious status in Japan, has been partially responsible for that country's post World War II industrial successes. But it's an art that, ironically enough, is often ignored in the U.S.

Miles, now 79 and retired to a waterfront estate in Talbot County, hopes to change that situation. But the campaign to make value analysis a part of every U.S. business has been difficult, he says, because so many American managers won't listen to it.

"Frustrated isn't the word," Miles said, sitting in a living room filled with awards, often from abroad, for his efforts at cutting costs without quality. "Sad is better. We have so many people who could make good products. And doggone it, we have the ability to design and manufacture better products."

"It's sad that such good methods are available and close but not being used while factories are being closed and people are being put out of work."

Miles' system, developed while he was working for the General Electric Co., looks at functions, establishes values for those functions and then arrives at the cheapest way of achieving them. In its broadest aspect, it's an entire way of thinking. At the least, it's a way to save money on an auto part.

To illustrate the method, Miles shows a bronze spring device once used by GE to protect transformers during a short-circuit. The spring would break a piece of glass so the transformer wouldn't blow up. The whole assembly cost \$20, and GE wanted it to cost less.

"We looked at the function," Miles said. "Was it to protect the transformer? No. It breaks a glass. A lot of things were protecting the transformer. So the spring wasn't useful."

Miles looked at other ways to break the glass and came up with a type of glass that would break automatically when the pressure reached 5 pounds, the same level that triggered the spring. Another engineer went a step further and said the glass could be replaced by a repulse disc costing only \$1. The disc was used, and it saved \$19 on each of the 2,000 transformers GE built that year.

Similar savings were accomplished in 1947 with a temperature control device, the first target of

Miles' cost techniques, on GE refrigerators. The thermostat was in a black plastic box, and a plastic top was attached by a bronze wire clip. The clips cost 0.7 cents each, or \$7,000 over a year's production run.

Miles found that the clip could be opened and closed thousands of times without breaking. But the average box would be opened an average of only six times. So the bronze wire was replaced with one made of brass, saving \$3,000 a year.

Similar analysis of other parts in the box resulted in savings of \$1.25 million — just on the thermostat.

The Japanese began studying value analysis shortly after World War II. Their companies were far behind the West in technology and quality, and they needed to catch up.

After catching up technologically, the Japanese used value analysis to cut costs, especially in automobiles and electronics. Miles had written a book on the subject, and he was invited to lecture extensively there.

Just last month, when Japanese industrial leaders gathered to honor three of the country's biggest companies, the major prize was the Miles Award. Miles was in Tokyo with his wife, Eleanor, for the awards ceremony, which was sponsored by the Value Engineering Society of Japan.

The Japanese, Miles says, "believe value engineering and use it. And there are people in this country that use it. But we're way behind here... I've written papers and made lectures, but there are usually detractors," often in management. "People get in habits of doing things certain ways."

Miles' interest in cost-cutting came naturally. Growing up on a farm in O'Neil, Neb., "We pinched pennies. At G.E., it bothered me that everything seemed to cost so darn much."

He graduated from college in 1925 with a teacher's certificate in education, became a principal of a small high school and later worked at a bank. Two or three years later he was back at college studying to become an engineer, and he did well enough to land a job with GE in 1932, despite the Depression.

Miles stayed with GE for 32 years, practicing value engineering until 1964 and teaching it to more than 10,000 people. In 1957, as a result of his work teaching the art to the U.S. Navy, he received the Distinguished Public Service Award, the highest for a civilian.

Miles still works as a private consultant and holds a three-day conference for the Value Engineering Society of America (of which he was its first president) each fall at his home on



LARRY MILES
...looking for the value

Maxmore Creek. His book, *Techniques of Value Analysis and Engineering*, has been translated into 12 languages.

"It will help anyone do anything," says his wife. "It would help me be a lot more efficient in the kitchen if I sat down and thought about it."

Miles only wishes it would be used more in business and industry.

"We would compete worldwide," he imagines. "It would mean we would use much more of our own products. It would affect the balance of trade because we wouldn't have to ship in automobiles and audio products. We'd do it all ourselves."

On the table before him his wife has spread a stack of books, magazines and magazine articles full of success stories about what Reader's Digest called "the biggest thing since mass production." A dam at Walla Walla, Wash., was built for \$16 million instead of \$24 million. An Australian steel company increased its output 32 percent with only a 2 percent increase in manpower. A company in Ohio that manufactures building products doubled earnings to \$12 million from \$6 million in 1970.

"It will sound as if all this stuff isn't so bad," Miles said. "But it is true. I only wish I was 30 instead of 80."