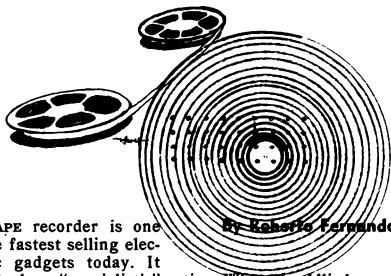


*And Now Comes the*

## **TAPE RECORDER**



*By Roberto Fernando*

**T**HE TAPE recorder is one of the fastest selling electronic gadgets today. It has ceased to be a "specialist's" machine and has now become as familiar as a typewriter to most households. In the entertainment market, it is a close second to the phonograph.

The tape recorder was developed in Germany shortly before the war. However, it was adapted to practical use by about 1944. During that time, it was used only by businessmen, radio stations, recording companies and army interrogators. The German engineers brought the tape recorder to near perfec-

tion. When the Allied army took over Radio Luxembourg, they found recording apparatus that experts never thought existed.

The first commercial tape recorders were widely used as business dictating machines. In the business areas, what was needed was mere sound transcription. Hardly any attention was given to fidelity recording. However, manufacturers engaged in the production of sound equipment were quick to see mass market possibilities for the tape recorder. By 1948,

the American producers had created a machine for a domestic market. The British were getting ready for full-scale production. The Germans put their first commercial recorder on the market at about the same time.

At first, sales were small. Only specialist users and a few enthusiasts bought the machines. But by around 1955, sales started to rise. In the British domestic market, it reached 40,000. Today, there are about a hundred different models on the market and sales had exceeded the two million mark. The price of a tape recorder ranges from P300 to P5,000.

The market for tape recorders is split into three fairly distinct parts. The business part requires cheap, easy-to-operate machines that can reproduce intelligibly. The second part requires accurate sound reproducers for such special jobs as music recording. And the third part is composed mostly of people who regard the tape recorder as a novelty machine for use in the home or for instructional purposes.

**T**HERE ARE of course other marginal uses. The psychiatrists, for example, use it to catch the outpourings of their patients. The ornithologists use it to record exotic birdcalls. Some hobbyists use it to record the sounds emitted by celebri-

ties. But mostly people want to buy for some musical purpose.

"Our average customer is looking for good reproduction of good music," one dealer said. The tape recorder has made it possible for the lover of good music to collect a library very cheaply.

A new trend in the business is the teenage market. The attraction here is that "pops" can be recorded at a fraction of the price of an ordinary disc and erased as soon as the song becomes unpopular.

The tape recorder is definitely an economic proposition. Once the initial basic expenditure has been met, one can get years of good service out of the machine. An ordinary recorder costs 50% less than a good phonograph.

The manufacture and distribution of tape recorders is conducted in a rather unusual way. The precision machines are imports from a big German concern. The mass market is controlled by the Americans and the British. Only a few manufacturers produce all the components of their machines. Most of them buy the spare parts and assemble them. In this way, small enterprises are able to produce good machines. A good example is a small British company. This company does not manufacture any part of a tape recorder. All it does is to buy

the parts from the different companies and assemble them. It turns out two or three dozen machines a week.

All the signs suggest that the industry is going to see a great deal of technical innovation in the next few years. Now, even the ordinary user demands precision performance from mass-market models. The British and American manufacturers are aware of this trend. Lately, they have been experimenting with stereophonic machines which they hope to put on the market soon.

**A**NOTHER trend will be towards changes in the size of the machines. Some present tape recorders are much too bulky for most of their uses.

In recognition of this, console models have been on the market for some time. But for businessmen and others who want to carry their recorders about, even a 20-pound burden is an inconvenience. One trend in the industry therefore is towards copying those midget radio sets that can be carried in the pocket. These need very small valves called "transistors."

The main difficulty with a midget recorder is the quality of the reproduction. It is not as accurate as the bigger models. Another drawback is price. A midget recorder uses very expensive components and unless the price of the parts is brought down, manufacturers do not see a wide, immediate market for the baby recorder.

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### Boon for Housewives

**T**EARPROOF *grocery sacks now can be made using a new stretchable paper, Kraftsman Clupak, invented by Sanford Cluett, inventor of Sanforizing process. Paper is made of pulp treated by standard chemical methods, then placed on rubber drying belt. Belt, with its pulp load, is expanded passing over over drying roll. When it snaps back into normal dimension, finished paper goes with it. Resulting bunched fibers will stretch; in drop test new paper outlasts conventional Kraft paper about 10 to 1 without tearing.*

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