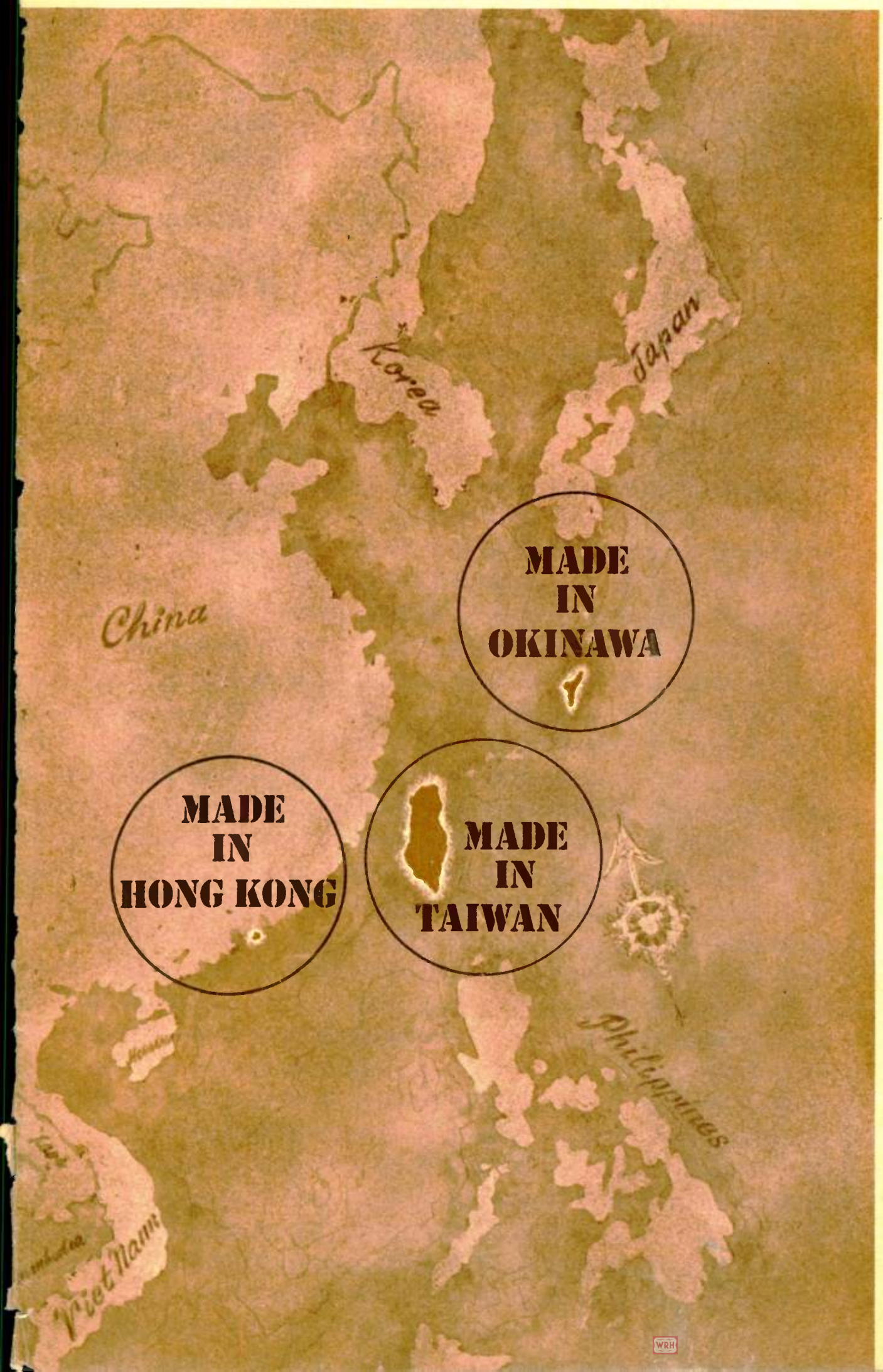
MERCHANDISING WEEK

EDITED FOR THE APPLIANCE, CONSUMER ELECTRONICS, AND HOUSEWARES INDUSTRIES
A McGRAW-HILL PUBLICATION/50 CENTS/VOL. 98 NO. 11/MARCH 14, 1966



The price of radios and, in the future, still other consumer electronics products sold in the U.S., are going to be influenced by what is going on today on three islands halfway around the world. For a first-hand report on the latest prices and products on Hong Kong, Taiwan, and Okinawa, see....**p.19**

AT PRESSTIME

Washer, dryer prices: The average retail price of automatic washers during the two weeks ended Jan. 29 was $225, according to Daniel Starch and Staff, consultants in business research. Starch reports the average price by brand ranged from $208 to $263. A total of 32 models among nine brands accounted for 42% of all sales and a single model of one manufacturer chalked up 4.5% of all sales.

In the same two-week period, Starch notes the average retail price for electric dryers was $164. Gas units averaged $186. Of the total units sold, 69% were electric, 31% were gas. The electric share of retail dollars was 67%; the gas share was 33%.

In dryer sales, 23 models among seven brands accounted for 46% of all electric sales, while seven models among four brands racked up 22% of gas unit sales.

The Starch report on washers is based on a weighted sample of 1,993 retailers across the U.S. the data on dryers is based on 763 retail outlets.

Prices are sliding in the developing battle for position in the self-cleaning range market. The latest evidence: Westinghouse advertised its leader 30-inch free-standing model in the Cincinnati, *continued on p.3*

Stop! There's an easier way to cut down on paper work.

APPLIANCES
STEREO
COLOR TV

AUTHORIZED
DEALER

General Electric has a paper work reduction plan for G-E dealers. It starts with our one-man shopping service: the G-E Sales Counsellor. With him, you fill out just one single order for any and every major appliance you carry. From then on, everything gets easier. You get only one set of bills. One set of delivery papers to check. G.E.'s nearby warehouses are fully stocked, so you save on transportation, too.

So what happens? You find time on your hands. Time to sell what you buy. You sell faster, too, with General Electric's top product quality and features. Refrigerators with Auto-Fill Icemakers. Ranges with P-7® Ovens that clean themselves electrically. Automatic Washers with MINI-BASKETS.® PortaColor TV's, Porta-Fi Sound Distribution Systems. Silver Shower Dishwashers. Thinette Air Conditioners. You name it. We make it.

Now. Who needs all that paper work? Not the dealer with the G-E franchise.

GENERAL ELECTRIC

AT PRESSTIME *continued from p.1*

Ohio, market for $279 last week. Westinghouse now has three 30-inch free-standers—including the top model with automatic stirrer, which retails at the $400 level (MW, 7 Feb., p.8). Last month, Polk Bros. advertised Frigidaire's 30-inch (1965) model at $258. GE, which projects that its P-7 self-cleaning models will account for 25% to 30% of its 1966 range sales, is currently tagging its leader 30-incher at the $229.95 level.

□□□□ **RCA has raised its bet on color sales** this year. The industry giant has upped its forecast by 1 million units and now says that 5.5 million color sets—more than double last year's total—will be sold during 1966. Retail sales of color tv sets will hit the $3 billion mark, says RCA, equalling for the first time the total consumer dollars spent for all other consumer electronics products. According to the RCA figures, the retail color sale will average $545.

□□□□ **RCA will introduce its 22-inch color tube** during the last quarter of this year. Although bulbs for the tube are not yet available, RCA has completed the preliminary design work and specifications have been sent to set manufacturers. Limited sample quantities of the 22-inch, 90-degree rectangular tube will be available during June at $150 per unit; when commercial production of the tube begins late this year, a laminated etched version will be priced at about $118, a non-laminated version will be $110.50. Under current industry practice, diagonal measurement of the tube is 22.707 inches. But with an eye on the new FTC ruling on tube measurements, RCA says the projected measurements of the tube are: 20.215 inches diagonal, 17.430 inches width, 13.628 inches height, or 226 square inches in area.

□□□□ **New tape cartridge players on the way:** Mercury will introduce three cartridge units this year—two imported Dutch units and an 8-track Lear-system player for the home. The Dutch unit, which is similar to the one marketed by Norelco and 3M will come in two versions. The first, a portable player-recorder, will be introduced in July; the second, a tape deck for the home, will follow later this year. Although no prerecorded cartridges are available in the U.S. for the Dutch players, Mercury will also supply compatible cartridges for both models when it introduces the home version.

Lear Jet will introduce a portable AC-DC 8-track player with two speakers and rechargeable battery in April; a component-type player with separate speakers will follow; and a home unit with AM-FM radio and two speakers should be ready in time for the Music Show. This month, Lear will bring out a car hang-on unit with AM-FM radio and multiplex adaptor for $169.

Telepro will introduce a $199 4-track portable Town and Country recorder-player for $199 in May.

Telepro, manufacturer of the 4-track Fidelipac cartridge, will supply Capitol and other record companies with blank 8-track cartridges. It will also license the record companies to make their own blank cartridges for a 3¢-per-cartridge royalty. Amerline and Audio Devices also plan to put out 8-track cartridges. But Telepro, which claims to hold patents on the 8-track system (and already has initiated a suit against Lear), threatens to sue Amerline if that company goes ahead with its plans.

□□□□ **At presstime, the GE strike was still on** with about 10,000 production workers off the job at General Electric's Appliance Park in Louisville, Ky.

□□□□ **Norge's first side-by-side combination** refrigerator-freezer (MW, 14 Feb., p.3), the Super Stor, will retail at the $549 level. The unit, made for Norge by Kelvinator, measures 41 inches wide, 65 inches high, and 26 inches deep. It has fresh food capacity of 13.2 cu.ft. and freezer capacity of 8.8 cu.ft. (307 lbs.). In coppertone or white, with or without ice-maker, the unit will be shipped Apr. 1.

Tv's new ad picture: taking the measure of the FTC

The tv set industry inched toward a solution of its latest advertising crisis with the Federal Trade Commission last week.

In a closed session with Paul Butz, chief of the FTC's Division of Trade Regulation Rules, set makers successfully clarified, but did not resolve, a series of problems that have emerged in the wake of the commission's new rules governing the measurement of tv screen sizes.

Essentially, what the FTC will require retailers, distributors, and set makers to do—starting July 1—is eliminate the use of the traditional over-all diagonal screen measurements from their advertisements. The new rule requires that everyone use the viewable screen size, a measurement that effectively cuts one to two inches off present standards.

The problems: The July 1 effective date of the new rule has upset many in the industry. Many set makers have already printed promotion material for the upcoming line introductions; alterations now would be expensive.

But there is no agreement on what date the new FTC rule should take effect. Set makers left last week's Electronic Industries Assn. meeting prepared to write the FTC explaining the difficulties in complying with the July 1 date.

But set makers were encouraged by Butz's broad suggestion that the FTC was willing to review any problems, even consider postponing the compliance date. "There are some areas to think about," Butz said, "and the compliance date is one of them."

Still unresolved is the new industry method of advertising viewable screen diagonals. Set makers wonder if they can still round numbers off to the nearest inch or if they must use fractions.

For example, if the industry were ordered to round off tube sizes, the viewable picture diagonal of the current 25-inch color tube would be 23 inches; the viewable picture diagonal of a 23-inch tube would be reduced to 22 inches. The upcoming 21- and 22-inch rectangular tubes would be considered 20-inchers. But if the industry were ordered to use fractions, the 25-inch tube would have a viewable diagonal of 22.995 inches, while the present 23-inch tube would have a viewable diagonal of 22.050 inches.

Butz was not willing to suggest how stringent the FTC will be when it comes to rounding off fractions in calculating screen sizes in the new ruling.

What everyone did discover was that the industry still has no official standards for measuring color tv screen sizes. Those standards will be set shortly by the Joint Electronic Device Engineering Council (JEDEC).

The FTC insists that the viewable picture area be measured on a single plane, thus eliminating the convex face of the tv tube from any calculation of the square inch count. The JEDEC's black-and-white standards are based on a complex formula that takes the single plane into account. But thus far, this is not the case in color, and in color measurement, the glass bulge on the front of the tube could add as much as five square inches to a 25-inch tube.

The outlook: Although there was no readily identifiable consensus among set makers, there was more than a hint that many will start pushing square inches in their new advertising. "The industry wants to sell the biggest number it has got," explained Jack Wayman, staff vice president for EIA, "and we've asked the FTC for guidance. I think the meeting cleared the air."

—Donald S. Rubin

Merchandising Week is published weekly by McGraw-Hill, Inc., 330 West 42nd Street, New York, New York 10036. Subscription rate: annual rate, $3; single-copy price, 50¢. Corporate officers: Shelton Fisher, President; John J. Cooke, Secretary; John L. McGraw, Treasurer. Printed in Chicago, Ill. Second class postage paid at Chicago, Ill.

1962:
This was our policy.

Quality product line

Authentic styling, distinctive design, fine furniture finishes, outstanding engineering and performance, deep-running features. Fully competitive at every price level.

One-sheet pricing

No fear of buying a Sylvania product at a wrong price. Or selling to a customer at a noncompetitive price. Sylvania dealers buy right and sell right.

Predictable profits

Prices based on fast-floor markets, then applied across the nation. They are realistic "go" prices, fully discounted. Planned profit is actual profit.

Prestige advertising

Customers are preconditioned by prestige local and national advertising to expect finest quality products from Sylvania.

Elbowroom

Elbowroom that pays. Selective distribution through a limited number of quality dealers who want profit in the line, value on the floor.

GT&E backing

Behind our program is General Telephone & Electronics. A billion-dollar corporation. A leader in electronics, communications and research...and growing.

1966: This is our policy.

Quality product line

Authentic styling, distinctive design, fine furniture finishes, outstanding engineering and performance, deep-running features. Fully competitive at every price level.

One-sheet pricing

No fear of buying a Sylvania product at a wrong price. Or selling to a customer at a noncompetitive price. Sylvania dealers buy right and sell right.

Predictable profits

Prices based on fast-floor markets, then applied across the nation. They are realistic "go" prices, fully discounted. Planned profit is actual profit.

Prestige advertising

Customers are preconditioned by prestige local and national advertising to expect finest quality products from Sylvania.

Elbowroom

Elbowroom that pays. Selective distribution through a limited number of quality dealers who want profit in the line, value on the floor.

GT&E backing

Behind our program is General Telephone & Electronics. A billion-dollar corporation. A leader in electronics, communications and research...and growing.

Our conviction is: Product starts the profit, policy determines the extent. That's the way it was in 1962. That's the way it is now. And that's the way our future is programmed.

SYLVANIA

SUBSIDIARY OF
GENERAL TELEPHONE & ELECTRONICS GT&E

PRODUCT
POLICY
PROFIT

□□□□ **Details of federal control of CATV** are spelled out by the Federal Communications Commission (FCC) in an 86-page order. The order puts into formal language the regulations announced last month when the FCC assumed jurisdiction over cable as well as microwave community antenna television systems.

The lone dissent was filed by FCC commissioner Robert T. Bartley. He feels the commission is attacking the problem the wrong way, and has no jurisdiction under current laws over CATV systems that do not use the airways. Bartley believes the FCC should delay laying down rules until Congress gives it such authority.

The rules become effective Apr. 18 for most CATV systems, though they may become subject to a court test. Major controversy will probably revolve around the FCC rule that places stringent restrictions on CATV operations in the larger cities.

□□□□ **The FCC's jurisdiction over CATV** would be confirmed by a bill that was introduced into Congress last week. The FCC is quite sure it assumed control over cable as well as microwave CATV systems. Some legal sources, however, are not so sure.

Just to make it official, the FCC asked Congress to confirm its authority. The bill, introduced by Chairman Harley Staggers (D-W.Va.) of the House Commerce Committee, also would prohibit CATV operations from originating programs—except in unusual cases. The House committee is scheduled to begin hearings Mar. 22.

□□□□ **Network ownership of tv programs** is not necessarily bad. It may even be a boon to the industry and to those who depend on it in order to conduct their business. So says the respected Arthur D. Little Co. in a study done for the three television networks. NBC, CBS, and ABC asked Little to undertake the study in response to a proposal by the FCC that the networks be banned from owning or controlling more than 50% of their prime-time programs. The commission notes that network-owned shows now consume 93% of prime time in comparison with 74% in 1957.

The Little report indicates that advertisers like this system since the networks assume more of the risks of program development. This situation, says the report, enables the smaller advertisers to buy some network time, and permits the larger advertisers to reach a wider audience by buying into several shows. The Little report, however, brushes off fears that independent producers are being squeezed out of the market.

Tape cartridge race raises dust at the record industry's rally

The tape cartridge industry is roaring full speed ahead down an 8-track highway. With the three major automobile companies and several of the major record companies committed to an 8-track Lear-system—thus setting the pace for the industry—predictions for the future of the cartridge market are glowing.

At the National Assn. of Record Merchandisers convention in Miami last week, record manufacturers were predicting that in a few years the tape cartridge would replace the LP recording. And Irwin Tarr, head of RCA's newly formed recorded tape marketing department, predicts that "next year, sales of cartridges will increase tenfold."

From dashboard to den

The home player will be the next important development in the cartridge market, said record manufacturers at the convention. Lear Jet, RCA, and Motorola already have plans to market an 8-track player for the home.

And record industry spokesmen at the convention were predicting that Sylvania, Zenith, Admiral, Philco, Arvin, Olympic, and Magnavox will soon have home cartridge players on the market. Some of these units are expected to be ready in time for the Music Show in July.

According to talk at the record convention, most of the units will be built into consoles already in the manufacturers' home entertainment lines; many of the players will be compatible with both the 8-track Lear-system cartridge and the 4-track Fidelipac cartridge. At least one hi-fi component manufacturer is expected to be ready with a component-type, 8-track cartridge player in the near future. (Lear Jet is already shipping a $79 home cartridge tape deck and has plans to produce three to six more home units.)

Follow the leaders

Word that GM would offer an 8-track player with its 1967 model cars that galvanized the industry around the Lear system. Until GM—the last and the biggest of the automobile manufacturers to commit itself to a cartridge standard—made its move, progress was slow. Then, within a few weeks, Columbia Records, Capitol Records, Mercury, and Decca all announced that they, too, would be releasing 8-track albums. And the race was on.

When the automobile companies introduce their 1967 lines, the cartridge tape and cartridge player manufacturers will be ready to launch their major marketing drives. The record companies, however, are still exploring the potential of the cartridge market, and very few have firm distribution or merchandising plans. But, undoubtedly, the record companies' first marketing efforts will center around the automobile owner.

The major automobile companies are expected to sell between 400,000 and 700,000 cartridge players within the first few months of their new line introductions. And the record companies hope to sell each cartridge player owner an average of six to 10 cartridges.

The tape takeover

Once a consumer has built up a cartridge library, he will not be content to play it only in his car, and he will probably buy a home cartridge player, predict both Irwin Tarr of RCA and Brown Meggs of Capitol Records. If this trend develops, they say, the cartridge could take over some of the functions of the LP recording.

"In all probability, the LP will eventually become as disposable as the single," explained Meggs, "and the cartridge will form the permanent music library in the home."

Tarr feels that it will be teenagers who will buy the most cartridges and cartridge players. "The teenagers drive cars—and they're the ones who want to hear music on the road," he explained. "Eventually, a generation will grow up that has seldom used a record player."

The record companies are making certain that the consumer will have a wide selection of music to choose from. At last count, RCA had about 240 8-track albums on the market, with additions planned at the rate of 13 to 15 cartridges per month; Liberty expects to release 66 4-track and 75 8-track albums by mid-April and 20 to 30 more in June; Capitol's first release of 8-track albums will include 50 titles; and International Tape Cartridge Corp. has 1,150 4-track and 400 8-track titles in its catalog.

Which tack to take

The best way to sell cartridges has not yet been determined. While auto parts dealers are potentially a large outlet, record manufacturers are still investigating distribution methods and planning ad campaigns.

Distributors are so interested in the record companies' cartridges that there is already a scramble to fill the pipeline. One problem is that Lear Jet Corp. is the only company supplying the record industry with blank 8-track cartridges at this time, and chances are that there could be a cartridge shortage for some time to come. Telepro, the Fidelipac cartridge manufacturer, may be joining the 8-track team. If so, this would lessen the load somewhat by supplying Capitol and other record companies with a portion of their cartridge needs.

For all the 8-track activity, Telepro's president, William Mulcahy, insists the 4-track player is still going strong. The real market for the 4-track, explains Mulcahy, is in the low-end monaural field. In keeping with this belief, Telepro will begin selling a $29.95 children's toy 4-track monaural tape player. Telepro is arranging to make prerecorded cartridges available for the machine. On the 8-track side, however, Telepro will bring out a compatible 4-track/8-track player in the fall.

—Amei Wallach

□□□□ **RCA's promotional drop-ins:** On a limited production basis, RCA is reintroducing the $9.95 low-end 6-transistor radio that it marketed for a short time last year. The company also is introducing six new home entertainment products: the Rondelay, a solid-state stereo phono ensemble with matching all-wood rollabout stand, at $99.95 ($30 below a similar model last year); the Holmsund, a 60-inch solid-state FM-AM stereo combo, at $258.88; two 23-inch b&w consoles—the Allison, at $199.95, and the Bowden, on open list; the Pantomime, a 19-inch b&w portable, at $139.95; and the Bon Ton, a 16-inch b&w portable, at $112.88.

□□□□ **Zenith's 1966 advertising campaign** will have a record budget allocation, double that of last year. Advertisements in 250 newspapers in over 150 major markets will carry local dealer listings. Also scheduled are a "Zenith Gift Days" promotion, network tv spots, and magazine ads. New products developed for the spring selling season include: a series of portable and table model radios, at $19.95 to $99.95; a 25-inch color tv; and two 23-inch b&w sets.

□□□□ **Norge will jet 4,000 dealers to London** and Dublin next September and October after they qualify by selling a quota of 1966 Norge units. A second trip, to Greece and Israel, is scheduled for 2,000 qualifying dealers in February and March, 1967.

□□□□ **Motorola is expanding its tv facilities** with a 226,000-sq.-ft. addition to its Quincy (Ill.) plant. This construction, to be completed in September, together with the 75,000-sq.-ft. expansion announced in December (MW, 6 Dec. 65, p.1), will bring the total space at the Quincy plant to 651,000 sq.ft. Much of Motorola's b&w tv set production will be shifted to Quincy from the company's Franklin Park (Ill.) plant. This shift will make room for expansion of color tv production at Franklin Park.

□□□□ **Freight rates on electronic goods** from Japan will go up 10% on April 15. The increase, however, probably will not affect retail prices of Japanese products in the U.S., according to McGraw-Hill World News in Tokyo. Freight accounts for only 3% or 4% of U.S. retail prices for Japanese consumer merchandise. Consequently, the scheduled 10% hike in freight rates means a rise of only 0.3% or 0.4% in retail prices. Also, U.S. buyers have more influence than Japanese sellers over the pricing of most export commodities, and it is believed U.S. buyers will seek and get a reduction of about 0.5% in Japanese f.o.b. prices to offset the freight increase.

□□□□ **Retailer-of-the-Year** in the appliance-tv stores category of the 18th annual Brand Names Foundation competition is Home Centers Inc., Akron, Ohio. Certificate of Distinction winners are: Dalmo, Alexandria, Va.; Lechmere Sales Co., Cambridge, Mass.; Sid's Appliance Center, Tucson, Ariz.; and Jack Boring's Appliance TV & Stereo, Kansas City, Mo. Winners will accept their awards at a banquet in New York City's Hilton Hotel on Apr. 13. Keynote speaker will be John T. Connor, Secretary of Commerce.

□□□□ **Philco has added 21-inch b&w portable tv** sets to its line for the first time. The two 21-inchers, which feature full transistorization in the signal-receiving system, will retail for $179.95 and $189.95. Also being introduced by Philco are three new 19-inch b&w portables, priced at $129.95, $139.95, and $149.95. At the low end of the new 19-inch series, the Pacer replaces Philco's previous leader model, the Caravan.

□□□□ **NEMA's spring newspaper kit for ranges** is out. The package of editorial and advertising aids is going to about 1,200 newspaper advertising managers and 750 utility executives. The kits develop the 1966 joint theme of the National Electrical Manufacturers Assn. and the Edison Electric Institute: "Buy a new electric range . . . the Full Range of Cooking Pleasure."

□□□□ **Color tv in Europe: 'bye American.** The chances of European nations adopting the U.S. color standard received another jolt last week when Great Britain picked the German PAL system. By the end of this year Britain should have color telecasts on the air, reports McGraw-Hill World News from London. The big factor in Britain's choice of the German system instead of the American NTSC standard was that PAL would provide for easier program exchanges with other European countries. Britain would also be able to export color sets to the European continent, a business estimated at about $30 million a year. British set makers are already gearing up. Mullard Ltd. has a picture tube pilot line in operation and expects to have a capacity of 100,000 tubes a year by the time set makers need them.

□□□□ **NARDA has scheduled several symposiums,** with the first set for Mar. 23 in Boston. The Boston retail meeting, to be conducted by the National Appliance & Radio-TV Dealers Assn. in the New England Electric System auditorium, will be an all-day session on sales training. On Apr. 19, a service symposium will be presented in the Inn Towne Motel, Mankato, Minn., and on Oct. 11, a retail store management symposium will be held in Raleigh, N.C.

□□□□ **Norelco's spring promotion** includes a premium—an 8-hour tape library valued at $25—for purchasers of the company's Continental 201 tape recorder; free listing in *TV Guide* and local newspapers; and a bonus ad allowance for Norelco dealers. To qualify for the promotion, which runs through Apr. 18, the dealer must buy a special package of Norelco recorders.

□□□□ **Two more new plants in the offing:** Zenith and Sylvania, both caught in the color tv boom, have announced new construction plans. Sylvania is building a 221,000-sq.-ft. plant in Smithfield, N.C. Initial production of stereo consoles, phonos, and radios at Smithfield is scheduled for September. The manufacturer of color tv sets, to augment Sylvania's production in Batavia, N.Y., is scheduled to begin early in 1967. Zenith's subsidiary, Wincharger Corp., is building a new $3 million plant in Sioux City, Iowa, into which Zenith will transfer its Chicago FM-AM radio production. Space freed in Chicago will be used to expand b&w and color tv component manufacturing.

How discounting has grown; the problems it must solve

Discount retailing has suffered through a shake-out; discounters have their problems; but discount retailing is going to grow faster than any other form of retailing.

This is current thinking, reflected in what Frederick Zissu, chairman of the board of Vornado Inc., said before a meeting of the New York University Men in Finance Club; and what Sol W. Cantor, president of Interstate Department Stores, said at an American Management Assn. forum. (see p.28).

How discounting has grown was outlined by Zissu. In 1960, discounters had sales of about $2 billion; by 1964 sales had grown to about $10.8 billion. This is a 447% growth, against a 19% growth among regular retailers. Zissu said, "In the years 1963, 1964, and 1965, more new dollars of sales accrued to the discounters as a class than to the regular full-price merchants. I see no reason why this trend should not continue into 1966, 1967, and 1968."

Why discounting has grown: stores are now on large lots, have adequate parking, recessed lighting, finished floors, and finished ceilings, said Zissu. Second, "manufacturers who at one time refused to sell discounters, have just about all fallen into line." Third, discounters now have enough volume so they can have their own private-label merchandise. And, fourth, said Zissu, "the discounter's new management skills and proper finances have enabled him to take advantage of every modern trend in retailing."

What discounters must do to maintain their growth is solve several problems. According to Cantor, "The most important problem the discounting industry faces is creating greater believability."

"We are interested," said Cantor, "in persuading the millions of people who have never set foot in a discount store to come on in and look around."

Conventional merchants have created believability through their sources of supply, their advertising, their store fixtures, and the services they offer. "The discounter and what he stands for must become more clearly visible to the customer," said Cantor. "She must be able to see and recognize at once the values that we offer in terms of the product itself, the way it is packaged, the manner in which it is displayed, and the techniques used to advertise and promote its sale."

Zissu feels that discounters need better inventory control: "I would think that if there were a dropping of the sales pace, a great many retail merchants would be stuck with excess inventory." Retail competition will become even more fierce, he said; some stores will be weeded out.

Another problem is advertising. "You are going to have to spend more and more advertising dollars in order to hold the same proportion of sales against your competitors." And finally, the ever-increasing salaries the discounter must pay for qualified people may militate against the discounter's growth. But despite all handicaps, said Zissu, "discounting's sales and profits will increase more than any other form of retailing in 1966."

Reminder to kitchen dealers: housewives know kitchen needs

"You have to be fully informed, an expert on everything." This was the advice kitchen dealers heard last week in New York at the opening of the 1966 convention of the American Institute of Kitchen Dealers (AIKD).

After a brief greeting from New York City's First Lady, Mrs. John V. Lindsay, dealers toured the exhibit halls and then listened to a panel discuss the topic: "What the Consumers Really Want." Miss Jane Keely, director of *Good Housekeeping's* Institute for Appliances and Home Care, warned dealers of the need for expertise. The housewife, she said, is soon alienated from "the guy who just wants to line her walls with cabinets."

"She is at sea with color. She wants help in choosing floor and wall colors. They set the tone of the room," Miss Keely advised. Speaking about the basic structure of the kitchen, she exhorted the dealers to "get to the builder or architect before the floor plan is firm. Don't always settle for the routine plan."

"Housewives like small touches—locks on cleaning closets and rubber faucet guards to prevent breaking and chipping her china," Miss Keely pointed out. If the dealer is in on the ground floor of kitchen planning, she observed, he can prevent aggravating mistakes. She cited the cases of ranges installed with insufficient counter space on either side and counters that are too high.

Heed the housewife's desires when it comes to design, advised Charlotte Clark, of Charlotte Clark Kitchens, one of the panel members. She accused most male dealers of dismissing the women's preferences. "For the first hour, we just listen," she said.

At a general session following the panel, AIKD members learned of a federal program of subsidies for training unskilled labor.

Dealers will be eligible to receive $20 per week from the federal government toward the training of an unskilled individual as a kitchen layout man. The new training program, established under the Manpower Development Act of 1962, will require trainees to do classroom and other work for 26 weeks. Initially, the program will be conducted on an experimental basis in New Jersey and parts of New York City.

McCall's has the Alma-Knack

This is one for the books...the record books. McCall's has won the ALMA award for the third year in a row from the American Home Laundry Manufacturers' Association. It's presented for outstanding communication of home laundering information to consumers. And isn't that what your advertising is all about...communication to the consumer? McCall's offers the guidance that thoughtful, educated women look for...that they can depend on. That's where you want to be ...in a magazine that carries with it the image of dependability. Tell a McCall's woman what you've got to offer and discover the knack of becoming a permanent fixture in her home. **If you sell a home laundering product, your ad belongs in McCall's.**

McCall's
First magazine for women

Only Admiral® Air the control that's more

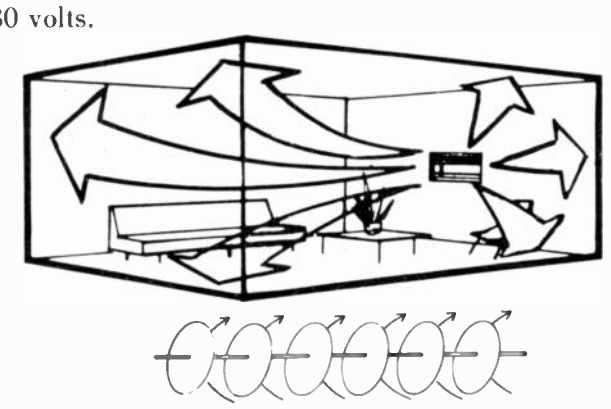
Exclusive new Admiral *Comfort-Stat*, the control that thinks cool! Set and forget all summer!

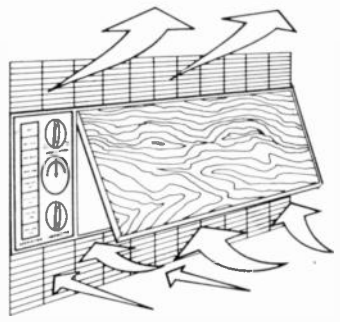
Great new convenience, great new sales feature! Exclusive new Admiral "Comfort-Stat" provides consistent coolness, greater economy, quieter operation!

Owner sets visual indicator to comfort level desired. "Comfort-Stat" then controls the air conditioner completely. When desired comfort level is reached, it turns the compressor off, fan continues to circulate cool air. When room temperature lowers a fraction, fan turns off, too.

When room temperature rises, "Comfort-Stat" turns on fan and compressor again, in sequence, and continues this cycle all summer long. (Ordinary thermostats control compressor only, not fan.) And with Admiral, you can *see* what you *set!*

Only Admiral has this amazing new "Comfort-Stat", exclusive on Admiral Royal Model 1066C12A, rated 10,600 BTU,* 115 volts, and Model 1526C238A, rated 15,200 BTU,* 208/230 volts.





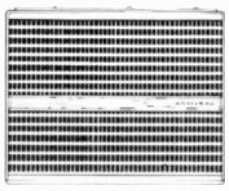
Exclusive Admiral "Cycle-Aire." the backbone of summer comfort! Scientifically engineered angled discs in cool air vent rotate automatically, distribute cool, dry, clean air in all directions. No chilly blasts. No hot spots. On Admiral Royal and Imperial models.

Exclusive Admiral "Arctic Window." walnut grained panel, opens at base for huge air intake, extra cooling power . . . swings closed for the fine-furniture beauty look . . . fits flush with sash and drapes. On Admiral Royal and Imperial models.

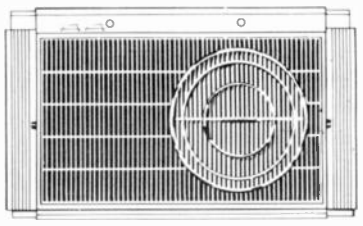
26 quality models, 4,000 to 29,000 BTU*

*Net NEMA

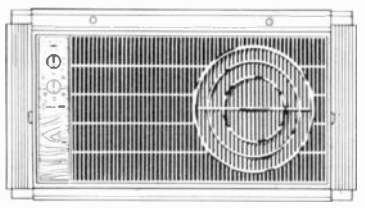
Reverse cycle heating/cooling units also available. Flex-O-Mount® or installation kit included with all models. Optional kit for mounting casement unit in double-hung windows.



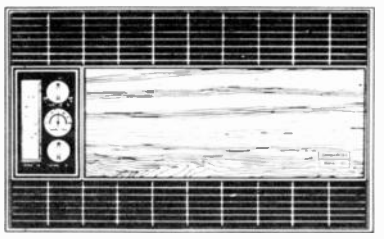
New Admiral Casement model, 6,000 BTU*, 115v. 14½" wide.



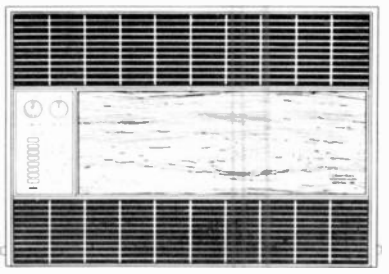
New Admiral Princess models, 4,000 to 7,400 BTU*, 115v. Easy to install in minutes with Flex-O-Mount.



New Admiral Coronet models, 8,000 to 10,000 BTU*, 115 and 230v. Two cooling speeds. Exhausts stale air.



New Admiral Royal models, 8,000 to 19,000 BTU*, 115 and 230v. Pushbutton climate control, up to 3 speeds.

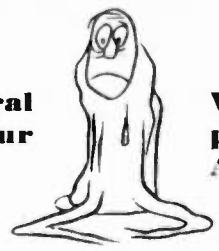


New Admiral Imperial models, 22,600, 25,600 and 29,000 BTU*. Exclusive "Cycle-Aire" and "Arctic Window."

Conditioners offer than a thermostat!

Admiral Royal 152, Model 1526C238A, 15,200 BTU,* with "Comfort-Stat."

Enjoy a fabulous holiday in Tokyo! Buy Admiral appliances, get a trip to the Orient. Call your Admiral Distributor for details.



Why melt this summer? Tie in with the U.S. Steel promotion to help make 1966 your biggest Admiral Air Conditioner year ever!

Admiral®

MARK OF QUALITY THROUGHOUT THE WORLD

Admiral Air Conditioners start at $89.95

Mfr. suggested list price Model 406A7, slightly higher South and West.

Roper free-standing ranges

Roper introduces two new free-standing ranges.

Both models—a 36-inch unit and a 30-inch unit—feature cook-and-hold oven controls and top front controls on the cooktop. New features are Mirror Oven Windows, click valve controls, and a larger oven. The models have leg levelers, appliance outlet, roll-out broiler, removable oven door, oven light, and clock timer. Optional equipment includes an aluminum oven liner and oven rotisserie. Suggested retail prices are $204.95 for model 1396, and $219.95 for model 1696 (shown). *Geo. D. Roper Sales Corp., 1905 W. Court St., Kankakee, Ill. 60901*

Broan range hoods

Broan introduces a new line of six range hoods highlighted by a 3-speed dual blower unit.

The new dual blower unit features both horizontal and vertical air discharge. It will deliver more air on "low" or "medium" than most units do on "high" and yet performs quietly, according to Broan. The five remaining models include two ducted and two ductless models with either 1-speed or 2-speed motors, plus one model with a round top discharge fan. The new hoods are available in white, stainless steel, antique coppertone, and shaded coppertone. *Broan Manufacturing Co. Inc., Hartford, Wis.*

Crown side-by-side gas ranges

Crown's new side-by-side gas ranges will be available Apr. 1.

The new Imperials come in both free-standing and set-in models. They feature an oven to the left or right of the cooktop, and a broiler at waist height. Free-standing model 4007 (shown) has two ovens and two broilers. Set-in model 2007 features a single oven, broiler, and cooktop. The free-standing model will retail for $529, and the set-in model for $329. Both units feature clock controls and come in white, copper, beige, turquoise, pink, yellow, or ebony.

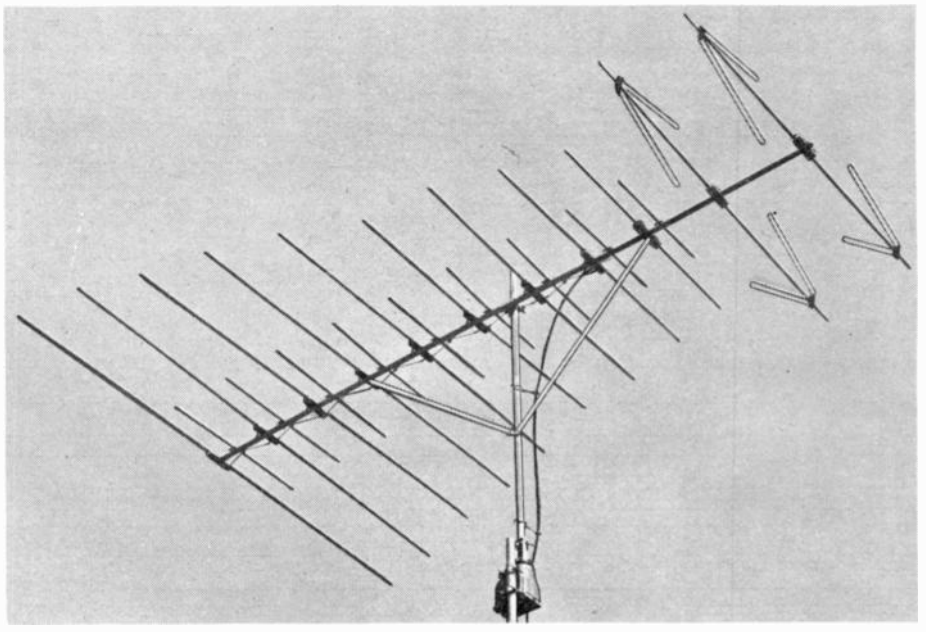
Also new in the Crown line are infrared broiler burners. Known as Direct Ray, the new burners are introduced as standard equipment on the entire line, including the Imperial. The burner itself is a cylindrical, gas-fired unit that heats an overhead porcelain-finished reflector plate. The plate, in turn, deflects the heat waves downward to cook the food. Walter Rogers, president of Crown Stove Works, said the innovation will not cause a rise in prices. *Crown Stove Works, 4627-4635 W. 12th Pl., Chicago 50, Ill.*

Hardwick single eye-level oven

Hardwick announces a new cooktop model with an eye-level oven in its 1966 line of electric ranges.

The new unit is made to be installed above a 30-inch base cabinet. It features a patterned glass oven window, shadowbox fluorescent cooktop light, oven light, and brushed chrome finish. The oven has a 2,000w top broil unit and a 1,700w bake element. Fast preheating is an additional feature. Surface elements have "high" and "low" settings with "infinite" intermediate temperatures possible. Self-cleaning elements reduce spillovers to ashes in seconds, according to the company. A Thermal Eye is optional. *Hardwick Stove Co., 1815 E. Main St., Chattanooga, Tenn.*

Togetherness!
Now sell it TV style!



We have a plan.

A big-ticket couple that goes together can be sold together.

Everybody knows Color TV sets are big ticket. But did you know color antennas are, too? In fact, in some areas you may even make more on the antennas (and accessories) than the set.

So why sell one without the other.

What's holding you back from getting *both* tickets when it's just as easy to sell a Channel Master Color Crossfire* antenna as an ordinary black-and-white antenna. But lots more profitable. And even more necessary for good reception.

That's why it *must* be Channel Master.**

Channel Master is your No. 1 insurance for customer color set satisfaction. We color-engineer the right antenna for every area—including yours. (And warehouse it locally).

We also make and sell more outdoor antennas than any other company in the world. Anyone else is No. 2 at best.

Not set up for installing antennas? We have a plan that makes your role so easy it's a pleasure. It's no work and all pay.

Clip the coupon now and we'll prove it.

CHANNEL MASTER

*Or Ultradyne Crossfire for VHF/UHF. **Covered by 3 separate patents and 2 patents pending.

CHANNEL MASTER
Ellenville, N.Y.

All right, I'd like to sell "TV Togetherness!" Prove you can get me that *second* big ticket sale.

☐ Tell distributor to call me. ☐ Write me about your plan.

Name .....

Title .....

Store Name .....

Address .....

City and State .....

New Gibson Carefree ranges let you clean the oven in the sink – and Teflon® makes it so easy. Nice story to sell, isn't it?

New Gibson ranges bring common sense to the easy-clean oven feature. No high voltage, high prices or high intrigue. You simply lift out the Teflon®-coated wall panels and sponge them clean with ordinary detergents – at the sink, where women prefer to clean. Oven racks, bottom panel and surface unit drip pans clean the same lovely, logical way. Gibson's Teflon® Carefree oven is a delight to demonstrate – as you show that drips and spatters won't cling, burn or stain, and wash away instantly with ordinary, mild detergents. See the volume-priced Gibson ranges now, with presold Teflon® cleanability!

you'll be glad you've got

Gibson

Refrigerators, Freezers, Room Air Conditioners, Ranges

PRODUCTS OF **HUPP** CORPORATION, MARKETED BY GIBSON REFRIGERATOR SALES CORPORATION, GREENVILLE, MICHIGAN

RCA takes the wraps off the first tv set with integrated circuit

RCA today will unveil the industry's first television set incorporating an integrated circuit.

What distributors meeting in San Francisco will see is a version of the 12-inch, black-and-white, all-transistor Minikin. The new set, which will feature a combination of transistors and a single solid-state device, will be priced higher than RCA's current 12-inch Minikin, which opens with a list price of $114.95. The new set will weigh in at 19 lbs.

RCA's strategy

Although better performance and great reliability will be widely publicized as the reasons for the new integrated circuit, the story does not stop there.

Image building for RCA (for example, in space age technology) constitutes an important part of the company's strategy, particularly in its running battle against Zenith's handcrafted story. There is no doubt that RCA will push the higher priced set as a quality unit incorporating all the latest technical advances in its effort to build the unit's Cadillac image.

But equally important, the electronics industry (RCA is a prime example) is facing a scarcity of skilled labor. For this very reason, RCA is building a new tv picture tube plant in Memphis, Tenn., instead of adding a facility at its headquarters in Indianapolis.

When less is more

One way to skirt the labor problem is to design fewer components into a product so fewer people are needed to build a set. Integrated circuits fit this bill perfectly. This may be the new set's biggest advantage, according to B. S. Durant, president of the RCA Sales Corp.

The integrated circuit in the new set replaces 26 separate devices. And as Durant puts it, "We now have one insertion [in a circuit board]. Previously, we needed 26."

RCA's timing in the use of integrated circuits has created a giant controversy inside the television industry. But the company is not without supporters.

"Integrated circuits could cut production costs 25%," comments Peter Humeniuk, engineering manager of General Electric Co.'s tv receiver department.

The industry uproar

But, counter the Zenith Radio Corp. and the Admiral Corp., both of Chicago, integrated circuits are premature and too expensive.

"Now," argues J. E. Brown, Zenith's vice president for research and engineering, "integrated circuits are premature; we'll use them only when there is something to be gained and when they can be mass-produced.

"Exorbitantly priced," adds John Landeck, Admiral's chief of monochrome tv engineering, "and the functions aren't close to what the industry needs."

"But," points out Fred Hayden, tv-engineering manager for Los Angeles-based Packard Bell Sales Corp., "The fact that RCA made its move will push the other manufacturers to do the same thing."

But just when other set manufacturers are going to be pushed into unveiling their own designs remains one of the industry's best kept secrets. But there are already strong indications that mighty Zenith is now close to announcing a tv set using integrated circuits.

Picking your spot

RCA picked one of the safest spots in the receiver's design to get integrated circuit out of the lab and onto the market—the sound intermediate-frequency and sound discriminator stage. This is a low signal-voltage circuit without the stringent demands, for example, of the radio-frequency or deflection circuits—like betting on a sure thing.

"We don't use integrated circuits," comments Durant, "unless we get a price or reliability or performance advantage. We get better performance, we're sure we'll get greater reliability and no comment on price."

Clyde Hoyt, staff engineer in the RCA Victor Home Instrument Division, adds, "This integrated circuit stage gives us better sound sensitivity and has reduced sound-interference in the picture."

No help for rivals

The single integrated circuit, designed by RCA Victor with the help of a computer and produced by RCA's Electronics Components Division, in Harrison, N.J., replaces:

- 2 transistors
- 2 diodes
- 14 resistors
- 7 capacitors
- 1 inductive coil

This particular integrated circuit is the result of two years' work by RCA in linear integrated circuits. The circuit, according to Herbert Taber, market research manager of the electronic components division, "will not be sold to the industry. It's strictly for in-house consumption."

Even though the reliability of integrated circuits is great, RCA will not offer any extraordinary guarantees or warranties on the new unit. At this point reliability appears to be immeasurable. "Nobody really knows," explained Durant, "how infinite the reliability will be."

Durant sees widespread use of integrated circuits in tv by 1970, "when every tv will use it."

Here comes Fairchild

Hoyt then pointed out the probable design-path the industry would take. "We put integrated circuits into our 12-inch solid-state set because, from a cost point of view, integrated circuits design work is easier if you start with a chassis that is already transistorized."

Semiconductor producers are also planning announcements of integrated circuits specially designed for tv. Fairchild Semiconductor Division of Fairchild Camera and Instrument Corp., of Mountain View, Calif., soon will announce, "the micro amplifier 703. This single basic circuit can, through lead rearrangement, serve as either a color oscillator, video IF, or sound IF circuit," according to Bernard Marren, consumer department manager. "We're also aiming the 703 at the premium FM radio market as an IF amplifier," he adds.

Production, he says, will be 1,000 circuits a week by the end of the month. —*Louis S. Gomolak*

The price of Japanese color tv: how Sears does it

Price of the first Japanese color tv shipments to the U.S. this year averaged a remarkable $177.46 per set, f.o.b. Japan, reports McGraw-Hill World News from Tokyo.

The repercussions from this eye-opening f.o.b. price are already being felt in both the U.S. and Japan.

Japanese set makers, concerned over the trend in pricing, are seriously considering a check price for color units destined for the U.S. market. The minimum f.o.b. price under consideration for 19-inch color sets: in the $180-to-$185 range.

The f.o.b. prices also indicate to some extent why Sears Roebuck is able to price its Japanese color sets so competitively. In the current Sears spring-summer catalog, a 19-inch Japanese consolette is pegged at $329.95; a 16-inch Japanese consolette sells for $259.95.

Only a few color sets—4,096 units valued at $726,858—were shipped to the U.S. in January, and the largest portion of these undoubtedly went to Sears. Although the January figures were small, the Japanese do expect to ship upwards of 160,000 color sets to the U.S. before 1966 is over.

Total Japanese tv shipments for January—64,097 sets—ran 34.68% ahead of the comparable 1965 period. Average price of the black-and-white sets for January: $53.38.

Japanese radio shipments were off to a brisk start in January, but competition from Hong Kong, Taiwan, and Okinawa was not far behind. While the Japanese were shipping more than 500,000 transistor radios to the U.S. in January, Americans were importing over 390,000 transistors from the three islands. The average price of the Japanese transistor radio sets for January was $7.29 per unit.

Japanese exports to the U.S.*

		UNITS			DOLLARS		
	date	1966	1965	% chg	1966	1965	% chg
Transistor radios**	January	533,491	366,046	+ 45.74	3,890,391	2,677,483	+ 45.30
Chassis/kit tr. radios	January	20,076	5,700	+252.21	90,463	26,233	+244.84
Toy tr. radios	January	14,300	31,758	— 54.97	10,063	45,569	— 77.92
Total tr. radios***	January	574,365	407,230	+ 41.04	4,061,693	2,802,835	+ 44.91
Tube radios	January	36,885	66,074	— 44.18	452,486	598,452	— 24.39
Chassis/kit tube radio	January	6,206	12,682	— 51.06	85,677	122,750	— 30.20
Television, b&w	January	60,001	.....	.....	3,232,952	.....	.....
Television, color	January	4,096	.....	.....	726,858	.....	.....
Total television	January	64,097	47,591	+ 34.68	3,959,810	2,589,227	+ 52.93
Radio-phonos	January	12,831	8,174	+ 56.97	208,341	213,646	— 2.48
Tr. port. tape recorders	January	29,021	24,550	+ 18.21	644,708	339,486	+ 89.91
Total tape recorders†	January	95,551	124,025	— 22.96	1,359,674	1,736,449	— 21.70
Transceivers	January	120,310	90,027	+ 33.64	990,280	966,091	+ 2.50

*Source: McGraw-Hill's Tokyo Bureau **Three or more transistors ***Includes tr. car radios †Includes transistor & tube tape recorders

U.S. imports from Japan****

Transistor radios	January	759,886	492,378	+ 54.33	5,460,012	3,640,227	+ 49.99
Radios, other	January	122,856	94,580	+ 29.90	1,212,496	668,419	+ 81.40
Radio-phones	January	21,376	2,505	+753.33	395,593	90,527	— 56.30
Phonographs	January	32,084	3,749	+755.80	316,293	43,732	+623.25
Television	January	85,446	46,680	+ 83.05	5,467,315	2,652,828	+106.09

U.S. imports from Hong Kong****

Transistor radios	January	299,724	130,620	+129.46	776,781	425,421	+ 82.59

U.S. imports from Okinawa****

Transistor radios	January	30,691	23,284	+ 31.81	81,236	80,612	+ .77

U.S. imports from Taiwan****

Transistor radios	January	59,912	5,000	+1098.24	168,632	12,838	+1213.54

****Source: U.S. Customs

JANUARY AND ZENITH SALES* HISTORY... PRODUCT

...FOLLOWING THE GREATEST YEAR EVER FOR ZENITH, THE LEADER– WITH WELL OVER 2,000,000* TV UNITS SOLD IN 1965!

*U.S. DISTRIBUTOR UNIT SALES TO DEALERS

FEBRUARY '66 GREATEST IN IN EVERY LINE!

Following Zenith's tremendous, record-breaking year in 1965, we are off to an even faster start in 1966, with the greatest January and February sales in history . . . for all product categories.

Our Color TV sales hit the highest level ever, substantially above last year's record pace.

B&W TV sales impressively surpassed last year's all-time record.

Zenith stereo sales surged spectacularly beyond the record clip of 1965.

Portable phonos set a new Zenith sales record last year.

Yet in January and February of this year we sold nearly double the total in the same period last year.

In Zenith radios, January and February were record months, with sales up in all major categories. And the trend toward FM—with higher ticket sales—is especially accelerating.

This continued sales success in every product group is a tribute to Zenith quality, and to Zenith distributors and dealers everywhere.

We are proud of all three.

L. C. Truesdell

L. C. TRUESDELL, PRESIDENT
ZENITH SALES CORPORATION

ZENITH®

The quality goes in before the name goes on®

Why are RCA Solid Copper Circuits built to take a beating?

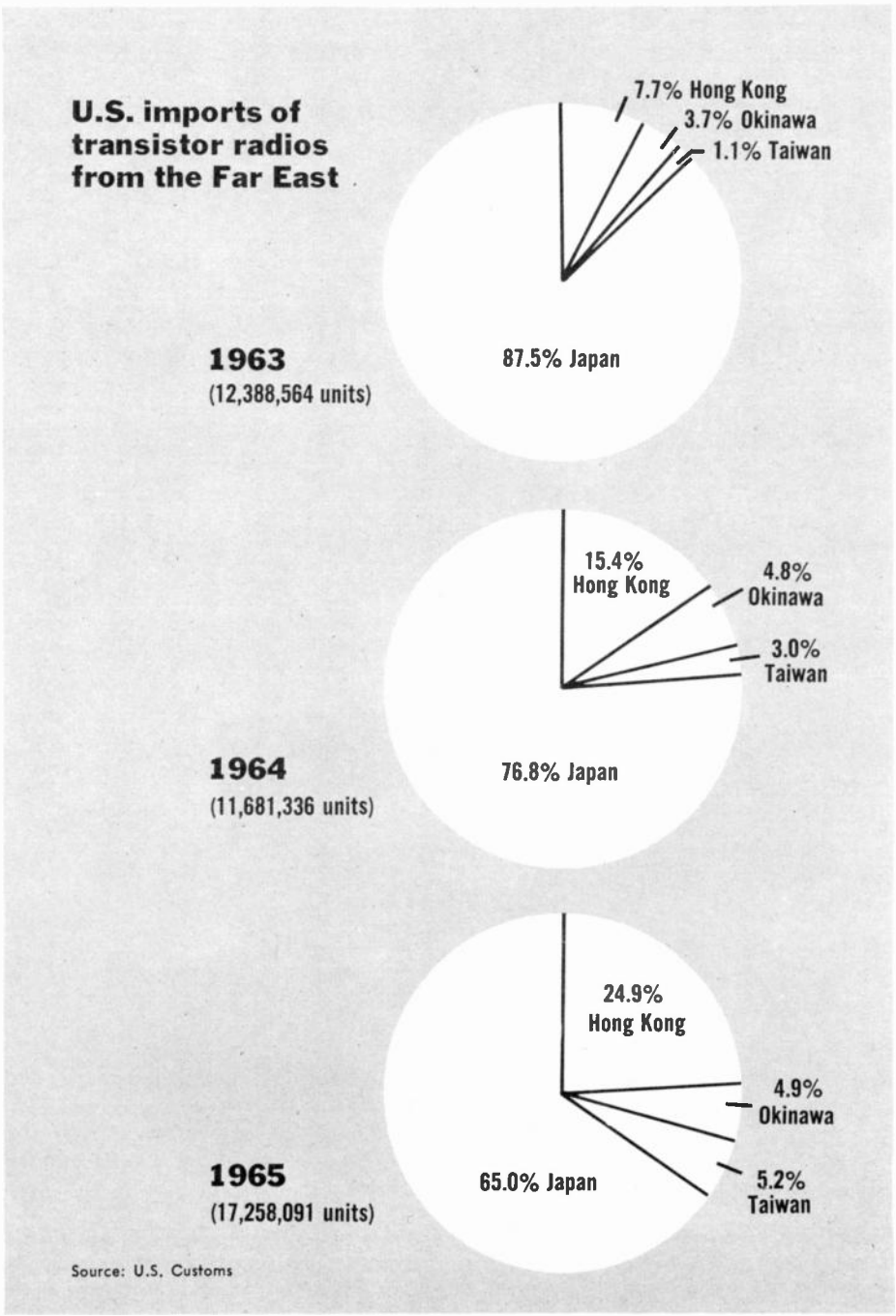
For fewer service headaches --Space Age dependability.

RCA SOLID COPPER CIRCUITS

They won't come loose. Won't short circuit. Won't go haywire. That's why they're the circuits of the Space Age.

The Most Trusted Name in Electronics

Taiwan, Hong Kong, Okinawa—little competitors of Japan getting the big eye from the boys in the board room



Japan's three island competitors—Taiwan, Okinawa, and Hong Kong—are the "boom towns" of the Far East.

The pioneers in the Oriental frontier, which now include many U.S. companies, have struck gold. Low labor costs and advantageous laws to encourage building have brought on a rush to the East.

The primitive products on the frontier—the $2 f.o.b. radio—are still being turned out. But, as the islands' industries grow, the products are becoming more sophisticated. The first signs of a television industry are appearing, and the FM radio, a sure sign of civilization, is now becoming an important part of the three islands' output.

As bigger factories are built, bigger companies move in, and more sophisticated products appear, the litle islands are grabbing business that once went only to Japan. As illustrated in the chart at left, Japan's share of the total Far East transistor radio trade with the U.S. is shrinking. However, in some ways this figure is misleading. In Taiwan, for example, most of the radios produced for the U. S. are built with Japanese components—for Japanese companies. Japan is actually one of the pioneers in these islands.

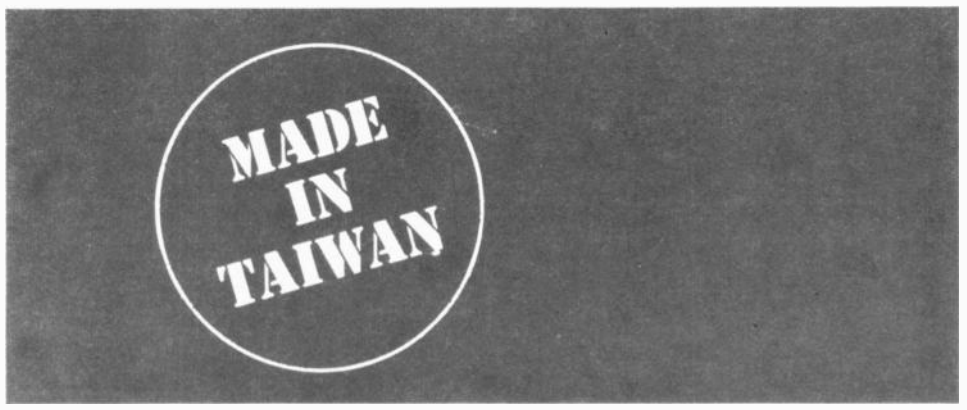
Most interesting in the growth of the islands, however, is the entry and the expansion of U.S. companies there. In typical boom-town fashion, the islands are attracting industry to build their own economy. And this plan is obviously advantageous to both parties.

Philco's new plant now under construction in Taiwan will turn out a number of consumer products and components. And a look at the list of U.S. companies now inspecting sites in Taiwan gives an excellent indication of the potential obviously seen there by the U.S. giants. In Hong Kong, Transelectronics, a subsidiary of ITT and Zenith, will turn out 1 million radios this year.

As the big companies turn out bigger quantities of products from the three islands, the importance of these far-away places should grow in the mind of both the retailer and the manufacturer in the U.S. It is not improbable that the wagon train from the islands could become by far the most important source of supply for low-cost radios.

The discussion of the three islands on the following pages points up the move in this direction. While Japan is still the largest producer of radios, the number of importers stopping first at Hong Kong, Okinawa, or Taiwan is growing. The Hong Kong-style radio—and the Okinawa and Taiwan radio—is in growing demand.

But there are problems for the pioneers. For a close look at the rough-and-tumble style on the frontier, turn the page.



Taiwan: pioneers prosper on a cash crop of transistor radios

Taiwan is the frontier in the Far East. The ground has been cleared. Now the claims are being staked. No newly opened territory in the Gold Rush days could claim the growth that Taiwan has seen in the past five years.

One American working there says, "I've never been in a place with an economic, political, and commercial climate so favorable for investment. It has the ideal combination of availability of land, labor force, and political stability. The U.S. aid program plowed the ground, planted the seed, and nurtured the young plants. Now is time for the harvest."

The boom is based on one incredible industry: electronics. Taiwan already is being tapped by television set manufacturers, but the transistor radio has been the touchstone of Taiwan's success. Half a decade ago, only a handful of radios —not quite 25,000—left Taiwan for the U.S. Last year, a total of 888,858 transistor radios were imported from Taiwan to the United States.

The spark that caused this explosion has been the entry of American and other foreign producers into Taiwan to build for the export market.

One of the first of such settlers was General Instruments Co. Its subsidiary, Taiwan Electronics, is now turning out UHF tv tuners, tv deflection yokes, i-f transformers for auto radios, and a small number of selenium rectifiers.

But the real bellwether is Philco Corp. Philco is now building a large consumer products plant for radios, phonograph chassis, compact tv sets, and electronic subassemblies near Taipei, the capital of Taiwan.

The government is closemouthed about companies that have made inquiries about coming to Taiwan—until they actually invest their money. But the local residents are always ready to mention the visitors they have had. Packard Bell, which is interested in television set assembly, has come to call. Sarkes Tarzian is talking about building tv tuners in Taiwan.

Westinghouse, which did not know what it would produce when it made an initial survey, but did not want to be left out, has been to Taiwan to look things over. (Taiwan Colum Co. Ltd., a Taiwan electronics company, was approached by Westinghouse last April. The U.S. company offered to invest in Taiwan Colum and give it business, but, according to S. C. Wang, the company's manager, the offer was turned down.)

Other companies that have made the trip to Taiwan to check out the situation have been: Signetic Div. of Corning Glass, integrated circuit assembly; General Microelectronics, semiconductor assembly; Toshiba (Tokyo Shibaura of Japan), transistor assembly; British Sound Reproducers, sound equipment; Lockheed, computer memories; and Atlas (from Hong Kong), radios.

The price of going east

In the age of transistors, pioneering is still rough-and-tumble. But Taiwan has shown it can take it.

Taiwan is now turning out transistor radios for as little as $2 f.o.b. And Taiwan—at least one company in Taiwan, Dah Sen Hong—is turning out FM sets at $7.50 f.o.b. (This price should drop to about $6.50 by midyear.) Television sets and tape recorders are also being assembled by several companies.

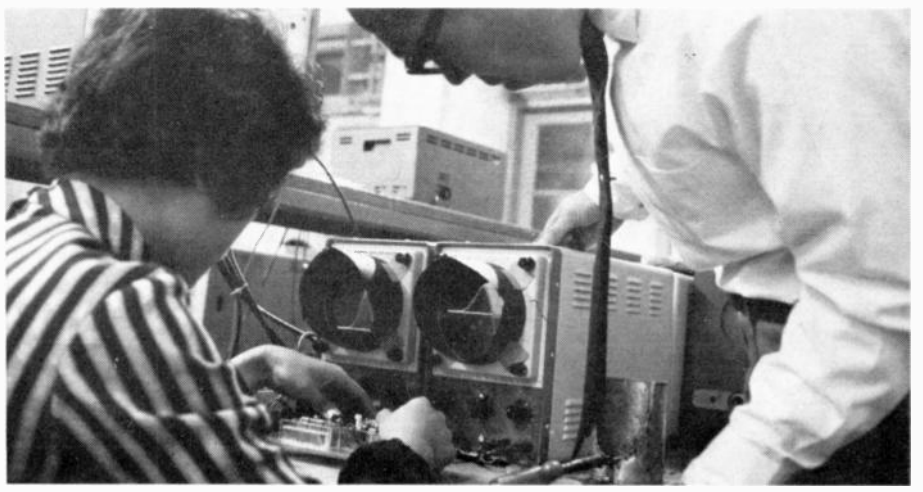
Only about two years ago, two companies, Dah Sen Hong and China Electric Manufacturing Co. Ltd., dominated the production of radios that were exported from Taiwan to the U.S. Now they have been joined by four other companies: Wha Fong Industrial Co. Ltd., First Electric Co. Ltd., Shang Hwa Electric Works Co. Ltd., and Fusion Industries Ltd.

With the exception of one company—China Electric Manufacturing Co. Ltd., which builds many of its own components—most of the island's firms assemble radios from kits brought in from Japan. To a great extent, the export radio business in Taiwan is a subcontract assembly business in which a Japanese company calls the shots. The Japanese company sells the radios, buy the components for the radios, and contracts with a company in Taiwan to do the assembly.

There is little hope for domestic fabrication of tubes or transistors in Taiwan for some time to come. There are taxes on domestic components that are refunded if the components go into export products. But it may take up to two years to get a refund, and most small companies cannot afford to have their money tied up so long. (Even Tatung Engineering Co., which is the largest local company in the electronics business and which claims to have the most experience in tax refund transactions, says it must wait six to 10 months—although the waiting period is gradually getting shorter.)

The minimum assembly charge unofficially set by the government—a charge which many of the companies object to—is 30 cents for a 6-transistor radio. (A Dah Sen Hong official says that a 6-transistor radio can be assembled in Japan for 22 to 34 cents.) Other current minimum prices for assembly are 40 cents for an 8-transistor set, 45 cents for a 10-transistor model, 50 cents for a 12, and 55 cents for a 14.

The government regulates these check prices by requiring the assembly fee to be more than a certain minimum before it will approve the letter of credit used to pay for assembly charges.



At Dah Sen Hong, the first company in Taiwan to produce FM radios, a worker is instructed in aligning an FM unit. The company, which has built transistor radios for Montgomery Ward, says it is this test equipment which made success with the FM sets possible. All alignment is done with sweep generators and oscillators—using no output meters.

Charles F. Chu is the manager of China Electric, the only export radio company in Taiwan that is in independent business, rather than serving as a subcontractor for others. China Electric builds many of its own components and is expanding into several fields—but not FM. "Competing with Japan's prices, how can you make a profit?" he asks.

These rates put Taiwan assemblers at a disadvantage, they think, in winning contracts for high-transistor-count radios, many of which are no more difficult to assemble than a six.

For example, take a 6-transistor circuit, redesign it to use four transistors with a push-pull parallel in the output stage, and you have an 8-transistor radio. Major difference in assembly is the insertion of two more transistors—no other parts are needed. Yet the assembly charge goes up 5 cents per radio.

Labor costs, however, are another story. One company in Taiwan complained that wages have gone up about 10% in the past two years, so it must pay a minimum of 40 cents a day to get girls for the assembly lines. Maximum pay for the girls at this company—which pays wages a little higher than the average—is 68 cents a day.

An American manufacturer of electronic components in Taiwan is E. H. Rehfeldt, chairman of Taiwan U.S. Industrial Co. (Tusico). He says that before settling in Taiwan, he visited both Japan and Hong Kong. He feels that real wages in Hong Kong are perhaps two or three times those in Taiwan. And real wages in Japan are eight to 10 times higher.

Rehfeldt is enthusiastic about his workers. "Even inexperienced girls can be trained in one-quarter of the time, or less, than it takes to train girls in the U.S. This includes hand and machine work, skilled and semi-skilled. These girls are dedicated to work and want to work. They work about 100% more efficiently than girls in the U.S.," he said.

It should be noted that firms coming to Taiwan must be committed to export, because of the small size of the island's economy. Two large Japanese electronics companies that have branches in Taiwan, Matsushita and Sanyo, are meeting with increased resentment from local industry and government because the Japanese companies are concentrating on the more lucrative local market rather than on exports. Perhaps, as they say, they are doing some good by bringing to the people of Taiwan inexpensive, high quality refrigerators that helped revolutionize living in Japan not so many years ago, but there certainly is not any more room for others, however good their intentions.

The law of the land

In the age of the transistor, frontier law is set by government agencies. In Taiwan, the laws to encourage investment have been superimposed over other old laws. Thus there are many complaints about red tape, and increased operating cost caused by it—sometimes because of rebates and bribes.

One of the major problems in Taiwan today is the government regulations that prevent issuance of a back-to-back letter of credit. This sounds complicated, but the problem is simply this: for each radio, two payments are required—payment for parts to the Japanese supplier, and payment to the Taiwan assembler. Buyers in the U.S. dislike making two payments for one shipment.

In Okinawa and other places, the assembler receives a letter of credit from the buyer. He takes this to a bank, which, on the strength of this letter of credit, issues another to the parts supplier. This is known as a back-to-back letter of credit. There is no actual law prohibiting this in Taiwan, but the documentation required for the letters of credit effectively prevents issuing a back-to-back letter of credit.

The number one problem in Taiwan today is this letter of credit situation, says Toshima Tsuchida, vice president of Fuji Senrin Co., a leading Japanese user of contract assembly in Taiwan and Okinawa. To get around the problem, the Japanese company often makes an arrangement with one of Japan's ubiquitous trading companies to handle the financial problems. The trading company takes the letter of credit for the completed radio and essentially loans money against payment of the original letter of credit when the shipment is made. For this service the Japanese trading company gets both a commission and interest payment, which total about one-half cent a radio.

Another problem exists in Taiwan for the small assembler. Formerly, each company kept its components and finished radios in its own warehouse. It would get a bond from the bank, using a mortgage on its own buildings perhaps, to guarantee that the duty-free components it imported would be re-exported as finished radios. In 1965, the government changed the system. It took over the bonded warehouses belonging to smaller manufacturers with capitalization of less than $125,000, and used the same space in the assembler's premises to set up a government-bonded warehouse.

The intention of the law setting up government-bonded warehouses is to promote exports and to relieve small manufacturers of the need to furnish bond.

However, assemblers say that, instead, they are now plagued by problems of having their stock maintained by a government employee.

An assembler is allowed a certain number of kits out of the warehouse to work on—perhaps enough for 5,000 radios. This makes the problem of running the plant very delicate because careful planning is required, and small assemblers do not ordinarily run on that tight a schedule. It is particularly inconvenient because the government official in charge, who is supposed to be on duty during normal working hours, may lock the warehouse and disappear.

When a company is working on a number of different models at once, production scheduling can be a great problem. One company says that the initial number of kits it was allotted was insufficient and it put in a request for more, but got only half as many more as it asked for. At times, it has had girls idle because of a lack of parts.

The law on importing production machinery is more straightforward. Companies that locate near Taipei, such as Philco or General Instruments have done, or elsewhere outside of the export processing zone at Kaohsiung, will be able to import production machinery tax-free for five years if their capitalization exceeds $2.25 million and their production is for export only. Even if capitalization is lower they will be able to loan themselves equipment for five years and bring it in tax free. General Instrument's subsidiary, Taiwan Electronics, has taken that route. Maximum income tax for these companies is 18%.

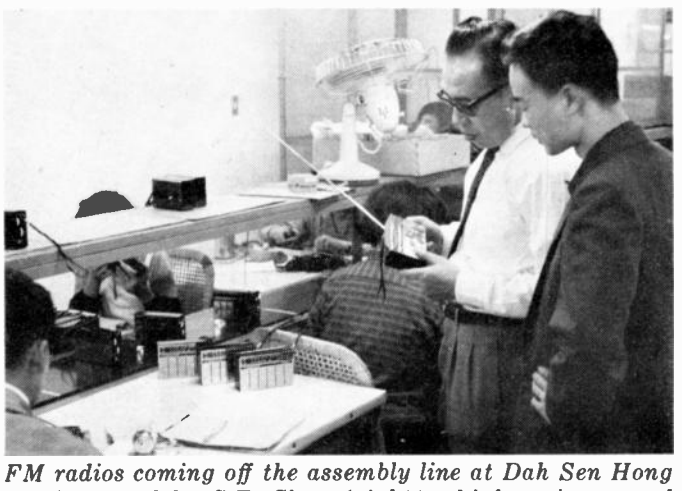
Who's who: the pioneers

Dah Sen Hong—This company holds first place in radio exports from Taiwan. By the end of November last year it had shipped 373,408 sets. And while it steadily increased its shipments, Dah Sen Hong became the first company in Taiwan to successfully export FM radios. More than 10,000 FM sets were shipped in October and November of last year.

Dah Sen Hong's success in FM is all the more impressive because the company made them on a line that started with all new workers in August. The line was switched over to FM in one working day, and the first

Madame J. Y. Lee Yang is the chairman of Shang Hwa Electric Works Co. Madam Yang has been associated with electronics for 20 years and is famous throughout the industry Her company makes radios for the domestic and export market, serves as the Taiwan agent for Standard Radio Co. of Japan, and also builds tv sets for the domestic market.

E. J. Rehfeldt is chairman of Tusico (Taiwan United States Industrial Co.), which manufactures electronic components in Taiwan. Here he watches his foreman instruct a girl in winding coils. "These girls work about 100% more efficiently than girls in the U.S.—skilled or semi-skilled," says Rehfeldt.



FM radios coming off the assembly line at Dah Sen Hong are inspected by S.T. Chen (right), chief engineer, and Shozo Fujikawa of Shin-Shirasuna of Japan. Shin-Shirasuna designed the FM set and supplies the components and test equipment for building the FM unit. The set now sells for $7.50 f.o.b. Taiwan.

Taiwan continued

10,000 sets were made in 38 working days.

The fifty girls on the line were producing about 400 FM sets in an eight-hour day during December. Still, the rate is lower than for AM production. The company can produce 800 ten-transistor radios on one line in one day using only 42 girls.

The price of the FM set is about $7.50, but it is expected to go down to about $6.50 by the middle of this year. Part of the price reduction will be in assembly costs, which will go from the current 70 or 80 cents to about 60 cents.

The set was designed by Shin-Shirasuna Denki Mfg. Co. Ltd. of Japan, which also supplies the components and all test equipment.

Dah Sen Hong's exports are 100% to the U.S., whereas in 1964 the company was making 6s only, in 1965 it made only about half 6s with the remainder 8s, 10s and FM. All sets the company made were assembly subcontracts for Japanese companies, and the minimum assembly charge was 30 cents for a six.

This year the company plans to take some orders of its own. It will have the sets designed by Toyo Radio Co. Ltd. in Tokyo. Expected total production for 1966 is about 600,000 sets.

Modernization of the 12,800-sq.-ft. plant may go slowly, however, because the company owns land near its present location and will probably build a new plant in 1967. At that time it may design and build its own radios. It may also make some components, such as resistors, for its own use and for export. The company does not now use any Taiwan parts because the price is too high.

China Electric—This is the only export radio company in Taiwan that is actually in business for itself rather than being a subcontractor for others.

Although its production of about 300,000 radios in 1965 puts it third after Dah Sen Hong and Hwa Fong, China Electric is a larger company because it manufactures its own components. However, China Electric is not expanding rapidly. Charles F. Chun, manager and son of the founder, says he does not wish to make excessive capital investment, so that the company may retain enough funds to change product lines if necessary.

One new business his company started in 1965 was the sale of speaker systems to Radio Shack, the U.S. retail chain. There also have been inquiries for speakers from several large U.S. manufacturers. The company says it will sell speakers for radio components—if the price is right. But it will not sell speaker systems to competitors of Radio Shack.

China Electric has also sold a trial order of 3,000 4-inch speakers to Trans-World Electronics in Hong Kong.

Another new product from China Electric is transceivers. The company made ten pairs in September, and some customers indicated interest. It now has orders for 20,000 pairs at about $5.50 a pair f.o.b. And the margin on the transceivers appears better than for radios.

A field the company is staying out of is FM. Chu says that the price of a 9-transistor FM set in Japan is less than $6. "How can you make a profit at that price?" he asks.

Chu says that China Electric radios range from six to 12 transistors. The 7-transistor set is popular because it can be made for less than 50 cents more than the six. The low-end seven is a six with a poor transistor used as a diode.

In some of the sets for the U.S., sensitivity is purposely cut because the broadcasting stations are very powerful; if sensitivity of the set is high, too many stations are received. This is particularly important in abbreviated sets with poor selectivity.

S.Y. Liu (left) is the chief engineer at Tatung Engineering Co., which, under his influence has been transformed from a steel company to an integrated electric company, soon to shift its emphasis into electronics. The company's main electronic product is tv sets, and it says it made more than 10,000 units in 1965. Liu inspects a tv chassis above.

The cost of the components built by China Electric is too high to sell outside the company, Chu says. But he maintains these components are excellent for the company's own use. "If it wasn't so troublesome to import components, we wouldn't be in components manufacturing," he commented. "But it takes at least three months to import components.

"A radio has about 40 types of components. If even one is no good, you're really in trouble, because you must wait two to three months for replacements," he said.

Wha Fong—Wha Fong Industrial Co. Ltd. shipped its first export order at the end of 1964. Total shipments for that year were only 25,000 sets. In 1965, Wha Fong's exports shot up to 354,032 sets, about 90% of them to the U.S. Exports in 1966 should run at about the same rate.

H. Y. Wu, manager of the company, says that most of its 6-transistor radios leave Taiwan at f.o.b. prices just over $2. Most of these sets have no diode, built under subcontract for Furi Senrin Co. Ltd. in Japan. About 10% of its production is 10- and 12-transistor sets for the U.S.

Wha Fong may make FM radios this year, although the company still has need for improved equipment and technology.

The work force at the company consists of 200 employees, including 25 technicians and three graduate engineers. Girls on the assembly lines receive 33 to 50 cents a day, with the average being about 43 cents. The men are on monthly salaries that range from $20 to $62.50 a month, with the average being about $37.50.

Shang Hwa Electric Works Co. Ltd.—This company is different from most other Chinese companies in having a woman chairman, Madam J. Y. Lee Yang. President of the company is her husband, P. S. Yang. Shang Hwa makes radios for both the domestic and export markets, and tv sets for the domestic market. The company is also the Taiwan agent for Standard Radio Co. of Japan and assembles Standard's radios because completed sets cannot be imported into the country.

The company is now assembling export radios for Tokai Wireless Co. of Japan, and shipping them to Raleigh in the U.S. It entered this business in August, 1965, and claims to have completed 240,000 sets in 1965.

It has higher hopes for 1966 and plans to assemble 2-band, 9-transistor FM sets as well as AM sets. Shang Hwa also assembles speakers. It would like to get into other parts because it says it cannot depend on Japan. All parts needed—including tubes and transistors—should be built in Taiwan, says Madam Yang.

Madam Yang made one recent mistake. In 1964, Shang Hwa started to make radio tubes, and made them for more than a year until June, 1965, when production was phased out. The tubes were not well received in Taiwan because they were more expensive than Japanese tubes and not as good. Shang Hwa tried to persuade the government to ban imports of receiving tubes to protect its sales, but was not successful.

Kits of tubes for standard 5-tube radios are available from Japan for about 83 cents. Shang Hwa could not meet this price.

Radio production at Shang Hwa occupies a labor force of 220, of whom 180 are girls. The girls start at 37½ cents for an 8-hour day, and the average wage is 45 cents.

First Electric Co. Ltd.—This company did not begin production until February of last year, yet it built 130,000 radios during 1965. Most of the company's production was concentrated in 6s and 8s, but it also turned out 10-, 12-, and 14-transistor sets.

The company's production facilities are adequate for 30,000 to 50,000. First Electric gets all of its parts from Fuji Senrin, for whom it does contract assembly. It is contemplating buying the vinyl case for cheaper radios on Taiwan. This item is worth perhaps 2 or 3 cents. In the future, the company would also like to use other parts made on Taiwan, including cabinets, knobs, printed circuit boards, and antenna coils.

There are 150 employees, of whom 120 are girls. They start at age 14 with a minimum salary of 32½ cents, and after three months get a raise of 2½ to 5 cents a day. Maximum salary for the girls is 50 cents a day, and averages around 43 cents.

Fusion Industries Ltd.—This company makes radio-phonos for California Trading Co. which sells them under the Califco trade name. Parts are purchased in Japan from a number of Japanese parts manufacturers and the finished product, labeled "Made in Japan," is assembled in Taiwan.

Fusion was set up in September, 1964, but did not begin production until October, 1965. At present, the company's main product is a 7-transistor radio-phono that sells for about $12 f.o.b. Ten workers are now producing approximately 1,000 sets a month.

Fusion has also started making a deluxe radio-phono, a much larger unit than the standard model, that will sell for about $36 f.o.b.

In May or June the company will add another product: a rim-drive, constant-speed tape recorder that will sell for $8 to $10 f.o.b. The tape recorder will be constant speed even though it uses rim drive. This will be accomplished by using transistorized speed control.

Hong Kong: crown city of the Far East frontier—the modern emerges

The frontier look is disappearing in Hong Kong. As fewer and fewer manufacturers make more and more radios, the British Crown Colony is taking on a big-city look. And so are its products.

The larger companies are now moving into their own buildings, leaving the primitive lofts behind. Prime example is Semiconductor Ltd., Fairchild's subsidiary, which has moved into a large 11-story building—the like of which neither Hong Kong nor Okinawa have seen. Transelectronics, subsidiary of Zenith and ITT, has moved into a six-story building a stone's throw down the street. And Atlas Electronics, biggest radio manufacturer in Hong Kong, will move into its own building sometime this year.

Several manufacturers were bought out by the large competitors last year and several are now said to be close to folding. Some were able to get through last year only by doing subcontracting for their stronger competitors.

Biggest radio manufacturer in Hong Kong is now Atlas Electronics Corp. Ltd., with a capacity of more than ¼-million radios a month. It is followed by Wireless Products Ltd., with a monthly capacity of 140,000. And none of these companies has yet reached its peak.

The number-four company in Hong Kong is Transelectronics Ltd., which says it was producing at a rate of 1 million radios a year by the end of 1965. It expects 1966 production to total about ½-million units. In other words, Transelectronics expects to be producing more than 80,000 radios a month in 1966.

Arvin (Hong Kong) Ltd. is not anxious to release production figures, but it is not up with the largest companies. Probably ahead of Arvin at present are Oriental Electronics Corp. Ltd., with a monthly capacity of 60,000 to 70,000 sets; International Electronics Div. of International Service Corp., with about the same capacity; and Sanyo Electric (Hong Kong) Ltd., with a production in the neighborhood of 50,000.

Thus the total climbs—to make Hong Kong the busiest port on the Far East frontier. Last year, for example, 4,303,351 radios were imported from Hong Kong to the U.S. And that was an increase of 138% in units over 1964.

The FM on the frontier

This is the year that most of the major manufacturers in Hong Kong will be offering FM radios—rather than just two or three companies as last year. One reason that FM has not been faster in coming is that the huge demand for AM sets has left the qualified manufacturers little leeway to produce FM. But this is not the only reason.

Smaller engineering staffs and less adequate backup in general in Hong Kong has forced lead-time to be perhaps three times as long as in Japan. Also, the Japanese price for FM keeps going down, which makes it even more difficult for Hong Kong manufacturers to break into the FM market. Promotional FM sets for the U.S. now start at about $6 f.o.b. Hong Kong.

Other new products are also coming along. Many manufacturers are going into AC-line-cord operated sets, some with wood cabinets. Some will make amplifier chassis, or a complete line of hi-fi modules. One company is making auto radios, another a 4-tube rectifier communications receiver, and still another a waterproof radio that floats.

Transceivers are another possibility, although not popular at present.

Although manufacturers in Hong Kong claim that quality is going up as the weaker companies are being squeezed out, all Hong Kong manufacturers seem to be engaged in the battle of the high-transistor-count radios for the American market. None of them profess to like it, but say they are forced to make these radios for their importers. The importers, in turn, say it is their customers, and intimate that the ultimate culprit is the American consumer.

Maximum count in a one-band transistor radio is now 15 transistors, and it may go even higher.

At present, all manufacturers claim that no matter how high the count, all transistors in their sets perform *some* function. One manufacturer says frankly, "People are asking for a large number of transistors and we have to produce this type of set. It is up to the circuit engineers to find a place for the transistors where they can do no harm."

(This manufacturer and most others say that transistors soldered into the set but having no function constitute a fraud. Some say that they are afraid that the FTC will latch onto this problem and shake up the industry. They say that there are sets which can be turned on and then half the semiconductors can be clipped from the circuit with absolutely no change in performance.)

Aside from the increased number of transistors in high-count radios, many changes are occurring in the use of transistors. Although they do not like to publicize it, every large manufacturer in Hong Kong has a roomful of girls testing and sorting transistors.

What are they testing and why? They are testing Japanese transistors, American transistors, and Hong Kong transistors. They are testing the transistors so that their factories will be in the assembly business rather than the repair business.

Formerly, companies would use Japanese transistors right out of the boxes without testing them at all. But as prices have gone down, to the present neighborhood of 40 cents for a six-transistor-and-diode kit, all Japanese manufacturers seem to have opened up their specifications. This is not being done on the sly—the Japanese have revised their data sheets to reflect the change.

One radio manufacturer says that the Japanese are dumping ger-

At Transelectronics Ltd.—a joint venture of Zenith and ITT—the assembly line is built so that three radio chassis are mounted on a single carrier—a labor-saving technique the company borrowed from Zenith.

At Semiconductor Ltd., a girl applies a drop of epoxy resin to the top of the transistor package to form a seal. This is one of the last steps in the transistor assembly at the Hong Kong plant.

Hong Kong continued

manium transistors in Hong Kong because they are plagued with overproduction, and will continue to dump until they can complete the switch to silicon.

But there are also a lot of transistors from such U.S. companies as GE, Texas Instruments, Raytheon, and Transitron entering Hong Kong as "junk." These require even more selection than the Japanese transistors.

The availability of U.S. "junk" transistors, which now are silicon, and the presence of three companies producing silicon transistors in Hong Kong, is sparking a silent revolution toward the use of silicon. More and more Hong Kong manufacturers are now adopting this type of transistor.

How to handle rustlers

With all the electronics activity in Hong Kong, the government has recognized the industry as one that should be supported—because it has the greatest growth potential. Despite a history of about 100% growth a year over the past five years, growth potential of electronics still remains high, with no tendency toward saturation.

A major handicap of the electronics industry in Hong Kong has been the constant shortage of trained people. This has made some American and other foreign companies hesitant about moving in.

Not only are trained people hard to find, but they are rapidly being pirated away. One manufacturer says that unless a surplus of trained personnel is created, it will be impossible to stop body-snatching.

To cope with this problem, the government has recently set up an Electronics Industrial Committee to advise on problems, especially those concerned with industrial training. The committee's functions will include a study of the manpower needs of the electronics industry together with those of related industries. It will classify principal jobs, advise on minimum standards for the jobs, and advise on examinations and other tests.

It will also examine training facilities and make recommendations on improvements, and serve as liaison between industry and training facilities.

One manufacturer says that wages have gone up at least 10% during the last year and he expects another rise during 1966. And he complains that U.S. technical workers are extremely expensive in Hong Kong: for a man whose salary in the U.S. would be in the neighborhood of $12,000 to $15,000, the Hong Kong company must pay him about $25,000.

The sharpshooters

Atlas Electronics Corp. Ltd.—This company is the largest transistor radio manufacturer in Hong Kong. About half of its monthly production of 250,000 radios goes to the U.S.

The company is also one of the oldest radio manufacturers in Hong Kong, having been in business since 1958. It has grown both by internal expansion and by taking over less successful companies.

Atlas now has 24 radio production lines with a total of about 2,000 workers in several plants. Working on the most simple 6-transistor radios, one line can produce between 1,100 and 1,600 radios in 8 hours.

The company is now starting production of a promotional FM set that will sell for about $6 f.o.b. In addition to radios, Atlas also makes i-f modules for export to the U.S. and England.

Jack Phillips, a director of Atlas, says the company will have no part in fake transistors. Atlas production engineering is done in Hong Kong, but much of the basic work is done by engineering personnel at its Japanese branch, Atlas Japan Ltd.

Wireless Products Ltd.—This company is Hong Kong's second largest transistor radio manufacturer. In 1965, it hit a peak production of 180,000 sets during September and claims that 20,000 of these were FM.

Wireless, together with a smaller company, General Electronics Co. (Hong Kong) Ltd., was one of the two companies producing FM for about half of 1965.

Wireless now has four FM models with two basic circuits: two of the sets have 10 transistors, two have 14.

One of the owners of Wireless, Michael Cappon, says that the profitability of FM is not much better than for AM because the production line only goes at about half the speed. His company is making a mixed bag of radios that starts at six transistors and goes up to a large portable with 15 transistors.

Cappon says he has to get about 30 cents for assembling a simple radio—the same figure that is used as minimum in Taiwan. He says the actual cost of just assembling the simplest radio is 20 cents, with overhead taking a bigger cut than direct labor. But, he says, for that price it is not possible to have quality control, good test instruments, or research.

Trans-World Electronics—This is the first company in Hong Kong to switch over completely to silicon transistors.

Trans-World made the switch to silicon with General Electric, its traditional transistor supplier. When GE went with silicon and de-emphasized germanium, Trans-World went along. The switch was successful and Trans-World has been able to sell its silicon radios to U.S. OEMs, such as Philco.

In 1965, Trans-World produced about 1 million radios, which makes it Hong Kong's third largest radio manufacturer. Trans-World president Harold Sandler says that the company's unit volume more than doubled over 1964, and that dollar volume almost doubled, despite softening prices. He expects unit volume to double again this year.

By March, Trans-World expects to have increased its monthly production capacity to 160,000 units. Some of the brands produced by Trans-World are: Philco, Ambassador (for Allied Stores), Electra, Transette, Powertone, Honeytone, Harlite, and Medalist.

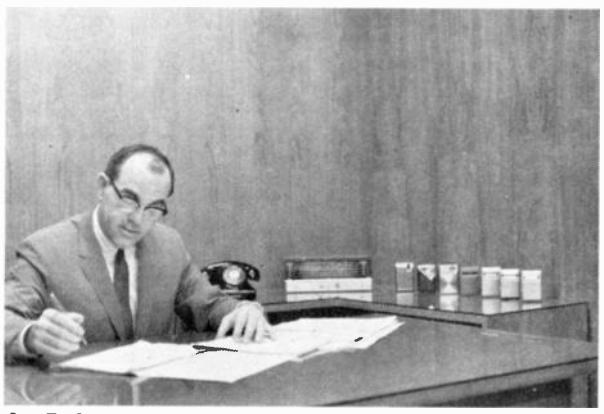
Transelectronics Ltd.—This company has plans to grow faster than any other electronics company has yet grown in Hong Kong. On Oct. 15, 1965, the company signed a lease for a six-floor building. It expects to make ½-million radios there during 1966 and turn them out at a rate of 1 million a year by the year's end.

Transelectronics is a joint venture of Zenth (35%) and ITT (65%). It has been described as a joint venture of convenience, with Zenith choosing this route as the easy way to start its first manufacturing facility outside the U.S.

The company will make radios for sale by Zenith in the U.S. and by ITT affiliate companies in Europe.

Production started on Dec. 2 with the Zenith Royal 85 pocket portable. Technical director Jack Gifford says that Transelectronic's production will concentrate on multiband AM

The new look in Hong Kong is exemplified by the new 11-story plant of Semiconductor Ltd. This building, lit up in this picture for the night shift, costs $2 million, has a total of 140,000 sq.ft. of working area. More than 2,500 girls work in the building, and Semiconductor has plans to raise this total to 4,000 or 5,000 by the end of this year.



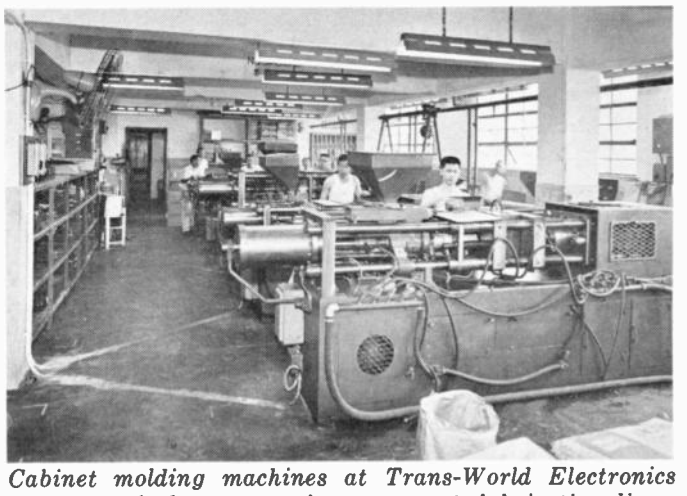
J. Robert Munn is general manager of Arvin (Hong Kong) Ltd. and vice president of Arvin International. Arvin Ltd., which builds radios for Sears and Arvin International, is producing mostly 6-, 7-, and 8-transistor portable radios. Its 25,000-sq.ft. plant employs 300 workers.

Jack Gifford is the technical director at Transelectronics, the joint venture of Zenith and ITT in Hong Kong. Transelectronics, which hopes to produce 500,000 radios during 1966, makes radios for Zenith to sell in the U.S. and for ITT affiliates to market in Europe.

Norman Peterson is general manager of Continental Device Hong Kong Ltd., a subsidiary of Continental Device in Hawthorne, Calif. The company, which makes transistors, is shipping transistors to the U.S. and is also starting to contact potential customers in Hong Kong.

Working at the new Semiconductor building, a girl cuts lead wires on the assembly line. Semiconductor actually assembles transistors, rather than make them. Its starting material is silicon wafers, on each of which several hundred transistors have been fabricated by Fairchild in the U.S. Most of the completed transistors go back to the U.S.

Testing the transistors at Semiconductor is done with oscilloscopes. Note the plastic bags at the girls' feet. Rather than count the number of transistors in a shipment, the company weighs them in these bags.



Cabinet molding machines at Trans-World Electronics are part of the company's component fabrication lines. The company, which turned out 1 million radios last year, also builds grilles and printed circuit boards.

and AM-FM radios. He expects to start production of FM in the middle of this year.

Arvin (Hong Kong) Ltd.—This company is principally producing portable transistor radios for Arvin and Sears.

Like the other American-based radio companies in Hong Kong, Arvin maintains that it is producing a quality product. But unlike the others, it denies any intention of becoming a giant overnight.

Arvin started production in March, 1965. It is not going after the high-count transistor radio business, but is staying mainly with 6s, 7s, and 8s, using an increasing number of silicon transistors from Semiconductor.

The company's initial sets were designed completely in the U.S., but were tooled and built in Hong Kong. For the models that are being continued into 1966, a replacement chassis completely designed in Hong Kong will be used.

Arvin will be producing its first line-cord operated sets and FM sets in 1966. It has no plans for multiplex stereo. It also expects to produce 5-tube radios, which it says no other company in Hong Kong is capable of doing.

International Electronics (Division of International Service Corp.)—This company is one of the medium-sized companies in Hong Kong. Chairman George Baker said that for the first few months of 1966 he is already booked for about 60,000 radios a month. He will be making a complete line of single and multiband radios, including some with power outputs of more than one watt. Starting in June, he expects to be making both good FM sets and AC-line-cord operated sets.

He is also planning a complete line of wood cabinet sets with up to two or three bands. His plans extend through FM stereo with multiplex adapter. He also has plans for building complete stereo systems of hi-fi component modules. This will be a compatible line of tuners, phono amplifiers, and tape decks.

Baker is still casting about for new items to produce in Hong Kong. He says one attractive possibility is assembly of color tv electron guns. Another possibility is tv tuners. The greatest handicap to tuner production in Hong Kong is the lack of a metalworking industry there.

Semiconductor Ltd.—This subsidiary of Fairchild Semiconductor leads Hong Kong's electronics industry with many firsts. With a monthly production of 6 to 7 million transistors, 6 to 7 million diodes, and perhaps 100,000 integrated circuits, it is tops in units produced, and undoubtedly in dollar volume.

Its new $2 million plant with 11 floors with a total of 140,000 sq.ft. leads the colony in both cost and size. And its work force of 2,500 girls—with 4,000 to 5,000 planned for the end of the year—also tops the field.

C.E. Pausa, general manager of Semiconductor, admits that his transistors are priced somewhat higher than the cheap germanium transistors now being used by many Hong Kong manufacturers for one-band AM radios. But, he maintains, it is possible to make radios using silicon transistors that cost no more than radios using germanium transistors.

Pausa says that with silicon transistors it is possible to make a radio with substantially fewer components —and still obtain better performance than from a similar radio using germanium transistors. With silicon transistors it is possible to eliminate both audio transformers and many resistors and capacitors.

And Pausa maintains that early users of silicon transistors will be at a great advantage when going into sophisticated radios, since silicon transistors have great advantages—lower noise levels—than the expensive germanium transistors.

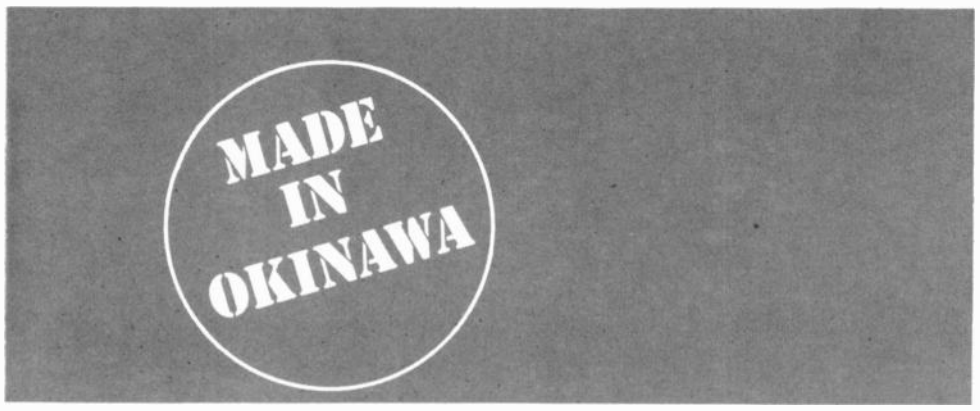
Pausa says that Semiconductor's productivity is going up this year, but that wages are also going up for semi-skilled and unskilled labor. Since Hong Kong has become industrialized, he says, the trend has been for wages to go up about 6½% a year.

For middle management and skilled labor the situation is even less favorable. Workers in these categories are one of the most limited resources in Hong Kong. Pausa holds that talent must be developed for the colony.

George Baker serves both as chairman of International Electronics, a Hong Kong radio manufacturing company, and as president of Hong Kong's Radio and Electronic Manufacturers Association. His company is presently turning out about 60,000 transistor radios a month.

S. Jack Phillips is the director of Atlas Electronics Corp., the largest—and one of the oldest—transistor radio manufacturers now operating in Hong Kong. Its present monthly capacity is more than 250,000 units, built by 2,000 workers in several Atlas plants in Hong Kong.

C.E. Pausa is general manager of Semiconductor Ltd., Fairchild Semi-conductor's Hong Kong subsidiary. The company has a monthly production of 6 to 7 million transistors, 6 to 7 million diodes, and perhaps 100,000 integrated circuits. Most of the production goes back to the U.S.



With pioneer spirit, Okinawa says: 'we'll produce whatever will make a profit'

The free-swinging pioneer spirit found in Taiwan is being chased by Okinawa. But there is no feeling of change in Okinawa, none of the dynamic look of growth one finds in Taiwan. Building is lagging, although all the statistics show Okinawa to be doing very well, with its gross national product going up by about 13% a year.

Radio production has risen sharply. And the average price for radios has fallen, although there is a greater emphasis on sets having a large number of transistors. Exports to the U.S. during 1965 were 1,074,983 sets worth $3,505,149, or an average of $3.38. During all of 1964, exports to the U.S. totaled only 673,482 radios, worth $2,584,977, or an average of $3.84. More than 1 million sets were sent to the U.S. for the first time in 1965, and 1966 should see a substantial increase over last year.

Five transistor radio assembly plants are now located in the free trade zone at Naha, in Okinawa, where there were only three companies just a little more than a year ago. These companies seem to have switched their policy: rather than trying to make quality sets similar to those from Japan but at slightly lower prices, the companies in Okinawa now are building Hong Kong-style radios.

By Hong Kong-style, the Okinawans mean a promotional line, ranging from six to 14 transistors, with emphasis on low price and high production rates.

Although small, the radio industry in Okinawa probably makes a larger contribution to the economy than any other radio industry in the world—simply because the economy of Okinawa is so small. In 1965, the free trade zone in Naha exported more than 1 million radios, which are not counted on the export statistics. Figuring an average assembly charge of slightly less than 40 cents a radio, the income from these exports is about $400,000, or about 0.5% of regular exports.

Whatever will make a profit

On January 1, 1966, the minimum legal wage on Okinawa became 13 cents an hour. Since the companies work six days a week, the average month has 25 working days of eight hours each, or 200 hours, making the minimum monthly salary $26. (Added to this is the custom of paying workers two bonuses, summer and winter, of about a month's salary each.)

Some companies claim that they were already paying all workers more than the legal minimum so will in no way be affected. Others say they started workers at 11 cents an hour, because they are of little value for the first few months. These companies say that they have raised salaries not only of those employees who were paid below the legal minimum, but also of other workers with up to three or four years experience, to prevent an imbalance in wages. Assembly workers with more than four years experience, and skilled or supervisory workers, are already paid enough so that their salaries are unaffected by this push from the bottom.

One company, Ryukyu Electric Co. Ltd., says that the new minimum wage has raised its payroll by about 15%. It also says that the company customarily gives its employees a 10% wage increase on Apr. 1, so that over a period of four months its wages will go up by 25%.

Because a rule of thumb is that wages represent about 60% of costs, the company's costs will increase by 12%.

The higher wages will probably cause the Okinawan plants to increase their efficiency in the use of labor. Manufacturers say they were able to bring the assembly charge down to 35 cents this year—because more efficient methods were forced on them by the lower margins.

Companies operating in Okinawa may also reduce costs by manufacturing some components locally. One company, Ryukyu Brother, formerly assembled variable capacitors and molded its own cabinets but found it uneconomic because the quantities required were too small. But there is the possibility that a joint venture of the radio manufacturers will be formed for building components.

Another possibility is that an outside components manufacturer might set up a plant in Okinawa to supply all the manufacturers there. In September, 1965, G. B. Levine, a San Francisco-based consultant from Mentor Associates Inc., was in Okinawa to explore the possibility of manufacturing components for sale to radio manufacturers in the free trade zone and for export. He did not say who his client was, but several of the radio manufacturers have expressed interest in starting a joint venture with a foreign firm.

Who helps with the harvest

Okinawa Electronics Co.—This company was started in March, 1965, and during last year it built 50,000 sets for other companies in Okinawa on a subcontract basis. For 1966, the company says it has a contract with one of the largest importers in the U.S. to make 10,000 12-transistor sets and 10,000 14-transistor units every month for the entire year. The company is also negotiating contracts to make a micro-set with eight transistors, a 6-transistor radio, an inexpensive transceiver, a stereo set, and a record player.

Total capacity of the plant is about 40,000 10-transistor sets a month.

Okinawa Radio Industry Ltd.—This company was started in July, 1965. Production started in September and totaled about 60,000 units for the year.

In addition to the basic line of portable sets, Okinawa radio is now negotiating with buyers on several

Double duty is served on a conveyor line of Ryukyu Light Industry Co. Ltd. by placing girls on both sides. This company has turned out a large number of radios for Philco and a smaller number for RCA.

Two of the FM radios produced in Okinawa last year are shown here by Sinan Kuniyoshi, president of Ryukyu Brother Industry Co. The larger set, a 3-band 12-transistor unit, was exported to England for about $17 f.o.b. The other set, a 2-band unit, was exported under the Resinton label. In 1966, Brother expects to make FM for Crown of Japan.

other products. One of these is three different types of transceiver. Two of the models would be housed in the same large cabinets normally used for 9-transistor transceivers, but would have fewer transistors. A 4-transistor unit would go for $6.18 a pair f.o.b., a 6-transistor model for $8.40 a pair f.o.b. Another smaller model would have only three transistors a unit.

Another product on which the company is negotiating price is a small 7-transistor radio. Other possibilities are an AM-FM two-band set and a rim-drive tape recorder.

The company also is contemplating assembling a Shiba Electric Co. Ltd. transistor tv set in 1966. This unit initially would be for Okinawa only.

Ryukyu Electric Co. Ltd.—This company is the largest in Okinawa—in terms of capitalization, number of employees, and number of radios produced. About 70% of the radios it produces are for its own customers, and the remainder are for Toyo Radio Co. Ltd., of Japan.

The company has experienced the same drop in prices as all the other manufacturers in Okinawa. In 1961, a six-transistor radio could be exported for $10 to $12; now a 12-transistor radio generally goes for $3 to $3.75.

The company made mostly 8-, 10-, 12-, and 14-transistor radios in 1965, with particular emphasis on the 10s and the 12s. The company's monthly capacity is approximately 40,000 to 55,000 sets, although the company produced almost 70,000 sets one month.

In 1966, the company expects to produce transceivers that will sell for about $7 a pair, and also transceivers with radios. The company has not yet produced any FM sets, and does not know if it will go into FM in 1966.

Importers for whom the company has made radios include Lloyds, Mastercraft, York, Viscount, Starlight, and Continental. (Two years ago, it was making 30,000 radios a month for Starlight, which is now out of the business.)

Ryukyu Brother Industry Co. Ltd.—This is one of two companies in Okinawa that has made FM radios. It made 5,000 FM sets in 1964 and 5,000 last year. All these were high-priced sets for England.

In 1965, Brother made more than 300,000 radios, a large number of which were 6-transistor units that went for $2.80 f.o.b. From May to December of 1965, it made 194,000 radios for shipment to BPM International Ltd., of New Jersey. It also made 10,000 radios for Fuji Senrin, a Japanese components and radio company, of which 5,000 went to Miami and 5,000 to Puerto Rico. It has another order of 56,000 from Fuji Senrin; these will go to New York and Los Angeles. In 1966, it also expects to make 2-band FM radios for Crown of Japan.

In December, the company made 1,000 pairs of 6-transistor transceivers for the U.S. In January, it made 300 transistor stereo phonos for sale in Okinawa, at a retail price of $55 to $60.

Names under which the company has shipped radios include Realtone, Continental, Starlight, Koyo, Crown, Candle, Americana, and Melodian.

Ryukyu Light Industry Co. Ltd.—This company claims to produce the best radios on Okinawa. The claim is based on the fact that throughout 1965 it produced no complete set selling for less than $3.

Much of its production in March through November, 1965, was a 6-transistor one-band set for Philco. During April, May, and June it also made a set for RCA. And the company produced 7,000 two-band AM-FM sets for London.

However, the company's policy has now changed. Its profit has been low because total turnover was low. By next year, the company hopes to produce about 50,000 sets, with 6-transistor radios coming off the line for about $2.50 f.o.b.

One of the primitive—and cheap—methods used in Okinawa radio production. Here a worker is shown hand-dipping a completed chassis into molten solder. Average pay for these girls: about 16 cents an hour.

F.o.b. prices: what they do —and do not— mean to the U.S. retailer

The price on the transistor radio, the retailer hears, is "$2 f.o.b. Hong Kong." Yet by the time it reaches him in Des Moines or Phoenix or Atlanta, he probably pays his supplier $3 to $4. Some retailers have reasoned that a trip to the source—to Hong Kong, to Taiwan, or to Okinawa—would more than pay for itself by eliminating the middleman, the importer. But it is not that simple.

At U.S. Customs alone the retailer finds that he must pay a 12½% charge on the radios, or 25 cents for every $2 radio. Freight charges—from port to port only—average out to about 12 cents a radio. And these are only two of the additional expenses with which he will be faced.

Furthermore, the first-rate manufacturers, particularly if they deal with the retailer's supplier, are not overly anxious to talk business with the lone buyer. So the go-it-alone retailer generally ends up buying from a second- or third-rate manufacturer and, because the retailer does not know the ropes, he often comes away with higher priced and lower quality merchandise than he originally intended.

"It makes a lot of trouble for my importers every time f.o.b. prices are played up," commented one manufacturer in Hong Kong. "All the dealers think the importers are making a killing by charging much higher prices. And I get a lot of dealers coming here who think they can save a lot of money and have a dandy vacation in Hong Kong at the same time.

"You don't know how much trouble it is persuading them that a radio costing $2 f.o.b. Hong Kong will cost them more than $3 by the time they get it to the U.S."

The importer earns his money. Add to the customs and freight charges 3% to 5% of the f.o.b. price for the export broker. Also, an import broker in the U.S. must be paid by the importer. Offloading and inland trucking cost another $1.50 per carton. Losses in U.S. Customs average about 0.5%. Overland freight on the average runs about $5.50 per hundred pounds.

On top of these expenses, the importer must pay for insurance and financing. Insurance on a radio shipment runs about $4 a hundred. The interest charge on financing is about 7.2% a year, plus 1¼% insurance for bankruptcy.

The importer also is quick to point out that he is responsible for the 90-day guarantee generally offered with radios. "You're lucky if a man getting $3 an hour can fix 20 radios a day," said one importer, "and you have to give him a place to work. And buy parts. And there is bookkeeping because the radio comes in and goes out by registered mail and must be logged. And there's postage and the cost of a messenger to carry it over to the post office.

"By the time you are done, the direct labor for one radio is about $3, and the total cost including overhead and the 45 cent registered mailing charge is perhaps $4 or $5 a radio. If 5% of the radios need repairs, that averages out to 25 cents a radio over all the radios you've sold."

According to importers, all these expenses combined add up to one thing: they must sell a set for about twice what they pay. Even if they squeeze themselves to the bone under the most favorable circumstances, they still have to get at least $3 for every $2 they pay manufacturers in the Far East.

"Many of the retailers who come out here wind up taking a licking," said one Hong Kong manufacturer. "If they don't buy any radios, they've spent the price of the trip with nothing to show for it. It doesn't do any good for these retailers to come out here and waste our time and still take a licking. We need them to sell our product to the consumer."

Story by Charles W. Cohen,
McGraw-Hill World News, Tokyo
and
Bruce Pfau,
Assistant Editor, New York City

Graphics and cover by
Joan Bacchus

Photography by
Charles W. Cohen

Marketing through retailers: what management foresees

"Today we live in a 'consumeristic' economy," said Professor Malcolm P. McNair at an American Management Assn. (AMA) forum held a week ago in New York City. A consumeristic economy is one that is "geared to the well-being, the desires, the aspirations of the consumer," and the AMA invited some top executives to discuss how manufacturers and retailers could best serve this economy.

Board chairmen, presidents, and vice presidents representing manufacturers and retailers talked about private labels, the youth market, what manufacturers can do for retailers, and what retailers can do for manufacturers. There were talks on the discount store, on profit margins, and on what the future holds.

The growing private labels

The battle between brand names and private labels is over, according to William T. French, president of the Associated Merchandising Corp. (AMC). "Yesterday's antagonists have become today's protagonists, and yesterday's battle has become today's competitive coexistence."

French argues that a store needs both private-label and national brand merchandise to inspire the customer's confidence in the store, and to provide her with a selection of merchandise. The key difference between the two is that the former is a "retailer controlled-and-advertised brand" while the latter is a "manufacturer controlled-and-advertised brand." The key word, he says, is "control."

French points out that there is heavy competition among manufacturers to induce consumers to switch brands. "The more brand disloyalty," he says, "the greater becames the need for the retailer-controlled brands to assure a proper value image;" that is, the impression a customer has about a store's exclusivity, quality, and prices.

French says that private labels have grown tremendously ("four-fifths of all AMC store freezer volume represents AMC brand freezers") and will continue to grow. He argues that America's major retailers and their important resources must work together to streamline distribution channels.

The most serious challenge to traditional retailers is the competition from Sears, J.C. Penney, and Montgomery Ward, says Irving B. Cohen, marketing services vice president of J.P. Stevens Co. Inc. These three now control about 30% of the general merchandise sales in the U.S., and, he says, it is quite possible they may yet command 50%.

Cohen recommends, "To counteract the established success of private brands by the catalog chains, the larger groups among traditional retailers might well accept the inevitable, and accelerate their own private-label programs."

And Sidney Wechsler, president of Mutual Buying Syndicate Inc., says that his office, which buys for member department stores, regards a private-brand program as "one of the most important developments of the independent department store in the face of the present mass, uncontrolled distribution."

The other side of the question was defended by Zachary Bucholter, president of Leslie Fay Inc. He argues that national brands have the advantage of both national advertising and local promotion. The strongest combination, he feels, is a strong national brand sold by a strong local store.

A swinging youth market

"The companies which have appealed through product or service to the youth attitude that is prevalent today are the companies that have been successful," says Van Heusen's president in charge of sales, William R. Keegan. "Those companies that have not been aware of this reality in their product or marketing effort have suffered."

The youth market is important, agrees Chester Kessler, president of Hammonton Park Clothes, but "for the sale of the big-ticket items, we must look to the middle-age market, where the struggle to get solidly established is already behind, where taste is sophisticated and mature, where affluent taste can be implemented, where the dollars exist to satisfy wants of any scale."

There may not be a difference between these two, however. Discussion brought out that the youth market is a "youth attitude market," and, Keegan says, "to a very large degree, is almost the only market in the U.S. today—it isn't just teenagers. If the personality of your product is a youthful one, it will also appeal to the older people of our nation because they want to be youthful." He points out that Sears has gone the youth attitude route.

The youth attitude consumer, he says, is an impulse buyer, a status

continued on p.30

Meet Mrs. Sam Bader.

The only woman in the world who has a subscription to Family Circle.

Mrs. Bader doesn't have to budge a single inch. Thanks to her contest-winning husband, an account supervisor with William Esty, Mrs. Bader will no longer have to go to the store to pick up her copy of Family Circle. For the next twelve months each and every new issue will be delivered automatically to her home.

It's not that easy for other homemakers to get Family Circle. They have to choose us each month when they're shopping. They have to want us, just as you like women to want your product over and over again.

How much are we wanted? Family Circle has the largest single-copy circulation of any magazine in the world—7,500,000 guarantee.

Family Circle. A magazine only a homemaker could love.

Some subscription figures: McCall's: 7,640,198* Ladies' Home Journal: 5,772,284* Good Housekeeping: 4,499,463* Family Circle: 1.

*Source: Publishers' statements June 30, 1965.

What management sees

continued from p.28

buyer. "He does not wear out his clothes or his car or his home furnishings," Keegan adds, "it is the people who think young who made the electric carving knife a success—who saw the additional leisure time that Teflon could bring them." Only those stores that plan for this consumer, he feels, will grow successfully.

The helpful manufacturers

George Fezell, sales vice president of Magnavox, recited a long list of aids manufacturers give to retailers. It included: product specification sheets, product literature for consumers, factory-sponsored sales training meetings, dealer-sponsored meeting guides, demonstration techniques, point-of-sale aids, competitive comparison charts, service, advertising help, promotional ideas, retail incentives, and market penetration figures.

Unfortunately, after manufacturers have collectively spent millions of dollars on retail aids, "all too often they are not used by the retailer to the fullest extent and, I might add, in some cases hardly at all," he said.

"Usually the independent specialty retailers take the most advantage of a manufacturer's help, and they are generally better market oriented, product oriented, and promotionally oriented than their larger competitors," he says. Fezell urges retail management to review the materials manufacturers make available to see whether they can be used more effectively.

According to LeRoy Klein, president of Caloric Sales Corp., there will be a closer fiscal relationship between manufacturers and retailers in the future. No one has yet answered the question: "Can the manufacturer, wholesaler, and retailer who take goods to market in the traditional way compete with the vertical merchandising giants?" But floor planning, extended dating, and trust receipts have brought manufacturers and retailers closer to meet the giants' competition.

"The most interesting approach to a manufacturer-retailer fiscal partnership," says Klein, "is the recent trend toward financing of the retailer by a manufacturer (or the guarantee of the retailer's credit), and the operation of the retail establishment under the manufacturer's brand name as an exclusive (or virtually exclusive) outlet for that manufacturer's products." Klein points out that this approach has been used in the petroleum and automotive industries, and that large vertical merchandisers have never been able to penetrate these industries significantly.

Klein made another observation about manufacturer-retailer partnerships: "Within a few years, it will be customary for manufacturers to work with retailers in recruiting, training, compensating, and financing fringe benefits for retail sales personnel."

The disruptive manufacturer

"I have, for many years, been of the school of thought that no wholesaler, no retailer could successfully buck the philosophies conceived at the factory, because they are reflected in engineering, production, product, marketing, or you name it," said S. R. Herkes, vice president of marketing, consumer products division, Motorola Inc.

If a manufacturer, says Herkes, has integrity, the way he distributes his goods will reflect this integrity. On the other hand, a manufacturer "who lacks these virtues, who loves numbers, who could care less how they're accumulated," will have his merchandise "schlocked" in the marketplace.

One trouble, says Herkes, is that the retail franchise is often mocked. He tells of visiting a city of less than a quarter of a million people where Motorola has 11 stores; a competitor has 55 stores. "Can 55 retailers in that town be expected to take the time to sell features and benefits when they are tiredly fighting off the best deal on the street?" he asks. At the same time, he points out that it takes two to make a deal. "If 55 dealers handle the line, 55 want it."

The future's challenge

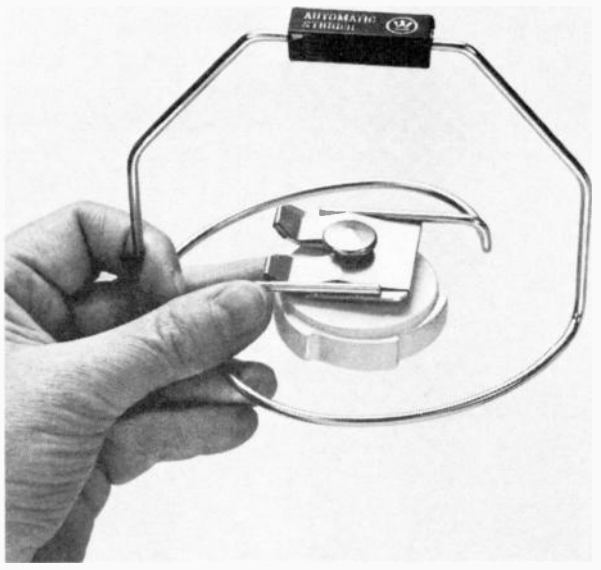
The country is changing rapidly, and retailing must change with it, says Alfred Eisenpreis, vice president of Allied Stores. Retailers must learn more about consumers. "We know everything about the merchandise we sell. We know nothing about the men and women who walk out without buying."

Management must now prepare for the future—prepare for the growing population, prepare for increasingly affluent consumers, prepare for the proliferation of competition. "Too many retailers and too many manufacturers live from day to day, think from week to week, plan from month to month," says Eisenpreis. "We never catch up with ourselves. We never catch up with change. But, most short-run problems are the long-run consequences of something done—or not done—years ago."

—Wallis E. Wood

Kevin Sullivan says, "Join the range revolution with the new Westinghouse Automatic Stirrer, Self-Cleaning and No Turn Speed-Broil® Oven."

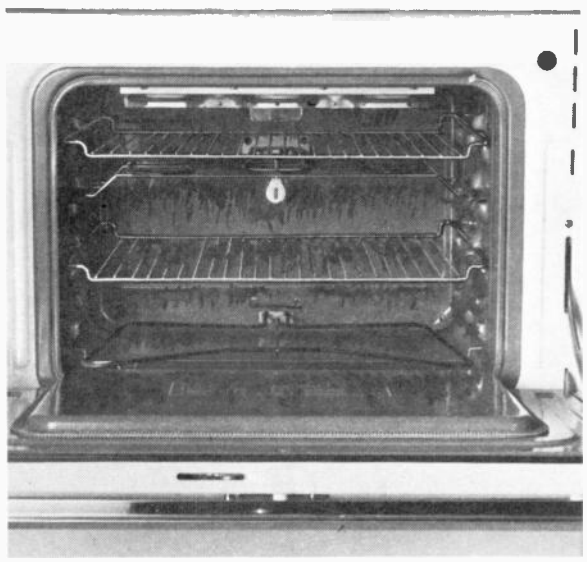
"As Sales Manager of Westinghouse ranges, I'd like to introduce you to a really amazing new range. The only one anywhere that stirs automatically, cleans its own oven and broils on both sides without turning.



"There's never been a cooking feature that you could demonstrate as easily—and dramatically—as this new Westinghouse Automatic Stirrer.

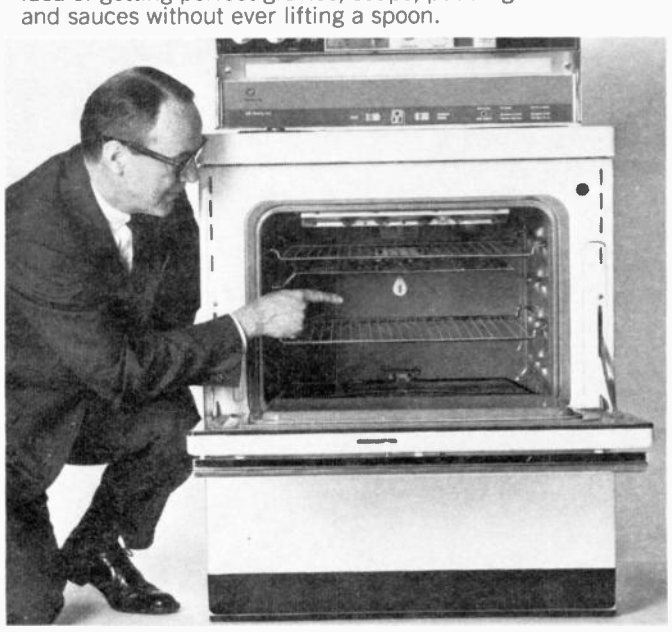
"The Stirrer comes in two sizes—for small pans and large ones. And you can place either one into almost any type of cookware—stainless steel, aluminum, glass or porcelain enamel. For demonstration purposes, glass is best—like this.

"Just flip the switch for the special surface unit, and a motorized magnet underneath it begins the stirring action. Your customers will flip, too, at the idea of getting perfect gravies, soups, puddings and sauces without ever lifting a spoon.

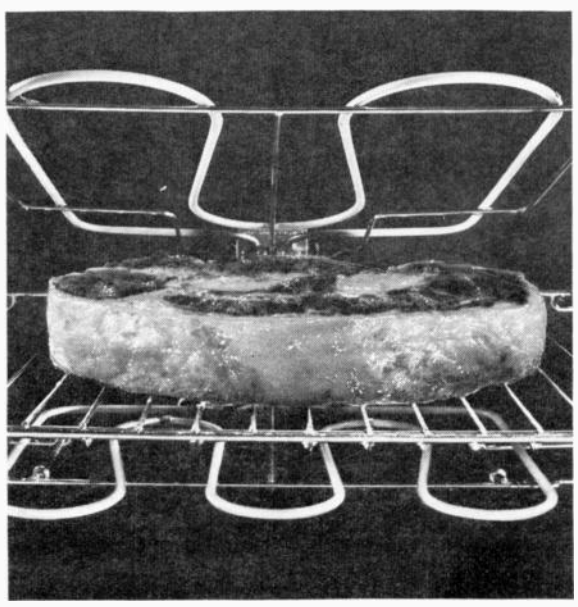


"Next you can tell them about the new Westinghouse Self-Cleaning oven. No matter how bad the baked-on buildup may be, this new feature will make it shine like new in only two hours.

"Just set the selector switch to 'Clean'...close the special door latch, and let the cleaning begin.



"The Westinghouse Self-Cleaning oven works faster and more efficiently than any other make. Operating cost is lower. Kitchens stay as cool as during normal baking. It's really incredible.



"Now for the third big selling feature of this revolutionary range. The No Turn Speed-Broil has already proved itself with overwhelming customer approval. Probably you're familiar with the way it sears meat on both sides at once to seal in flavor.

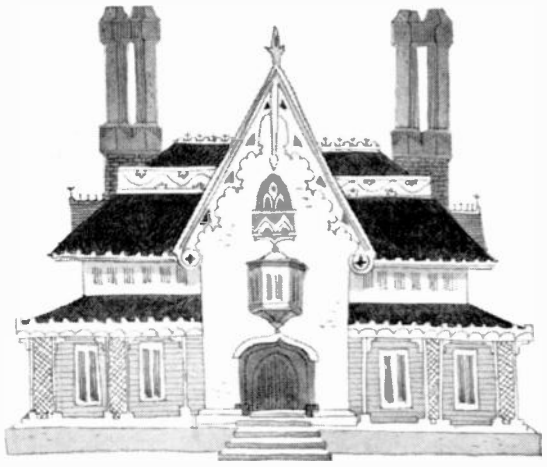
"Of course our new ranges include many other styles and features. Westinghouse gives you the depth of line—the exciting innovations—that enable you to meet every customer demand. Let your Westinghouse distributor give you details. Join us for a great new selling season."

You can be <u>sure</u> if it's Westinghouse

You can sell and install General Electric Central Air Conditioning about as easily as a window unit.

(All you need is this.)

And 4 out of 5 homes can use it.



(The 5th home looks something like this.)

If you sell and install window air conditioners, there's a whole new *profit market* for you with G-E central add-on units.

Any house that has heating ducts—and 4 out of 5 houses do—is a prospect.

The equipment involved is simply a cooling coil that attaches to the furnace, a condensing unit that is set outside and an easily installed precharged Quik-Attach line that connects them.

In some instances, slight modification of ductwork is necessary. But any competent sheet metal man can handle it...or G-E distributors will train your people.

General Electric has clearly written manuals for your sales personnel that tell how to sell central air conditioning and how to estimate a job. G.E. also has developed a complete program for you that includes very compact and eye-catching floor displays of actual equipment.

There's also a wealth of promotional materials, including handouts, mailers, door openers, wall charts, trim materials, etc.—everything you need.

Central Air Conditioning is a big and profitable market just waiting for you. And General Electric has the equipment and program to sell it—just waiting for you, too.

Get the full details. Now's the season. Call your local General Electric distributor today, or call collect: Central Air Conditioning Sales, Louisville, Kentucky. (502-454-7511, Ext. 3226)

GENERAL ELECTRIC

MERCHANDISING WEEK

VOL. 98 NO. 11

A McGRAW-HILL MARKET-DIRECTED® PUBLICATION

MERCHANDISING WEEK (formerly Electrical Merchandising Week) is published weekly by Mc-Graw-Hill, Inc. Founder: James H. McGraw (1860-1948).

SUBSCRIPTIONS: to MERCHANDISING WEEK are solicited only from retailers or distributors of home goods products. Subscription rates for individuals in the above fields, U.S. and Possessions: $3.00 per year; subscription rates for all other individuals, U.S. and Possessions: $10.00 per year; (Single copies, 50¢ except January Statistical issue—$2.50). Foreign rates on request. Position and company connection must be indicated on subscription orders forwarded to address shown below. Publisher reserves the right to refuse non-qualified subscriptions.

EXECUTIVE, EDITORIAL, CIRCULATION AND ADVERTISING OFFICES: McGraw-Hill Building, 330 West 42nd Street, New York, N.Y.-10036. Telephone 971-3333.

Printed in Chicago, Ill. 60607, Second class postage paid at Chicago, Ill. Title reg. ® in U.S. Patent Office.

OFFICERS OF McGRAW-HILL PUBLICATIONS: Joseph H. Allen, President; Vice Presidents: George H. Reppert, Jr., Operations; John R. Callaham, Editorial; Ervin E. DeGraff, Circulation; Donald C. McGraw, Jr., Advertising Sales; Angelo R. Venezian, Marketing.

CORPORATION OFFICERS: Donald C. McGraw, Chairman of the Board; Shelton Fisher, President; L. Keith Goodrich, Hugh J. Kelly, Robert E. Slaughter, Executive Vice Presidents; John J. Cooke, Vice President and Secretary; John L. McGraw, Treasurer.

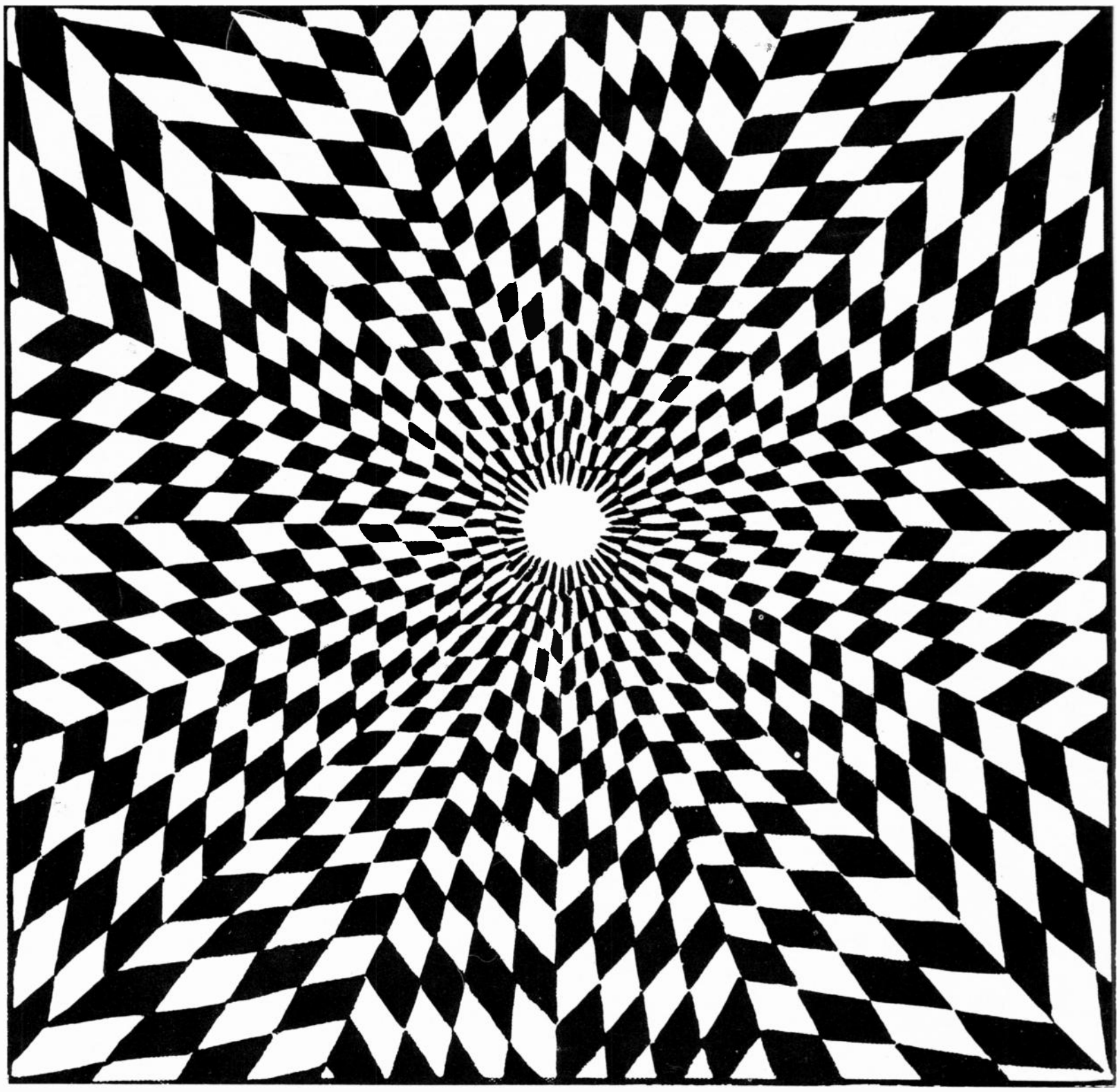
UNCONDITIONAL GUARANTEE: The publisher, upon written request, agrees to refund the part of the subscription price applying to the remaining unfilled portion of the subscription if service is unsatisfactory.

SUBSCRIBERS: Address correspondence regarding change of address notice, subscription service or subscription orders to Fulfillment Manager, MERCHANDISING WEEK, P.O. Box 430, Hightstown, N.J. 08520. Change of address notices should be sent promptly; provide old as well as new address; include ZIP code or postal zone number if any. If possible attach address label from recent issue. Please allow one month for change of address to become effective.

POSTMASTER: Please send Form 3579 to Fulfillment Manager, P.O. Box 430, Hightstown, N.J. 08520.

MERCHANDISING WEEK is a member of The American Business Press and the Audit Bureau of Circulation.

"Ambiguous Flower" by Claudia Carrel



RADIATION

Pulsating. Nervous. Vibrant.

That's the appliance, consumer electronics, housewares market...*communication* is its life-blood.

For 144,500 merchandising, manufacturing, marketing decision-makers. Merchandising Week provides it. High voltage. Full-throated. Closed-circuit, two-way communication.

Between the market and every other segment of the industry.

The late news. The hot merchandising ideas. The new products. The promotions. The significant trends. The changing scene. The *whole* picture.

Each Monday morning Merchandising Week is there.

Reporting. Evaluating. Analyzing. Interpreting.

The industry listens. Checks judgment. Thinks.

Advertising works best in this atmosphere. It's part of the scene. It gets attention. Gets results.

MERCHANDISING WEEK

edited for the appliance,
consumer electronics
and housewares industries

A McGraw-Hill Publication

"What's so new about it? I've sold eleven already!"

Tappan's incredible Electronic Cooking Center is brand-new to most consumers. And a little hard to believe. "A 14-pound turkey in 75 minutes? You're kidding!"

But smart Tappan dealers know all about this amazing Time Machine. And have the profits to prove they're *selling* it. What could be easier?

- It's a whole new concept of food preparation. Cooks with *microwaves* instead of heat.
- A 5-lb. roast cooks beautifully in about 30 minutes. A two-layer cake takes only 6 minutes. Baked apples, 4 minutes. Bacon, 90 seconds.
- You never tasted better food. Meat is juicy and tender. (A special browning element makes it look charcoal broiled.) Vegetables come out fresh-tasting and full of vitamins.
- Only the food gets hot. Forget hot pads, scouring, scraping. Cook in serving dishes, even paper plates! Self-cleaning ovens? Time Machines don't get dirty.
- Tappan's Electronic Cooking Center is free standing, simple to install. Fits in 30″ of space. And comes complete with electronic oven, 4 infinite heat elements on a contour cooking surface, and (below) a big Tappan electric oven, which the woman really doesn't need but thinks she does.
- This magnificent range features exciting new Provincial styling — today's most popular decorator look! Also available in Coppertone or White.

But here's the big news. In '66, Tappan national advertising will feature the incredible Electronic Cooking Center. Full-color pages in LIFE, HOUSE BEAUTIFUL and all the leading building and remodeling annuals!

Don't miss out on easy big-ticket sales. See your Tappan representative right away for a demonstration of the Time Machine!

Get all the profitable details on Tappan's incredible new Electronic Cooking Center. Mail coupon for complete information. The Tappan Company, Mansfield, Ohio 44902.

name_____

store_____

address_____

city, state_____ zip code_____

TAPPAN
Time Machines

THE TAPPAN COMPANY, MANSFIELD, OHIO • TAPPAN-GURNEY LTD., CANADA

To Company Presidents:

Is there any way to make certain all your up-and-coming executives read this publication regularly?

Sure!
Clip this ad and route it to everyone.

You can't take the time to tell everybody in your organization everything that's going on in our industry. And you don't have to. That's our job. What are your competitors doing? What are your customers thinking? What is, what was, what will be? It's all here on our editorial and advertising pages – reported as fast as it happens, exactly as it happens, plus what's likely to happen as a result. If you take the time to read this publication regularly, your executives should be doing the same. Tell them how you feel. In a nice way, of course. Send along this ad. They'll get the message and your company will reap the benefits.

MERCHANDISING WEEK

A solid-state Christmas seen for housewares and appliances

By Christmas, retailers will be merchandising solid-state in housewares and major appliances as the two industries move to catch up with consumer electronics in the application of space-age technology.

The outlook for solid-state, along with the prediction of a solid-state Christmas for housewares and appliances, was outlined by John E. Mungenast, manager of market development for General Electric's semiconductor products department. Mungenast addressed the monthly meeting of the Electrical Women's Roundtable in New York last week.

A variable-speed vacuum cleaner is one solid-state innovation Mungenast expects—possibly before the end of the year. He said variable-speed control probably will be added to a high-end canister, permitting step-down speeds for above-the-floor cleaning jobs, such as draperies.

Variable-speed mixers will join variable-speed blenders at the July Housewares Show, Mungenast predicted, with a number of mixer producers moving into solid-state controls.

"Programmed" blenders are possible, too, he added. Some blenders now combine variable-speed control with timers, Mungenast noted, and it would be simple to develop discs that could be programmed for performance of special recipes, thereby assuring consistent results.

Other solid-state housewares predicted by Mungenast include hair dryers that shut off automatically when the hair is dry; variable-speed models at the high end of 1967 electric fan lines; electronic dimmer controls added to battery-operated lanterns, as well as to household occasional lamps; growth of variable-speed sewing machines; solid-state range ventilating hoods; and electronic hammers.

In major appliances, Mungenast predicted most manufacturers will be dropping solid-state models in at the high end by Christmas. He singled out Hotpoint's variable-speed washer, Maytag's solid-state dryer, and Sears' Electronic Match gas range, and added they "will spread rapidly, I would predict."

The appeal of solid-state was stressed by Mungenast. "There's something in the words," he said. There is little or no advantage to using solid state in portable phonographs besides consumer appeal, Mungenast contended, but the magic of the phrase "solid state" has put transistors into portable phonos.

"Permanent press" will help hasten the arrival of solid-state in home laundry equipment, Mungenast said, and added that solid-state dryers may have an even wider sales appeal than solid-state washers. He foresaw a dryer that not only stops when the clothes are dry, but also signals the housewife anywhere in the home by remote control that the laundry is ready to be removed.

Solid-state air-conditioners are coming, Mungenast said. He noted that solid-state controls recently have been added to a furnace blower for the first time, to permit continuous air circulation automatically and at the proper level. "You will see it on central air conditioners and eventually in room air conditioners."

Solid-state is easy to get into, Mungenast said. "Solid state control has a low tooling cost." He also noted that it takes "less material and less labor" to build solid-state products. "Solid-state is one of the least expensive methods to bring new things into the market," he added.

The only obstacle to solid state now is manufacturer resistance to the higher price tags solid-state products mean, Mungenast said. "Manufacturers see the top-of-the-line selling, but they don't seem to understand that people will pay a premium price for a demonstrable feature on a new product."

—Ed Dubbs

GE sets up its spring program with first Universal specials

General Electric Co. is offering the first price specials on its fair-traded Universal line, along with a variety of other second-quarter deals and premium offers.

Two Universal-by-GE specials—a steam iron and a 9-cup coffeemaker—have each been reduced $3 for a limited time. The model UI-21-W iron has been reduced from $11.80 to $8.80. Coffeematic model UP-3 has been cut from $15.80 to $12.80.

GE-line specials are offered on a 2-slice toaster and on a steam iron. The T-102S toaster, with snap-out crumb tray and 9-position toast control, carries a suggested retail price of $14.50, while the F-60 iron carries a retail price of $10.50.

A full-line promotion offers consumers four "Famous Freedom Paintings" free with the purchase of any GE housewares product. The offer is good from Apr. 1 to July 15. It is a follow-up of last year's "Famous Freedom Documents."

GE will back the promotion with ads in the May issue of *Better Homes & Gardens* and the June 14 issue of *Look*. The offer will also be promoted on the *GE College Bowl* during April, May, and June.

Two consumer premium offers are being tied to automatic blanket sales. Purchasers of any GE blanket during July and August will receive an artificial rose arrangement. During September and October, blanket purchasers will be able to send for a free model 7300 "Novelette" Snooz-Alarm clock. A 14-day home trial on blankets will be in effect from June 1 through Dec. 15.

A $3 refund on any vac—upright or canister—will be available to consumers during March and April.

□□□□ **Variety chains are selling more clocks,** and have placed increased emphasis on higher-ticket decorative wall clocks. The bulk of the clock business in variety store outlets remains in the alarm area—electric, keywound, and travel. Novelty clocks and decorative wall clocks, however, are gaining increased exposure and sales, reported manufacturers who exhibited at last week's Variety Fair held in New York City.

One variety chain buyer at the fair said his stores have found that decorative wall clocks can produce good volume and profit, and take up little or no display area, generally utilizing high-up wall space that otherwise would go unused.

One clock manufacturer, Sunbeam Corp., entered the trade show for the first time. Sunbeam displayed only clocks; its electric housewares lines were not exhibited, despite reports of increased variety store interest in electric housewares—especially price-protected lines. Interviews with independent variety store operators indicated they were mainly interested in finding a promotional 20-inch box fan to feature. They pointed out that most of their housewares are being purchased through distributors.

□□□□ **Housewares and show business:** Housewares manufacturers are continuing to include the world of show business in their product promotions—an idea which has proved successful in the past. Norelco will repeat its tie-in promotion with the Ringling Bros. and Barnum & Bailey Circus by sending clowns into retail stores to promote its shavers. And last week, Hamilton Beach staged a double show for Sanger-Harris' new downtown Dallas store: former White House chef Rene Verdon made appearances at a cooking clinic, and magician Mark Wilson performed a "Magic Hands" act. One housewares manufacturer is even taking to the sea to promote its products: Corning Glass Works is staging cooking classes for 500 passengers on a "gourmet cruise" from San Francisco to Honolulu.

□□□□ **Hoover seeks housewares "awareness"** through its 1966 magazine ad campaign. The campaign will consist of 51 ads—11 more than in 1965. While a *Life* magazine series of 27 ads will concentrate on individual products, full-color ads in 10 issues of *Better Homes & Gardens* will use a multi-product approach to show the consumer that Hoover makes more than vacs.

□□□□ **Christmas trees can be profitable:** General Electric's new $150 Christmas tree packages (MW,7 Mar.,p.25) are pegged at a 100% markup. Needless to say, that is not the usual housewares markup. GE executives point out that a marketing program for the Christmas tree venture has not been worked out; the program will probably be detailed in May.

□□□□ **New product briefs:** Remington will begin shipping a new Princess shaver on Apr. 1; Koehler Mfg. Co., of Marlboro, Mass., is introducing new display packaging on its AC-or-battery table lamp that retails for $18.50; Mirro is adding a larger size to its line of disposable aluminum foil liners for range burners, and is using bubble-packaging for three foil baking pans with plastic covers.

The over-all perspective: *brisk activity at the Cologne housewares show*

Germany's booming economy lures U.S. firms to the Cologne Fair

The German "economic miracle" is running along at full speed, and some U.S. housewares manufacturers are finding it good business to run along after it.

At the recent giant International Housewares and Hardware Fair at the sprawling fairgrounds in Cologne, West Germany, a greater diversity of products than ever before was shown by some 1,800 exhibitors. Contributing to this variety were an increased number of American firms —companies which see a widening market in the growing affluence of the German consumer.

At this spring's show, there were 65 U. S. manufacturers represented, with products ranging from ice cube trays to big-ticket appliances. A co-operative show sponsored by the National Housewares Manufacturers Assn. housed 26 of these exhibitors. All in all, U. S. representation was far stronger this year than last, when less than 40 firms exhibited.

A boom in small appliances was evidenced, with the biggest emphasis placed on the "kitchen machine." This piece of equipment is similar to the American kitchen mixer with its multitude of attachments, except that the German product starts out as an integrated family of parts. Every major appliance maker in Germany, including the big names Siemens and Aeg, have their entries in the kitchen machine field; Braun was a pioneer in this field. Some of the attachments, besides the more standard blenders and juicers, were coffee mills, shredders, and can openers.

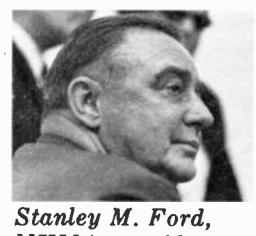
Coffeemakers, long thought to be a fairly stable product, are experiencing a boom, too. A number of new coffeemakers were shown, based on the drip concept but entirely new in form. Instead of pouring water into an upper reservoir, as in the old drip maker, or forcing it up from the bottom receptacle with heat as in the vacuum type, these units use a new approach to the water-moving problem.

These new machines are composed of two units—the coffeemaker itself and an electrified base. The water is poured into a reservoir in the base and, on being heated, flows slowly up a pipe and across an arm, then drips through the coffee grounds in the top part of the coffeemaker. The coffeemaker sits on a warming pad built into the base.

Going well, too, are hand mixers, juicers, and electric coffee mills. An important new item hitting hard this year is the electric carving knife, mostly made by American companies. In personal care appliances, the electric toothbrush is a fast moving item. Built-in appliances, ranging from appliance power centers to dishwashers, are beginning to show up in Germany. Several firms showed complete kitchen sink-counter units that turn free-standing machines into built-ins.

The emphasis on design is, perhaps, even more pronounced in Germany than in the U. S. The streamlined, simple, muted-color, functional designs, pioneered by the Braun line, have had a profound effect on other housewares manufacturers. This year nearly all the new kitchen appliances boldly announce their debt to the innovations of the Braun design team. At least in smaller electric appliances, the busy, near-baroque embellishment is gone in favor of stark, simple design. In big-ticket items, though, the straightforward designs from the U. S. have won the day, and most refrigerators and washers are indistinguishable from their U. S. counterparts.—*Robert Dorang, Bonn Bureau, McGraw-Hill World News.*

These U.S. exhibits *were part of a co-op program sponsored by the National Housewares Manufacturers Assn.*



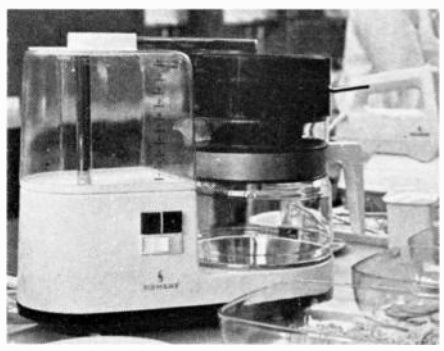
Stanley M. Ford, NHMA president

Dolph Zapfel, NHMA executive director

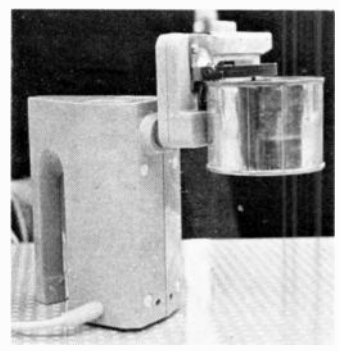
Showcasing the product highlights: U.S. knives, German 'kitchen machines'

America's innovation—*the slicing knife—was a focal point of interest in electric housewares at the Cologne Fair. Scovill's Hamilton Beach knife (right) was one of the U.S. knives demonstrated at the Fair. Another center of interest was a new German method of brewing coffee. And new "kitchen machines," a la Braun, gained considerable attention. Some of the new German units are shown below.*

Siemens all-purpose kitchen machine, *which is basically a mixer, here uses a shredder attachment. Kitchen machines, as pioneered by Braun, are now offered by most German housewares producers.*

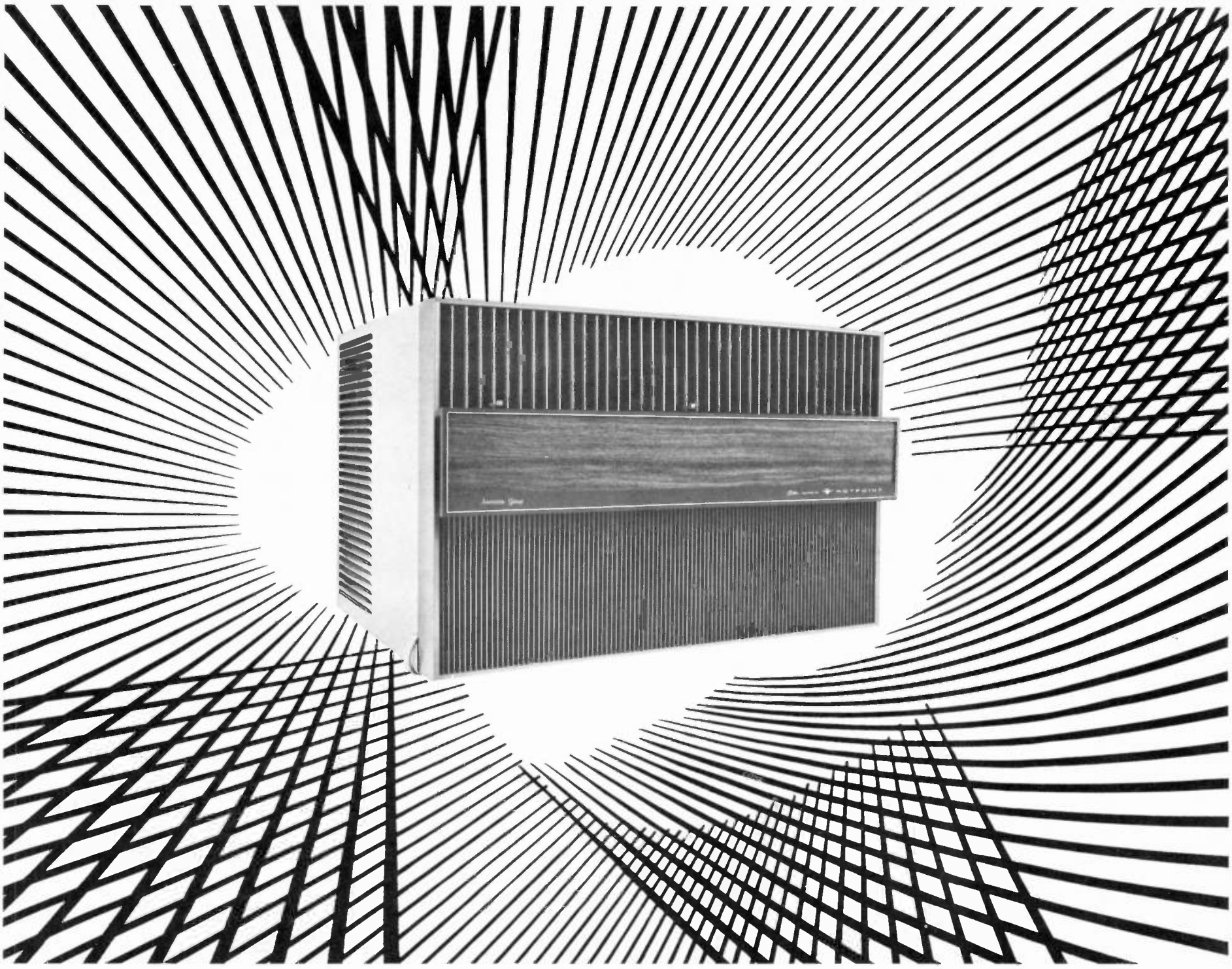


New coffeemaker *stores water in base; as water is heated, it flows up middle tube, across and through coffee, then drips into server below.*



Siemens can opener *attachment is one of the features offered on the company's all purpose kitchen machine.*

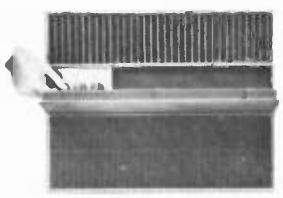
The motorized base *offers a different approach to the all-purpose function. Complete attachments fit into the base, unlike conventional units—like mixers—to which attachments are added.*



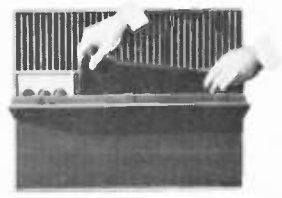
Hotpoint's automatic Circulaire sweeps cool air floor to ceiling...wall to wall with powered louvers, continuously—automatically

Now...total air conditioned comfort throughout an entire room or living area. No hot spots. No warm air layers near the ceiling. It's the handsome Hotpoint American Group air conditioner with new Automatic Circulaire that uses powered louvers to sweep cool air from floor to ceiling—and 3 sets of air-directors to aim it forward, right and/or left. Never before so much air conditioner versatility and cooling consistency!

Automatic Circulaire is standard on the American Group's 10,600 BTU and 18,000 BTU models. Other models—6,600 BTUs to 29,000 BTUs—feature manual Circulaire which is instantly adjustable for horizontal and vertical air distribution. All models have concealed control knobs and washable filter that's a snap to flip-out, clean and replace.



Concealed Controls



Flip-out Filter

For full details on the easy-selling American Group air conditioner line that offers more without costing more, call your Hotpoint representative, today!

Hotpoint

first with the features women want most

See Hotpoint appliances sold this week on The Tonight Show, NBC-TV, starring Johnny Carson

HOTPOINT—THE GENERAL ELECTRIC COMPANY · CHICAGO, ILLINOIS 60644

COOKWARE NEWS

☐☐☐☐ **Club Aluminum prepares for complete meals:** Club Aluminum's purchase of Maynard Manufacturing Co., of Glendale, Calif., is one of a series of planned acquisitions by the Chicago-based cookware producer. A. M. Mathis Jr., president of Club Aluminum, says his company seeks "to have products for each step in the preparation of meals, including serving items."

Maynard produces kitchen tools and gadgets, including egg beaters, mixers, ladles, cake servers, flour sifters, and ice cream scoops. It will be operated as a division of Club Aluminum under the direction of C. M. Maynard, son of former owner Mark Maynard, who will act as a consultant.

Club Aluminum's introduction to the kitchen tool business came when it began marketing special kitchen tools for use with its Teflon-coated cookware. The purchase of Maynard follows Club Aluminum's recent acquisition of the U. S. marketing rights for the Waterford porcelain enamel cookware line.

☐☐☐☐ **A "shop" marketing approach evolves:** Club Aluminum's president points out that his firm eventually expects to use a shop approach to marketing for its complete food preparation line. Club Aluminum's entry into shop programs will come this spring with its marketing of the Waterford line through gourmet cookware shops.

In addition to the shop approach, Club Aluminum's plans call for expansion into the commercial cookware field.

Another Chicago-based cookware producer, Ekco, has been a leader in its use of the shop approach for a diversified line of cookware, bakeware, kitchen tools, gadgets, and accessories.

☐☐☐☐ **The diversification pattern has been set** for the cookware industry. It evolves around complete food preparation and serving, and is closely allied to the shop merchandising approach at retail. The move into serving accessories was pointed up dramatically last year when West Bend acquired N.F.L. Engineering's plastic serving accessory line. Corning Glass Works had moved into dinnerware earlier with its Centura line. Kidde, with its cream whippers, only recently acquired Farber, which has been expanding into the electric housewares business. At the same time, cookware producers have been moving more heavily into the expanding commercial cookware field. Diversification has become a clear pattern in the cookware field —and its development has been as important as the Teflon-coated sales bonanza.

☐☐☐☐ **A dozen companies will be using Boeclad**—a process for applying DuPont's Teflon coating—within a year, predicts Edward Davidson, sales manager for General Plastics. General Plastics recently set up a New Jersey corporation, Genclad, for handling its Boeclad operation; it expects to be able to coat 10,000 items a day in expanded facilities by April. Revere, which was the first cookware manufacturer to use the Boeclad process on stainless steel, is doing its own coating, as will Regal, for its Boeclad line, Davidson said. Mirro is now marketing an electric frypan using the Boeclad process. The process, developed by Boeing, prevents scratching of the Teflon coating in normal use.

protect your investment

Getting products to market is as nerve-wracking as Liza crossing the ice.

Especially, in the appliance, consumer electronics and housewares industries.

The footing's mighty slippery. Distributors may be indifferent. Retailers may not get the full story and switch customers to other brands. Competitors are constantly yapping at your heels.

The best way to protect your marketing investment is to back it up with a sound trade campaign in Merchandising Week.

Every Monday, Merchandising Week alerts 144,500 decision makers. It speeds and holds trade acceptance. It gets your message through, loud and clear, with no loss of power. It keeps merchandisers—both mass and independent—aware of your marketing efforts.

So get your products across the ice floes safely. Advertise in Merchandising Week, the great protector.

MERCHANDISING WEEK

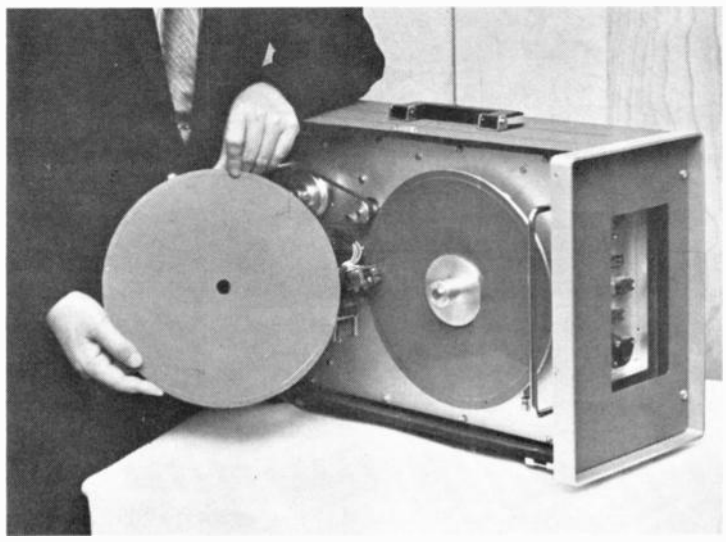
edited for the appliance,
consumer electronics
and housewares industries

A McGraw-Hill Publication

APPLIANCE TV

Video recording disc for b&w or color is demonstrated by Sony

The revolutionary recording device unveiled by Sony earlier this month (MW,7Mar.,p.3), is pictured at the right. This disc, made of a plastic-like material, is metal-rimmed. Used with a new Sony machine called the Videomat, a 16-inch disc of this type records and plays back a 30-second b&w motion picture. Used with a second new Sony device, called the Color Demonstrator, a 10-inch disc of this type can record and play back 40 color still pictures.



INDUSTRY TRENDS

FLOOR CARE PRODUCTS
- floor polishers
- vacuum cleaners

HOME LAUNDRY
- dryers, clothes, elec.
- dryers, clothes, gas
- washers, auto. & semi-auto.
- wringer & spinner

OTHER MAJOR APPLIANCES
- air conditioners, room
- dehumidifiers
- dishwashers, portable
- dishwashers, under-counter, etc.
- disposers, food waste
- freezers, chest
- freezers, upright
- ranges, elec., free-standing
- ranges, elec., built-in
- ranges, gas, total
- refrigerators
- water heaters, elec. (storage)
- water heaters, gas (storage)

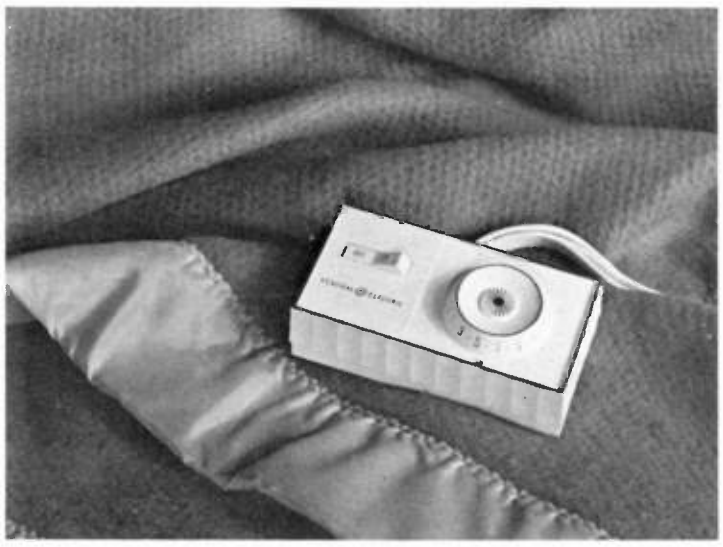
CONSUMER ELECTRONICS
- phonos, port.—table, distrib. sales
- monthly distributor sales
- phonos, console, distrib. sales
- monthly distributor sales
- radio (ex auto), distrib. sales
- monthly distributor sales
- b&w television, distrib. sales
- monthly distributor sales
- color television, distrib. sales

An up-to-the minute tabulation of estimated industry shipments of 18 key products. **New figures this week in bold-face type.**

date	1966-5	1965-4	% change
January	83,134	90,914	– 8.56
January	434,498	360,072	+ 20.67
January	125,465	92,194	+ 36.09
January	61,924	51,981	+ 19.13
January	290,413	263,793	+ 10.09
January	28,947	41,971	– 31.03
December	201,800	241,100	– 16.30
12 Months	2,945,000	2,755,000	+ 6.90
January	21,200	6,000	+253.33
January	29,400	26,100	+ 12.64
January	67,500	51,900	+ 30.06
January	106,900	87,400	+ 22.31
January	33,400	25,600	+ 30.47
January	39,200	44,500	– 11.91
January	117,000	97,800	+ 19.63
January	59,800	53,400	+ 11.99
January	165,000*	150,700	+ 9.49
January	393,700	344,100	+ 14.41
January	82,400	76,300	+ 7.99
December	246,150	197,140	+ 24.86
12 Months	2,613,590	2,724,070	– 4.06
Feb. 25	59,493	53,186	+ 11.86
8 Weeks	549,445	463,851	+ 18.45
December	708,229	684,234	+ 3.51
12 Months	4,046,015	3,417,614	+ 18.39
Feb. 25	45,372	29,066	+ 44.46
8 Weeks	332,680	230,285	+ 56.11
December	266,873	251,339	+ 6.18
12 Months	1,708,666	1,738,675	– 1.73
Feb. 25	274,355	225,443	+ 21.70
8 Weeks	1,933,162	1,585,022	+ 21.96
December	1,731,030	1,482,883	+ 16.73
12 Months	13,281,698	10,771,276	+ 23.31
Feb. 25	166,886	151,915	+ 9.85
8 Weeks	1,243,669	1,241,547	+ .17
December	766,450	811,446	– 5.55
12 Months	8,027,981	7,684,960	+ 4.46
Feb. 25	81,017	40,645	+ 99.33
8 Weeks	535,098	314,154	+ 70.33

*January total includes 117,100 conventional free-standing ranges, 19,000 high-oven models, 16,400 built-ins, 12,500 set-ins. Sources: VCMA, AHLMA, NEMA, GAMA, EIA.

HOUSEWARES



GE's '66 blanket line offers thermal weave in two series

Regular blankets using thermal-weave construction have been cited for cutting into sales of automatic blankets. Now General Electric has countered by using thermal weave in its Southport and Kingston blanket series, which retail in the $24.98 to $54.98 price range. GE calls it Wonder Weave: the interlocking weave produces air pockets that retain warmth. GE is also featuring a new recycling Sleep-Guard control, with 11 settings, on all its 1966 blankets.

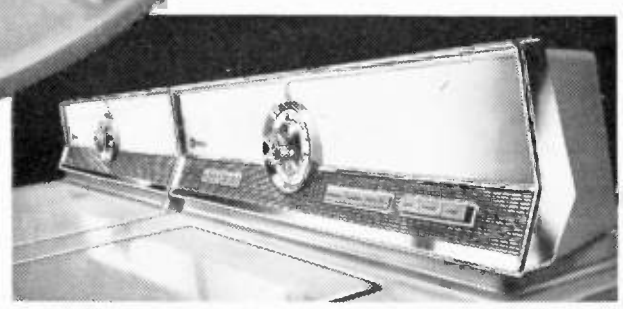
Salespower from the New Generation Maytags:

Maytag's new Power-Fin Agitator

with flexible cleaning action

The flexible fins on Maytag's Power-Fin Agitator keep clothes surging through the tub, and suds surging through the fabric.
This flexible cleaning action forces dirt out and down the drain. Keeps even the biggest loads from strangling the agitator.
The Power-Fin Agitator is made from rugged, specially-formulated polypropylene. Every time the agitator turns, the fins flex firmly but gently against the clothes, giving an extra boost to the clothes for extra cleaning action in the wash.

Get the complete Maytag story in full color on prime-time NBC television this Spring; more than 36 million Maytag prospects will! (Write today for free record of the Maytag Living Song, featuring the "J's with Jamie.")
The Maytag Company, Newton, Iowa 50208.



MAYTAG

for the dealer with a lot of profits in mind...
The New Generation of Dependable Maytags