

One of the most versatile filters in the line announced is the Type 7874 which lists at \$5.00. It was primarily designed for use in one side of the battery line of ignition systems though it may be effectively employed as a general utility filter in circuits carrying less than ten amperes. After several months' research on battery ignition systems, it was found that by shielding the engines with a hood made of dural or copper and using this 7874 filter, all ignition interference could be suppressed.

The use of dual loudspeakers of different sizes, in place of the usual single speaker, in new radio receivers developed by the General Electric Company, is the result of extensive work on the part of the G-E engineering staff to get the higher frequencies nearer the listener's ear level and to supply adequate radiation of the low frequencies. The story behind the development has been disclosed by L. J. Kaar, in charge of engineering and manufacturing of the company's radio and television receiver division at Bridgeport, Conn.

The difficulty to supply the necessary field power has been a restraining influence in the past on attempts to use multiple speakers, Kaar points out, but with the advent of permanent magnet speakers this obstacle was removed. The engineers found themselves free to choose a combination of loudspeakers best suited to the desired result. In the new G-E sets, a 14-inch and a 6½-inch Alnico permanent magnet speaker are combined.

"It often happens that, because of absorption by furniture, carpets, and draperies, much of the high frequency output of the loudspeaker fails to reach listeners' ears," Kaar said. "To alleviate this condition, the smaller speaker is mounted at the top of the speaker baffle. Its small diameter aids in this respect, for the center of the speaker is thereby nearer the chassis shelf, and this all helps to get high frequencies nearer ear level."

"Another problem is that of obtaining adequate distribution of the high frequencies over a wide angle. This is because the diaphragm radiates the high frequencies in the form of a beam. The width of this beam depends upon the ratio of the diameter of the diaphragm to the wavelength of the sound to be radiated. The larger this ratio, the sharper the beam. If a single speaker is used, of sufficiently large diameter to make it function well for the low frequencies involved in the lower tones, then the high frequencies of the higher tones will be correspondingly restricted. Obviously dual speakers offer a solution. The smaller unit contributes wider angle high frequency distribution, while the larger unit supplies adequate low frequency radiation. The result is that the radio listener gets the added 'tone dividends' on each end of the musical range."

The use of a single small loudspeaker, to get the advantages of high-frequency performance, seriously limits the low-frequency range. The engineers found that in order to move a sufficient volume of air the small diaphragm must undergo large axial movement. Sound distortion usually results due to the limit of the elasticity of the diaphragm suspension being reached at the extreme of the movement. The diaphragm of the larger speaker, however, can move the same volume of air with a correspondingly smaller excursion.

A new line of inter-communication units for which patents have been applied, has been developed by the Regal Amplifier Mfg. Corp. which is said to set a new standard in flexibility. These Tok-Pone "600" series units provide 2-way communication between any Master and any of ten or less Remote Stations. It is said that now, for the first time, it is possible to have five simultaneous private conversations with no possibility of cross-talk or interference.

A pioneer in the manufacture of inter-communi-



cation systems, the Tok-Pone Division of Regal Amplifier Mfg. Corp. has recently inaugurated a special department to solve the problems of Radio Dealers, Servicemen and others who have realized the profit to be made in this field but who have been reluctant to make an intensive drive for business because of lack of first-hand and authoritative information on the subject. Problems and inquiries addressed to the Company at 14 West 17th Street, New York City, will receive prompt attention—without obligation.

National Union Radio Corporation announced from their Newark, N. J. headquarters this month the availability of a complete line of National Union replacement radio batteries. The new batteries are for sale exclusively by the radio service profession in the replacement field and

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The VIDEO Reporter

by SAMUEL KAUFMAN

WHEN FCC chairman James Lawrence Fly made his initial statements hindering RCA's newly launched television merchandising campaign last Spring, he really created the greatest promotional boom ever accorded the art of video entertainment. The long and argumentative FCC television hearings that followed were ideal as ballyhoo material for the budding television industry.

True, there were negative as well as positive points brought out at the hearings and it is too early to determine the full effect of the contradictory testimony on future FCC regulations governing telecasting. However, the amount of newspaper space accorded the controversial issue of whether Mr. Fly was stepping beyond his jurisdictional bounds in an apparent attempt to rule on radio manufacturing and merchandising policies focussed widespread public attention on television. And it's the Video Reporter's guess that television stands everything to gain and nothing to lose by this invaluable amount of publicity.

The New York and Washington date-line stories, the numerous editorials and some clever editorial page cartoons appearing in leading big-town newspapers served to bring home the fact that television is an important topic concerning everyone. Best of all, the flood of publicity enlightened Mr. and Mrs. Next Door Neighbor on a topic that up to the time interested a comparatively small number of pioneer enthusiasts who kept abreast of television during its early stages of development. Suddenly, and with dramatic force, the realization was brought to virtually every citizen that television is not just a scientist's dream but rather an actuality and that the only problems involved are related with the methods of how to launch it in the best interests of the public.

It was difficult to avoid political implications in the charges and allegations that flew back and forth before, during and after the Washington hearings. "Bureaucracy" was a word in many editorial writers' lambastic commentaries. There was much fuss and ado over any governmental attempt to retard an industry's launching on the grounds that future improvements could be expected. On the other hand, there were clashing views within the industry itself on the matter of establishing standards and, on the latter point, it seems obvious that all leading makers of television equipment will soon concur on receivers with interchangeable standards—types of sets already advocated by a few firms.

The DuMont Laboratories will go on the air from a New York skyscraper later this year on a picture definition standard considerably higher than RCA's present 441-line images. DuMont will probably use 625 lines, according to present reports. There is likelihood, though, that some truce may be set—possibly by arbitration of the Radio Manufacturers Association and the FCC—on a universal picture standard somewhere between the RCA and DuMont extremes.

Whatever the outcome on definition, the merchandising end of the industry stands to gain out of the tremendous newspaper publicity.

AS these lines are being written, the NBC-RCA New York television station, W2XBS, is setting out on its second year of regularly-scheduled program presentation. And everyone who followed the initial year's efforts must agree that a swell job was done

by all concerned—engineers, program directors and talent. There were some costly boners but they were worth their weight in experience. Everything points to a bigger and better year of video operations at Radio City in the belief that television receiver sales will experience a gigantic boom.

THE slowness of CBS in putting its New York television station on the air with a regular schedule of programs is causing some of its own employees to wonder what part the network will really play in the video field.

Everyone there is so close-mouthed about television that even some CBS persons holding key positions don't have an inkling of



Televising the Opera in N. Y.

what's really going on behind the CBS television scenes. Instead of being able to tell the Video Reporter what's going on, they ask him to tell them whatever information he may find concerning their own network's plans! They hold the view that it's more logical to pick up facts on their network's vision plans from outside sources than it is right within the organization.

CBS may well know what it's doing, but its long policy of silence on its television plans since the first details for the Chrysler Building transmitter and Grand Central Terminal studios were announced in the summer of 1937 is not exactly the best course for winning the good-will of pioneer look-and-listeners. When officials do grant interviews on television, they stud them with "Don't quote me" requests on even minor details.

Inasmuch as the CBS attitude on television is "Your guess is as good as mine" the Video Reporter will make a few guesses. Here they are: (1) The recent acquisition of the phonograph record subsidiary by CBS took the full time and attention of key executives originally assigned to television; (2) there is a likelihood that this same record subsidiary will make record-players as well as disks and that, once in the equipment field, may add radio and television receivers to its line, thus emulating its competitor, RCA-Victor in more ways than one;

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Video Reporter

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(3) CBS may make a television tie-up with a major film studio for first video rights to its features, and (4) CBS, generally, is taking a firm opportunistic stand that it is saving a lot of money by not being active in television at the present time and that it can hop aboard the bandwagon on short notice when it comes along.

The CBS video station, W2XAX, has been sending out test patterns and signals for a considerable time. If it presented programs—even of an elementary experimental variety—it would give television a considerable merchandising boost. But, apparently, CBS isn't too eager to enter the field to boost other firm's wares even though it means building a big potential audience for itself. However, with the DuMont station under construction (across the street from New York CBS headquarters), it is likely that CBS will shift into high gear and beat it to the air with regularly scheduled programs.

SPEAKING of CBS television plans brings to mind an amusing incident we witnessed at the network's headquarters building some time back.

An engineer was adjusting a receiver to pick up a transmission of W2XAX's test pattern. The engineer had a bit of difficulty tuning the set to the Chrysler Building transmitter's channel and finally gave a sigh of relief as a sharp image appeared on the receiver screen.

"How's that?" he proudly asked.

"Great!" exclaimed an assistant, "but if you look close, you'll see that it's the NBC test pattern!"

THERE was some pretty fancy name-calling, definitely not of the microphone variety, that went on in New York trade circles when the FCC put a crimp in the television merchandising plans that were launched on a big scale in March.

Feelings were quite bitter and, if anything, they pointed to a future highly-competitive status in the television industry with little chance for the formation of a television monopoly or trust. All of which indicates that the early look-and-listening audience should benefit by low prices for receivers and choicer programs.

HOLLYWOODIANS are agog over the possibilities of coin-in-the-slot sound movies for bars, restaurants and other semi-public spots. The demand for such sight-and-sound entertainment brings to mind the field that exists for coin-in-the-slot television receivers, and it is reported that some firms are already considering such models.

Already, several New York stores, restaurants and theater lobbies have proved that television reception can draw crowds and there is every indication that coin-in-the-slot video entertainment should prove profitable when there are enough program hours on the air to make the venture practical.

RESTRICTIONS placed on feature films by major movie producers have caused NBC to rely on the smaller producers for many of the talkies included in the television schedule of W2XBS. The caliber of television films has gone from bad to worse. Occasionally, excellent foreign language films are utilized, but they haven't as wide an audience appeal as the less artistic celluloid entertainments in English.

As television audiences grow, there is bound to be a big public demand for improved film offerings. The Hollywood movie makers will then learn that some ground will have to be yielded to scientific progress. Of course, the movie makers should have a share in television profits if they provide a share of video program material. But their attitude in the early television days indicates that they would rather cater to the demands of exhibitors who don't want to see a home entertainment medium which may yet prove competitive get such an important break. But they may as well make up—or wake up—their minds to the fact that the

television industry will get film features if they have to make them themselves! As a matter of fact some early experiments along these lines are already under way in New York.

SOME of the early television receiver kits that hit the market during the past two years are being sold at bargain prices. The home-construction television market was curtailed by two things—the drastically reduced prices of complete receivers and the increased demand for large-image sets; the early kits were designed for 5-inch cathode-ray tubes.

WHILE bigger and bigger images on home receivers are constantly made available, there are indications that this year will see the 9-inch image in big demand. The deciding selling point is obviously the lower original cost as well as the less costly replacement charge.

IT'S interesting to note the appointment of Gerald Cock, former British Broad-

casting Corporation television director, as American representative for the BBC with headquarters in New York. Suspension of television programs in London made him available for the new assignment. Also, his being in New York will give him the opportunity to keep abreast of television progress in the city that has undoubtedly assumed claim to the title of World's Television Capital.

IN the campaign to "Save the Metropolitan Opera," NBC recently presented an operatic hour featuring "Met" stars over television station W2XBS. *The Video Reporter* looked in on the telecast to find that while it was meritorious musically, the dramatic action was quite hammy and was, in effect, reminiscent of the old movie days when actors made wild gestures to denote their emotions. Opera-goers may be used to this, but the majority of potential television look-and-listeners would anticipate a performance as acceptable to the eye as it is to the ear.

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