

Television At Stage of 1921 Radio

Seismology

"Television is not a vague and remote project, but, while still experimental, is an imminent and plausible probability. Indeed, a fair parallel is to compare television in its present state of development with ordinary broadcasting in its condition in 1921."

Such is the opinion of Dr. Alfred N. Goldsmith, chief broadcast engineers of the Radio Corporation of America, expressed to Science Service. For a considerable time the engineers of the Radio Corporation have been making confidential experiments with television, looking forward to the time when it will be as common as broadcast music or speech. These experiments have been under Dr. Goldsmith's direction. So far has this development gone that it will be ready for the public within a few years.

"Radio television is at a stage when it is prepared to leave the seclusion of the research laboratory and enter into the daily affairs and uses of man," he said. "Intensive development work of an experimental nature has already been carried on and transmission of television material is at hand through confidential experiments and transmissions carried on at Schenectady, Pittsburgh and New York."

As Dr. Goldsmith foresees it, three types of service will be rendered by television broadcasting, each of which will require its own band of wavelengths. One is the urban service that will be rendered to "lookers-in," as he calls the television audience, in large cities. Here the problem of absorption by buildings or radio waves carrying the images must be considered.

"A certain band of wavelengths or frequencies is believed to be suitable for television in such districts," he said, "and will be first experimentally tested for the purpose and later utilized on a systematic service basis."

The second class of television service is that for suburban and rural lookers-in. These people, he said, will have a new means of contact with people outside their normal range of travel. As these areas are much larger and cover a different sort of terrain, another band of wavelengths will be required for their most effective use, he believes.

Finally, there is international television. As this will have to be for great distances, frequently across oceans, a third group of wavelengths

will be needed.

Dr. Goldsmith also explained why a frequency band of 100 kilocycles width is needed for television, while one of 10 kilocycles will suffice for effective broadcasting.

"The width of channel in television broadcasting (expressed in kilocycles) determines the field of view of the picture and also its clarity or fineness of detail," he stated. "For example, a narrow band of frequencies assigned to television would permit the transmission only of unpleasantly crude images of restricted dimensions, and would therefore at once block the development and public appreciation of this new art. Even the 100-kilocycle bands which have been recommended are capable of giving only a picture of moderate dimensions and of fairly acceptable sharpness and clarity."

The possibilities of television broadcasting are almost without limit.

"When one considers the number of important forms of television programs which could be sent to the broadcast listeners-in and lookers-in, one is compelled to curb one's imagination," he declared. "Everything that the drama can afford, that the musical comedy has to offer, that the debating stage can provide, that the concert stage can furnish, that the motion picture has given to humanity, can be brought into the home with synchronized sound as a complete source of thoroughly satisfying and highly interesting human entertainment, instruction and edification."

That the Government should be especially careful of its regulation of television is the belief of Dr. Goldsmith.

"The wise policy of the Government which encouraged the development of broadcasting in 1921, if similarly applied to television at the present time, will lead to a tremendous and desirable growth of that art as a service to the public," he said.

Dr. Goldsmith believes that the Government should confine its television licenses to experienced and responsible organizations, such as the Radio Corporation of America, for, he said, "only such organizations can be depended upon to uphold high ideals of service. 'Television,' so-called, from irresponsible sources, will benefit only the oculists of the United States in proportion as it ruins the eyesight of the public 'lookers-in.'"

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NATURE RAMBLINGS

BY FRANK THONE

Natural History



Calla Lily

An old favorite of our grandmothers is coming back into popularity again, both as a houseplant and as a cut flower. This is the calla lily, whose waxy white sheaths may be seen in any florist's windows nowadays, sometimes accompanied by a cousin calla in golden yellow. They are really attractive plants, and with good care will do much to help dwellers in winter-bound cities to wait in patience for the return of spring.

The calla lily is not really a lily. The true lilies have flowers shaped like those of the Easter lily and the tiger lily, with the floral envelope divided evenly into six pointed parts, and with six stamens and a single pistil arranged within them. The calla lily, as a matter of fact is not strictly speaking a flower at all. It is a whole stalk of flowers, and the wide, sheathing petal-like thing around it is a modified protective leaf. Technically that kind of a floral object is called a spathe. The stiff stalk standing up inside is known to botanists as a spadix, and its surface, if examined closely with a good magnifying glass, will be seen to be crowded with innumerable little objects that are the real flowers.

This device of the calla's, of crowding a host of tiny flowers along a stalk and surrounding that with a spathe, is used by a great family of plants, ranging through temperate and tropical regions all over the world. Familiar in our own springtime woods is the Jack-in-the-pulpit, and almost as common is the green dragon. The dasheen, introduced a few years ago into the South as a food crop, is a cousin of the calla lily. And the great, broad-leaved "elephant ears" used in the more pretentious lawn and park plantings, is another relative of this lovely wax-flowered ornamental.

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