

48 Lines Radiovision Standard

Radiovision

Radiovision pictures of the future will be made of 48 lines, with 15 separate frames, or pictures, every second, if the decision of the Radio Manufacturers' Association on standards is followed. A sub-committee of the Association's committee on engineering, with Dr. D. E. Replogle as chairman, recently met in Chicago with representatives of the leading manufacturers, and others interested in radiovision, including C. Francis Jenkins, of Washington.

Although there are still only a few radiovision broadcasters, compared with the sound broadcasters, they have been employing a variety of methods. The committee adopted as standard the system used by C.

Dr. Eckener, Psychologist

Psychology—Aviation

Dr. Hugo Eckener, commander of the Graf Zeppelin, obtained his doctor's degree in a field quite removed from aviation, it was revealed by Dr. Lightner Witmer, director of the Psychological Laboratory and Clinic at the University of Pennsylvania. Dr. Eckener was a student in psychology at the University of Leipzig, under the famous Prof. Wilhelm Wundt, at the same time as Dr. Witmer. In 1892 Dr. Eckener received his degree, but he remained at the university, and when Dr. Witmer received his degree a year later, it was for a piece of research for which Dr. Eckener had acted as subject.

Failure in obtaining a position in psychology led Dr. Eckener into the work for which he is now internationally famous. No jobs were open, even though he wrote Dr. Witmer later to see if there was an opening in America. As an alternative, he got into newspaper work. In the early days of Count Zeppelin's experiments, he wrote a scathing article condemning the whole lighter-than-air proposition. Zeppelin protested that Eckener knew nothing about it, but invited him to visit his works and learn more. As a result of this visit the air-ship builder and the erstwhile psychologist became close friends, and eventually Eckener became Zeppelin's assistant.

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The great agricultural census to be taken in 1930 will represent about 98 per cent. of the agriculture of the world.

Francis Jenkins in broadcasting movies from his station in Washington. This makes use of 48 lines in the scanning disc, arranged so that the lines follow each other from top to bottom, and left to right consecutively, like lines of type on a printed page. The committee also adopted the use of the word "frame" as referring to a single picture area.

It is expected that all the television broadcasters will now adopt these standards, so that one radiovision receiver with one scanning disc will be able to receive any radiovision broadcasts.

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Explosions Tell Air Secrets

Physics

Explosions made by big guns when they are fired have proven that the air is warm at a height of 25 miles above the earth's surface. Major W. S. Tucker, reading a paper by F. J. W. Whipple, told at the recent meeting of the British Association for the Advancement of Science how a sensitive electrical device, developed during the war for determining the distance of enemy guns, had been used for studying the propagation of air waves. The principle was this: if a fine wire carries an electric current, it is heated. Then, if the wire is cooled, as by a puff of cold air, the resistance of the wire is raised, and the change in current can be detected. The sound wave from the gun acted as the puff of cold air, and so by observing the time of arrival of the sound at different places, the distance of the gun could be quickly calculated.

Mr. Whipple, using the same device, has found out that the sound of a big gun behaves something like short radio waves. Close to the gun it can be heard, farther away it is inaudible, but still farther it can once more be heard. This is the result of the warm layer of air, about 25 miles up, bending the sound waves to earth again. People close to the gun hear the direct wave, those far away hear the reflected one. These experiments confirm ideas of other scientists gained from study of the behavior of meteors, or "shooting stars" as they near the earth.

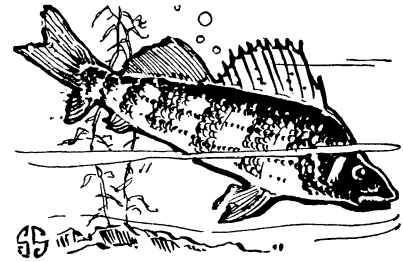
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Japan's land area is about that of the state of Montana.

NATURE RAMBLINGS

BY FRANK THONE

Natural History



Yellow Perch

"I pray you, sir, give me some observations and directions concerning the *Pearch*, for they say he is both a very good and bold-biting fish, and I would fain learne to fish for him."

Thus the disciple to the Master of all Fishermen, the great Izaak. And the ways of the perch are well worth learning, though he be no bass or trout, for he puts up enough of a fight to give an experienced fisherman a mild thrill, and when he comes to the table he can hold up his head and tail on the platter with the most aristocratic of them. Jordan and Evermann say of him, "As a pan-fish we do not know of any better among American freshwater fishes. We have experimented with the yellow perch and several other species, including both species of black bass, the blue-gill, wall-eyed pike, and rock-bass, eating each for several days in succession, and found the yellow perch the sweetest and most delicious of them all. One does not tire of it so soon as of the other kinds."

The yellow perch is for choice a lake fish, abounding in the smaller waters of the northern states; but it is found also in streams as far south as North Carolina. It bites readily the year round, on almost any kind of bait, and will on occasion even take an artificial lure. It can be fished for through the ice in winter, when it goes most readily after minnow bait.

The yellow perch never reaches really large size; a two-pounder is to be rated as pretty big, and most specimens do not run much over half that. But it is an economical fish, not wasting much weight on head and tail and other inedible parts, so that even perch of less than a pound are well worth taking home.

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