

## 8% of Empire Cultivated

*Agriculture*

Although the British flag now flies over nearly a fourth of all the land area of the world, inhabited by nearly a fourth of all living human beings, only a fraction of all that area is now under cultivation, Sir Robert B. Grieg, Chairman of the Board of Agriculture for Scotland, informed his fellow agricultural scientists at the Johannesburg meeting of the British Association for the Advancement of Science.

"Of this immense area no precise measure of the full extent of land in agricultural use is available, but the proportion is small," Sir Robert said, in part. "The most intensively cultivated of the larger areas is India, the least intensively cultivated is Australia. In the aggregate only 8.7 per cent. of the total land surface of Canada, India, the Union of South Africa, Australia, and New Zealand is under arable cultivation. Only about one acre in every hundred of Australia is under cultivated crops, about two and a half acres in Canada, and three acres in South Africa and New Zealand respectively. It is difficult to obtain figures indicative of the possibilities of the tropical and sub-tropical territories, but the African possessions alone are capable of enormously increased production.

"In the nine provinces of Canada, the 'possible farmland' is 358 million acres, or about one-quarter of the total land area of the provinces, and five and a half times the present total of both arable and pasture. In India, the most intensively cultivated, it is estimated that the cultivable waste land is equal to half the present cultivated area, or about 153 million acres."

The speaker outlined a comprehensive scheme for a scientific development of agriculture throughout the empire. Agencies exist, he said, or can be called into existence easily, for mapping the campaign and financing it. The Dominions can supply and train their own technical workers, but the less developed colonies must still depend on the homeland for their personnel.

*Science News-Letter, August 3, 1929*

The alligator pear has a higher food value in calories than any other fresh fruit except the olive.

The average speed of automobile driving in Massachusetts has increased ten miles an hour in the past ten years.

## New Television Station Opened

*Radiovision*

To the thousands of amateur television fans equipped with apparatus for picking pictures and movies out of the ether there will probably be added many more in the near future. Station W3XK, of the Jenkins Laboratory, is now being operated with new equipment and increased power. Up to the present this station has been using 250 watts in the transmitter at the Washington laboratory. The new station, in one of the suburbs of Washington, uses 1500 kilowatts at present. The Radio Commission has approved a power of 5000 watts.

Radiomovies are now being broadcast every night from the station between the hours of 8 and 9 p. m.

Eastern Standard Time. One room has been provided at the new station for a television studio, from which broadcasts of living subjects will be made, when the equipment is completed.

Airplane television broadcasts will be attempted from the new station before long, according to Dr. C. Francis Jenkins. He has just received a new Stinson airplane from the factory and is equipping it with a television camera which will operate through a hole in the floor of the cabin. The scene will be transmitted by radio to the station on the ground, where it will be picked up and rebroadcast with greater power.

*Science News-Letter, August 3, 1929*

### WHAT TO SEE BY RADIO

#### STATIONS ON REGULAR SCHEDULE

CHICAGO, ILL., W9XAA, Chicago Federation of Labor, 500 watts (approved for 1000 watts), 2000-2100 kc. or 145 m. 48x48x15.\* 9:00 to 11:00 a. m. Central Standard Time, daily except Sunday; movies, still pictures and living subjects.

JERSEY CITY, N. J., W2XCR, Jenkins Television Corporation, 5000 watts, 2000-2200 kc. or 139 m. 48x48x15. 2 to 3 p. m. Eastern Standard Time, daily except Saturday and Sunday and 8 to 9 p. m. Monday, Wednesday and Friday.

LEXINGTON, MASS., W1XAY, Lexington Air Station, 500 watts (construction permit granted for 5000 watts), 2000-2100 kc. or 145 m. 48x48x15. Daily, 3 to 4 p. m. and Friday 7:30 to 8 p. m.

MT. BEACON, BEACON, N. Y., W2XBU, Harold E. Smith, 100 watts, 2000-2100 kc. or 145 m. 24x24x20. Transmits television programs, generally living subjects, daily 1 to 2 p. m. Eastern Standard Time.

NEW YORK, N. Y., W2XBS, Radio Corporation of America, 250 watts (approved for 5000 watts), 2000-2100 kc. or 145 m. 60x72x20. Announcement cards, views and living subjects. Daily (including Sunday), 6 to 10 p. m. Eastern Standard Time.

PITTSBURGH, PA., W8XAV, Westinghouse Electric and Manufacturing Co., 20,000 watts, 2000-2100 kc. or 145 m., 2100-2200 kc. or 139 m. and 2750-2850 kc. or 107 m. 60x72x20. Transmitting television programs, generally motion picture films, Monday, Wednesday and Friday, 5:10 to 6 p. m., Eastern Standard Time.

SCHENECTADY, N. Y., W2XCW, General Electric Co., 20,000 watts, 2100-2200 kc. or 139 m. 24x24x20. Sunday 10:45 to 11:15 p. m., Tuesday, 12 to 12:30 p. m., Tuesday, Wednesday and Friday, 1:30 to 2 p. m., Eastern Standard Time.

WASHINGTON, D. C., W3XK, C. Francis Jenkins, 1500 watts, 2000-2100 kc. or 145 m. and 2850-2950 kc. or 103 m. 48x48x15. Daily 8 to 9 p. m., Eastern Standard Time, Radiomovies.

#### ON IRREGULAR EXPERIMENTAL SCHEDULE OR UNDER CONSTRUCTION

BROOKLYN, N. Y., W2XCL, Pilot Electric Co., 250 watts, 2000-2100 kc. or 145 m. and 2750-2850 kc. or 107 m. Construction permit.

CHICAGO, ILL., W9XAG, Aeroproducts, Inc., 5000 watts, 2100-2200 kc. or 139 m. Construction permit.

CHICAGO, ILL., W9XR, Great Lakes Broadcasting Co., 500 watts, 2850-2950 kc. or 103 m. 24x24x15.

NEWARK, N. J., W2XBA, WAAM, Inc., 50 watts, 2750-2850 kc. or 107 m.

NEW YORK, N. Y., W2XCP, Freed Eisemann Radio Corp., 2000 watts, 2000-2100 kc. or 145 m. and 2850-2950 kc. or 103 m.

OAKLAND, CALIF., W6XN, General Electric Co., 10,000 watts, 2000-2100 kc. or 145 m.

SPRINGFIELD, MASS., W1XAE, Westinghouse Electric and Manufacturing Co., 20,000 watts, 2000-2100 kc. or 145 m.

WINTER PARK, FLA., W4XE, William Justis Lee, 2000 watts, 2000-2100 kc. or 145 m.

\*Dimensions of the transmitted picture are given as follows: Number of scanning lines in height of picture; breadth of picture in line-widths; number of frames per second. Thus, 48x48x15 means that the picture is 48 lines high, 48 lines broad and 15 frames are transmitted per second. All scanning is from left to right in each line and with successive lines from top to bottom, as one reads the pages of an English book.