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"Adventures in Science" Radio Programs, 1955-1956

All of the following shows were produced for the CBS public affairs show, 'Adventures in Science- hosted by Watson Davis, Director of Science Service. Each program is approximately 13.5 minutes long.

Date: 9/3/55  Guest: Sir George Allen, Secretary, British Assn. for the Advancement of Science
Subject: British Assn. for the Advancement of Science

This association founded in 1831, provides scientists from different fields opportunities for to meet and exchange important information. Membership is open and there are quite a few members from industry and labor. The upcoming meeting of the association will focus on the atom, cosmic rays, applications of nuclear energy on industry, automation, employment problems and education as well as the effects of an atomic war. Areas of discussion will also cover some political aspects of nuclear war and scientists' responsibility to society.

Date: 4/29/55  Guest: Walter A. Grant, v.p. engineering staff, Carrier Corporation
Subject: Air Conditioning

Discusses the importance of air conditioners including a short history of air conditioning. The first use of air conditioning was an industrial application; in 1902 the first printing plant was air conditioned. Textile factories were also air conditioned during this period. In 1921 people began air conditioning theaters.

Date: 2/11/56 Guest: Dr. Irvine Page, president, American Heart Assn. and Director of Research at the Cleveland Clinic
Subject: American Heart Assn.

The association membership is half doctors and half laymen. American Heart Association's mandate is to educate the public about heart ailments. They are developing a program designed to get heart

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attack victims back to their jobs.
Date: 2/4/56  Guest: Dr. Russell Cecil, professor emeritus at Cornell Univ., and Dr. Herzog, an organic chemist from Sherring Labs. in Bloomfield

Subject: New Drugs for the Treatment of Arthritis

Discuss new drugs for helping arthritis, cortzone and metacortin, a steroid therapy. Sherring manufactures cortisone. Herzog discusses research at Sherring.

Date: 7/16/55  Guest: Dr. George Gerard, asst. director, research division, College of Engineering, New York University

Subject: Designing a Plane That Breaks the Thermal Barrier

Technical discussion of the newest aerotechnology to break the thermal barrier, which is beyond the sound barrier. Flying at Mach I causes a friction problem due to "drag' on the plane. Extremely high temperatures at Mach II (the point at which a plane breaks the thermal barrier) is the problem that Dr. Gerard is trying to overcome with engineering design applications.

Date: 5/14/55  Guests: William C. Foster, president of Manufacturing Chemists Assn., and Cleveland Lane, asst. to the president

Subject: Advances in Chemistry

Chemical Progress Week is a public relations event designed to educate the public about the rise in the standard of living due to chemicals and the chemical industry. Chemicals are part of almost any kind of manufacturing e.g. iron, steel, drugs, biogolicals and plastics. Mr. Foster emphasizes the importance of both fundamental and applied research. Results of fundamental research may not be instantaneous but it is essential for progress. Attracting young people with fresh ideas into the industry is also essential. There are many professional and personal rewards in the chemical profession because of many exciting unexplored vistas in the science such as atomic power, energy, etc.
Date: 4/30/55  Guest: Dr. William S. Middleton, chief medical director, Veterans Administration

Subject: Mental Illness

Mental illness is the largest world-wide problem. It accounts for one half of hospital patients, and one out of sixteen people in the
U.S. are afflicted. Mental illness is like other diseases and educating people will eradicate the shame, guilt and stigma attached to the disease.

Psychotherapy and chemical therapy are two treatments for the illness. The basis of psychotherapy is Freud's work. Two new drugs that have a tranquilizing effect on mentally ill patients are chloraprom,azine, and reserpine. Social workers, psychologists, and other health workers need to treat patients as well as rehabilitate them so they may reenter society as constructive citizens.

Date: 5/4/55  Guests: State Finalists for the National Science Award

Phoenix, AR-Bob Socy sp?, 17 years old, built an electrical Hygrometer which measures temperature and relative humidity.

Knoxville, TN-Sue Shipe studied the relation of pond animals to their habitat. Her study was focused on conservation and the balance of nature.

Sioux City, Iowa--Jerry Anderson won his competition with an exhibit on the use of rocket propulsion for space travel, including developing space stations.

Oklahoma City, OK--Kenneth Dunn built an electronic stethoscope with an oscilloscope and cardiographic attachment. This machine amplifies the heartbeat and records it on a cardiogram.

Charleston, W.Va.--Carol Irene Hawkin's winning research project was entitled Coal Microscopy: A New Tool for New Research. It involved the microscopic study of coal, using photo-graphic techniques and petrographic analysis.

Maynot, North Dakota--Jerry Anderson built a remote controled robot capable of eight actions.

Date: 7/2/55  Guest: Dr. Fillmore H. Sanford, executive secretary, American Psychological Assn.

Subject: Psychology
Dr. Sanford lists various types of psychologists. They are different from psychiatrists in that they are more academic and research oriented. They explore behavioural patterns in laboratories. Vocational psychologists work in industry assisting organizations to predict the efficiency levels of employees.
The association which was founded in 1892 has over 13,500 members.

Dr. Sanford discusses how humans began studying the physical world a long time before they started to study human behavior. Psychology is a peculiarly American phenomenon. Discusses behavioral science and possible political connections, e.g. Russia

Date: 5/28/55  Guest: Dr. Gordon H. Strom, Aeronautical Engineer, New York University

Subject: Air pollution

He is studying pollution produced by industrial manufacturing processes and how to control it. Dr. Strom conducts experiments in a wind tunnel to study the movement of pollutants in a micro form. Discussion of weather effects on air pollution, atomic blast fallout, etc. Comments on system of checks and balances in nuclear reactors.

Date: 6/25/55  Guest: Dr. Wallace R. Brode, associate director, National Bureau of Standards

Subject: National Bureau of Standards

The Bureau employs approximately 28,000 people who conduct research in television, radio and the physical sciences. Two thirds of the work they do is for other federal agencies, including testing equipment that agencies are considering purchasing. One third of the work at the Bureau relates to maintaining existing standards of measurement and developing new standards and techniques. Discussion of using light emitted from the alchemical reaction from the melting of gold to measure. The Bureau also tests physical values necessary for other scientists' research, and share much of their findings with other countries although they do not maintain international standards. Optimistic discussion of electronic computers.

Date: 1/28/55  Guest: Dr. William A. Baum, staff member, Mt. Wilson and Palamar Observatories

Dr. Baum discusses working to study universe with the most powerful telescope in the world. Much of the research uses traveling light as a technique for measuring. Discussion of complex factors in astronomy such as the photon counter, the age of galaxies and
planets.

Date: 7/9/55    Guest: Francis W. Davis, Consultant Engineer for Waltham Mass., inventor of power steering

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Power steering is now widely used. Widespread use began in the 1930's and increased during World War II. The steering mechanism uses a "servo follow-up principle." The driver of the vehicle tells the wheel how much effort he needs, the engine supplies the power.

Mr. Davis received the patent for the machine in 1931. Now he has over 40 international and domestic patents. Inventors have many problems because patents only last for 17 years. Due to this 17 year limit Davis is researching improvements for the power steering device so that he can retain the patent. The prototype for the steering device is now at the Smithsonian Institution.

Date: 7/23/55  Guest: Jerome Namias, Chief, Extended Forecast Division, U.S. Weather Bureau

Mr. Namias discusses advances in forecasting techniques. Many businesses and industries have interest in weather forecasts. Discussion of collection of data from different points in the atmosphere. This data is sent to a central office, it is analysed, and plotted. The Division attempts to predict the flow of pressure fronts which affect weather. Short discussion of climate changes.

Date: 1/7/56  Guest: Richard T. Whitcomb, aeronautical research scientist, Langley Aeronautical Lab, National Advisory Committee on Aeronautics

Subject: Aeronautics

By making design adjustments on planes people can fly faster with the same amount of power. The "Mae West Waist" improved speed by 24%. These applications are especially important to the military. Normally they test airplanes in wind tunnels to measure the drag on the planes, and to investigate and document the movement of air flow around the plane. Many areas of research needed: tensile strength, drag at speeds beyond the speed of sound and cooling devices for planes.

Date: 1/14/56 Guest: Dr. Francis O'Neill, Director, Central Iceland State Mental Hospital, Long Island, New York

Subject: Treatment of Mentally Ill Patients with Drugs

Recently there have been advances in treating extremely disturbed
patients with Thorazine (tranquilizers). This has helped patients return home from hospital. These drugs have special qualities that calm patients without putting them to sleep and although they are not curative, they represent a great step forward in treatment of mental illness.
Date: 1/21/56  Guest Dr. T. Cainpbell Thompson, surgeon and chief of the Hospital for Special Surgery in New York

This hospital is the oldest orthopedic hospital in the nation. It began as a brace shop, employing doctors who fitted Civil War victims with prostheses. The first surgeons were trained as barbers. Surgery has always advanced during wartime. First amputee clinic began at HSS after World War II. Now major causes of amputation are traffic accidents and problems that elderly people develop.

Condition notes.

Tape is old. Several have many splices which break easily. Need to be respliced.

Grant especially bad.