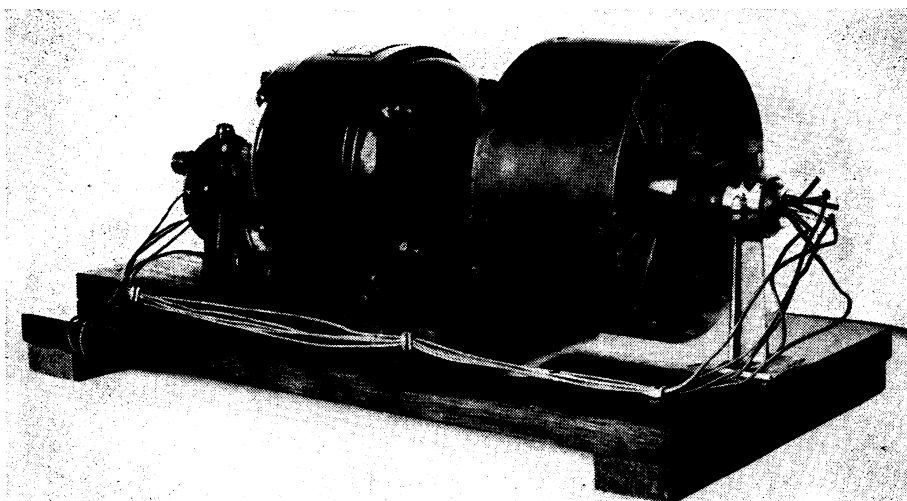


Rods of Quartz for Radio Movies

Radio-Photography



JENKINS HOME RADIO MOVIE RECEIVER with the cover removed. The neon tube is in the center of the drum to the right. The rods of quartz carry its light to the top of the drum. On the cover is a mirror to make the image appear vertical, and a lens to magnify it, so that it seems about six inches square

Rods of quartz, through which light is transmitted like water through a hose, make possible the latest method of television—the radio movies demonstrated by C. Francis Jenkins, Washington inventor. As a result he is able to substitute a seven-inch drum for the two or three foot disc that previous methods of television have employed.

If light is allowed to shine on one end of a rod of fused quartz, it is

reflected back and forth as it goes through it. Practically none is lost by leaking out the side, but all emerges through the end.

In the Jenkins home radio movie receiver, which may soon become a common attachment to radio sets, the current from the set, instead of operating the magnets of a loud speaker, causes a glow of a small metal plate sealed in a bulb containing the rare gas neon. Such a neon lamp glows

immediately, as soon as the current is turned on, and is extinguished as soon as the current is turned off. The ordinary filament of the incandescent lamp continues to glow for an instant after the current stops, and so cannot respond to the rapid changes required by the television receiver.

In previous methods of seeing by radio, either of movies, or actual objects, the person viewing the received image gazed directly at the surface of a neon lamp. A revolving disc with a spiral row of holes obscured all but the proper spot of the neon glower. These spots of light, seen in rapid succession, were built up into the complete picture seen by the observer, just as the successive pictures of a movie film shown in a theater merge together into a continuous view on the screen.

Mr. Jenkins employs a cylindrical glass tube, in which there is a row of small neon glowers. This is at the center of a revolving drum, seven inches in diameter. Around the surface of the drum is a helical row of small holes. Extending from these holes, inside the drum, to an inner cylinder, almost in contact with the neon lamp, there are a number of the quartz rods, about two inches long, somewhat resembling the wire spokes of a bicycle wheel. (*Turn to next page*)

Household Chemical Has Aliases

Chemistry

Tri-sodium phosphate, one of the most valuable household chemicals ever discovered, apparently has no press agent and so far has escaped the notice of madam housekeeper. If she uses it, at least she does not know it. A survey of the wholesale chemical market, however, shows large quantities of the phosphate going out quietly, soon to emerge under a variety of fancy labels, with various colors and at enhanced prices. Much of this material is adulterated with cheap washing soda.

As a washing powder tri-sodium phosphate has proven to be a remarkable preparation. Its degree of alkalinity is distinctly higher than that of common washing soda, but not high enough to cause damage to dry paint.

The main alkaline strength of the phosphate lies in reserve, due to the unique chemical constitution of the substance. It is the reserve feature

which makes it equal in many situations to caustic soda as far as dirt riddance is concerned. For steam-cleaning of automobile chassis; cleansing of greasy hands of mechanics and of furniture subject to much public handling; riddance of scum on lavatories and tubs, and for water-softening the phosphate is proving very effective.

In view of the current American wholesale price of four to six cents per pound (according to location) it is thought that tri-sodium phosphate should find a place on the grocer's shelf under its own name. It is not patented or subject to private control. It is not poisonous or offensive, and requires no chemical skill in handling. There seems to be no good reason why it should appear solely under meaningless trade-marks any more than salt or sugar.

Science News-Letter, May 19, 1928

Edison to Receive Medal

General Science

Thomas Edison will receive the gold medal for science of the Society of Arts and Sciences, New York, on May 24, it has been announced. Walter Russel, president of the society, will preside at a banquet at the Hotel Astor, at which the medal will be bestowed, while Dr. Edwin E. Slosson, director of Science Service, will be toastmaster.

Science News-Letter, May 19, 1928

Movies Now Retouched

Inventions

Motion picture film can now be retouched, like studio portrait negatives, with the aid of an apparatus just patented in France by L. H. Burel and H. Debain. Instead of looking directly at the negative, as in ordinary retouching, however, the image of the film is projected to a screen, along with the image of the end of the retouching pencil, so that tiny details can be treated.

Science News-Letter, May 19, 1928