

for astronomy, for aluminum surfaces make telescopes work so much better that a 60-inch mirror instrument is as good as a 100-inch instrument. The difference in cost is nearly a million dollars.

Coating of the present world's champion telescope mirror with aluminum is the culmination of a series of experiments rushed through in the last few weeks.

Just a few days ago the 60-inch mirror at Mt. Wilson was aluminized and hurried back into place to test its im-

proved reflecting power. Ten smaller auxiliary mirrors have likewise been coated.

The previous champion of aluminized telescopes was the 36-inch mirror at Lick Observatory, also coated by Dr. Strong with his vacuum evaporation apparatus. This mirror was found to give fifty per cent. better reflection than ordinary silver for photographic purposes. The aluminum surface does not need to be re-applied frequently as does silver.

*Science News Letter, March 9, 1935*

Use of short-wave radio in medicine is no new thing; it has been successfully employed for several years in the treatment of certain diseases requiring a rise in temperature. Hitherto, however, the whole patient has been put into a state of "artificial fever." Dr. Nagelschmidt's advance consists in finding a method for localizing the effect.

*Science News Letter, March 9, 1935*

#### ARCHAEOLOGY

## Cornfield Discovered Beneath Georgia Mound

**A**N INDIAN cornfield of the "deep South" so old that, after it was abandoned, an Indian mound was built on the furrowed ground, has been discovered near Macon, Ga., in perfect condition.

The cornfield reveals a system of cultivation known to the ancient mound builders of the South but entirely different from the typical Indian method of corn-growing. The field, discovered under the mound, was preserved through perhaps a thousand years by the sand mound raised over it and a thick cap of red clay loam over that which shut out rain and weather influences.

Discovery of the field is announced by Dr. A. R. Kelly, who has been mak-

#### MEDICINE

## Short Radio Waves Used For Treating Parts of Body

**S**HORT radio waves promise speedy relief for the particular kind of painful and often disabling lame shoulder or elbow which physicians call bursitis. This new medical use of short radio waves was announced by Dr. Willis R. Whitney, vice president in charge of research of the General Electric Company.

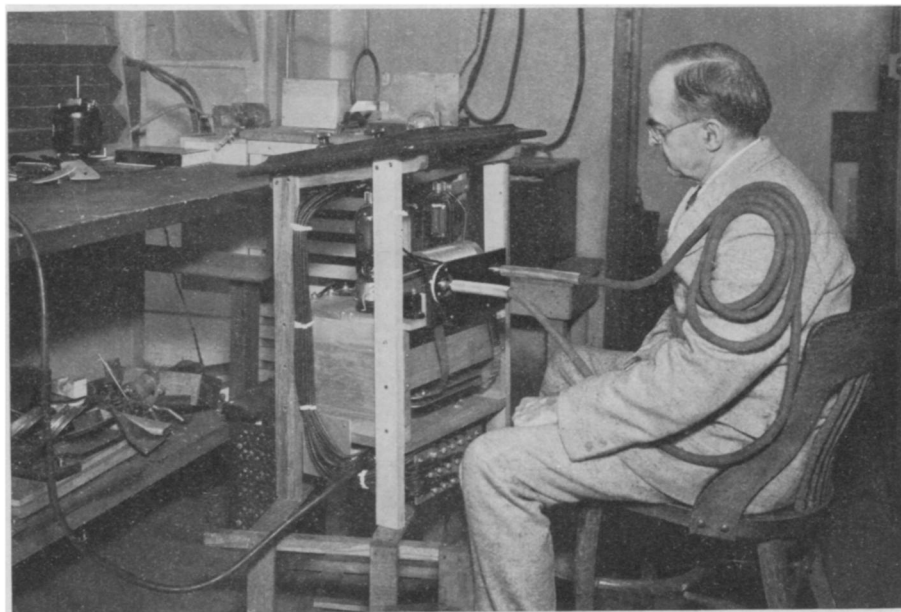
Bursitis was described by Dr. Whitney as "sand in the human bearings." A bursa is a small closed sac. There are many of them in the body, generally lying between muscles and tendons, and containing a little thin liquid. Their function seems to be that of lubrication, making the motion of muscles easier. Stony deposits which may be seen by X-ray pictures are sometimes found in these sacs—the sand in the bearings. Injury, infection or unusual exercise of an arm or shoulder are thought to be causes of the condition.

Until recently surgical removal of the deposit with the bursa has been the best method of treatment, Dr. Whitney pointed out. It now looks as if surgery would be unnecessary in the future because enough heat can be induced in the body by high frequency currents to dissolve the lime deposits.

Dr. Whitney reported successful treatment of two cases of bursitis by his high frequency apparatus. Some years ago he developed a high frequency induction method of producing artificial fever for the treatment of paresis. Further research on high frequency currents led to discovery of their usefulness for treating bursitis.

*Science News Letter, March 9, 1935*

**S**HORT radio waves can now be used in medical treatment of selected regions of the body, by a technique developed by Dr. Franz Nagelschmidt of St. Bartholomew's Hospital, London, England. Dr. Nagelschmidt interposes a cylinder of wax and ebonite between the radio generator and the patient, localizing the heating effects of the radiations, which have wave lengths of from three to twenty meters (*Nature*, Feb. 23)



#### TREATING LAME SHOULDER WITH RADIO WAVES

*Patients suffering from the painful, disabling kind of lame shoulder known as bursitis may be treated by short radio waves instead of surgical operation. The coil wrapped around the shoulder of Dr. W. R. Whitney, General Electric Company researcher, carries the high frequency currents which induce enough heat in the body to dissolve the lime deposits that cause the trouble.*