

## MEDICINE

## Plan for "Cub" Doctors And Administrative Doctors

➤ MEDICAL STUDENTS will become "cub" doctors and after graduation can go on to study for administrative leadership in medicine, according to plans of two institutions in New York.

The "cub" doctor approach is Cornell University Medical College's new idea for teaching senior medical students in a new clinic for comprehensive medical care where they will learn medicine, pediatrics and psychiatry concurrently instead of in series.

The clinic, with its promise of better doctors and better care for patients, will be supported by a grant of \$344,725 from the Commonwealth Fund which has currently set as its first goal better teaching of doctors. To reach this goal the Fund has made grants totalling over one million dollars out of the year's total appropriations of \$2,879,383.99.

Training doctors to become administrators in hospitals, medical schools, public health departments, industries and prepayment medical care plans is the idea of the Institute of Administrative Medicine which Columbia University will begin operating about Jan. 1, 1952.

Science News Letter, December 8, 1951

## INVENTION

## Canned Foods Sterilized Without Any Cooking

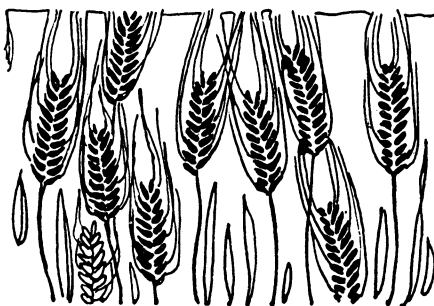
➤ WHOLE MILK and other foods used in the raw form can now be canned and sterilized, after the cans are sealed, by high frequency radio waves which will kill micro-organisms causing spoilage in such a brief time that the contents are not even partially cooked.

Ordinary canning, as is well known, consists of putting the raw food into metal cans, sealing the containers, then subjecting them to heat in a pressure cooker until the food is cooked and the bacteria killed by the heat.

The process of sterilizing the food within the cans by high frequency electric energy requires means to get the radio waves inside to the food. The ordinary can, being made of metal, acts as a shield to radio waves to protect the contents. In this process regular stock cans are used but each has a small rod or tube soldered in an upright position to the inside center of the bottom. The lower end of this rod makes electric contact with the charging circuit. The result is irradiation of the interior.

Kenneth A. Smith, Burbank, Calif., and Arthur L. Grinnell, Los Angeles, received patent 2,576,862 for this process. Rights have been assigned to Electronic Chemical Engineering Company of Los Angeles.

Science News Letter, December 8, 1951



Bread from Snow

➤ A LARGE share of our wheat crop, and smaller proportions of other small grains, are fall-sown. The seed germinates soon after sowing and the young grain usually makes a good growth before cold weather arrives to check it. Then it stands, with its life-fires banked, until returning warmth in spring gives it leave to grow again.

Highly important, during these months of suspended activity, is the protection afforded by a good blanket of snow. Farmers feel at ease if they cannot see their wheat from December until March; if the green becomes visible through the white, they begin to worry.

Snow benefits winter grain in several ways. For one thing, although the white

blanket does not keep things under it really warm, in terms of human comfort, it does maintain a somewhat higher temperature than that of the outer air. And what is perhaps of even greater importance, it prevents wide and rapid temperature swings such as take place outside.

The common figure of speech that likens snow to a blanket is really quite apt, despite its triteness. Snow influences temperature exactly as a good woolen blanket does: it interposes a mass of small, imprisoned air spaces between the object which it shelters and the cold of the outer air into which heat would otherwise be lost by radiation.

When snow is partly converted into ice by thawing and refreezing, it loses much of this insulating value—a glazed field is a field in danger.

Another useful function of snow cover is the protection it gives against evaporation. The atmosphere within a snowbank is very humid, so that the covered plants have little demand made upon their water content—precious because irreplaceable so long as the soil remains frozen and the roots are out of action.

While snow is over the ground, the restless "heaving" that comes when soil is alternately thawed and frozen is suppressed. When heaving takes place in an uncovered field, the exposed wheat plants are likely to have their roots torn off, and are often turned upside down in the bargain.

The final benefaction of a good snow cover comes with the spring thaw. Most of the snow water sinks slowly into the soil right where it is, becoming immediately available for the needs of the newly thirsty, rapidly growing plants. The abundance of July's harvest is thus determined in January.

Science News Letter, December 8, 1951

## PUBLIC HEALTH

## Tuberculosis Is Curable

➤ WHEN YOU stick tuberculosis association Christmas seals on cards and gifts this month, make a note to have your own chest X-rayed if you have not had this done recently. If you are 15 years or older, you should have a chest X-ray every year, advises the National Tuberculosis Association.

"If you know that you have been exposed to TB, you probably should have check-ups more often than once a year," the association advice continues. "Your doctor can tell you what tests you should have. Children under 15 are not likely to have active tuberculosis, but doctors may recommend their examination in some circumstances."

"If the X-rays make your doctor suspect TB, he probably will recommend taking a complete set of tests."

"Doctors use a combination of three methods to find tuberculosis:

"1. The chest X-ray includes a picture of the lungs.

"2. The tuberculin test, a simple skin test which shows whether or not living TB germs are in the body.

"3. A thorough check-up, including medical history and laboratory tests."

Tuberculosis is curable, but the sooner it is found and treated, the better the chances for recovery. It is a germ-caused disease which you catch by breathing air with the TB germs in it (from the coughing, sneezing or spitting of a person who has it), by kissing someone with active TB and by putting in your mouth things that were not sterilized after being used by someone with TB.

Early tuberculosis usually gives no warning signs, which is why authorities advise regular chest X-rays to pick it up.

Science News Letter, December 8, 1951