



Agriculture Celebrates

THE U. S. Department of Agriculture this week celebrates the seventy-fifth anniversary of its founding. It came into existence during the stressful days of the Civil War, so that the first Secretary of Agriculture sat in the cabinet of President Lincoln.

From its very beginning, the Department has been an institution of research, its scientists seeking always for new facts, things, and above all for new basic principles, which may be applied through the workings of nature for the improvement of American living conditions.

A mere catalog of its accomplishments would take a thickish book, but a few sample highlights can serve to give an idea of the multiform and far-reaching importance which this department has come to have.

Defeating diseases in animals was an early triumph. Hog cholera has been checkmated, bovine tuberculosis is on the way out, rigid quarantine keeps hoof-and-mouth disease at bay beyond our borders.

One major medical principle, that insects and other small biting things can carry the germs of certain diseases, was first worked out as a veterinary prob-

lem in the U. S. Department of Agriculture. Its application to such scourges of humankind as malaria and yellow fever came later.

The earliest scientific work for agriculture, done long before there was a Department, was the importation of promising seeds and plants by Benjamin Franklin. The Department continues the tradition, searching everywhere for better crop plants and farm animals.

Improvement of what we have through Mendelian genetics is another major activity of Department of Agriculture scientists. This is something that lies very close to the heart of the present Secretary, for Henry Wallace's introduction of hybrid corn into large-scale cultivation while he was still an Iowa farmer-editor was in itself a revolutionary advance in American agriculture.

Science News Letter, November 20, 1937

MEDICINE

Fight Against Heart Disease Chiefly Afflicting Children

WITH less than \$30,000 a year the U. S. Public Health Service is trying to conquer a widespread, usually fatal and always costly heart ailment.

The ailment is rheumatic heart disease. It kills, according to estimates, between 25,000 and 30,000 persons every year. Nearly all of these victims are children or young men and women under 30 years of age. The death figures may be much higher and no one knows exactly how many children and young people throughout the country are living crippled, invalids' lives as a result of this heart ailment.

Heart disease of all forms causes about one-third of all deaths reported in the United States. The size of the problem and the fact that "not more than \$1,000,000 is invested in permanent endowment" for research into the causes and prevention of heart disease is pointed out in *Fortune* (November)

The U. S. Public Health Service has limited its attack on this huge problem to rheumatic heart disease, the kind of heart ailment that strikes down little children and young men and women just starting their careers, because, as Dr. Arthur M. Stimson who is directing the studies explained, this kind of heart disease is the most important from the public health viewpoint.

For one thing, rheumatic heart disease, of all heart ailments, is most costly to the community. It is a long drawn-out malady, which means the cost of treatment and care is high. The victims are chiefly among the poor, which means the community must bear the cost. Death comes at an age, usually before 30 years, so young that the individual cannot make any return to society for the money spent on him.

Measures for prevention and treatment, if discovered, could be applied more successfully in childhood than at later ages.

Still another reason for starting the attack on heart disease with studies of rheumatic heart disease is that most other heart ailments, syphilitic heart disease or heart disease due to thyroid gland disorder, for example, are linked with another disease or else, as in arteriosclerosis, are on the borderline between disease and old age.

No answer to the problem of rheumatic heart disease has yet been found, Dr. Stimson said. The cause has been laid to infection with streptococci, or with a virus; to allergy or hypersensitivity to germ poisons; to dietary lack; to poverty; to cold climate; to glandular disorders; and to disturbed metabolism. None of the theories has been proved correct. Without knowing the cause, treatment can only be to relieve pain and build up strength, and no preventive methods are available.

The problem is still in the fact-finding stage, and finding more and new facts about the disease is what the Public Health Service is at present trying to do. Dr. Stimson and associates at the National Institute of Health are mak-

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SEASICKNESS

ing, among other tests, laboratory studies of blood from rheumatic fever patients to see if they can find definite evidence of a germ cause.

In Philadelphia, Dr. O. H. Hedley of the U. S. Public Health Service is searching not for causes but for cases of the disease. Children's doctors and heart specialists realize the extent of the problem, but health officers and general medical practitioners, Dr. Stimson said, have little or no conception of it.

The first step that must be taken is to make all medical men so aware of it that every case and every death due to rheumatic heart disease gets reported. Then the research scientists will have real facts to work from. They will know how many cases there are; how many patients die and how many survive; whether, as is strongly suspected, the disease occurs more often in cold than warm regions and more often among the poor than the rich; and whether it really is infectious, as is assumed.

Dr. Hedley has already accomplished part of this job. He has interested the health department and the doctors in Philadelphia to the point where they report rheumatic heart disease cases and deaths separately from other heart disease deaths. He has taken definite steps to have rheumatic heart disease listed by itself in the international list of causes of deaths. Finally, the U. S. Census Bureau has agreed to list this heart ailment under a separate classification.

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According to one theory, America's wonderful ancient Mayan civilization in the tropics was defeated by an unwise farming system and erosion.

British health regulations automatically provide treatment for men, women, and children afflicted with tuberculosis.

PUBLIC HEALTH

Predicts Ten Million Will Have Hospital Care Insurance

Hospital Association Approves Plan and Sets 7-Point Standards; Patients Appear to Benefit; No Losses

HOSPITAL care insurance will probably be carried by 10,000,000 persons, most of them in cities of the Atlantic seaboard and Ohio, by the year 1942, Dr. C. Rufus Rorem, director of the American Hospital Association's committee on hospital service, predicted at the meeting of the American College of Surgeons in Chicago.

The College of Surgeons has already gone on record as approving hospital care insurance as has the American Hospital Association. Dr. Rorem's report indicated that individual surgeons and physicians are satisfied with it as it is working out in various communities.

More than 1,250,000 persons are already placing hospital care in the family budget by making payments, of from 50 cents to 80 cents a month, into a common fund which is used to pay hospital bills for those requiring care. More than 50,000 persons have already received care under various non-profit hospital care plans and about 10,000 subscribers are now being admitted each month to participating hospitals. The most favored type of plan is that which includes care of the entire family, and which includes laboratory and X-ray diagnostic service and anesthesia as well as board and room service.

Expansion of these hospital service plans to include medical and surgical fees seems unlikely.

"If medical and surgical services are to be provided through group payment plans," Dr. Rorem observed, "such action must come through the initiative and cooperation of physicians and surgeons. Health insurance is not a probable outgrowth of the present type of hospital care insurance."

The American Hospital Association does not administer any group hospitalization plan, but in approving the principle, it established a 7-point standard for an acceptable plan. These points are: emphasis on public welfare; non-profit sponsorship and control; limitation to hospital service; free choice of hospital and physician; support by medical profession and public; economic and actuarial soundness; and dignified promotion and administration.

What physicians think of the plan was learned by questioning some 2,000 who have attended subscribers to non-profit, free-choice hospital service plans.

The relations between physician and patient were improved rather than disturbed, it appears from the answers Dr. Rorem quoted. Payment of physicians' fees was, on the whole, more prompt.

Patients were more willing to go to the hospital and to stay as long as their physicians thought advisable. A few malingersers, who stayed longer than necessary or than they might have if the bills had not been paid by the insurance, were found and it is apparent that this aspect of the situation will have to be watched.

The quality of medical and hospital service given insurance plan patients seems to have been as good as that given any other patient in the hospital. Fear that these patients might have been treated less well seems unjustified.

The soundness of the plans on the financial side was learned from the experience of a Syracuse, N. Y., hospital, which had to weather a large number of admissions due to an epidemic. The funds held up, however, and there was no deficit for the hospital to underwrite.

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