

used to guarantee that particles were coming from only one direction outside the apparatus. The last counter served to cut off the observing chamber when high energy particles, photographs of which were not wanted, passed through the counters. Had this last trap not been used 4,000 pictures—instead of 1,000—would have been necessary to obtain the one vital atomic portrait for which Drs. Street and Stevenson were looking.

Science News Letter, November 27, 1937

MEDICINE

Iron and Sugar Checks Cancer Growth in Rats

A COMBINATION of sugar and iron given on top of a red or blue dye has been successful in treating one kind of cancer in rats, it appears from experiments conducted by Drs. Richard M. Brickner and Royal E. Grant of the College of Physicians and Surgeons, Columbia University, and the Neurological Institute. The two scientists state (*Science*, Nov. 12) that the treatment is under discussion not as a cure but as a method of checking the growth of the tumors in the animals.

In 47 out of 64 animals treated so far, the tumor stopped growing, they report. In about half of these animals the tumor receded. In only a few cases, however, did the tumor recede completely.

The sugar and iron combination used is ferric gluconate. Alone, this chemical had some power to check tumor growth. It was much more effective when given after injection of either a red or blue dye. The dye, it is explained, is readily taken up by the tumor cells and seems to "make up a chemical bed in the tumor, by virtue of which the ferric gluconate might either be held in increased quantity or be made more effective in the tumor."

Not only was the growth of the tumors checked, but the tumors themselves, when sections of them were examined under the microscope following the treatment, were found to have undergone "profound and widespread changes." Only occasional normal looking nests of cells were found in the tumors after the iron and sugar and dye treatment.

Science News Letter, November 27, 1937

Arguing for lighted highways, a lighting engineer points out that 60 per cent. of traffic deaths occur at night, when only 20 per cent. of the day's traffic volume is moving.



SPEEDY TELEPHOTO CAMERA

Machine gun sights, an extremely long-focus lens of great speed and a universal tripod mounting feature the new news camera shown here with the inventor, Photographer Charles A. Gatschet of Des Moines, Iowa. Still not satisfied with his equipment, however, Gatschet plans to further improve his camera, so that it can be opened more quickly and operated with less labor.

PUBLIC HEALTH

Committee of Physicians Urges Adequate Medical Care

P RINCIPLES and proposals for reorganizing medical practice in accord with changing social and economic conditions so as to bring medical care to the "forgotten man," at present un-nursed and undoctored, were presented to medical organizations by a Committee of Physicians in New Haven, Conn.

The committee represents 430 medical men. It includes one Nobel Prize winner and is headed by the following officers: Dr. Russell L. Cecil, Chairman, associate attending physician, New York Hospital; Dr. John P. Peters, Secretary, professor of medicine, Yale University School of Medicine; Dr. Milton C. Winternitz, Vice-chairman, Professor of pathology, formerly dean, Yale University School of Medicine; Dr. Hugh Cabot, Vice-chairman, Consulting surgeon, Mayo Clinic.

The medical profession, although only one of several groups vitally concerned with medical care, should, in the opin-

ion of the committee, take the lead in proposed changes and should cooperate with other interested groups. Medicine must be ready to change and not remain static if "medical men are to act as the expert advisers of those who convert public opinion into action."

Health insurance alone, the committee and its subscribers believe, does not offer a satisfactory solution on the basis of the principles and proposals they have drawn up.

First of the principles indicates the view that the people's health is the direct concern of the government and that a national public health policy should be formulated. Prevention of illness is stressed as the first necessary step toward improving the medical and health picture. Voluntary agencies, local, state and federal governments are all concerned, the committee states, in providing adequate medical care.

Full text of principles and proposals follows:

Principles

1. That the health of the people is a direct concern of the government.
2. That a national public health policy directed toward all groups of the population should be formulated.
3. That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.
4. That in the provision of adequate medical care for the population four agencies are concerned: voluntary agencies, local, state and federal governments.

Proposals

1. That the first necessary step toward realization of the above principles is to minimize the risk of illness by prevention.
2. That an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (local and/or state and/or federal).
3. That public funds should be made available for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible.

4. That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.

5. That public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services.

6. That in allocation of public funds existing private institutions should be utilized to the largest possible extent and that they may receive support so long as their service is in consonance with the above principles.

7. That public health services, federal, state and local, should be extended by evolutionary process.

8. That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts.

9. That the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates in our opinion a functional consolidation of all federal health and medical activities, preferably under a separate department.

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PUBLIC HEALTH

Pneumonia Serum Should Be Available to the Public

IT IS the duty of the community to help the practicing physician fight pneumonia deaths by seeing that facilities for laboratory diagnosis and serum treatment are available to every patient, whether he can pay for them or not. This is the opinion of nine of the nation's foremost authorities on pneumonia who met as a committee with Surgeon General Thomas Parran at the U. S. Public Health Service to consider how best to cut down the pneumonia death toll.

In planning the conference, Dr. Parran pointed out, the Public Health Service was in close touch with the American Medical Association and received assistance from that organization in assembling data on existing facilities for pneumonia diagnosis. The medical association asked nearly five thousand hospitals throughout the country whether they were equipped to do pneumonia typing for diagnosis by the approved modern rapid method. Just under three thousand hospitals replied and of these 68 per cent. stated they had the typing facilities. In every state, it was found, there are some hospitals equipped to do this typing, which in thousands of cases means the saving of lives threatened by pneumonia.

Serum for treating types one, two, five, seven and eight of the thirty-two known types of lobar pneumonia are known to be effective and can now be obtained. The practicing physician, the committee believes, is well aware of the value of serum treatment but he should be able to get it for his patients even when they cannot afford to buy it themselves. The cost for serum for treating one case of pneumonia is usually estimated at \$150.

Serum is not the whole answer to the pneumonia problem, the committee agreed. Good medical care and good nursing care are still important and these also, the committee feels, should be available for every case, regardless of the patient's economic status. The same was said to be true regarding hospital beds for pneumonia patients.

Science News Letter, November 27, 1937



EVERY DETAIL CLEAR

This picture made by Photographer Charles A. Gatschet of Des Moines, Iowa, from a point 500 feet away as a back (No. 40) heads into the clear on a touchdown spurt. He used the "howitzer" camera he has developed to secure this photograph. Details less than an inch across show up clearly.