

## A NEW TREATMENT WITH FAR-REACHING POSSIBILITIES.

A most interesting report on a new line of treatment which has already had wonderful results in the treatment of septicæmia, erysipelas, broncho-pneumonia, acute rheumatism and lobar pneumonia is contributed by the scientific correspondent of the *Manchester Guardian* to that paper, which states:—

"Some remarkable investigations are being made by Dr. V. G. Walsh and Dr. A. C. Frazer, of St. Mary's Hospital Medical School, London. They have discovered that doses of the poisons produced by the bacteria of diphtheria and tetanus, which would normally be large enough to cause death when injected under the skin of an animal, become non-poisonous when previously mixed with a finely dispersed emulsion of oil in water. The tiny globules of oil appear to be able to catch the poisons and prevent them from attacking the animal tissues. Many diseases, such as diphtheria, tetanus, and pneumonia, are due to poisons released in the blood by various sorts of bacteria. The effects on the patient are not directly due to the bacteria but to the poisons released by them. The poisons attack various cells in the body and destroy tissue. For instance, the tetanus poison particularly attacks the cells of the nervous system.

"When Walsh and Frazer had found that emulsions of oil could modify the poisonous properties of diphtheria and tetanus toxins which had been cultivated in test-tubes they began to investigate the effect of injecting oil emulsions into animals with diseases of this bacterial type, and then into human beings."

Of the diseases which we have already enumerated they have given special attention to acute rheumatism and lobar pneumonia.

"Under the ordinary treatment a patient suffering from lobar pneumonia is acutely poisoned for about seven days by the bacterial poison. His tissues are damaged, even if he escapes death, and recovery and convalescence are slow."

### Period of Acute Poisoning Reduced to a Few Hours.

"The emulsion treatment can reduce the period of acute poisoning to a few hours, and allow a rapid and complete recovery. The patient suffering from pneumonia is usually in hospital for four or five weeks, and is unable to work for six or eight weeks. Walsh and Frazer are able to discharge their patients from hospital in less than twenty days practically fit for work. Patients may be seen walking about the wards a few days after being admitted with pneumonia. Previously they would at that time still have been struggling for life.

### Early Treatment Most Effective.

"The treatment is most effective when applied within thirty-six hours of the onset of the disease. It is able to stop the attack of the bacterial poisons. When applied later it is not so effective, because the poisons have already damaged the tissues.

"The emulsions are made of olive oil dispersed in water, and stabilised with a small quantity of soap. The emulsion contains about 5 per cent. of olive oil and is injected into the blood stream in doses of fifteen cubic centimetres. The bacterial poisons can also be caught by emulsions of mineral oils, but these are not so suitable as the vegetable oil for injection into the human body. The oil drops are, on the average, less than one-tenth the size of a red blood corpuscle.

"Walsh and Frazer are of the opinion that the phenomenon of the removal of the poisons from the blood is an example of chemical adsorption. The surfaces of the tiny oil drops attract and hold the particles or molecules of the poisons. They do not believe that the soap has an important role. They suggest that the oil particles with their layers of poisons are removed from the blood stream into the fat depots, and are there destroyed by oxidation or slowly liberated without ill-effects. The fate of the poisons is not yet known."

The injection of emulsions of oil in water has other medical applications, and indeed a vista is opened of most far-reaching possibilities. Future developments will be watched with the greatest interest.



MISS FATMA KEMAL,  
who danced in Turkish costume in "Stepping Stones," at Florence Nightingale International House.

### THE TRAINED NURSES' ASSOCIATION OF INDIA.

Mrs. E. A. Watts, S.R.N., for some time the energetic Secretary of the Trained Nurses' Association of India and Editor of its *Journal*, has, after devoted service, resigned the dual position, and has been succeeded by Miss D. Hartley, S.R.N., who has now entered upon her responsible duties. The Trained Nurses' Association of India has of late years made wonderful progress under the Presidentship of Miss M. E. Abram, S.R.N. Funds for a Scholarship and for travelling expenses for an Indian student have been collected by members, who will be resident at Florence Nightingale International House for the coming session, 1935-1936. It is announced that the Scholarship has been awarded to Miss Josephine Manuel, Matron of the State Hospital, Indore, after passing a stiff examination in professional and general knowledge. Let us hope that in the future the Indian Red Cross and wealthy residents will unite in support of the good work of the Florence Nightingale International Foundation. The knowledge acquired by students in London who return to work in India will repay the donors a hundredfold.

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