

WORLD TO BENEFIT BY WAR MEDICINE

New Methods and Discoveries Will Save Lives Henceforth---Some Marvels of Up-to-date Surgery

THE war has taught us how to save more lives than the war has cost."

This is a statement made by Major George A. Stewart of the War Demonstration Hospital of the Rockefeller Institute for Medical Research, who believes that out of the agony and suffering of the recent great struggle will come benefits to humanity that will compensate to a large extent for the lives that were lost and the blood that was shed. Medicine and surgery have taken giant strides during the more than four years of war, and the pressing necessity born through the world's travail has, in the estimation of Major Stewart, developed medical science to such an extent that mankind will be a gainer rather than a loser in the years to come.

"The countless improvements of practice, both in medicine and surgery, made in this war have advanced our science half a century in four years," says Major Stewart. In surgery, the values and technique of chlorination—or the use of some combination of chlorine for the destruction of malignant germs which gave rise to pus—have been learned as never before. There is no longer any good excuse for persistence of pus.

"The development of the Carrel-Dakin method of treating all manner of infected wounds by periodic irrigation with Dakin fluid (a non-caustic hypochlorite) marked an extraordinary advance. And in this the method is as important as the fluid. It is being taught to surgeons the world over.

"Out of forty-five patients in the War Demonstration Hospital suffering from empyema we returned thirty-five to the front. Empyema is pus in the chest cavity. It often follows pneumonia, and hitherto has been highly fatal. There has been an unusual amount of empyema in New York this year of a very serious type. But the death rate has been lessened by the modern treatment.

"Other wonderful advances have been made, for example, in X-ray work. In knowledge of the gas bacillus which causes a form of gangrene, in the serum treatment for prevention or cure of such diseases as typhoid fever, lockjaw, pneumonia, meningitis, &c. These lessons will save far more lives in the long run than the war has cost."

Nor is Major Stewart the only man of repute to hold such views. Josephus Daniels, Secretary of the Navy, also believes that innumerable blessings will arise from the lessons that have been taught by stern necessity in time of storm and stress.

"One of the compensations for the tragedy of the war," he said recently "is the fact that an enlightened opinion is behind the organized campaign to protect the youth against contagious disease.

"The campaign begun in war to insure the military fitness of men for fighting is quite as necessary to save men for civil efficiency."

Sir Almroth Wright, in *The London Lancet*, the most famous medical journal in the world, says that "the Carrel-

Dakin method (of treating infected wounds) is far the most important contribution to surgical technique since the beginning of the war."

But this is only one of countless other epoch-making methods that have arisen triumphant over the blood and brutality of the boche. There is the famous ambrine treatment for burns that was so successfully administered in the Ambrine Hospital for the French wounded at Compiègne by Miss Elsie de Wolfe and other nurses—a treatment that proved a godsend for agonized soldiers suffering from flammenwerfer wounds. Nor should one forget the marvelous anaesthetic discovered by Gordon Edwards, a young American humanitarian, which could be sprayed upon gaping raw wounds and burns, relieving the exquisite agony of the patient and enabling physicians to apply and remove bandages without the wounded man feeling the slightest pain.

Before this war the doctors didn't know much about the habits and habitats of that pest, the louse, which has probably been with us since the first crack of dawn. But the war gave this creature another name, and it wasn't long before all the world was talking of the "cootie," which became the familiar of the soldier in the trench and helped make war even more like Sherman said it was. The "cootie," at first taken somewhat as a joke, became a serious menace, for physicians discovered that he was the greatest little disease carrier on earth, compared with which the New Jersey mosquito was as nothing. It is now generally admitted that the "cootie" transmitted more disease during the war than any other single agency. But now the doctors know all that is to be known about this pest, and have learned to muzzle the "cootie," so to speak.

Disease in time of war has always caused more deaths than shot and shell. This was the case during the brief Spanish-American war, and history has repeated itself during the war that has just ended. In this connection it is interesting to record the established fact that the total death roll of the United States forces in the war was just about one-half of the toll that was exacted of us by the recent epidemic of Spanish influenza. Nor should it be overlooked that, in times of peace, the deaths annually from industrial accidents in this country are estimated to be approximately 30,000. In many accidents where the patient is not killed, he or she emerges from the hospital a hopeless cripple. But the new surgery, the surgery developed during the war, will not only save many of these industrial victims, but will help to restore to usefulness the lame and the halt and the blind.

In a hospital in Milan, Italy, they have been experimenting successfully with a new apparatus which insures immobility of the mouth and jaws, and thus makes it possible for the physician to rebuild, reshape and even to actually

restore, lost functions to men who were suffering from mouth wounds. This marvelous jaw-lock consists of two light metal arcs, one of which is placed on the outside of the lower range of teeth and the other on the upper range, the whole being fastened to the teeth by metal ligaments in such fashion that no movement of the mouth can distract the physician at work. And while the work goes on, the patient is fed by means of liquid food inserted between the interstices of the teeth. By means of this contrivance the wonger worker in surgery can practically make over a human face.

Connected with this amazing hospital in Milan, where war remnants are made over into presentable human beings, is a factory where artificial palates, jaw bones and other parts are manufactured. Some of the products that come from this factory are said to be such astounding substitutes for nature's own handiwork that it is often difficult to tell where nature left off and modern science began.

Equally amazing strides have been made in the manufacture of artificial limbs, which are so cunningly substituted by the attending surgeons that the victim of war has all the appearance of being a whole man. In other words, the war has made it necessary for the surgeon to understand the human anatomy as the skilled mechanic understands a machine that he has helped to build from the ground up. And so familiar have the doctors become with every conceivable sort of disfigurement and mutilation, that a gruesome new art has grown up—an art that smacks of miracles and magic, but is based on common sense, observation of detail, and a supernatural skill.

The modern hospitals in New York and other cities will bring these benefits to the public. The wizardry of war has made men perform the seemingly unperformable, and wounded doughboys who have fought for world freedom will have every advantage that modern surgery can suggest in the treatment of their wounds by American surgeons, than whom there are no better.

But the war has affected the hospital service in New York very seriously on account of the great need for surgeons on the other side. The recent influenza epidemic proved that. It is a matter of

record that only one person in ten who needs hospital care in New York gets it, and the United Hospital Fund is now trying hard to put New York hospitals in a position to do more work for more people. As a matter of fact, the hospitals provided by the city provide only 40 per cent of the total hospital bed capacity of New York.

It has been estimated that under normal conditions about 3 per cent. of the people are sick. Apply these figures to the United States and to New York and the result would show that, out of this country's population of 100,000,000, at least 3,000,000 are sick, and out of New York's population of 6,000,000 approximately 180,000 are sick. Just stop to

think what that means in the loss of wages alone, to say nothing of the doctors' bills.

The United Hospital Fund, which is starting a campaign for more money to carry on and amplify the hospital work in New York, collects and publishes full and uniform statistics of the work and finances of the hospitals, and this fund provides a way for every citizen of means to perform a real public service. The strain of war has been keenly felt by the United Hospitals of New York, as large numbers of the profession went to the front. Thirty-six out of the forty-six United Hospitals closed the year with deficits, amounting in the aggregate to \$391,341. As a result, some of

them have been compelled to reduce their free service.

This United Hospital Fund is the war chest idea in hospital giving, for it collects funds to pay in part for the free work done by the forty-six hospitals that are in the fund, and it is the hope of those interested in this work that at least \$1,000,000 will be raised during the coming year for the fund. That hope should be justified when one stops to think that New York is far behind London and the great cities of Europe in its number of hospital beds in proportion to population. For contagious diseases, London, in 1913, had three beds to New York's one. And this shouldn't be so, for, in hospital facilities as well as in other facilities, New York should lead the world.