tannic acid can be spread over the affected part, and allowed to dry, so that a film is formed.

Chilblains which have broken down and ulcerated should be treated by a doctor.

Some old-fashioned remedies for chilblains are still in use in parts of the country. One well-known method was to cut a large onion in half and rub the juicy side well into the chilblain and allowing it to dry.

Another method was to thrash the chilblain with a branch of holly leaves, causing small punctured wounds, which bled freely, which was supposed to allow the perished blood to escape. It is quite probable that sepsis occurred due to this process.

SURGICAL PROBLEMS OF TOTAL WAR.

The extension of modern warfare to the civilian front has brought new problems for British medical research. The first of these is the problem of lung concussion from blast.

The high-explosive bomb releases not only a shower of metal, but a wave of high pressure followed by a trough of low pressure. In the first year of war an Oxford scientist exposed mice, guinea-pigs and rabbits to explosions of charges of 70 lb. of high explosive. All animals within 18 ft. of the explosion were killed, but none beyond 50 ft. were harmed. In none of the killed animals was there any sign of external injury.

animals was there any sign of external injury. A *post-mortem* examination, however, revealed that in every case the lungs contained a large number of small hæmorrhages, which showed that the main effect of blast was on the small blood vessels in the lungs.

It is now known that the danger from blast is greater in a closed house or shelter than in the open air. Older people suffer from it less than young people, the fat less than the slender, the thinly clothed less than the heavily clothed. Lung hæmorrhages are usually just under the ribs, and the younger the person the deeper the hæmorrhage. Sometimes the abdomen is compressed as well as the chest and there is damage to the liver and spleen.

Lung concussion is not necessarily fatal, and, with knowledge of the effects of blast, the surgeon is able to anticipate and prevent complications. For obvious reasons there must be no artificial respiration.

The second civilian war injury problem is the crush injury. A man is pinned by the limbs under fallen masonry. He is released some hours later and outwardly the limbs show no signs of injury, except possibly a few abrasions. He is treated for shock and appears to be recovering, when, a few days later, there appear signs of a new and dangerous phase. Urine becomes scanty and stained with blood, the patient vomits, shows signs of toxæmia, and finally dies of kidney failure—despite the fact that the kidney was not injured.

This new phase, known as crush injury syndrome, is the object of intensive research. Is the injury to the tissues of the crushed limbs so minute that it escapes detection by the naked eye? Should crushed limbs be amputated before the syndrome has time to appear? These are questions that must be answered.

Finally, civilian war surgery has made great strides in the treatment of burns. It is not long since carron oil was the hospital as well as domestic treatment for burns. This was followed by picric acid and—the greatest development—tannic acid.

The treatment by tannic acid, however, has the disadvantage that it is likely to leave extensive scar tissue. Now a new method has evolved for treating burns to the face, hands and wrists or feet. The wound is cleaned and dusted with a powdered form of sulphanilamide. It is then covered with a net of lace soaked in paraffin and the net covered by a gauze soaked in saline solution. The gauze is kept moist with saline.

The results are excellent both in treating the burn and in avoiding deforming scars.

New problems of injury will arise from the war and, equally certainly, British medical research will develop means to solve them.—Dept. of Information.

INTERIM SCHEME FOR THE TRAINING AND RESETTLEMENT OF DISABLED PERSONS.

The Ministry of Labour has done well in issuing a little pamphlet on "The Training and Resettlement of Disabled Persons."

A large increase in the number of disabled men and women is one of the inevitable results of war. In addition to the members of the Fighting Services, the Merchant Navy and the Civil Defence Services, disabled by war service, there are civilians injured through air raids, through accidents in factories and in other ways.

The resettlement in civil life of these disabled men and women (including training for a new occupation where that is desirable) is a matter of importance. Not only is there a national obligation to give all possible help to those citizens who have suffered the ill-fortune of war, but it is in the interest of the country as well as of the disabled citizen that he should get back to suitable employment as soon as possible—not to *any* employment, but to the most skilled work of which he is capable. Experience has proved that in many kinds of employment certain disablements are far less of a handicap than is popularly supposed and that, with skilful training and proper care, large numbers of disabled men and women can hold good jobs through their own merits and not simply because of considerate treatment.

We specially plead for educated young men deprived of the loss of a sense from competition with those who have not seen active service.

The winning of the war demands the full use of all available labour, and disabled men and women can make a valuable contribution to this end—in some cases by entering the munitions industries; in others, by taking up employment in occupations hardly less important than munitions for the war effort; in others, by taking jobs in which they can set other men and women free for war work.

With these objects in view the Ministry of Labour and National Service has arranged, with the consent of the Departments responsible for the various types of hospital, for its officers to get into direct touch with disabled persons while they are still in hospital, and by means of interviews to ascertain individual requirements in the way of employment and to do everything possible to meet them.

This interim scheme does not pretend to cover the whole problem of the resettlement of disabled persons; in particular it does not meet the need of the more severely disabled.



