In elaborating the test a scale represented by *trace*, 1, 2, 3, 4, and *intense* has been used. At present it is impossible to construct a better scale, as the colours of comparative solutions of known strength of T.N.T. vary so rapidly, and as the substance so isolated from the urine does not behave exactly like T.N.T. Also, bodies present in the urine and reagents vary the intensity of colour and speed of fading out. However, in the manner described above a fairly good rough standard of intensity can be obtained serviceable for clinical work and experimental observation.

A little experience enables the observer to carry out the test quite rapidly, and a single test can be made when all is ready in four or five minutes. Where a large number of tests have to be made daily, the chief loss of time is occasioned by waiting for the layer of ether to separate at the top of the mixture. This can be obviated by employing a battery of about eight separating funnels and carrying on from one sample to another while the settlement takes place. The eight ethereal extracts after treatment as above described are run off into eight test tubes of equal diameter. Another eight test tubes have previously had marked off upon them roughly about 5 c.cm., and have been filled to this mark with the alcoholic potash, and this is now poured off from each of these latter test tubes into the ethereal extracts, and the results noted down. Working in this way, twenty to thirty tests may be made in an hour, and comparative results so obtained possess an enhanced value over separate tests until the observer has become well accustomed to making the test.

The test is not a difficult one to perform, and when efficiently carried out demonstrates in nearly all cases of T.N.T. workers the presence of T.N.T. passing through the system, but in very varying degree. Some show scarcely any absorption, others give an intense reaction.

Interpretation.

The judgement on the test and its applications clinically must not be made solely on the intensity of the test. There are many workers on T.N.T. whose urine will give the test intensely at night after working during the day, and before going back to the next shift of work the urine may be quite or almost clear. These are not the persons who are in any immediate danger. The real value of the test is twofold—first, in clinching a doubtful diagnosis on clinical symptoms (previous to the appearance of toxic jaundice), and secondly, in watching the clearance of T.N.T. from the system after isolation from T.N.T. and judging whether isolation and other precautionary measures have been effective.

When there is doubt as to the presence of the early diagnostic symptoms, then the test should be made, and if it gives a fairly high result, the patient should at once be taken off work on T.N.T. and the urinary test made if possible daily in the succeeding two or three days.

If the urine clears up within twenty-four hours, and clinical symptoms confirm this improvement, the case may be either one of the less harmful ones of absorption by swallowing, or not really a case of T.N.T. illness. If, on the other hand, the urinary reaction after removal from work and separation from soiled clothing persists for three or four days, it is almost certain that the case is one of the more serious ones of a susceptible skin, and such a person ought to be permanently removed from T.N.T. work.

In all cases of applying the test, but more particularly in the case of persons removed from work as suffering from T.N.T., care should be taken to judge between accidental contamination of the sample of urine by T.N.T. and T.N.T. which has actually passed through the body. Fortunately this distinction is easily made, because of the way in which the system binds up the T.N.T. Where contamination is suspected, and it is fairly frequent, it may at once be detected by omitting the acid in the above test, and extracting the urine with ether either undiluted or after dilution with an equal volume of water instead of the acid.

When a positive result is obtained without acid it may be set down to contamination from clothing, skin, or hair, in the act of passing the urine. The detection of this contamination is in itself valuable, as it shows that the patient has not carried out instructions, and while supposed to be free from contact with T.N.T. is still exposed to it.

Even in such a contaminated urine, the degree to which T.N.T. is continuing to be absorbed can still be accurately followed up. All that it is necessary to do is to shake up the urine, *without the addition of acid*, with ether as described above, when the test in this quantity of ether shows the degree of contamination. This unacidified urine is now free from T.N.T. *due to contamination*, and can next be utilized for carrying out the test to determine how much is passing through the system.

MOTOR NOTES FOR MEDICAL MEN.

BY H. MASSAC BUIST.

DR. ADDISON IN CHARGE OF MUNITIONS.

THE appointment of Dr. C. Addison to be Minister of Munitions, after he has served in that department from its inception as Parliamentary Secretary, will be particularly welcome news to the medical profession, which is not only honoured by the appointment, but is assured also of the fact that the new Minister will have a correct appreciation of the value of medical work in the scheme of national activity. This is the more important to the profession in that at present the building of motor cars is forbidden, as is the manufacture of spare parts for old ones, and of repair work save under special permit and circumstances. As was pointed out in these columns a fortnight ago, there are very sound reasons for a permit giving preference as to the order of executing repair work being not worth the paper on which it is printed, in that the vast majority of motor manufacturing firms are occupied night and day on Government work. Therefore they have not an hour to spare to commence any job under any class for which permits are issued. If this principle were to be applied indefinitely to motor car repair work for the medical profession it would mean, in effect, that probably almost every doctor would presently have a permit, but that permit would be valueless to enable him to get any work done, therefore his activities would perforce have to be reduced to proportions which in some circumstances would be small compared with what they might remain if he had the free use of his vehicle. The new Minister of Munitions will understand the vital necessity of medical service to the nation in this crisis, and will therefore assuredly see to it that permits for work to be done on doctors' cars are issued under such conditions as will more or less ensure that that work can be carried out. In other words, the permit system will no doubt be developed in whatever direction is found necessary as the result of experience.

PETROL SITUATION UNALTERED BY GERMAN SUCCESSES.

THE capture of the Rumanian oilfields by the Germans is of value to the enemy, but it does not represent a loss of a material sort to ourselves, despite the fact that British capital is locked up in exploiting many of the fields. The motoring enterprise of the Allies, alike in and out of the war zones, will proceed as before, because the oilfields of the world are producing on an ever-increasing scale, and it matters little to us whence we fetch the oil or petrol, because it has to be brought here by sea. Of course, on economical grounds, we had far sooner buy it from our Allies than from neutrals. But throughout the period of the war we have been able to do without supplies from Rumania, which has accumulated vast stores—a million and a half tons—that are reported to have been destroyed before the enemy reached them. The value of the Rumanian oilfields to the enemy lies in the fact that they produce heavier grades of oils than the Galician oilfields, of which the enemy is also in possession. The value of these resources to Germany and Austria is incalculable; hence, as the victorious armies marched forward there came behind them engineers with all the necessary equipment for getting the oilfields working again in the minimum of time. That was the principle adopted in Galicia, and we may be sure the same system will be exploited in regard to Rumania. Hence the importance of routing the enemy out of that country at all costs before they are really got going. But as to the Allies being rendered short of oil or petrol in consequence of this development, the present German successes can exercise no effect whatever, since we have not, since the commencement of the campaign, been dependent upon Rumanian supplies.