duck globulins which include the anti-kidney antibodies, and that renal lesions developed when the rabbit antibodies reacted with the duck globulins which became fixed in the rabbit's kidneys. In other words, in both types of mechanism the lesion is caused by the union of antibody with antigen in or on tissue cells, the site of reaction depending upon the site of fixation of antibody or antigen. In most experiments of this kind antibody is usually localized in the cardiovascular system, and the subsequent lesions are therefore cardiovascular. The experiments of Masugi and Cavelti indicate two methods by which antibody may be localized in other sites. There is obviously scope for further work on the factors determining localization and hence the site of interaction of antigen and antibody.

If it be accepted that rheumatic fever and nephritis occur as a result of allergic hypersensitivity, then the next step in the investigation of these diseases should be the identification of the antigens responsible. In the case of rheumatic fever the evidence is strongly suggestive that the antigen is a part or product of haemolytic streptococci. The relationship of acute nephritis to streptococcal infections is almost as close. The difference in the two diseases must therefore reside either in the particular streptococcal fraction constituting the antigen or in other factors that determine differences of localization of antibody. Wallis[9] similarly suggests that the differences between rheumatoid arthritis and acute rheumatic fever are fundamentally due to differences in the reacting antigen. Much remains to be learned about how the reaction between antigen and antibody injures the tissue in which the reaction occurs. That histamine is amongst the products liberated and responsible for some of the characteristic pathological manifestations of these reactions is now well established. It is therefore of great interest to the pathologist and the clinician that the antihistamine drugs have been used with some success in both nephritis and post-streptococcal carditis. Reubi[10] and Steinmann and Reubi[11] found these drugs of value in experimental and in human nephritis, and Steinmann[12] has recently reported good results with "antistin" in cases of the delayed form of myocarditis that may follow scarlet fever. Elsewhere in this *Journal* we publish a paper by Professor John Craig and Drs. N. S. Clark and J. D. Chalmers which is the first report of the use in this country of antihistamine drugs in the treatment of acute nephritis. As the authors admit, the number of cases and controls is far too small for definite conclusions to be drawn, but the difference in response as judged by duration of clinical signs is so striking that the authors are certainly justified in appealing for a wider clinical trial of this form of treatment. Moreover, since one of the greatest dangers in acute nephritis is the residue of permanent renal damage, any treatment that significantly reduces the duration of the acute phase merits serious consideration. Since it is extremely unlikely that the lesions of the heart or kidney that result from allergic hypersensitivity are entirely due to local histamine production, favourable reports such as these were unexpected. Should the results be confirmed they will provide strong support for the theory that nephritis and rheumatic fever are allergic conditions.

INTERNATIONAL SANITARY CONVENTIONS

From time to time in this *Journal* it has been pointed out that the various international conventions which are supposed to restrict the spread of infectious disease from one country to another and thus to safeguard international health are far from effective. The first International Sanitary Convention, it may be recalled, was signed in 1903 with the object more especially of restricting the spread of cholera, which in the nineteenth century had become a menace to the whole world. The 1903 Convention was succeeded by that of 1912 and that of 1926, which was modified in its turn in 1938. Cognizance was taken of yellow fever in 1912 and of plague and typhus in 1926. The rapid development of aviation led to the International Convention for the Sanitary Control of Aircraft in 1933. During the war many of the provisions of this convention were unworked and were seen to be obviously unworkable; it was therefore modified in 1944, as was also the Sanitary Convention of 1926–38. The man in the street might therefore well imagine that the frequent modifications and adaptations undergone by the conventions had permitted the establishment of a complete system of international sanitary control confirmed by experience and based on effective rules to which all the countries of the world have adhered. Unfortunately this would be altogether too optimistic a view.

In a recent analysis of the present situation Gaud[1] has brought to light the following interesting but alarming facts. There are some 70 sovereign States in the world on whose co-operation the workings of international sanitary conventions depend. So far as maritime navigation is concerned 9 countries are bound by the Conventions of 1912, 1926, and 1944; 5 by the Conventions of 1926 and 1944; 1 by the Convention of 1944; 14 countries are bound only by the Conventions of 1912 and 1926; 9 only by the Convention of 1926; 10 only by the Convention of 1912; and 16 countries are bound by no convention whatsoever. So far as aerial navigation is concerned 9 countries are bound by the Conventions of 1933 and 1944; 9 by the Convention of 1944; 16 by the Convention of 1933; and 36 by no convention.

Apart from the fact that these sanitary conventions do not approach that principle of universality without which their efficiency is sadly lacking, this curious state of affairs has other effects. Since many countries are bound by no particular convention they are free to take the law into their own hands. Some countries refuse to trouble themselves and take few if any precautions; others, as was seen during the cholera epidemic in Egypt, have rushed to the other extreme and imposed restrictions which go far in excess of what is required. There are in fact not many countries in which national sanitary laws and regulations do not run counter in some way to international conventions and accords. Many aeronautical companies faced with differing regulations in different countries have insisted that their passengers should be inoculated against every conceivable disease. The unfortunate wife of an officer and her three children, for instance, who wished to fly from Paris

[1] *Sem. Hôp. Paris*, 1948, **24**, 201.
[2] Findlay, G. M., *British Medical Journal*, 1946, **2**, 979.

to China were forced to submit to inoculation against smallpox, yellow fever, cholera, plague, typhoid, and paratyphoid. In these circumstances it is hardly surprising that Gaud confirms what was stated in this *Journal* two years ago[2]—namely, that international health certificates are being forged and can be bought on the black market.

It is obvious that one of the major tasks of WHO, and one which is of considerable urgency, is to draw up a new single convention to which all countries will freely subscribe. There are at present 17 separate conventions or accords, without counting the texts of the documents constituting WHO signed in New York in 1946. Such a unitary convention must not be cluttered with the dead wood of previous conventions, the provisions of which were too often drafted not by experts but by persons who, though they may have had medical qualifications, had spent many years in government offices. As a result the conventions may have been impeccable on the diplomatic level but were often sadly ineffective on the practical level. The Assembly of WHO, according to Article 19 of the Charter, has authority to adopt conventions and accords relating to every question within the competence of the organization. A majority of two-thirds of the Assembly is necessary for the adoption of these conventions and accords, which will come into force so far as each member State is concerned as soon as the particular State has accepted it, in conformity with its constitutional rules. A permanent technical organization has thus taken the place of the old cumbersome diplomatic machinery which had to be invoked whenever a new convention had been drafted. It is sincerely to be hoped that there will be not only a change of form but of spirit, and that governments will be less slow and less indifferent to accepting conventions or regulations fully discussed and already adopted by the Assembly of WHO.

The WHO Expert Committee on International Epidemiology and Quarantine is already alive to the present difficulties, and their ultimate aim is to combine the revised international conventions into uniform WHO regulations which after adoption by the World Health Assembly will come into force automatically without the need for further ratification on the part of national legislative bodies. A number of broad principles to serve as a basis for drafting WHO regulations have already been laid down, and these are to be submitted in June, 1949, to the Second World Health Assembly. They are aimed at establishing international standards on such varied matters as the sanitation of airports, disinsectization of aircraft, and quarantine measures applicable to migrants. Beginning in January, 1949, WHO is also going to broadcast daily epidemiological data from Geneva to all parts of the world. This will allow governments to take precautionary measures more rapidly and, it is hoped, more effectively.

MASTER MINDS

Mr. Fred Messer, Labour M.P. for Tottenham, holds the responsible position of chairman of the Central Health Services Council. He is also chairman of the North-West Metropolitan Regional Hospital Board. He has earned these positions of trust on his reputation as a highly able administrator with a special interest in and knowledge of hospital and medical services. But according to a recent report in the *Hendon Times* it would apppear that Mr. Messer allowed himself to adopt a highly partisan attitude to medical men and the work they do. This was at a meeting of the North-West Branch of the Socialist Medical Association under the chairmanship of Dr. S. Leff, medical officer of health for Willesden. Mr. Messer is reported to have said this : " In the days before the new Act, the people were only allowed to be ill at certain times during the day—the times set down on the brass plate in front of the doctor's doors." What kind of confidence can the medical profession have in the chairman of the Central Health Services Council if he makes such ill-judged, inaccurate, and unjust remarks—remarks directed at men and women who after a hard day's work have to be ready to get up at any time of the night in response to a call for help ? " For too long," Mr. Messer goes on, " the needs of the people have been subservient to the needs and training of the doctors." What nonsense this is ! Mr. Messer again goes on : " Now for the first time the health service as a whole will have a master mind behind it." Does he mean the mind of the chairman of the Central Health Services Council, or the uncoordinated mind of an endless series of Ministers of Health ? The medical profession itself has always been in advance of the Government in pressing for improved organization and integration in medical services, and does not underrate the value of the administrator or deny the need for administration so long as it is made subservient to the need of the doctor to give to his patients in the most efficient manner the knowledge and experience wrung from stubborn nature by the master minds of medicine. Our new administrators have yet to learn the lesson of humility, the humility of the man who minds the machine created by men who understand how it works.

BRUISING OF THE HEART

It is now generally recognized that trauma to the praecordium, particularly a severe blow or crushing injury, may occasionally damage the heart even where there is no obvious injury to the chest wall or fracture of the ribs. The symptoms and signs vary considerably, but there may be immediate severe pain lasting minutes or hours, angina pectoris and effort dyspnoea persisting for days or weeks, the development of pericarditis during the following week, and electrocardiographic changes. Most of the latter are evanescent, and unless the patient is examined within a few days of the accident no abnormality may be found. Partial heart block may occur, and this tends to persist for much longer than the other changes. Experimental work and necropsy studies suggest that the usual lesion in the heart is a contusion with varying degrees of oedema and extravasation of blood, or perhaps a tear in the myocardium, though this is less common. Further, for some reason which is not clear, the right auricle appears to be particularly vulnerable. However, the majority of these patients, provided they are not otherwise severely injured, usually recover, and the precise anatomical lesion remains a matter for speculation. Elsewhere in this issue Drs. G. Parsons-Smith and Denis Williams report the case of a boy with a fairly clear-cut picture of a cardiac contusion, with pain, pericarditis, and partial heart block ; the damage was done during a boxing match. Two days after the injury he developed a hemiplegia which appeared to be embolic in origin. This clearly suggests that the cardiac injury had spread through the wall of the heart to the endocardium and resulted in an intramural thrombus, part of which, becoming detached, had given rise to the embolus. If this explanation is correct, it indicates how extensive such an