

they are hoping to sell to NATO countries to replace NATO's present 7.62 mm weapons. (In fact it was rumoured at the meeting that Denmark was waiting to hear the outcome of the discussions there before deciding whether to buy just such a new rifle). But again, the evidence was conflicting.

Dr B. Rybeck, the most senior medical officer in the Swedish navy, has carried out experiments on anaesthetised pigs in which he found that high velocity bullets could in general be distinguished from low velocity ones on inspection of the wounds caused by each. In other experiments in Sweden, anaesthetised dogs were shot with metal spheres in order to dissociate the usual tumbling effect of high velocity bullets from their other wounding effects. Blood from a dog which had been shot with a sphere was transfused into a second dog. When the impact velocity of the sphere was 1,000 metres per second the recipient dog suffered severe changes of regional blood flow after the transfusion—an effect not observed when the impact velocity of the sphere was 500 metres per second. Lieutenant Colonel Dr Robert Scott, of the Royal Army Medical Corps, has shot small calibre, high velocity bullets into blocks of gelatin and reported that these did in general produce a greater effect than 7.62 mm bullets, but only at short ranges. If the flight of the bullet into the gelatin was unimpeded, those of high velocity and low calibre deposited more of their kinetic energy in the gelatin than those of larger calibre and lower velocity; however, this was reversed if the bullets passed through a thin steel plate (to simulate the body of a truck, for example, under battle conditions) before entering the gelatin.

The politics of prohibiting the use of a shiny new gun, just when various countries are considering adding it to their armouries, are formidable. And yet there are hopeful signs. In the discussion on napalm, for example, the experts explicitly recognised that the politicians will have to take public opinion into account in determining whether it will be banned. It was even argued that the pressure of public conscience provided grounds for making the use of napalm illegal. So the common man does have a part to play. And he may well argue that he is more interested in establishing the principle of restriction of the use of various weapons, even if some doubtful cases do escape the net, than in allowing the discussions to bog down in technicalities while more countries acquire more harmful arms. In the case of the rifles, even the experts agreed that, in general, wounds caused by low velocity weapons such as pistols, carbines or

submachine guns are much less severe than those caused by rifles. If, on the basis of understandings as common as this, the public were to put enough pressure on the politicians, the experts could be forced to come up with some sort of restricting arrangement. But if the experts are left to devise categorisations of inhumane weapons to present to the politicians as a basis for action, the issues will simply be referred to more laboratories for more experiments the results of which will cause more disagreement. And in the meantime, as inhumane weapons spread to more countries, the danger to the common man will only increase. □

Van Wyk de Vries commission

from Graham Baker, Johannesburg.

SOUTH African universities for the most part enjoy considerable freedom of action in conducting their affairs, subject to the restriction of the country's race laws and in spite of some profound differences of opinion over political legislation between the government and the English-medium institutions in particular. The present undergraduate population of over 80,000 is growing at almost 10% a year and the universities are well aware of their obligation to make up for South Africa's acute shortage of skilled manpower, especially in the sciences and engineering. Furthermore, the government has of late become especially sensitive to the possibility that some universities might have become bases for political activity of which it disapproves.

It is therefore understandable that the academic community in South Africa has been eagerly awaiting the findings of a government-appointed commission of enquiry into white universities, which was tabled in Parliament on October 30. Under the chairmanship of Mr Justice J. van Wyk de Vries, the commission was set up in 1968, principally to consider the financing of universities but also to take a look at "student relations". The recommendations with regard to financing have been openly welcomed as giving the necessary boost for needed expansion. Thus, the commission proposes that up to 85% of running costs should be subsidised by the state and that existing and future capital debts should also be borne by government grants. In return, universities should pay an annual levy of R50 per student to the government. It has been noted that particular advantages from this will accrue to the smaller, more recently established institutions, which tend to be Afrikaans-medium campuses. It also means that universities

can only develop to an extent permitted by the amount of financial assistance provided by the state. Even so, these recommendations, if accepted by the government, are unlikely to come into effect before 1976 at the earliest.

The main objections to the report have been voiced in respect of its views on the non-financial aspects of university life, in particular the extent to which universities may be permitted to engage in political activity. The majority view of the commission is that if a university is politically active in a way the government sees as being 'irregular' and therefore outside its proper function, it will forfeit financial support from the state. Some vice-chancellors see in this a threat that universities must toe the ideological line of the government in power or suffer crippling consequences. They take this as interference with autonomy of the universities and, more bluntly, they see it as an attack on the English-medium universities in South Africa. The Afrikaans-medium institutions, in contrast, see an alignment with government policy as part of their social and political obligation.

Professor G. R. Bozzoli, Principal of the University of the Witwatersrand and a member of the commission, has spoken out strongly against this aspect of the report, as well as another, the 'finding' that South African universities were founded on a social order based on the principal of multinational separate development. As Professor Bozzoli points out, apartheid was only forced on the universities as a result of the Universities Act of 1959.

In a similar light, the commission rejects the view that universities should be free to make appointments without regard to race, colour or creed, and sees no merit in student bodies having representation on university councils and senates.

It happens that the Van Wyk de Vries Commission tabled its report only a few days before the Prime Minister, Mr Vorster, declared in a report-back meeting to his Nigel constituency that he needs just six months to bring about major changes in South Africa's social order, presumably a reference to legislation on race relations. The same message was also spelled out last week by some of Mr Vorster's colleagues at a congress of the Nationalist Party, doubtless a direct consequence of recent events at the United Nations and in neighbouring African states. Whether any moderation of government policy on apartheid will take the heat off the universities and permit any number of black students to be admitted once again to the white institutions, as some vice-chancellors would wish, remains to be seen. □