

of the tetrahedron and meet in a point—the point of cross-linking—each tetrahedron containing one cross-link. In this way they derive a relationship between Young's modulus and parameters signifying the number of cross-links present in the polymer.

Between the extremes of perfect elastic behaviour, rubber elasticity and the viscous behaviour of a Newtonian liquid, there is a region of behaviour in which a great many high-polymer systems lie. Much effort has gone to try to develop a convincing and all-embracing theory, but it is obvious that the description of the behaviour of a substance which may possess, according to conditions, elements of all three components, is a matter which may well defy solution. It is, however, necessary to systematize data so far as possible, since such polymers are used for a variety of purposes where deformation, especially under the prolonged application of a stress, is a matter of the first importance. Simha and Ferry deal with this aspect of the problem, the former considering particularly the flow of high polymers and the latter very concentrated solutions. There is also an article by Huggins dealing with the thermodynamic properties of high-polymer solutions.

There is, unfortunately, no account of the discussion of the papers presented at the meeting. This does not detract from the interest and usefulness of the volume, but the printed record of a discussion often serves to clarify obscure points and settle conflicting opinions on such a controversial subject.

sons are likely to marry when they come back. But it cannot be left alone; coloured men in the armies of the United States will not come back to the old limitations. Inevitably the general level of education is still low among the children of the slaves, and the white South wants to protect its social standards and tradition of ease. But social standards are much more difficult to assess than are skin colour and hair type, and the protection of those standards is naturally enough made to include discrimination against, and segregation of, the coloured people. Several States have arrangements which in effect prevent Negroes from voting, and a number have laws making white-black marriages illegal; and Congress in 1944 is much concerned about some of these restrictions. Even were it possible to hand over a portion of the continent to the eleven million coloured people, that would not solve the problem as they would not have experience of either government or management.

The choice in these cases of bifid populations is ultimately between segregation and intermarriage, and segregation has hitherto meant anything but equality of opportunity for the coloured folk. They cannot be held down indefinitely, yet they have neither capital nor administrative experience. Meanwhile, the situation worsens and a world problem of racism on a larger scale than the Nazis talked about looms up, with only minor alleviations in sight.

H. J. FLEURE.

PROBLEMS OF RACE

Race and Rumors of Race

Challenge to American Crisis. By Howard W. Odum. Pp. x+245. (Chapel Hill, N.C.: University of North Carolina Press, London: Oxford University Press, 1943.) 12s. net.

THE sins of the fathers are indeed being visited upon the children to the third, fourth and later generations in the southern States of the United States of America. Pressed by an uneasy conscience, the white South has tried here and there to reduce violence, to give somewhat better opportunities of education to the 'Negro', as he is called even if he often obviously has a good deal of white ancestry mixed in. But even those who want to treat the Negroes as brothers do not want them as brothers-in-law, and that is the root of the insoluble conflict. It is evident that recruitment and labour opportunities of the war-economy have given coloured folk a chance to escape from the old-time repression, and that it is becoming more and more difficult, in Africa as well as in the United States, to maintain a society in two layers without letting the lower one up anywhere. Both British and Americans are deeply concerned with the problems involved, and this book pictures for us what happens when the two layers talk about one another. The author gives a collection of fantastic rumours, many of which he helps us to see are quite baseless. But the rumour habit makes even the former limited inter-racial courtesies difficult to maintain; they are made to look like 'treason against your side', and this is inevitably the case, especially among the coloured folk.

The white South wants to be left alone, blames northern journalists, feels it must guard its traditions on behalf of its many brave sons fighting in far parts of the world, and, most of all, its girls whom those

A MEMOIR ON SOME BOLETACEÆ

The Boletaceæ of North Carolina

By Prof. William Chambers Coker and Alma Holland Beers. Pp. viii+96+66 plates. (Chapel Hill, N.C.: University of North Carolina Press; London: Oxford University Press, 1943.) 43s. net.

MYCOLOGY is in debt to the University of North Carolina for the monographs which have been published by its press in the past, and now a new one is added to the series. Because of the great range of fungal species, we might expect that a book on the Boletaceæ of North Carolina would be of considerable value to students of these fungi in Britain. However, this purely systematic account will be of little real help to British workers, since of the seventy or so species considered less than a quarter would seem to occur in Britain.

The book is well produced and sixty-seven species of *Boletus*, four of *Boletinus* and one of *Strobilomyces* are considered, twenty-one species being illustrated in colour. There are also photographs of most of the species in fifty-five full-page plates at the end of the book. It is doubtful how much these photographs will help in identification, and they are certainly no substitute for good coloured reproductions.

There are four plates illustrating the spores of all the species considered. A glance at these suggests that only in a very few species does the spore size and form offer much help in making an identification. However, this is a step in the right direction, as progress in the study of the systematics of toadstools lies in paying more attention to microscopic characters. By such attention we may hope that the identification of toadstools will become more of an exact science and less a question of lore handed on by one generation of field mycologists to the next.

C. T. INGOLD.