

Regarded as an Accessory.

A city lawyer, who practices extensively in the Criminal Court, admitted the correctness and soundness of the police view. Where proof existed, as in the case reported from Germany, he said, there would be no difficulty, because the test was clear-cut. Blood tests had played an important part in trials, but they had always been regarded as an accessory to ordinary procedure of "sheeting home" the guilt of an individual. There was a case in France some years ago, in which an accused person strenuously denied a charge of murder. It was alleged that blood on articles of clothing belonged to the accused, who asked for samples of blood to be taken from him and compared with that on the clothing. The analysis was in favour of accused; but even then the Judge was not convinced of the value of the tests, in view of other unsatisfactory explanations by accused, who ultimately went to the guillotine.

"I think Judges in this country would be loth to accept such a practice as definite proof of guilt or innocence, because, as Professor Woollard points out, there are many complications in the way, without the clear proof forthcoming as was the case in Germany. However, the instances under notice is decidedly interesting, and perhaps further investigations into the question will prove of value. There is ample scope in medico-legal work for further investigations along such lines."

ADV. 6.12.27

IMPERIAL CO-OPERATION IN RESEARCH.

The Council for Scientific and Industrial Research is taking steps to co-ordinate its research work, both with the United Kingdom and with the States. During his recent visit to Europe Sir George Pearce discussed with Lord Lovat (Under Secretary for Dominion Affairs) and Major Walter Elliott (chairman of the research committee of the Empire Marketing Board) various questions relating to the work of the Commonwealth Council for Scientific and Industrial Research, and to co-operation in Empire research. He found the British authorities intensely sympathetic. He had also had several discussions with Mr. G. A. Julius, the chairman of the Council for Scientific and Industrial Research, who attended the recent Imperial Agricultural Research Conference in London. It is expected that as a result of that conference definite action will be taken for the development of research in Australia in various important directions. Dr. Rivett announces that arrangements have been made for the visit to Australia in 1928 of Sir Arnold Theiler, who is a leading authority on veterinary research, and Dr. J. B. Orr, who is the director of the Rowett Institute, Aberdeen, one of the principal institutions in the world for research on animal nutrition problems. In addition to informing himself generally on the whole question of veterinary problems and research in Australia, with a view to closer Empire co-operation, Sir Arnold Theiler will advise the Commonwealth Council as to the immediate development of its plans for research in these problems. The council has already initiated investigations on animal nutrition problems under the control of Professor T. B. Robertson, and for that purpose is erecting a special laboratory at Adelaide University. Similar work is also in progress both at Dr. Orr's institute at Aberdeen, and in other parts of the Empire. Dr. Rivett states that he anticipates that the visits of these two authorities will be the precursor to important developments in Empire research. The Commonwealth is likely to benefit substantially from grants from the fund which the Empire Marketing Board has at its disposal for research.

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EMPIRE FORESTRY CONFERENCE.

From reports received from the standing committee on Empire Forestry in London, there is every indication that the conference of Empire Foresters in Australia in 1928 is likely to prove fully as successful as former conferences held in London (1920), and in Canada (1923). For the 1928 conference details of itinerary and the general programme were discussed in April of this year at a meeting of the Ministers and heads of Australian forestry services, convened by Mr. Bruce, in Melbourne. Resolutions passed at this meeting were submitted to, and are now being acted upon by, the standing committee in London, which includes Lord Clinton (chairman), Professor Troup (the head of the Oxford School), and Sir Peter Clutterbuck. In May of this year, at a meeting of governors and administrators of colonies, convened by the Colonial Office in London, the importance of the Australian conference was discussed, and the necessity stressed of full support from other Dominions and colonies. The itinerary and general programme are as follows:—Conference to begin in Perth during first week in September, 1928; six weeks to be spent in Australia (three days in each State), and the main conference (lasting a week) to be held in Canberra. Thereafter, the delegates will leave Australia for a fortnight's tour in New Zealand. One public function is to be held in each State for the purpose of welcoming the Empire delegates. The Australian secretary to the conference is Mr. A. Ryle, Australian Forestry School, Canberra.

could be developed in this very important field would lead naturally and inevitably to closer economic co-operation of the constituent parts of the Empire, which would prove the most effective method of solving national and Imperial problems.

NEWS 6.12.27

ELDER CONSERVATORIUM

Final Student Concert

A large audience gathered in Elder Hall last night, when the final concert of the year was given, and diplomas and scholarships won at the recent examinations were awarded.

Mr. I. G. Reimann (acting dean of the faculty of music), in the absence of Prof. E. Harold Davies, Mus. Doc., presented to Sir William Mitchell (Vice-Chancellor of the University) the Associates in Music:—Margaret Mary Barry, principal subject pianoforte (in absentia); Mary Teresa Byrne, pianoforte (in absentia); Vera Selina Mayfield, singing; and Ernest Phillips Tidemana, pianoforte.

The Elder scholars presented were Betty Froome Puddy, pianoforte, and John O'Connor McCabe, violoncello.

The Public Examinations in Music Scholarship, given by the Australian Music Examinations Board (practice), was awarded to Jean Ysobel Virgo. That for theory was won by Hartley Searle, with Cecilia Marie Pryor second.

Young Pianists

The musical programme was then presented. Master Clifford Bevan led off by playing as piano solos Cyril Scott's "Valse Caprice" and Schutt's "Bluette in D." With all the careless indifference of the average schoolboy his playing was most musical and sound, his technique clearly promising to follow that of his teacher, Miss Maude Puddy, in its pearly clearness.

Other pianists were Miss Jean White (Mr. George Pearce), who played Debussy's "Jardins Sous la Pluie" (Gardens Under Rain) with light-fingered facility; Miss Marjorie Adamson (Mr. Reimann), who rendered Saint-Saens' "Toccata," Op. III, No. 6; and Miss Irene Thomson Webb (Mr. William Silver), who gave a brilliant rendering of Moszkowski's "Autumn" and "The Juggleress," showing much facility of technique.

Mr. Arnold Farley (Mr. Harold Parsons) gave a scholarly performance of Siegfried Karg-Elert's organ solo, "La Nuit" (Night) with an admirable choice of stops and soft effects.

The violin section was represented by Raff's "Cavatina," played by 17 students in unison, the performers ranging from grown-ups to small embryo artists. All were students of Miss Sylvia Whittington. The number was very attractive. Master Harry Hutelins (Mr. Charles Schilsky) proved himself a young violinist of great promise in his performance of De Beriot's difficult "Scene de Ballet." His career will be watched with interest. Two clever young performers, Misses Olive Dyer and Esma Roach, gave the first movement of Mozart's "Sonata" for piano and violin with excellent ensemble.

Vocal Offerings

Some good vocal work was submitted. Miss Vida Buring (Mr. Clive Carey) gave a liting rendering of Dell Acqua's "Villanelle" in a nice open soprano voice. Miss Mabel Siegle (Mr. Frederick Bevan) displayed a beautiful and unusual contralto voice of immense possibilities in her singing of Donizetti's recit. and air, "O Mio Fernando," and Miss Gertrude Orr (Mr. Winsloe Hall) contributed Dunhill's "The Cloths of Heaven" and Beethoven's "Creation's Hymn." Miss Marjorie Walsh (Mrs. R. Quenel) gave an artistic rendering of the florid operatic aria, "Una Voce Poco Fa," from Rossini's "Barber of Seville." Her sweet soprano voice was heard to great advantage.

Miss Alice Meegan did the bulk of the accompanying. The other accompanists were Misses Muriel Prince and Joan Mellowship. Mr. Reimann announced the performances of the opera class at Norwood Town Hall, to be given on Thursday and Friday evenings of this week.

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SCIENTIFIC AND INDUSTRIAL RESEARCH.

The second number of the quarterly journal of the Council for Scientific and Industrial Research has been published. The council publishes a series of bulletins dealing with the results of completed researches and pamphlets relating to matters of lesser importance. The quarterly journal contains papers relating to incomplete investigations and matters of general interest. It is edited by Mr. G. Lightfoot, secretary to the council, assisted by Mr. G. A. Cook. The present number contains valuable information concerning the work of the council. The article on the manufacture of paper pulp from Australian timbers by Mr. L. R. Benjamin, and the paper on "Spotted Wilt of Tomatoes," by Mr. H. A. Pittman, are of particular interest to South Australia. Professor A. E. V. Richardson deals with research work into the mineral deficiencies of pastures in an illuminating manner. The journal can be obtained from the secretary to the council.

Are Blood Tests Helpful?

Many Difficulties Ahead.

Blood testing to prove the parentage of a child is a new departure in medico-legal work, although merely another phase of ordinary blood-testing, but its permanent adoption as proof positive in Court cases is beset with many difficulties.

Legal and medical circles in Adelaide are discussing the instance, reported by cable from Germany on Monday, because it is the first known occasion on which such a test has been put before a Judge and accepted as proof positive that a woman's story is untrue. In the case under review, a woman in Wurtemberg, the alleged father of her child, and the child itself, were put through a blood test. Both the man and the woman belonged to one blood class, designated A, while the baby's vessels contained blood classes A and B. As the blood class A and B. As the blood class A did not exist in either the mother or the alleged father, the child must have acquired it from another person, and the woman was sentenced to imprisonment for perjury.

Professor Woollard, at the Adelaide University, was greatly interested in the cable, and explained the system of identification of the blood classes. He said the identification of the blood group was the basis upon which suitable "donors" were selected for blood transfusion, a practice which obtained in all hospitals, including Adelaide. Blood grouping of individuals had been carried on for many years, and all European races had been divided into four groups, which was almost universal. This classification was based upon the fact that there were present in the serum two substances known as A and B, which had the property of precipitating the red blood corpuscles of other individuals. In group 1, both the A and B properties were absent; in group 2, A alone was present; in group 3, B alone existed; and in the fourth group both A and B were in existence.

Influence of Parents.

"It has been established," the professor continued, "that the substances A and B never appear in the offspring unless they are present in the blood of one of the parents. Obviously, then, if that theory is applied to medico-legal problems, it follows that if A or B is present in the blood of a child, one of the parents must possess it. The percentage of these groups has been known to vary in different races. In fact, the ratio of A to B is known as the bio-chemical index. Most races have now been investigated on this basis, and in Australia it has been shown by Tubbett, McConnell, Lea, and Professor Clelland, of the Adelaide University, that the Australian aborigine has an extremely high bio-chemical index; in fact, only exceeded by the North American Indian.

Requires Conservative Interpretation.

Recent reviewers of medico-legal works have touched on these tests, said the professor, and have remarked that such applications in a Court of law required careful consideration and extremely conservative interpretation. It would need great care to definitely introduce them into medico-legal work, and it would be safe to say that in most instances they would be regarded merely as an accessory to ordinary legal procedure.

But would the presence of a third factor cause complications? he was asked.

Third Factor Possibilities.

"Yes," was the reply. "More recent analysis of available data suggests that instead of the inheritance consisting of only two factors A and B, there is the possibility of a third. Therefore, if there are three inheritable factors instead of two, then their distribution in the offspring would be different from what could be predicted when there are only two. Hence the need for conservatism in its adoption in legal procedure. These tests are still new. Obviously, only a limited proportion of any population has been submitted to any such investigation, and, therefore, all exceptions to this rule cannot be ignored."

Police View.

Because the prosecution of alleged fathers was not generally undertaken by the department, no police official would comment on the position. It was admitted, however, that the testing of blood for such purposes opened up a wide field of potential detection in such instances; but in any case there was the possibility that the innocent man would suffer instead of the guilty. If a man were accused, and an analysis of the blood showed all three parties to possess the same class, there was no escape for the accused person, although he might be innocent. As it was (it was pointed out) Magistrates, unless there were overwhelming proof to the contrary, took the woman's word before the man's when it was word against word.

of all industries and Governments. The conference considered in detail the type of training needed for officers of the Agricultural Departments. For the specialist type of officer or research worker, a sound honors' training in science, especially in biologic science, was the first essential. The second was such a knowledge of agriculture as would enable him to appreciate clearly the role of science in agriculture. For the agricultural administrative officer a wide agricultural knowledge, a practical outlook, and administrative ability constituted the first requirement. The second was scientific knowledge, adequate for the full utilisation of scientific results in agriculture.

Chain of Research Stations.

The conference surveyed the whole tropical and sub-tropical Empire as a field for organised research. It recommended the establishment of a series of central tropical and sub-tropical research stations, located at convenient centres where groups of related problems could be advantageously investigated for the benefit of the Empire. The conference defined the needs which these stations were to meet, the scope and character of the work they should undertake, and the relationship of such stations to the Government Agricultural Departments. The conference agreed that the establishment of such a chain of research stations should be governed primarily by the ascertained needs of Empire research in particular fields of agriculture, rather than by considerations of geographical distribution. Moreover, the stations should be located in territories affording specially advantageous conditions for the investigation of the group of problems allotted to them. Finally, these Empire research stations should, in the main, confine themselves to "long-range" and "wide-range" research. They should concentrate on (1) problems requiring more prolonged research work than could normally be expected from any single administrative Agricultural Department; and (2) on problems arising in more than one territory of the Empire.

Tropical Research.

One of the series of the tropical research stations would be located in Northern Queensland, to serve the interests of tropical Australia and the Mandated Territories. It was made clear that these central research stations should not conflict or compete with the work of Agricultural Departments, but should be complementary and supplementary to the work of local Departments of Agriculture. The conference also made recommendations regarding two subjects of vital importance to the Empire—(1) the establishment of a central research station in connection with the diseases of animals; and (2) the establishment of a new research station, to deal with the scientific problems associated with irrigation and irrigated agriculture.

Imperial Co-operation.

The conference examined in detail and prepared plans for a considerable extension of the existing machinery for co-operation between agricultural research workers all over the Empire. It recommended the establishment of Imperial bureaux for veterinary science, soils, and animal nutrition, and Imperial correspondence centres for animal breeding, plant breeding, horticulture, and agricultural parasitology. These bureaux and correspondence centres would function in the same manner as the existing bureaux of mycology and entomology, and would act as clearing stations for the collection and dissemination of information of a scientific and technical character for workers all over the Empire. The needs of practically every branch of agricultural science had been surveyed by specialists of twelve technical committees, and valuable reports were submitted by these committees as to the best means of promoting research in these fields. The subjects included animal health, animal nutrition, animal genetics, soils, dairying, entomology, mycology, horticulture, plant breeding, agricultural economics, preservation, and cold storage problems.

Next Conference in Australia.

At the invitation of the Prime Minister of Australia (Mr. Bruce), the conference unanimously decided to hold the next meeting in Australia in 1932.

In addressing the conference delegates Earl Balfour made the following significant remarks:—"Within the British Empire are contained some of the wettest and some of the driest, some of the hottest and some of the coldest parts, some of the most fertile and some of the most barren. The agricultural problems presented to the investigator cover the whole field of agricultural investigation, and the common problem to the Empire is that of extracting from reluctant Nature all that reluctant Nature can be made to give."

Professor Richardson added, in conclusion, that the problem of the development of any one part of the Empire was part of the problem of the development of the whole Empire. The fundamental problems underlying the production of crops and stock were the same everywhere. Through the work of the first Imperial Agricultural Research Conference the foundations had been laid for Imperial co-operation in agricultural research between the Empire Departments of Agriculture and the large research stations and universities in Britain. In the development of the agricultural resources of the Empire through the application of scientific research, the home country, the Dominions, and the Crown Colonies could work in the very closest co-operation. The close co-operation and team work which