

...the records of which had been kept with remarkable accuracy in one series extending unbroken from the seventh to the fifteenth century at Cairo. After February the sluice gates of the great series of waterworks were closed, and the salt-water from the lower reaches were dammed back also. All the water required for irrigation was lifted by gravitation, and even the water wheel and Archimedeon screw were comparatively modern. The farmer under the benevolent autocracy of Egyptian rule paid about £1 yearly in land tax. His implements were simple, consisting for the most part of a wooden plough, a hoe, and a log for harrowing. All the wheat was winnowed by hand, as it had been thousands of years ago. The method of cultivation had all the essential features of dry farming, because from the time the crop was planted until it was reaped it got no more water. Leguminous crops in the old times alternated with wheat and barley, as they did now. Water melons were heavily manured with pigeon manure. At the beginning of the nineteenth century cotton and rice were grown along the northern edge of the delta, but it was not until the American Civil War created a great demand for cotton that it really became established as a staple industry of the country. With perennial cultivation the Egyptian farmer had a great choice of crops, which could be grown in steady rotation, thanks to the water which was now made available to him. It was estimated that there were altogether 33 possible crops, of which 20 were field crops and the rest vegetable. He had seen maize which had registered a growth of 6 inches in 24 hours. Scientific research had somehow been mostly successful up to date in proving just why the native peasant was right in his methods of cultivation. In 1919 the value of the cotton crop had reached 100 million pounds sterling, but the pink boll worm now took toll of 40 per cent. of the crop, just as the hornets often destroyed half of the Egyptian bees in a season. The scientific work already engaged upon was probably 50 years ahead of the appreciation of the people, but it was being persistently carried on, nevertheless. The whole of the Nile Delta had now been contoured. With an increase in the water supply and a corresponding increase in the summer crops, there would be a great increase in production. A special group of experts had been engaged by the Cotton Research Board, and they were doing splendid work. What Egypt urgently needed was a system of perennial agriculture and crop rotation on the lines of that in vogue in ancient times and adapted to modern needs and conditions. Throughout the lecture the illustrations were of the greatest advantage. Many of the photographs screened had been supplied by Government departments, and the collection was unique.

REGISTER. 8.7.25.

CHAMBER MUSIC RECITAL.

**HEARD AMID IDEAL CONDITIONS.**  
The Elder Conservatorium String Quartet has been often heard in the Elder Hall, and enjoyable concerts of Chamber Music have justly established this association of brilliant players upon a high plane. But, for the intimacies of Chamber Music, it was felt that a smaller hall would be more appropriate, and the Liberal Union Hall was tried last month for that purpose. The excellent result inspired the Quartet to give a series of three recitals, and on Tuesday night the second one took place. As upon the previous occasion, the programme was performed upon a dais placed in the midst of the throng. There was again an encouragingly large attendance, and each of the numbers presented evoked an appreciative response. The members of the Quartet comprise:—Mr. Charles Schilsky (first violin and leader), Miss Kathleen Meegan (second violin), Miss Sylvia Whittington (viola), and Mr. Harold Parsons (cello). A feature of the evening was Dvorak's "American Negro String Quartette in F Major," so-called on account of the foundation of the theme being derived from American negro melodies. Dvorak, during his sojourn in the United States of America, was greatly impressed with the beauty and haunting plaintiveness of these indigenous airs, and resolved to perpetuate some of them in orchestral writings. Dvorak was then Director of the School of Music in Boston, and, thanks to his influence, many precious melodies were thus preserved. The charm of the "American String Quartet" illustrates this convincingly. Arranged in four movements, it indicates the complex moods of the "dickies" as he chants his native songs. The players, last evening, interpreted his composition in the true spirit of its appeal, and succeeded in conveying the alternating moods of the original vocalists. The first movement, full of brilliant scoring, was followed by an exquisite, slow movement, taking the form of a lament. All these airs breathed a characteristic undercurrent of mournfulness and were played with befitting dignity and restraint. Brighter moods prevailed in the two final movements, and the concluding passages eloquently expressed a triumph of joy over sorrow. The whole work was a maze of technical intricacies, and of constantly varying light and shade, but the artists were never at fault. The "Scherzo" from Beethoven's String Quartet, op. 18, No. 4,

was an exquisite excerpt that the audience indicated they would have liked to hear repeated. It seemed to illustrate the fact that never before or since Beethoven has anyone understood so perfectly how to write for string quartets as he did. This particular movement was one of extreme delicacy, and, in the gossamer-like threads of sound suggested all the daintiness of lacework. Control of balance and tone colour were markedly good, and the earnest and thoughtful rendition was of a highly intellectual order. The third number was a Piano Trio, in F Major, by Saint Saens. Miss Alice Meegan presided at the keyboard, and the string section was represented by Messrs. Schilsky and Parsons. All the movements, with the exception of the Andante, charmed by the delicacy of their structure, but the Scherzo was contrastingly turbulent and full of vigour. Each of the series conveyed a feeling of lightness, but also impressed the listener with the extreme beauty and scholarly character of their workmanship. The piano part was particularly brilliant—a natural proceeding—for Saint-Saens was himself a pianist of exceptional ability. But the three performers gave so good an account of themselves that the pause between each movement was punctuated with applause. Miss Meegan has never played better, and deserved the distinction of being included in a notable achievement. The third and concluding Chamber Music Concert of this special section, will be held on Tuesday, August 4 in the Liberal Union Hall. One of the features of that evening will be the Brahms "G Minor Quartet," with Miss Maude Puddy as pianiste.

REGISTER. 8.7.25.  
EGYPTIAN AGRICULTURE.

In the second series of his three illustrated lectures on "Modern Egypt," Professor J. A. Prescott dealt with irrigation, agriculture, and industry at the Prince of Wales Theatre, University, on Tuesday evening, before a large and interested audience.

Professor Prescott speaks with authority on Egypt, for he was there for several years prior to coming to Adelaide to join the staff of the Waite Research Institute at Urrbrae. By the use of lantern slides he helped to provide his audience with a good mental picture of that romantic and ancient historic land, and told a lucid story or development for what Herodotus described about 600 B.C. as "an acquired country; a gift of the river." Where 99 per cent. of the population live on the Nile mud.

**Rich Burden of Silt.**  
The lecturer said that the Egyptian farmer had at hand three fundamentals for his crop production—an abundant supply of cheap water, an ideal climate for growth, and a remarkably rich soil. In the spring the weather was so constant that the meteorological service ceased to issue forecasts for about five months. The soil of Egypt was derived from the igneous rocks of the Abyssinian plateau. It was only since more intensive farming had been produced with perennial irrigation that the use of nitrogenous manures had become imperative. Large quantities of nitrate of soda were now imported annually, and in addition local sources were exploited, such as the ruins of ancient villages, and natural deposits of nitrate-bearing shales from the eastern desert. The value of this material had been discovered by the natives themselves. It was proportionate to the content of nitrate, which was sometimes determined for either by the chemist, but more frequently by the local expert, who used his tongue for the test. (Laughter.) In July the Nile began to rise, as the flood waters from the Albans and the Blue Nile began to reach the country. They were very muddy, and carried the rich burden of silt, which had become proverbial. This silt formed the cultivated soil of Egypt, although under perennial irrigation very little of it now reached the land.

**Water Conservation.**  
Professor Prescott said that the rapidly increasing population of Egypt, and the practical absence of rainfall, had meant that every drop of water flowing in the Nile was made use of. He reviewed the control works, beginning with the new dam at Makwar on the Blue Nile, which would supply irrigation for three million acres, 100,000 of which was being planted under cotton. Previously this water found its way to the sea. Referring to the Assuan dam, the speaker said that even in the year of lowest supply it would be the means of securing Egypt from disaster. Comparing the Nile with the River Murray, he observed that it carried on an average about eight times the amount of water than did the latter. The necessity for the complete control of the Nile was indicated by the density of a population essentially agricultural. It was estimated that in 1955 the population would have increased to about 20 millions. The people did not import any foodstuffs excepting meat from the Sudan, and some wheat, mainly for the European population. The rainfall of Egypt, from a point just south of Cairo to just north of Atbara, was less than an inch a year. In many places in Upper Egypt rainstorms occurred only about twice in each century. In such circumstances the land was a desert, except for the oases, which had artesian supplies, and the valley itself, which received Nile water.

**Agricultural Methods.**  
The professor traced the development of Agriculture from the earliest times, and explained that wall carvings of the sixth dynasty B.C. gave pictures of a complete system which in many respects was identical with that of the present day. The Egyptian knew of few labour-saving devices, and cared less. His plough had been described as a one-tined cultivator, and although nearly every newcomer had tried to introduce the European steel plough, the sum total of the situation to-day was that there were more steel ploughs idly rusting than in actual use. In many cases the native methods had found economic justification, considering the density of the population and the nature of the cultivation employed. It was a remarkable fact also that when careful scientific investigation into native methods had been carried on a fellow was nearly always right, and the best scientific work done so far had been in the direction of proving that he was right. Wheat was an important crop during winter months. Australian wheats grew very well, but were less rust-resistant than

local varieties. Berseem was one of the finest of forage crops, and as many as five cuts could be obtained in seven months. Maize was the staple food of the Fellahin. The professor cited an instance where it had grown 6 in. in 24 hours.

**Command of Cotton Market.**  
The cultivation of cotton was the centre of all activities on Egyptian farms, the professor added. Egypt produced the bulk of the world's finer qualities, and had been able to maintain a commanding position in the world's market. The average crop to-day must be worth about £40,000,000. In comparison, the Australian wool clip was worth about £50,000,000, and the wheat crop about £30,000,000. Cotton was cultivated practically throughout by hand, and harvested by children, who made a happy picnic of the whole business. Enormous damage was done by the cotton worm and the pink boll-worm. Notwithstanding the fact that the land under cultivation, and the amount of water had increased, the average yield per acre was going down seriously. In cotton, for instance, the yield had receded from 429 lb. of lint per acre in 1896-1900 to 359 lb. in the last six years. One theory was that the land was getting waterlogged, general deterioration, the introduction of the pink bollworm, which caused £10,000,000 worth of damage a year; the introduction of new varieties of cotton, which had been slightly lower yielding, but of better quality; and finally, over-cropping and not sufficient fallowing. The methods used for improving the situation were the greater care in the use of water, the development of new varieties of cotton, which would have not only the quality but the yield, and also earliness in order to escape the ravages of insects.

**Important Problems.**  
In conclusion, Professor Prescott said that recent ideas in connection with soil fertility indicated that probably the most promising line of investigation was into crop rotations and of the general farming methods of the country, particularly in the judicious use of fallowing, which was so conspicuous a feature of basin farming. After all, the cultivation of cotton could not be considered except in relation to the other crops of the farm and of the general agricultural needs of the country, and the first business of any agricultural development was to supply food for the increasing population. Any economic system which resulted in the importation of appreciable amounts of food must in the long run be unsound. There was probably necessity for adjustment between the needs of the country for food and for cotton; no antagonism was indicated, but rather a judicious economy in the use of land and water for the supply of both. A further important characteristic of the last few years had been the serious decline in the number of cattle in Egypt. Since 1903 it had fallen by half a million, with a consequent reduction in the area under fodder crops and the quantity of farm manure, in addition to the diminution in the effectiveness of soil cultivation. What was obviously needed, if the future needs of Egypt were to be met by an increased water supply, was that a system of agriculture should be developed for perennial conditions which would be permanent in character; that was, would produce steady crops maintaining yield and quality at a good average, just as the system of basin irrigation had been able to do. The second important factor was the recognition of plant breeding and selection methods for the production of crop varieties which were suitable to the changing conditions of agriculture in the country. The future development of Egyptian agriculture evidently demanded wise preparation, not only on the part of the irrigation engineer with his schemes of water supply and drainage, but also on the part of the scientific agriculturist, if Egypt were to secure the maximum benefits from the propositions which had been so ambitiously planned for her future.

The surprise expressed by Dr. J. A. G. Hamilton in a letter in The Register yesterday at the transference of Dr. A. M. Cudmore from the honorary surgical staff to the position of honorary consulting surgeon at the Adelaide Hospital is largely shared by the general public; and the prospect of that eminent surgeon performing no more operations in the institution has occasioned so little regret. It is evident, however, that Dr. Cudmore's retirement from surgical practice at the Hospital is due to a regulation endorsed long ago by the Executive Council, which the present Hospital Board must enforce whatever its views may be regarding its merits. The policy embodied in the regulation renders compulsory the retirement of each member of the senior surgical staff after 20 years' service, or at 60 years of age—a rule which may have been reasonable enough when it was formulated, but which should be subject to modification, if new conditions suggest that such would be desirable. Dr. Cudmore is very highly esteemed, both for his own and his work's sake, by the Hospital Board, the medical profession, and the general community; and powerful reasons are apparent for his retention on the surgical staff until he shall have reached the age of 60 years if—as everybody must hope—his health and vigour remain unimpaired in the interval. So important and necessary an institution as the Adelaide Hospital cannot well afford to part with the services of leading surgeons who are in the prime of life and have won great distinction in their profession. The public may rightly ask that every facility shall be afforded such men to continue their surgical investigations and to confer benefits upon suffering humanity.

So far as the Hospital is concerned, the welfare of the patients must always be the paramount consideration. Next comes the insistent claim of students of the Medical School to learn all they possibly can from the ripe experience of first-class surgeons. Thus there is a strong case for an amendment of the regulation to permit of Dr. Cudmore and other highly qualified and trusted surgeons remaining on the staff beyond the period of 20 years. Dr. Hamilton states that in the majority of the large hospitals in older countries, many of the surgeons of the senior staff do not attain that coveted position until they are "well on in middle life." Probably when the regulation now under discussion was framed, it was considered that the average senior surgeon, after 20 years' service would not be fully capable of performing difficult operations. But the present is largely an age of young men, as the brilliant achievements of young professional men in the Great War has demonstrated, and the application of the 20 years' rule means the loss to the Hospital of men who may have the best work of their career ahead of them. Another point of importance is stressed by Dr. Hamilton:—"If a man hold the position of lecturer on surgery or gynaecology as well as a position on the senior staff, it would be an incalculable loss to him to be deprived of the clinical experience at the hospital, as well as lose touch with the students." The balance of the arguments is certainly in favour of liberalizing the rule, so that the Hospital may still have the highest obtainable surgical skill at its disposal.