

## CATHEDRAL SERMONS.

the welding into one, of unanalysed and unpurged forces of opposed economic interests; but an acceptance of the claim that if spiritual motives actuated the conflicting parties, it was possible to abstract the essentials of both sides and to weld them into a higher synthesis which would rally to its support those forces which give allegiance to things which are of good report. The main dangers which the Church had to face in fostering and in operating that spirit were:—(1) Fear of all types; (2) domination by financial, industrial, and labour interests. If it temporizes with any, men lose confidence in it as an exponent of the transcendental function.

The spiritual aspect of credit or trust carries with it a material side. There could be no spiritual independence for the Church until it had economic and financial independence; as long as it did not possess property and investments of its own, so long will it be tempted to barter its spiritual birthright for a mess of pottage; as long as it possessed economic independence it could foster the transcendental function which alone could enable employer, employe and financier to say "Yea, though we walk through the valley of the shadow of death, we shall fear no evil, for Thou art with us; Thy rod and Thy staff they comfort us."

REG. 16 8 26

The main body of visiting delegates to the jubilee celebrations of the University of Adelaide arrived by the express from Melbourne on Saturday morning. The party included Sir William Cullen (Chancellor, University of Sydney), Sir John MacFarland (Chancellor, University of Melbourne, also representing the University of Belfast), Sir Mungo MacCallum (Vice-Chancellor, University of Sydney), Professor Sir Henry Barraclough (Cornell University), Sir Thomas Lyle (Trinity College, Dublin), Professors R. S. Wallace (Melbourne and Aberdeen), J. B. Brigden (Tasmania), H. C. Richards (Queensland), H. S. Carslaw (Cambridge), A. Anstruther Lawson (St. Andrew's, Scotland), A. R. Radcliffe Brown (Capetown), Very Rev. G. O'Neill (Corpus Christi College, Wexford, Vic.), the Ven. Archdeacon Woodthorpe (Otago, New Zealand), the Rev. W. E. Kaneon (Western Ontario), Professors J. R. Kay-Mouatt (King Edward VII. College, Singapore), A. J. Ewart (Birmingham), J. A. Gubb (Liverpool), J. L. Shellehear (Hongkong), N. Laurie Seaman (Swarthmore College), H. L. Brose (Nottingham), Messrs. J. J. Watson (Arkansas), and J. P. Bainbridge (Melbourne). The visitors were received at the Adelaide Railway Station by the Chief Justice Sir George Murray (Chancellor of the University), Professor W. Mitchell (Vice-Chancellor), the Bishop of Adelaide (Right Rev. Dr. Thomas), and members of the council and senate, and after a round of introductions the visitors were escorted to the homes of their respective hosts.

REG. 14 8 26

Mr. A. C. V. Melbourne, Lecturer in Economics and History at the University of Brisbane, arrived by the express on Friday as a delegate to the Adelaide University jubilee celebrations. Mr. Melbourne, who is a son of the late Mr. W. C. Melbourne, of Adelaide, was born at Malvern, S.A., and studied at the Adelaide University. At the outbreak of war he enlisted with a contingent from Queensland, and was in the landing on Gallipoli. He held the rank of captain. He was subsequently wounded and invalided home.

REG. 14 8 26

Professor A. D. Ross, M.A., D.Sc., of the Chair of Mathematics and Physics at the Perth University, arrived by the East-West express on Friday evening to attend the jubilee celebrations of the University of Adelaide as a representative of the Glasgow University. Professor Ross was born at Glasgow in 1883, and had a distinguished career in the University of that city, where he won several honours, including the Kelvin gold medal and prize in natural philosophy. He held the Lectureship in Physics there. He came to Australia 13 years ago. Numerous papers on magnetism, astronomy, and other subjects have been published by him. He is also Australian secretary of the Institute of Physics. During his stay in Adelaide Dr. Ross will be admitted to the ad eundem degree of Doctor of Science.

## THE ACADEMIC JUBILEE.

## UNIVERSITY REJOICINGS.

## LARGE NUMBER OF ATTRACTIONS.

The celebrations in connection with the fiftieth anniversary of the founding of the University of Adelaide will really begin to-day, but a preliminary function on Saturday evening took the form of a sort of birthday party, or, as it was called, *conversazione*. It was completely successful, and the 1,200 or so guests found the utmost diversion and fascination in the many and varied attractions provided for their pleasure. The reception, which took place in the Elder Hall, provided a scene of vivid splendour, with a profusion of richly coloured robes, gowns, orders, decorations and other insignia of rank and office, and attainments in learning. The guests included many distinguished academists, both local and visiting, and many leaders of civic, political, professional, social, and commercial life.

The visitors were received by the Chancellor (Sir George Murray), the Vice-Chancellor (Professor W. Mitchell), the Warden of the Senate (Mr. Justice Poole), and Professor E. H. Rennie, to the accompanying strains of Mr. Tom King's orchestra. This gave place to the grand organ, on which Dr. E. Harold Davies heralded the arrival of His Excellency the Governor (Sir Tom Bridges), who was attended by Mr. Legh Winsor, A.D.C., and accompanied by Lady Bridges and Miss Alvide Bridges. Proceeding through the western door, over which was placed the coat of arms of the University, the throng slowly wended its way down carpeted covered ways adorned with bunting to the various University buildings, where the activities of every conceivable branch of learning were open for their inspection and edification. These were classified under the headings of lecture demonstrations, dramatic performance, and laboratory and museum exhibits. Members of the various student societies, wearing a rosette of the University colours, were posted at intervals about the passage ways and grounds and acted as guides to those unfamiliar with the topography of the place.

In the botanical department a series of demonstrations was given illustrative of the life processes of plants, and specimens were exhibited of plant diseases common to South Australia. Photographs were on view of the Koonamore vegetation reserve where the saltbush flora is studied, and in another room the method was shown of preparing serial sections for microscopic slides with the rotary microtome. The demonstrators in the botanical section include Messrs. M. Jacobs, B.Sc., T. B. Paltridge, F. M. Bailey, and Geoffrey Samuel, B.Sc., and the Misses E. D. Macklin, B.Sc., and E. B. O'rock. The Tate Museum, with its rocks, minerals, and fossils, was also inspected, and slides were prepared for the microscope from slides less than one thousandth of an inch thick. A Goldschmidt two-circle goniometer was also on view for the morphological study of crystals. In the geological workshop there was an exhibit of the technique of preparing transparent thin slices of rocks for microscopic study. The forestry museum was also visited and the collection of Australian timbers examined, with the various articles manufactured from them. The anthropological museum claimed its votaries who examined the photographs and illustrations of aboriginal culture.

## The X-Rays.

The X-ray apparatus as used for diagnosis was shown in operation, and many visitors availed themselves of the opportunity of seeing the bones of their hand on the fluorescent screen. Radiographs were taken of the hands and a number of people arranged to obtain copies as a memento of the occasion. Mr. G. R. Fuller was in charge of the demonstration, and he had the assistance of Messrs. Blewitt, Hosking, McPherson, and others. Phonic wheels, a large electro magnet, and an optical pyrometer were among the wonders and delights displayed by Messrs. D. H. Slee, A. H. Chapman, and E. R. Lawson, respectively. Special applications of oscillating valve circuits were demonstrated by Messrs. N. Stuart and W. Honnor, assisted by members of the University Wireless Experimenters' Club. The spectra of various gases and vapours were demonstrated by Messrs. F. W. Wagner and C. Bartholomaeus, and an optical method of testing the degree of the flatness of a polished surface to within one millionth of an inch, and the beautiful colours and soap films made fascinating dark-room features, while the apparatus room housed a number of meters for the measurement of electrical precision and various machine tools, in charge of Mr. C. R. Paul; and the liquid air plant, in charge of Mr. F. J. Wauchope.

## Engineering and Physiology.

Numerous testing machines were in operation in the mechanical department, and planimeters and microscope were also shown. The electrical demonstrations included the spinning table, the floating ring, the musical arc, and electric welding. Dr. F. McCoy Hill had charge of a family of blue mice, a curious result of dye feeding, and also showed microscopic slides of blood cells. Mr. W. Fuller and assistants demonstrated the separation of the blood corpuscles from blood by centrifugal force, and showed the structure of tissue under the microscope. Miss L. Baker showed some chemical component of the brain, and Miss Green demonstrated the heat values of foods. Professor J. Brailsford Robertson illustrated the manufacture of insulin, and Miss M. C. Dawn demonstrated sugar in the blood and ultra-violet light. Mr. H. R. Marston had various exhibits illustrative of the digestive processes, vision, breathing, and blood circulation; and Dr. C. S. Hicks showed the spectrographic analysis of molecules and other matters of physiological interest, including the thyroid gland.

Various other exhibits in zoology were shown by the Misses E. W. Deland, M. Smail, F. Elmcke, M. Johnston, and Mr. W. Bateman.

## LABORATORY EXHIBITS.

In the department of chemistry a series of exhibits of great attractiveness was found. Messrs. Best and Gibson showed the electrometric method and the indicator method of determining the acidities of beer and various wines; and Mr. Walker prepared various glass apparatus by means of the blowpipe. The effect of a

## THE LECTURES.

One of the most strongly magnetic of all these attractions was a lecture demonstration of liquid air given in the physics theatre, by Professor Rennie. He explained that all gases were capable of being liquified, including those of which air was composed, provided the temperature could be reduced sufficiently. He showed one method of reduction of temperature by rapid evaporation, illustrating it by a small dish of ether. When the ether had evaporated, the dish was found to have adhered by freezing to the block of wood on which it rested. Another method was by passing the gas through a fine aperture. The professor said that that method was used in liquifying air, which required a temperature of 3,400 deg. below zero. A sample of the product which was shown, had the appearance of water, with a slightly bluish tinge. It was contained in a special vessel similar in principle to a vacuum flask. When a bouquet of flowers was inserted the liquid boiled, and the flowers froze to ice and were broken to pieces like glass. A similar fate was met by a rubber doll, while a hand bell, made of lead and emitting a dull, dead tinkle, gave out, after a momentary immersion, almost a normal ring. Liquid air poured on mercury solidified it sufficiently to be used as a hammer head, and the use of the magic fluid was illustrated to increase the conductivity of metal. An iron resistance in a light circuit was sufficiently overpowered to make the light burn, and a steel watch spring was rendered combustible after being subjected to liquid air. Carbon dioxide not only liquified, but became an actual solid under its influence in the form of white crystals, and the effect of liquid oxygen as an explosive, was shown when saturating a piece of cotton wool. The professor had the assistance of Dr. W. Ternent Cooke in the experiments.

## Manufactured Lightning.

Professor Kerr Grant provided an exciting and spectacular half hour in demonstrating, with the assistance of Mr. M. L. E. Oliphant, B.Sc., what he called an expression of their joy by means of sparks. "If any present," he said, "desire to eliminate themselves they would not have the slightest difficulty." He demonstrated phenomena of induction by lighting a lamp attached to a coil of wire and held in the region of another coil with a current through it. The brilliancy of the light was increased by the use of a soft iron core through the coil. In the case of a 1,000 cycle current, the lamp was lit by induction from a single ring of wire, and even an arc light was lit by induction from a current of still higher frequency. High spectacular effects were achieved with vacuum tubes placed in the field of induction coils with varying strengths and

## "Community of Purpose in Industry."

On Sunday evening at the St. Peter's Cathedral, the series of addresses arranged by the Adelaide Diocesan Social Union was continued. The subject was "Community of purpose in industry," or "Service rather than profit the true end of industry." The speakers were Mr. A. G. L. Mackay, M.A., and the Rev. A. Depledge Sykes.

The Rev. A. Depledge Sykes took as his text St. John xvii. 12—"For their sakes I sanctify myself." He said that they approached the subject from the standpoint of Christian ethics. The text expressed the Christian doctrine of social service. The real problem was the old problem of human nature—the selfishness of mankind, set against something better and higher of which they were also conscious. They only know the lower because of the higher which made its appeal. It set up tension, conflict within us. And that conflict was the major conflict of life—the big conflict within which all their lesser conflicts lay. The philosophers spoke of it as the conflict between egoism and altruism. For if money might destroy mankind, it might also build manhood. To make money, to make profits, yet at the same time to make them serve the "good life" was the central problem, purpose, and task of industry. And the task was not always simple under their present economic system. It involved a conflict often between two "goods." And it was only through the conflict that a better system could be evolved. An industry existed legitimately only as it supplied society with things essential, useful, or beautiful. Its justification lay in its subordination to the community in those directions, and in its appeal therefore to the enlightened consciences of men. Failing that an industry was parasitical, it was a form of exploitation, it was selfishness cunningly organized for its own ends.

Mr. Sykes said that the individual depended on society. Their relationships were mutual. Society gave to the individual the context within which if at all he was to live, do his work, and function as a moral and rational being. Now, if that was true, community of purpose was essential in industry. The day had passed when the worker would suffer being dragged at the heels of his master. And the day was passing when the master would suffer being dragged at the heels of iconoclastic groups of workers, who substitute class selfishness for personal selfishness. Because both attitudes were irrational and useless and menaced the community. The interest of both were mutual. Pure socialism was nothing. Pure individualism was nothing. The individual life found its meaning in the service of the community. The community finds its guarantee in the disciplined, moralized, individual life.

## Influence of the Church.

Mr. A. L. Gordon Mackay, M.A., said that no impartial examination of facts could fail to reveal that the Church had supported the conservative economic forces against the aspirations of the working class. Equally clearly it could be shown that the Church had stood shoulder to shoulder with the workers against the selfish greed of enlightened self-interest. The work of Wyclif or Nicholas Oresme was an example of that. But the Church had also stood aloof from the quarrels of employer, employe, and financier, and strong in the conviction of its high mission had not denounced either employer, or employe, or financier, but had endeavoured to teach, educate and spiritually lead the conflicting forces into the paths of reconciliation. That was the attitude of its best men at the time of the French Revolution and more recently in the general strike in England. They could sum up that brief review by saying that the Church in its time had played many parts; up till the fourteenth century it was in a position to hold the balance between the warring elements; from the fourteenth century until to-day it followed in the wake of industrial forces. To-day the Church was in a curious position. It was finance, rather than employer or employe, which dominated industry; Labour and Capital were at loggerheads because of the faulty operation of their modern financial mechanism, which neither employer nor employe understands. The whole of modern finance centred round the word "credit," that word meant "trust," and it had a spiritual as well as a commercial meaning. A careful examination of the word and of its functions released to enquirers the surprising fact that there was no fundamental difference between the financial term "credit" and the Christian concept, "love or trust." That fact might account for the wide interest which the Church was taking in the financial, as distinct from the industrial, side of the so-called class war. That brought them to a consideration of the true work of the Church in industry—that of fostering the transcendental function. By that was meant the denial of the claim that progress rested with the struggle of conflicting parties; a denial of the claim that progress lay with