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The Madras Agl. Students' Union,
Agricultural College,
Lawley Road P. O.,
COIMBATORE




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Rural Reconstruction.

In connection with the Rural Service Exhibition held in Madras about the end of August, the Trustees administering the Rural Reconstruction Fund instituted by the Hon. Mr. A. Ranganatha Mudaliar have decided to offer two prizes of Rs. 50/ each for the best paper in the English Language on the following topics:—

- I. How a teacher can most constructively assist the Rural Reconstruction Movement in South India?
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The merits of the papers will be judged by a Committee consisting of,

1. Rao Bahadur N. Gopalaswamy Iyengar, B.A. (Registrar-General of Village Panchayats, Madras).
2. Mr K. T. Paul (of Y. M. C. A.).
3. Mr. V. Venkatasubbiah, B.A. (of the Servants of India, Royapettah, Madras).

On the recommendation of this Committee the final decision will be made by the Trustees.

Competition is open to any one of either sex in the Madras Presidency, Mysore, Travancore, and Cochin. A competitor may attempt both subjects if he chooses to do so.

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THE JOURNAL

13 OCT 1927

OF MADRAS

The Madras Agricultural Students' Union.

Vol. XV]

JULY & AUGUST.

[Nos. 7 & 8.

ROLE OF PATRIOTISM IN SCIENTIFIC WORK.

By

RAO SAHEB Y. RAMACHANDRA RAO, M. A., F. E. S.

Ag. Government Entomologist.

Honoured President, Ladies and Gentlemen;

Before taking your permission to read my paper—imposingly entitled,—“The role of patriotism in scientific work”, I feel bound to offer an apology for my presumption in attempting to deal with a subject the world-wide character of which is obviously far beyond my humble powers to discuss. I have therefore to say that I propose to deal with it merely so far as it applies to South Indian conditions, and even at that, owing to my limited personal experience of other departments, I have to restrict my remarks to scientific work in the Agricultural Department. I have to confess frankly that the title of the paper is, therefore, merely a device to attract attention, and the only excuse I can plead for what amounts almost to an imposture is my fervent desire to indicate what patriotic young men of this Institute can do to further the cause of the scientific development of their country.

It is amazing, when we begin to think of it, how many of us wander through the vale of life without any particular end or aim in view. We are born, we grow, we act our various parts and are ultimately consigned to oblivion—all without having had any great accomplishment to our credit. It is because we are in general engrossed so much with our own little needs and difficulties that we fail to rise above personal matters and to recognise the higher calls of duty. A purposeless life is in many ways comparable to a derelict ship, it floats with the tide and drifts with the current, but has no destination to reach and no purpose to serve in its existence. We do not realise, until we give a thought to it, how much we are slaves to circumstances and how little we try to rise above them so as to look at things from a wider perspective. I am afraid I have been unconsciously drawn into grave questions concerning the philosophy of life of which the great sages of all nationalities have written and of which I am utterly incompetent to deal. Yet it is a subject to which every man of education could devote some time for pondering about with immense benefit to himself. We think we are endowed with life, but so are our cattle ploughing yonder field, and so is the dog that is barking at them and so also is the flea that is biting the dog. They too live, feed, have their day and then die. Where is the difference then between the lives of the cattle, the dog and the flea and ours? If we, with our God-given powers of thinking, cannot rise higher than these animals, then surely we reduce ourselves to the level of mere beasts.

On the other hand, if we allow ourselves to think a little deeply on the subject, study the lives of world's great men, and compare notes, we will easily realise what life, lived as by those great men, really signifies. We will find that a life lived strenuously for a mighty purpose, is as different from a life of purposelessness as light is from darkness. As we analyse the lives of great men we begin to find that a great purpose, a great idea or a great passion has been running through their life-course dominating all their activities. We will find that it is the eminence of the results achieved by their singleness of purpose, it is the greatness of their deeds, it is the heights of moral, or mental grandeur they had reached that has made them immortal; and their memories will ever remain fresh, in spite of the lapse of time, as long as men continue to have a reverence for great, noble and selfless deeds. As Longfellow says:

"Lives of great men all remind us

We can make our lives sublime,

And departing, leave behind us

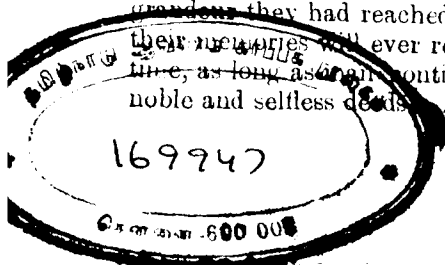
Footprints in the sands of time."

My young friends, would not you rather follow the footsteps of great men, rise like them to the heights the times demand and lead a life of purposefulness and usefulness, or would you be content to take time easy and live on a level with the existence of yonder cattle, dog and flea?

The aim of life may be different with different individuals. It may have reference to the religious, or the social, the political, or the literary side of life according to the interest taken by the particular person concerned, but for our purposes we will restrict ourselves to the scientific aspect.

From the scientific point of view, India may be considered to be now in a transition stage. It is now at a period when the old order may be said to be changing yielding place to new. Whereas in the earlier days, subjects like History and Philosophy had greater attractions for students, there is now a distinct general bias in favour of the science branches in preference to mere arts subjects. There is also a greater opening for science graduates now than before by the creation of the various scientific departments and the development of certain chemical industries. As yet, however, India cannot be deemed to have taken a position commensurate with her population and importance in the great world of science. For though there are a few great Indian scientists of world-wide renown, who can compare favourably with the great men of science of Europe and America, they can be counted on one's fingers; on the other hand there ought to be hundreds of them in proportion to the vast population of India. As in various other walks of life the future of India's scientific greatness lies in the hands of her young men. It is only if her young men rise above the level of the crowd, adopt high ideals of work and work hard to maintain the honour of the mother-land, it is only then, that India can lift her head in honour among her sister nations.

As for those who have joined the Agricultural Department, I believe, they could not have chosen a better walk of life, if they are



actuated by ideals of service to the mother-land. Whereas the various other great departments of Government, such as Revenue, Police, Law and Registration have duties connected with the maintenance of law and order and are thus mostly departments of routine work carried on according to prescribed laws and regulations, the department of agriculture is one of a group of nation-building departments, such as Industries, Fisheries and Co-operation. The duties are therefore not of a stereotyped order. Original work has to be done. The existing order of things has to be examined with a critical eye and faults, if any, detected, and improvements introduced. Crops have to be studied and better varieties with a heavy yielding capacity evolved, new manures and fertilisers, to be worked out, methods of fighting fungoid diseases and insect pests to be devised, agricultural machinery fitted for Indian conditions to be invented—these are only a few of the tasks that fall to the lot of the Agricultural Department. The interests of Agriculture are many-faced, and therefore, unlike the other departments, the department of agriculture is related in one way or other with most of the other walks of life and hence the help of a great many branches of science—for instance, sciences so varied as Botany, Veterinary science, Chemistry, Meteorology and Engineering—has to be drafted in, for her improvement. Men of various branches of science have therefore ample scope for work in the task of the improvement of agriculture; and what is wanted is men of brains, vision and foresight, combined with sincerity of purpose and possessed of a resolve to work for the betterment of the mother-land. Wouldn't you be one of this illustrious band?

There is sometimes a sad confusion made by the public between an up-to-date knowledge of scientific literature and actual scientific work. Sometimes the former type parades in the guise of the latter; and the consequences are often unfortunate. Original work should of course be based on a knowledge of up-to-date literature, but too much reliance should not be placed on such knowledge unless it is confirmed by observations. People generally get into the belief that books are infallible. Just because statements appear in print the public run off with the idea that there is nothing further to be said or done in that subject. There is no belief more absurd than this. What the book represents is at best the exact amount of knowledge gathered by or available to the

author at the time of writing. From the nature of things it cannot stand for anything more, for knowledge is not finite. It is growing though very slowly, and it therefore follows that no book can be treated as more than a milestone in the path of progress.

The habit of quoting authority has therefore a pernicious influence in scientific work. However eminent the worker may be and however clear and closely reasoned the account of his work, yet the results can apply only to the particular conditions detailed therein and may not hold good under other conditions. Quoting authority may in general be said to be a lazy man's short-cut to fame. Further it is unfortunately a fact that some of the publications sent to the press are not of a reliable character; many are rushed up at too early a stage in the investigation to be of any value. A tendency to rush to print on the part of the worker generally brings discredit on his work and acts as an impediment in his path to fame. It is of course essential to acquaint oneself with all that has been done on the subject, but on the whole it is much safer not to take things for granted because they are in print, and it is well to have as your motto "*Trust not the written word, believe not in authority*". It is better to wrestle with your problems independently than base your work on uncertain data.

In discouraging a tendency to appeal to authority, it is not my purpose to discount the work already done in the different sections of the department. It is, of course, a far more difficult task to design, equip and start a new Institute than to carry on work after starting. This pioneer work was done by trained scientists of ability recruited from the Old Universities of Great-Britain—all glory to them! Not only was the work laid out in the various sections on firm foundations, but hands were also trained for special types of work, so that ultimately when some of them retired it became possible to have their places taken by their juniors. It is now about two decades since the Institute was started and the seed then sown has begun now to bear fruit. Considerable progress has been made in various problems and tangible results obtained. Nevertheless we have to admit that we have only just touched the fringe of the real problems and only just begun to show our usefulness to the public. There are still quite a number of questions that have to be taken up for solution, and every year finds fresh problems being pressed forward calling for urgent attention by one section or the other. Work before us

is therefore enormous and unless we gird up our loins and make up our minds to tackle the problems seriously, we would be failing in our duty of carrying the work forward to fruition.

In this connection the question of the remuneration for scientific work may perhaps be pertinently considered. Science may almost be said to have been brought up in a cradle of poverty. The pioneers of science were mostly men of limited means, who in many cases sacrificed their worldly possessions and sometimes even their health in the selfless pursuit of knowledge. It has often happened that while the genius that discovered a great law or truth died in penury, the man with a genius for organisation later on exploited the principle thus discovered and was able to amass great wealth. As gradually the discoveries of science began to be applied for industrial development, the captains of industry of the great manufacturing countries of the West, such as Germany, England, France and America learnt the value of science and began to employ on decent salaries men trained in science, for the purpose of carrying on research work connected with their business. It is perhaps the State that has been most tardy in encouraging scientific work. Even in an advanced country like Great Britain, in the past, the State gave the cold shoulder to science and left her to thrive as best she could within the confines of the Universities, and it was not till the Great War taught a bitter lesson to the men in power and authority as to the paramount importance of scientific research not only in problems connected with the avocations of peaceful times such as commerce and manufacture, but also in the art of war, that the Government took up the organisation of scientific research on a satisfactory basis. No wonder that in a backward country like India, scientific workers even of the higher grades are not so well paid as men of other departments such as the Revenue, Military, Judicial and Police; much less therefore officers of subordinate ranks. If the well-being of the country should be the prime consideration it should be deemed essential to attract the best brains to the development departments by offering suitable salaries. In the long run the quality and the quantity of the output of work will render it a paying proposition for the State to do so.

Notwithstanding all the above disabilities in pay and patronage, notwithstanding various personal discomforts caused by penury,

it should be the duty of our young men to hearken to the clarion call of service to the mother-land. The need of your help is perhaps more urgent now than ever before. There is an immense amount of work lying before you awaiting solution: only the fringes of the problems have as yet been touched. Compared with the advanced nations of the world, India, in spite of her ancient civilisation, comes very low down the scale. The average earning power of a man is very low, so also is the average productivity of land. The cultivation is not all that is desirable, while owing to economic stress, poverty and indebtedness the average ryot is neither able to manure his land nor maintain it in sufficiently good condition. The ravages of pests and diseases are serious when they do come, and require detailed study and call for patient research towards devising cheap and efficient remedies, adapted to the economic conditions of the ryot. These are but a few of the many problems by solving which you can serve your mother-land.

But you must understand clearly that these are not easy tasks which can be accomplished by mere pious wishes or resolutions. If you want tangible results, you must put your whole heart into the work. Study the details deeply, make accurate observations, collect reliable data by careful enquiries and well thought-out experiments. Study the results thus obtained and think over them. If there is one habit that all of you must try to develop, it is that of thinking. Think deep and think hard, until you can wrestle down all your doubts and difficulties. It is not until you struggle hard and put forth all your might into the work that your difficulties will vanish and you will be rewarded with success. Even if you meet with failure, it does not matter. A failure is more useful than success, in that it will teach you where to be on guard and if you analyse the causes of your failure you can always convert it into a stepping stone for success. There is no need therefore for despair. What is essential is sincerity of effort and tenacity of purpose; and success will be your ultimate reward.

Perhaps one of the most popular of words coined in India during recent years is the term "Indianisation." Indianisation of the services sounds sweet enough as it signifies among other things a comparatively fat pay, a fair amount of power and a certain dignity of status—but it is seldom that the full implications of the change are ever realised. "Indianisation" implies also that if you

as an Indian replace the European officer, you have also to shoulder enormous responsibilities. Whereas as a worker you are responsible only for your own work, as the chief you have to hold yourself responsible not only for your own action but that of all the workers under you. You have to hold yourself responsible not only to your Departmental superior and to Government, but also to every individual of the public whom you are appointed to serve. You have not merely to carry on and mark time, but to keep abreast of the times and acquaint yourself with the latest developments in advanced countries, and not only that, but also to see that there is no lagging anywhere in the onward march of knowledge and that an all-round progress is being maintained. More than all "Indianisation" ought to mean that you as an Indian are going to infuse into the work a sense of "patriotism", a feeling of pride that you have been privileged to work for the betterment of your country—that you have it in your power to do what little you can to benefit your countryman—the poor ryot—and that you may be one of the instruments whereby the honour of India as a nation may be enhanced. "Indianisation" further means there is no closed door for the higher posts and that any of you can work your way up to the higher posts in the Department; but it is, of course, incumbent on you to prove your fitness for it by serving a hard apprenticeship and showing your fitness by your initiative and resourcefulness. If, on the other hand, you choose to pin your faith on "seniority"—which often may mean nothing more than the relative length of duration of a life of stagnating, vegetating ease—your chances of rising high in the scale may probably be problematical.

Should you in any way be overtaken by despondency or by an aversion to hard work, there is no finer subject of inspiration for you than the examples set by the pioneer European experts of this Institute. Born of quite a different nationality, and accustomed from boyhood to a much cooler climate, they have had to work in the enervating heat of our country in the midst of strange surroundings and an alien population; in spite of such handicaps, they have accomplished great things. Wouldn't you, young men, do at least as much? Born and bred up in the land, accustomed from your birth to all the climatic variations of the country and situated in the midst of your own countrymen, and fully conscious that success in your work would be for the benefit of your own

country—would you, in these circumstances, be justified in doing less?

During some of the sittings of the Royal Commission on Agriculture under the distinguished Presidentship of the Marquis of Linlithgow, conflicting opinions were expressed by witnesses as to the general loss of efficiency brought about by too rapid an Indianisation in the Agricultural Departments.

The duty of maintaining the reputation as well as of building the future of India's scientific greatness is the task of the younger members of this Institute. The older men mostly represent spent-up forces and may serve to direct the energies of youth, but are unfit for the task themselves. The destinies of a country are, as is well known, dependent on the character and the abilities of its youth and in the same manner, the future of this Institute is bound up with the quality and the quantity of the work the younger members are prepared to undertake. Youth is the period of ardour, enthusiasm and energy and warmth of heart and generosity. It is the time when the character of man is formed. The future of the nation depends on how the great potentialities of its youth are nurtured and developed. Your fitness to shape the future of the Institute and to take up the responsibilities of its development in the maturity of time, depends on how you train yourself by rigid self discipline, strength of will and conscientious work to direct the abundant energies of youth into useful channels.

You should therefore remember that—although apparently you are in a comparatively lowly position at present—you hold high responsibilities in that the future destinies of the Department rest entirely on how you make use of your great asset—the bubbling enthusiasm and the restless energy of your youthfulness.

In conclusion, may I, in view of the various facts set forth by me, appeal to you to wake yourself up to a recognition of the seriousness of the present situation, and bestir yourself to fulfil your high responsibilities. Remember you have duties to perform not only to blot out the tarnish on the bright shield of India's honour, but to develop her resources to help and enrich the poor ryot and to uphold her honour among the sister nations of the world.

May the Almighty grant that you realise your responsibilities in full and may He help you to enhance the reputation of this Institute and thereby that of your country!

PRINCIPAL C. TADULINGAM'S WELCOME SPEECH

Sir C. P. Ramaswami Ayyar, Ladies and Gentlemen,

As President of the Madras Agricultural Students' Union it is my great pleasure and proud privilege to welcome you all to this Conference. As resident Vice President I have for six years sat on this dais, in the rear, and have watched over the activities of the Working Committee that keeps alive the all—the—year run of this brotherhood. It is therefore with not a little embarrassment that I find myself in the prominent role of welcomer. This privilege should in the ordinary course have fallen on Rao Bahadur M. R. Ramaswami Sivan, that strong and steadfast friend of the Union whom I take this opportunity to congratulate on the honour conferred on him close after his retirement. It has pleased Government, no doubt through the instrumentality of our popular Director, I may be permitted to say,—our eminent Companion—to summon me to this position of a whole time servant of this College and I can assure you that of the many activities I shall have to participate in, none will be discharged with greater zest, than the one of welcoming all our students—new and old, to this annual Conference. The Royal Commission on Agriculture has been sitting and our Rural Viceroy is keenly awaiting its recommendations. We therefore look forward to an era of great expansion in our activities and I hope, that in the developments that lie ahead, our members will play that prominent part which it has been their privilege to play in the past. It is, therefore, Ladies and Gentlemen, that I consider it peculiarly appropriate that the deliberations of this session should be presided over by a distinguished member of Government—the member in charge of Irrigation—who without any reserve and with considerable whole-heartedness found time to show his active sympathies with our Union.

Once more, Ladies and Gentlemen; I welcome you all most heartily.

Speech at the opening of the conference on 11th July.

PRESIDENTIAL ADDRESS.

By

THE HON'BLE SIR C. P. RAMASWAMI AYYAR K. C. I. E.

Mr. Tadulingam, Ladies and Gentlemen,

In the first place let me be allowed to express my sincere gratification at being allowed the privilege and opportunity of being amongst you this morning. I realise that in inviting me you have broken, I will not call it an injunction, but an implicit rule indicated in the report to which we have listened with great interest wherein you have deprecated mere literary studies. Feeling painfully conscious as I do that with my range of activities—at all events as a student,—I have been confined to mere literary studies I feel embarrassed and somewhat as an intruder amongst a severely practical and scientifically enthusiastic gathering which I see before me today. I ascribe however the good fortune of the opportunity afforded to me to two or three circumstances. Firstly the weakness of an old friend who extended the hand of good fellowship, and let us say of condescension, to a mere literary student. The second factor is perhaps the circumstance that your Principal, whom I take this opportunity to congratulate this morning on the distinction and the opportunity that is given to him,—that he is an old school-fellow of mine. The third, notwithstanding the friends to my right and left, and perhaps the more potent reason, is that at the present moment I administer the department of Irrigation with which Agriculture is so closely connected. At all events I have justified my choice to myself on that basis.

Before I address to you the very few remarks, which alone I shall permit myself to make on this occasion, let me take this opportunity to congratulate the Union on the very successful working demonstrated by the report to which we have listened with pleasure and instruction. It has been very rightly pointed out in the report during the last few years there has been a general awakening and revival of interest in Agriculture, Agricultural Education and scientific development and stimulation of Agricultural methods. One of the contributory factors has been noticed in the report and that is the abounding enthusiasm of His Excellency the Viceroy of India, who is a practical farmer and who has never dis-



Indian Officers' Association Agricultural Section's
AT HOME

to The Hon'ble Sir **C. P. Ramasami Ayyar**, K. C. I. E.
July 11th, 1927.

guised his keen and lively interest in the Agricultural development and progress of this country. Also so far as this Presidency is concerned both their Excellencies Lord Willingdon and the present Governor Viscount Goschen have been practical farmers and one like myself who has had the opportunity of visiting the house and the farm of the Viscount Goschen cannot but be struck with the obvious proofs manifested by the present state of the farm and the very keen interest in agricultural operations evinced by his Excellency. I know that His Excellency and His Excellency's Government are very keen in the matter of the agricultural development of this province and when you, Sir, diverge into politics and refer to the extinction, or probable extinction of the Provincial contribution and hope that some of the funds liberated by that process would be available for agriculture, you are not perhaps far wrong, because I think without divulging any cabinet secrets I may say that your present Minister for Agriculture—the Hon'ble Mr. A. Ranganatha Mudaliar—is a person who is keenly alive to the agricultural needs of the presidency and he is not a man who has indulged in mere literary studies or has been unalive or irresponsible to the needs and shortcomings, handicaps and obstacles of the tenantry of this Province. He knows their conditions at first hand and you may take it that he will be behind nobody in pressing for a larger allotment in the matter of Agriculture and agricultural progress from out of the funds indicated by you in the report. (Hear, hear and applause !)

Now, Sir, you have in the report referred to three or four matters with which I think it is my duty to deal though very shortly. One of those matters is Agricultural education in this Presidency and allied to that is the subject—is the fact rather,—that although the Golden Jubilee of the agricultural education in this Presidency was celebrated last year in July, nevertheless it cannot be gainsaid that those persons, those communities, that particular group of men who have most to benefit and whose function it is to take the fullest advantage of agricultural education have not yet participated in that education to the extent and in the manner in which it is expected of them. The great landlords and the small landlords, they have not come into this college and received the benefits of up-to-date methods and of scientific research in the manner in which, it is obviously their interests to do. It appears to me that a very strenuous propaganda is necessary in order to do that and perhaps

a little wider opening of the door might in the long run be but indispensable—a little loosening of the rein and stretching the point here and there, so as to make them come here, if not as regular students, at least as something like extension students as in other places and countries. That is the direction in which perhaps the Agricultural College and, as a valuable adjunct to the activities of the College, the Agricultural Students' Union may perhaps exert itself.

Then Sir, you refer to the Royal Commission. We have received some of the evidences and a few of us have been privileged to read what has been taking place with reference to the labours of the Agricultural Commission. I am sure that the labours of the commission will result in an informative and suggestive report which will indicate the lines of future progress and lay down proper directions in regard to that progress. But if it were permissible to prophesy anything it is surely permissible to say this already. From the trend of evidence it is clear that two or three matters will receive very much attention at the hands of the members of the commission. One would be, necessarily must be, the co-ordination and the stimulation of agricultural research, the possibility of making that research and the results of that research available to the man in the street and in the fields. Now with regard to that, it appears to me that we have a great deal to learn from other countries. What is sometimes said and said, not without justice, is the fragmentation of holdings owing to the laws and many social handicaps that are at the present moment felt to be inseparable from the administration of the Hindu and Muhammadan Family Law and that these social handicaps and obstacles are a great barrier to agricultural progress. It is asserted, and asserted with some plausibility, that there is no incentive for a large scale intensive farming by reason of the partition laws of the country both amongst Hindus and Muhammadans. It appears to me that large is that reproach and criticisms observed are justified. Nevertheless in other countries which similarly suffer from analogous family laws, evils attendant upon the working of these laws have been surmounted by a wise application of the benefits of co-operative system and of a strenuous and steady application of science to everyday requirements. Some of us who have travelled in France are aware that according to the French family law the property is subdivided amongst the children of the family

in the same manner and quite to the same extent as almost or in some vulgar fraction as the result of application of the Islamic Law—the properties are divisible among the members. In France, in Germany and Denmark what has been done? Agriculture and Co-operation have gone hand in hand so that notwithstanding the fragmentation of holdings, people are able to come together for a common purpose in order to utilise the latest scientific implements, and the results of the latest scientific research and also in order to utilise the possibilities of marketing to the best advantage. Shall we not take a lesson from these countries and shall we merely continue to be depressed by reason of the circumstance that in England and America for instance large scale holding can be transmitted from generation to generation by reason of this particular family-law. It appears to me that in this as in other matters the co-ordination and co-operation of many departments of government and national activity would be necessary before we solve the problems that concern us. As a mere outsider, as a mere Bureaucrat not let into the secrets of departments of my honourable colleagues—the Ministers,—it is perhaps permissible for me to say that even in the working of the departments of Co-operation, Agriculture and Irrigation, it is possible to introduce a little more uniformity of method, a little consultative and conjoint action than is always the case. (Hear! hear! by the Director of Agriculture). I see that I have not trodden on very dangerous grounds, there is a qualified approval or shall I say more, emanating from my friend to the right. I know he holds the view that in irrigation and agricultural departments there may be according to him little more conjoint action, a little more continuous, close co-operation than perhaps has always been the case. Believe it when I say all these difficulties are more imaginary than real. All that is wanted is a little push, a little enterprise and a resolute desire to break through the red tape that envelops it. A little unorthodox dealing with things may solve the difficulties which any correspondence or Government orders may not be able to do. I say that after 4½ years of work, and I believe that I feel sure from the trend of evidence that has been let in before the Royal Commission—that one of the main recommendations would be the absolute co-ordination of the Irrigation, Agricultural and the Co-operative departments—and that is a matter in which this College and this Union may play a great part by educating the public opinion, the

leaders of public opinion and by seeing to it that the benefits of such co-operation, the drawbacks of such co-operation are discussed on public platforms, in Legislative Councils and in smaller councils of the Government.

The other point which has been rightly stressed in this report as one of the obstacles or the handicaps to agricultural progress is the very difficult question of agricultural indebtedness. Side by side with the difficulties produced by the fragmentation of holdings there is always, like a spectre looming before the ordinary ryot, the problem of his indebtedness which makes all enterprise, initiative and enthusiasm impossible. One of the problems which the Royal Commission will have to face and one of the problems which the administrators will have to grapple with and surmount is this question of agricultural indebtedness. You know that various methods have been tried both in this country and elsewhere. Some of the methods are pointed out. They consist in resorting to something like *usury laws*, other methods are slower, more elaborate, but perhaps more sure in their eventual result, namely in the spread of co-operative movement, the spread of co-operation among the people, the spread of common action for the purpose of elevating the condition of the ryot, for freeing him from the bugbear and the burden of rural indebtedness.

Now Sir, it has given me no small pleasure to see that the Union and I take it the agricultural training, the scientific mind appreciates the efforts made by the Government of Madras slowly, painfully, not without opposition and obstacles, in regard to Irrigation. The policy of the Government of Madras within the last few years in the matter of Irrigation has been this. It is far better to provide a famine insurance fund, not in terms of rupees, annas and pies putting in reserve either in a state Bank or otherwise, but to bring about the best form of famine insurance by relieving at first hand the dry tracts of the presidency. I see in your programme that a very attractive paper is to be read to-morrow—"Metamorphosis of the dreary tracts of Madras into delightful fields", and it is my misfortune not to listen. Whether that particular result is immediately feasible or not, the object of the Government of Madras in initiating their irrigation schemes in the order in which the Government of Madras has chosen to initiate is this. The first charge on the Government of Madras is the happiness and well

being of those parts of the country which are now suffering from drought either chronic or almost chronic. Such for instance are the upland tracts of Tanjore and Trichinopoly; such for instance are the Ceded Districts, such for instance are the parts of the tracts served by the Bhavani in this District. These are the first care and ought to be the first preoccupation of Government, if these could be irrigated by schemes, by means of schemes and by diversion of the fertilising waters of rivers which flow past without being of much use to these particular localities—you will relieve the famine in a two-fold manner. In the first place you will be able to immediately affect the tracts concerned and secondly by larger production of food grains you will be able to have a better reserve for the agricultural produce for the country at large. It has been with that point of view that Government have proceeded upon their Irrigation programme. The first item in the programme is the Mettur Project. It was selected not because it was necessarily the most important or it is most beneficent in the long run, it is because it was investigated and reinvestigated and re-investigated for 50 years and all the materials are ready to hand, and the best Agricultural and Irrigation experts of the country have pronounced themselves in regard to the rights and pros and cons of the scheme. Other schemes will have to take their turn. The Exchequer of the Government of India are very generous, they have been very generous. But they have not I, must say this from my place here, the Government of India have never checked or restrained the programme of the Local Governments in regard to these ameliorative works within the last few years. We have made very heavy demands on them which they readily accepted, and that would be as I said—the Mettur scheme is the first scheme taken on hand and notwithstanding the threats of commissions of enquiry that scheme will go through and in 7 years from now will be a *fait accompli*. They have not furnished details for the other things that have to be taken on hand and the next would be the question—a very difficult question of the Bhavani scheme. But believe me when I say that we are going into that question very carefully and it will come next in order. And I trust that the results of the labours of the agricultural commission and their recommendations will make it clear how imperative it is to effect that form of famine insurance in preference to other forms of insurance. Sir, it is always a dangerous thing to speak about the

hobbies of any person and you have encountered that danger in speaking to me about two of my foibles. I have spoken to you on the irrigation schemes, but, to me great and invaluable is the advantage of similar irrigation schemes from the point of view of the long future, of 20, 30, 50 or 100 years.

The Hydro-Electric schemes are of greater utility to this Presidency and to this country at large. I visualise,—I may be a dreamer, I may be a fanatic—I visualise the possibility of industrialisation of this country not wholly along western lines, because I feel that even in the west industrialisation as pursued on the lines which have become familiar to us has not produced the best results. The unit of life in ancient India was the village and I think I shall be echoing the sentiments of many present here and in India when I say that an average Indian when transplanted into a city not his whole or real self he feels but he feels somewhat out of place I do not contemplate with equanimity the rise or the progress of this great agglomeration of mills and tenements and crowds which are the features of parts of America and England and which are the sad features of life in certain parts of Bombay and Calcutta. The average Indian in these surroundings to my mind ceases to be himself. He is not happy, neither his health, physical nor moral nor mental is improved thereby. I therefore look forward with eager anticipation to the time when the industrial progress of this country could be achieved, when the industrial future can be assured without that crowding, without the reproduction of these features which to us are foreign and wholly unassimilable. That result is only possible when cheap power is available to the village artisan or at all events to the artisans in the smaller towns. It is to furnish the object lesson of that possibility that the Government in spite of opposition, handicaps and obstacles will assuredly and inevitably pursue, are pursuing and will endeavour to pursue in the future the policy of investigating and bringing into practical formation all schemes whose main object will be to make it possible not only for great industrial organisation like railways mills but other organisations for the smaller artisans. The small co-operative groups of workers in the long run, after education conducted by organisations like yours and by similar organisations will avail themselves of that power as is availed of in New Zealand, in Canada and is already availed of in our sister states of Mysore and Kashmir.

My friends, I have very little to add. I feel greatly encouraged by the instructed approval given to such schemes by men who know what they are talking about. I also say that I count it a very great pleasure to be amongst you here to day to take part in your festivities and your functions. Sir, I did not expect to make a long speech. I set before myself a limit of 5 minutes and the entire blame for the transgression of the rule laid for myself I lay on the shoulders of Mr. C. Tadulingam and yours.

COTTON

By

W. L. BALLS, SC. D., F. R. S.

Cotton as a subject of study is full of contrasts: some of them are worth setting down, so as to give some glimpses into its variety of aspects. Take first some contrasts of big and little things. Thus the world's crop of cotton, grown and spun each year weighs about 10,000,000,000 lbs., this weight is made up of individual hairs removed from the cotton seed and they are sufficiently thin to slip easily into a tube whereof the bore need only be one thousandth of an inch. Though thus tenuous and fragile, yet, as their length runs from $\frac{1}{2}$ an inch to $2\frac{1}{2}$ inches these hairs are proportioned in much the same way as an unusually long garden hosepipe. While developing inside the fruit of the plant they grow little faster than a millimetre a day but while being spun in the mill they are whirled on spindles which revolve more than a hundred times a second. In England alone there are 50,000,000 spindles. On a single seed there are about 10,000 hairs. . . . To-day the agriculture of the United States has passed the turning point imposed on it by the law of diminishing returns and the mean white type of cultivation, which largely succeeded share labour has become economically impossible. So with other cotton growing areas the change is underway or is predictable with certainty; the advent of cotton growing provides a cash crop which thus raises the standard of living, increases the density of population and so demands a larger area of foodstuffs; this in course of time makes the cultivation of cotton impracticable except at high prices. Cotton cannot be eaten. The world population is increasing, filling the vacant spaces of cultivable land and demanding

their use for food production. These are the salient facts. . . . If cotton could be grown on land suitable for forestry, but useless for food crops its position would be very much stronger. But on the contrary this strong position is actually held by its new rival material, artificial silk, one important form of which is made from forest timber. . . .

Nor can we now examine the new language, which research is synthesising for grower and spinner to use; that it is interesting may be sufficiently indicated by quoting two apparently paradoxical dicta therefrom:—"Other things being equal the weaker the hair, the stronger the yarn," and again "the qualities needed in cotton when it is being made into yarn are, in the main, the exact opposite of those needed in the yarn itself." . . .

We have noted that cultivation is restricted by climate, labor, transport and by the necessary employment of soil which is good enough to grow food crops. Climate is very slightly controllable indirectly by the plant breeder; labor of the marginal kind required for the picking must tend to diminish as the level of civilisation rises; transport is controllable, but the soil requirements are a heavy disadvantage in comparison with wood pulp. On the industrial side we may expect that, in spite of the enormous amount of capital represented by existent equipment, changes in machinery are likely to happen as the aftermath of research; such changes will incidentally modify another limitation, namely, the infrequent chance of promotion within the spinning mill, which makes it a dead end occupation for too many of its young recruits. At the present day the cost of equivalent yarns is less if they are made of cotton than if woodpulp artificial silk is used; but there seems no reason to doubt that in the course of time the position will be inverted thus putting another limitation on cotton. It is just possible that this might be still held off by new methods of cotton manipulation but it is at least as probable that the existing artificial silk will be improved much further. Thus the balance of probability leads one to conclude that cotton will presently have to make good its position on the intrinsic merit it possesses in its tensile strength and its durability under repeated bendings the fabric of a type will serve as a typical case.

But the best artificial silks are already better than low grade cotton in such strictly utilitarian properties; they are also much

more beautiful. But they still fall some distance short of good cotton made into good yarn while both cotton and yarn can be improved further. Thus it is likely that cotton will retain its position as a structural material but will lose it as a mere covering material. If this forecast be correct and it is hereby confessed to be heterodox it carries the implication that after many years the cotton industry of the world will have shrunk to much smaller dimensions than it now assumes, relatively to the world population and in the amount of cotton handled. In thus shrinking it will specialise both agriculturally and industrially, concentrating upon the quality of its product instead of seeking chiefly for cheapness and quality.

(Extracted from the Nineteenth Century and After, for Aug. '26.)

NUTRITIVE VALUE OF PASTURE

By

H. E. WOODMAN, PH. D., D. SC., D. L. BLUNT, M. A.,

AND STEWART, M. A., B. SC.

It was demonstrated in a former communication of this series that pasture grass kept short by efficient grazing contains a very high percentage of protein throughout the whole season, the amount being more than twice as great as that contained in grass from the same field which had been permitted to grow unchecked to the stage of maturity suitable for hay. On the other hand, the amount of fibre in such young pasture grass is appreciably smaller than that present in meadow hay. In respect of digestibility, well grazed pasture herbage compares favourably with a concentrate like linseed cake and is far superior to the very best quality of meadow hay. Even the fibrous constituent, which in hay is frequently woody and of low digestibility, is, in pasture grass, digested to an extent almost equal to that of the carbohydrate fraction. The conclusion was reached that young pasture grass possesses a much higher nutritive value than has hitherto been suspected. When properly grazed, its dry matter possesses the character of a protein concentrate of high digestibility and feeding value, and not of a coarse fodder like meadow hay. Unlike many farm concentrates, it is capable of supplying the animal's requirements for vitamins and, where the botanical character of

the herbage is satisfactory, as in mixed grass and clover herbage, for bone-forming mineral like lime and phosphate also. It was not without reason, therefore, that the conclusion was drawn that "the farmer's cheapest, and possibly his best, concentrate is to be found growing within reach of the homestead." Young pasture grass is essentially a feeding stuff for production, rather than for maintenance purposes.

G. N. R. (Journal of Agricultural Science April 1927).

BOMBAY SMALL HOLDINGS BILL.

The subject of the excessive sub-division and fragmentation of agricultural holdings has engaged the attention of Government for a number of years. The evils resulting from these processes may be briefly stated as follows :—

(a) They impede cultivation and cause a waste of time.

(b) They prevent permanent improvements to land being undertaken, as it is impossible to use labour saving implements or even iron ploughs on land which is broken up into scattered pieces.

(c) They preclude the proper organisation of labour and capital and cause a waste of a large amount of arable land in boundaries.

(d) They prevent a cultivator from living on his farm, result in second crops not being grown when they can be, in some cases send the land out of cultivation altogether, cause enmity amongst neighbours leading to quarrels and litigation, and, generally speaking, produce an uneconomic situation. The excessive sub-division of land in certain areas of the Presidency has gone so far as to amount to a serious hindrance to cultivation resulting in a general diminution of their crop output. In the interests of cultivation therefore, it is necessary now to take measures to check the evil.

PROVISIONS OF THE BILL.

2. The object of this Bill is to remedy these evils so far as it is possible to do so. This it is proposed to do in three ways :—

(a) By prohibiting all future sub-divisions of land into plots which are agriculturally uneconomic; (b) by ensuring that all transfer of land shall henceforth be towards the consolidation of holdings instead of in the direction of their fragmentation; and (c) by setting up machinery which will, where necessary, redistribute into plots that can be cultivated at a profit, holdings which have become so fragmented as to be no longer worth cultivating.

3. The Bill, which deals only with agricultural land, consists of two parts, which, though distinct and separate, are connected to this extent that they deal with the same subject, namely, the sub-division and fragmentation of holdings. The first part consists of proposals to prevent further sub-division and fragmentation. It order to protect existing rights, as far as possible, separate provisions have been made for existing fragmented holdings and new fragmented holdings. So far as the existing fragmented holdings are concerned, it is not proposed to interfere with transactions relating to them (with the exception of leases) otherwise than by the right of pre-emption given by clause 12. As for leases, the lease of any fragmented holding, whether new or old, to any person other than the occupant or the lessee of a contiguous plot is prohibited. The only distinction between an old and new fragmented holding in the matter of cultivation is that while an old fragmented holding can be cultivated by its occupant the cultivation of a new fragmented holding even by the occupant himself (except as provided in clause 19) is prohibited. It will be seen that it is prohibited. It will be seen that it is the cultivation and not the ownership of fragments which leads to unprofitable cultivation and that the cultivation, at any rate, of fragments which are brought into existence hereafter must be prevented if an enactment of this nature is to be at all effective.

The scheme may be briefly outlined as follows :—

(1) In districts or areas to which Government shall extend the provisions of the Act standard units will be selected by the committee appointed under clause 4, having regard to the character of the crops in the particular area.

(2) After standard units have been fixed for any area any person who desires to transfer his land which is less in size than the standard unit (otherwise than by lease or mortgage without possession) shall give the first right of refusal of it to the owners

of the adjoining lands, and it is only when no neighbour has notified his desire to exercise such right that the owner can sell his land to any other person. Under clause 14 a suit may be instituted by a neighbour to enforce such right of preemption. In the case of new fragmented holdings which may come into existence after the passing of the Act the owner is debarred from transferring his plot except to the occupant, or, in the case of a lease, to the lessee or owner of a contiguous holding and a transfer not so made is void. Under clause 19 the cultivation of a new fragmented holding is prohibited unless such holding is combined with a contiguous plot or plots so that the total area so cultivated shall be equal to or exceed the standard unit.

(3) Sections 117-A and 117-B of the Bombay Land Revenue Code shall be amended, so as to prevent the sub-division of land by the Courts by the partitioning off of portions below the standard unit.

(4) Tagai may be granted and stamp and registration fees may be remitted with the object of furthering the purposes of the Act.

(5) The Courts and Revenue Officers shall not recognise a partition involving the separation of land of less size than the standard unit.

4. The second part of the Bill is a consolidating measure, the object being to consolidate scattered and fragmented holdings certain selected and specified villages. Considerable areas have been consolidated in Germany, France, Italy, Austria and other European countries. Consolidation has also been carried out in the Punjab by the Registrar of Co-operative Societies, with the help of the Societies, and without recourse to legislation. Similar attempts in this Presidency had not been successful. The method must be very slow.

A Consolidation Act has also already been placed on the Statute Book by the Government of his Highness the Gaekwar of Baroda.

The provisions of the Bill will not apply to inam lands because of the inherent rights attaching to such lands.

The second part of the Bill is largely based on the Bombay Town Planning Act, 1915. In particular a Tribunal of Arbitra-

tion based on the Town Planning Act will be instituted for the villages or areas in question. The provisions, however, are not so intricate as in the case of the Bombay Town Planning Act, as consolidation will be effected in rural areas only. There are also provisions for the grant of tagai and for other special concessions, in order to encourage consolidation. The provisions of the Bill do not apply to Sind.

NOTES ON CLAUSES.

Clause 3.—In framing the definition of “local area” it is assumed that standard units may be determined by the Commissioner either for the district as a whole, or for a part or parts thereof, according as local conditions may require. Any area in a district for which standard units have been so determined will be a “local area” for the purposes of the Act.

Clause 4.—Provision for the duration of office of members of the District Local Board, the vacation of office by them on their ceasing to be members of the District Local Board, the removal of any such member, the manner in which the selection should be made and the vacancies should be filled up, the conduct of the business of the Committee and other matters incidental or ancillary thereto will be made by rules made under clause 76 (2) (a).

Clauses 10 to 15.—These clauses provide that after a plot of land has been entered as a fragmented holding in the Record of Rights and notice of such entry has been given to the occupant, the owner shall, if he desires to transfer the land by sale, exchange, mortgage or otherwise, first offer it to his neighbours and that it is only when none of his neighbours is willing to take it that he shall be entitled to transfer it to any other person. In the case of a lease, the land shall be leased either to the occupant or to the lessee of a contiguous plot. Any transfer of such a plot made in contravention of these provisions is void.

These clauses apply to plots of land of less size than the standard unit which are in existence when the Act comes into force. Separate provision is made for plots of land of less size than the standard unit which come into existence after the act comes into force. (Vide clauses 16-19).

Clauses 16 to 19.—These clauses aim at stopping the creation of new plots of land of less size than the standard unit after the Act comes into force. Any transfer of a plot of land which has been entered in the Record of Rights as a new fragmented holding (whether by sale, exchange, mortgage or otherwise) except to the occupant, or, in the case of a lease, to the lessee or owner of a contiguous holding, is prohibited and, if made, shall be void. Nor shall a new fragmented holding be cultivated unless it is combined with a contiguous plot so that the total area so cultivated shall be equal to or exceed the standard unit. Thus while the creation of new fragmented holdings by sub-division of land will be stopped by these restrictions on the transfer of such holdings, the restrictions on the cultivation of such holdings will, it is hoped, tend to bring into existence plots of land which can be cultivated at a profit.

Clause 20.—As the transfer of fragmented holdings in contravention of the Act is void, it is necessary to leave open to the transferees of holdings so transferred such remedies as may be open to them under the law for any consideration which they may have paid for the transfer.

Clause 21.—This clause provides that, in partitioning an estate paying land revenue to Government, the Collector shall so divide the estate as not to leave any fragmented holding or to create any new fragmented holding.

Clause 24 prescribes the further procedure to be observed in subdividing the land.

Clauses 27 to 40.—The remedies proposed in Part I are intended to prevent future fragmentations and to eliminate the fragmentations already effected, but these will obviously operate very slowly in eradicating the evil and it would appear that a more radical remedy is called for, if the evil is to be effectively checked in time. It evidently must be similar to the operations now well-known as “town planning” in urban areas. The idea is to demarcate an area in which fragmentation has proceeded very far and to remodel it into holdings which are of a size which can be profitably cultivated and to return the remodelled plots, as far as possible, to the original owners, compensating with cash payments those who will get no land in the consolidated area by reason of their original holdings being too small to entitle them to a new plot, unless they are prepared to make up the deficiency by buying a new plot.

Clauses 41 to 72.—When the proper valuation of all rights and interests has been finally determined by the Consolidation Officer or by the Tribunal of Arbitration, a list in accordance with the decision shall be drawn up and published. This will form the basis of the ultimate settlement when a redistribution scheme for area has been sanctioned.

The scheme will be so framed as to form as many workable economic plots out of the entire area as may be possible and to provide roads and other amenities so that the plots, as redistributed, can be cultivated to the greatest advantage. The old assessments will then be imposed on the new holdings but not in such a way as to increase the amount of land revenue to be paid and the classification of the land will similarly not be changed. Nor will the settlement guarantee be affected. The redistributed area will then be regranted so far as possible to the original holders of the plots which have been reconstituted. The interests of all concerned will then be adjusted on the basis of the valuation which was made by the Consolidation Officer by money payments, such payments being effected, where necessary, by instalments or by means of advances by Government in the shape of tagai loans on easy terms.

The redistribution scheme, when completed, will be submitted to the Governor in Council for sanction and, if sanctioned by him, will be published. The Collector will then grant with a map showing the area and boundaries and the obligations which are attached to the plots and the assessment of other charges on the land. The Collector will then place the holders in possession of the plots allotted to them under the scheme on the date notified in this behalf —*The Hindu*, 16th July.

ON THE METTUR PROJECT.

[The following is the speech of the Hon'ble Sir C. P. Ramasami Aiyar K. C. I. E., Member in charge of law and Irrigation portfolios made in reply to the 'Tanjore mirasdars' memorandum presented by Mr. S. Muthiah Mudaliyar M.L.C. and the address presented by Rao Bahadur Mr. N. Krishnasami Aiyangar of Kumbakonam].

Mr. Vandayar, Mr. Thiruvengadatha Iyengar, Mr. Stoney, Mr. Nilakanta Aiyar and friends—I am deeply grateful to all of you for the opportunity which had been afforded to me, this morning, to be amongst you all and hear what you have to say with reference to the problems manifold, difficult and complicated with which you are now faced. It is my object and it will be my endeavour within the short time, which alone I shall permit myself, to deal with some of the points which have been indicated in the various addresses of which I have been the recipient.

METTUR SCHEME.

“It has been a source of peculiar gratification to me to see the attitude taken up in every one of these addresses unanimously and without dissent, with regard to the Mettur scheme. It is not the object of the Government primarily by means of the scheme to extend the area of irrigation or to desire extra revenue by such extensions. It is and it will be the purpose and dominant motive of the Government to conserve the irrigation of the great delta from whose revenue this province is able, along with the other districts, to pave its way. I desire to emphasise and reiterate that the dominant object of the Mettur scheme is to conserve the waters that now run to waste, the magnitude of which has been brought prominently to light in the report of Mr. N. Krishnaswami Iyengar and to conserve that water and use it for the purpose of regulating, preserving, augmenting, safeguarding and protecting the irrigation of this district. I am glad to have this public opportunity to say that not many days ago on another occasion, a commission has been invited for the purpose of looking into these and other schemes and we are asked to stop the work until that commission finished that enquiry. That request came to me and it appeared to me strange considering that those who were there, were parties to the scheme. The late Ministry were the consenting parties to this scheme at every stage. (Applause). The late Ministry were present at the meetings of the budget, and when preliminary details of the scheme were settled. They were present when I approached the Legislative Council to establish a precedent for the procedure and asked the Council to vote a particular sum. Unanimously and without a dissentient voice the accredited worthy representatives of this presidency said “yes” and today because of political reasons, I do not say any more we are asked to stop that scheme. Why? Because people who were the consenting parties to the scheme, whose signatures are on the files have changed their

minds by forces which they cannot resist. My friends this morning's demonstration and addresses are a refutation of the idea that there is something rotten about the scheme, fishy about it; corrupt about it; and that therefore the scheme must be stopped and a commission should be appointed. We are also asked to infer that there is something so wrong in the execution of this project and that the interest of the general tax-payer is so neglected and humiliated that they ask us to pause until further steps are taken. We are not acting by ourselves but on the best advice, one can get. It may be that Mr. Stoney is unfit, that Mr. Mullins is unfit, it may be I am unfit and it may be that all of you may not know your own interests. But I assert and assert with vehemence and I desire to place faces before you that it is unlikely and it is almost impossible that all of us should go wrong altogether and that all of us should be corrupt in a body and that all of us should desire to ruin the Tanjore district.

HISTORY OF THE SCHEME.

What I want to tell you is that the Mettur scheme is not the creation of yesterday or to-day. For 50 long years the matter has been under consideration and negotiations had started and proceeded with the Mysore Government. After the agreement of 1892 entered into by the late Sir Seshadri Aiyar on the one hand and by the Government on the other there were some difficulties encountered. Madras thought it was not well treated and therefore nothing could be done. Those natural inherent rights of which I heard so much in the address by Mr. S. Muthiah Mudaliar and presented by my friend Mr. Vandayar and those rights which were insisted by Mysore men, needed reconciliation. Therefore there was a protracted series of negotiations. Helped by my friend Mr. Hawkins and Mr. Narasimha Iyengar whose labour I must acknowledge in this connection and helped by the Regident of Mysore and helped by the spirit and compromise and the policy of give and take, which animated His Highness the Maharajah of Mysore whose instincts for fair-play and justice are well-known we came to some kind of compromise. No compromise satisfied both parties. The result of it was that 31,000 acres of lands were converted as the basis of that compromise in regard to irrigation. We were also given certain liberties with regard to certain tributaries of the Cauvery. So after 50 long years of discussion and after 20 years of

negotiations between Mysore and Madras we started this work. Was it a very hurried performance? Was it clandestinely done? Surely I have heard that the wheels of government ran very slow but they must be very slow unless indeed 32 years is considered as a period of haste and restless activity. In the year 1925 I said that the object of the scheme was firstly to conserve and protect the irrigation of the Cauvery delta and secondly and secondarily not primarily, the extension of the irrigation to certain upland tracts of the Tanjore district which stand in need of life-giving water and irrigation. The neighbouring districts picked up their claims. Salem and Coimbatore presented insuperable obstacles and Trichinopoly made similar claims and considerations. But one thing which I desire to assure you, my friends, that it is not the endeavour and it will not be the intention of the Government to derogate from any of the natural rights and prerogatives of any district merely in order to attain cheap popularity. The policy of divide and rule does not animate me and my Government of which Viscount Goschen is the chief. We shall if possible and certainly have to benefit the neighbouring districts. If it is not possible either from financial or from engineering points of view we shall say 'halt'. We have not given false hopes and we have not struck the note of despair and that is where the position stands. I say that the Mirasdars of the Tanjore district may rest assured that their natural and fundamental rights will not be departed or derogated from.

"In the address there have been various complaints put forward as to the alleged neglect of the Cauvery delta. The only thing I desire to mention, with Mr. Stoney on the right and Mr. Nilakanta Aiyar on the left, is that they have been anxious to do something for the delta."

In this connection the speaker mentioned the various schemes proposed by the department which would be carried out in the near future and the expenditure of which would come to 45 to 50 lakhs and the Law Member assured the Mirasdars of Tanjore that whatever might have been the case 10, 20, or 30 years ago within the last few years an attempt had been made to co-ordinate the problems in the district from Tiruthuraiipoondi up to end of the district and the idea was to deal with a comprehensive programme, in the matter of silt clearance, conservancy and other improvements.

KATTALAI DAM.

Dealing with the Kattalai Dam the Member in charge of Irrigation said, "This Kattalai Dam is another major question which has been raised. This question has been carefully examined by our Engineering experts and they have pronounced that it is not detrimental to the interests of the Tanjore district. In the old days the korambu system was really a remedy, a costly, inefficient, protracted, wasteful remedy for what is now sought to be grappled with a bed regulator. Many of the channels are of a higher level and korambu made that deficiency. The idea in it is to improve the waters of the river without attempting to get that water to the detriment of the Tanjore irrigation. I say that you may take it from me that neither the Government nor even the Trichinopoly Mirasdars would have insisted upon it and it appears to me this is a matter on which a full and heart to heart talk between these Mirasdars helped by the Engineers may be of some use, so that there may be no feelings left that an attempt is being made either to deprive one district or the other of its rights. What I can say is that the Kattalai regulator is to serve as a substitute for the transient korambu which has been in vogue for years in the Trichinopoly district. If you think that its effects are more comprehensive than in the case of the korambu that aspect may be pointed out and remedies will be found out.

PRESENT PROGRAMME OF THE METTUR PROJECT.

Coming to the Mettur-project again, he said: "The present project, I hope will not take very long to complete. The programme is that in 5 years from now, the project must be completed and in coming to that conclusion the Government have been influenced by two different ideals. There has been a considerable discussion in the newspapers and in the Legislative Councils, not always helpful, with reference to the use of machinery: It has been suggested that Government and myself have suddenly fallen in love with European machinery. If I thought for a moment that the compensating advantages in favour of manual labour outweighed the machinery, I assure you openly that I am sufficiently an Indian, sufficiently a public man, notwithstanding my present position, sufficiently a patriot, whatever others may say, to discard European machinery if the only result of that machinery is to benefit European capitalists. By the use of machinery you are

shortening the period of construction of the Mettur-project from 7 or 9 years to 4 or 5 years. Look at the difference in revenue from the points of view of Government and the extension of irrigation from the point of view of the ryots. I know my Chief, Viscount Goschen, does not go merely to benefit makers of machinery nor to do injustice to the people of this country. He like his predecessor has adopted this country for 5 years. It is their land of adoption. It is for its benefit they are bound to work. Why do people believe that I am going away from the country. I have to live amongst you. (Cheer). I want you to realise the fact that it is only to speed up the work, we have to use machinery.

In conclusion he said that the efforts of the Department of Public Works would continue strenuously and hoped that the officers of the department would remedy some of the grievances indicated in the address and would bring prosperity to all. He once again thanked them for the opportunity given to him to be there that morning.

Mr. T. K. Krishnaswami Naidu then drew the attention of the Hon'ble Member to a recent Government order where in it was stated that the present assessment would be enhanced if water was supplied to the delta land and wanted to enlighten him on that point. The Hon'ble Member in reply said that it was only for lands which were newly supplied with water and not for the existing wet lands.—*The Hindu* 8th July 1927.

BRITISH HOUSE OF COMMONS.

17TH JUNE DEBATE.

Indian Agricultural Problems.

Mr. Milne (Unionist) said:—There were two problems connected with agriculture which must be solved before we could bring India into a greater state of prosperity. There were, first, the enormous extent to which land was subdivided or split up into little bits, which made it impossible for the cultivator to find anything like full employment on his holding; and secondly, the system of money lending under which a large proportion of people were

born in debt, and died in debt. He hoped the Royal Commission on Agriculture in India would find remedies for these outstanding problems of Indian life.

Mr. Johnston (Dundee-Labor) referred to the proposals which he said he made 12 months ago, and which the Under Secretary promised to carry to the Secretary of State in order to see whether anything could be made of them with a view to bettering the position of the Indian ryot and, at the same time, materially affecting the unemployment position in this country (The United Kingdom). Since that time the proposals he had made had been endorsed by responsible officials of the Government of India who gave evidence before the Linlithgow Commission on Agriculture in India. The fact could not be disputed. The whole of the agricultural population in India were sunk in appalling poverty and wasted by periods of famine and disease. The average income of the population was not more than £ 4 per head per annum. In the Presidency of Bengal the average holding of land was between one acre and two and a quarter acres, and 71 per cent of the males died before they reached the age of 30. The people could not get enough to eat. What was to be done to remedy that state of things? It seemed to him that there was only one thing that they could do—he was leaving the political side out of the question, because the economic aspect was fundamental. They must increase the purchasing power of the peasant cultivator of the soil. He thought it was exceedingly simple. There were 750,000 villages. The people of those villages bought 7s. 4½d. worth of goods from Great Britain every year. If they could increase their purchasing power by ½d. per week, say 2s. 6d. per year, they would increase British exports by £ 40,000,000 per annum, and that would have some effect on British unemployment. The Indian ryot has not got a plough: his methods were primitive almost beyond belief. We could set every engineering factory in this country busy and abolish all the unemployment in the heavy metal trades, if we got our manufacturers to make the machinery and implements necessary for the agriculture of India. If, in addition, we sent out that machinery on loan for 3 years, free of interest, the saving of our “dole” money would more than meet the loss. We should also have to see that no increase of rent was permitted against the Indian ryots, and something would also have to be done in regard to money lending there. According to the “New York Times” of

March 17, a Captain Arthur Herbert Vaughan Williams was busy in Florida and would ask the British government for permission to import several thousand Hindu laborers. He fancied such permission could be obtained easily enough. These laborers according to this gentleman, should be brought over for a period of 3 to 5 years, and paid at the same rate they were being paid at home, with their board and keep provided; they could live on a handful of rice a day and it would cost little enough to keep them. It was to be hoped that Lord Winterton would disavow any association with that propaganda.

Earl Winterton (*Under Secretary for India*) said that the question of agriculture, for instance, was a *transferred provincial subject* and it was an axiom that the Secretary of State never attempted to interfere with a transferred provincial subject. In fact, the Secretary of State and His Majesty's Government had less control over such matters than the Board of Education or the Ministry of Health had over many matters which were dealt with by local authorities in the United Kingdom.

The Royal commission on Agriculture had been asked to enquire into many of the subjects which have been raised during the debate. Evidence was given before the Commission by high officials of the government on their own volition; and they did not necessarily represent the views of the government. The terms of reference included the promotion of agricultural research, experiment, demonstration and education; also the investigation of measures for the introduction of new and better crops, and for improvement in agricultural practice, dairy farming and stock. Reference had been made to the conditions in Bengal. He advised the members to await the report of the Royal Commission on Agriculture in India before suggesting any solution of the difficulties,—under which agriculture was carried on in India. As for his own personal opinion, he did not feel at all sure that the Commission would find that all the complaints made about the backwardness and apathy of everybody concerned in Indian agriculture would be found to be justified. Reference had been made to the subdivision of the land in Bengal. He thought it was admitted that it had reached a point where it had ceased to be economical. There had been in recent years land available for settlement under irrigation schemes in other parts of India.

Efforts had been made to induce cultivators to leave Bengal and take up some of this new land, but they had refused to go. One of the difficulties was to induce the people to remove from one province to another.

As to the criticism of the methods of cultivating land in India an old and experienced Scottish agriculturist who was the superintendent of a plot of government land at Bombay, held for experimental purposes, remarked to him when he was there last January, that perhaps the Royal Commission on Agriculture would find that much derided wooden plough which had been in use three or four thousand years, still remained the best implement of the kind in India. At the same time efforts were being made through Cooperative societies and the agricultural departments of the various provinces to introduce modern machinery where it could usefully be used. As to the extortions which the cultivator endured from moneylenders and landowners, it had been the constant endeavour of the Government of India to provide protection against landlord exaction; and measures had been successfully taken in some provinces, though not in all, to prevent the growing evil of usury.—*Justice* 16th July.

AMERICAN LETTER.

PART IV—IN JAPANESE WATERS.

Dear Friends,

As the ship entered the native waters of Japan and was heading its way towards the port of Kobe (pronounced Kobay), the joy and enthusiasm of the Japanese passengers and the ship's crew—all of them were likewise Japs)—knew no bounds; the words of the poet instinctively escaped my lips—"Breathes there a man with soul so dead who ne'er to himself had said. "This is my own, my native land." I ejaculated this was a natural feeling and said to myself "which Japanese would feel otherwise when he reaches his motherland and finds the favourite flag of the rising sun floating over a thousand boats and buildings." Oh! it is no ordinary pride to feel oneself belonging to a nation which has its own army and navy and can boast of a national flag."

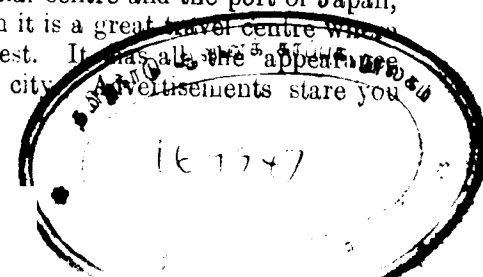
A few hours before the ship came along the landing quay, the Japanese consular, custom and quarantine officers boarded the ship. The quarantine officer reviews all the passengers to examine their general health and the custom officers of whom several came into the ship thoroughly examine the packages of passengers, collect taxes on dutiable goods and issue passes to every package which alone assures the entry of one's belongings into the Japanese soil. At the same time the consular officer examines the passes and papers of all non-Japanese passengers and puts his *visa* on the passport allowing the holder to enter into or pass through Japan.

While these ceremonies are gone through a crowd of baggage agents and coolies rush in, but there is no trouble. Your luggage is taken only with your permission unlike as in some railway stations in India where your things are snatched and taken away by porters before you have well nigh alighted from the train. Your baggages could be safely handed over to these men who give you a printed voucher for each baggage and you can leave the ship with instructions as to where your things are to be brought. They will be at the Railway station or at your hotel by the time you reach or even earlier. The charges are however heavy compared to what we pay in India. I had to pay at the rate of 50 sen (12 annas roughly) for each samman whether a small handbag or a headload, to be brought to the station 4 furlongs away. The crowd on board our steamer was great that it took me one full hour to descend to the shore by the gang-plank and to set my foot on Japanese soil. Most of the ship's passengers disembarked her, leaving very few behind who were bound for Yokohama by the same ship in 3 or 4 days.

At the port of Kobe I halted about 10 hours before taking train to Yokohama and this short interval was made use of to roam about and get some ideas of the place.

The weather was to me, at any rate, almost unbearably chill with a slight drizzle and a freezing breeze- the thermometer standing at 39°.

Kobe is the largest commercial centre and the port of Japan, next to Yokohama and in addition it is a great travel centre where all ocean liners arrive from the west. It has all the appearance and grandeur of a busy modern city. The advertisements stare you



on all sides both in English and Japanese mostly the latter and even on the garments of passersby, you find them. Being the home of the rickshaw, one need not be told that these are found in thousands, though the motor car is not uncommon. Japanese newspapers and illustrated journals are sold in the streets by hundreds and both men and women peruse these very commonly.

Here I came across the typical Japan man and woman, in their native heath by the hundred. These, especially the women in their picturesque native garments and their fantastic hair dressing are like dolls dressed in colors and to the stranger these figures moving along the pavements at a rather quick trot making the rythmical tick-tack round with their wooden sandals afford a very pleasing though novel sight.

It was here that I saw for the first time fresh milk (warm or cold) sold in clean sealed bottles.

From Kobo I left by an express train for Yokohama—a distance of 374 miles. No inconvenience of any kind was felt at the Railway station in getting myself and the packages booked, since the Japanese "Akabo" as the redcapped porter is called, arranged everything; he talks fairly good English and tells you the timings of the trains, has a pocket timetable with him and knows the names of all arriving and departing steamers as well. The booking officer was a small smart Japanese girl and was very obliging to me.

The night was extremely chill, but since the whole train is heated with steam the cold was not so very much felt during the journey.

Important stations *enroute* to Yokohama are all beautifully lit and very busy. I found Japanese passengers both in the steamer and in the train extremely courteous and obliging though they talk very poor English and I don't think this is a disqualification at all. Why should they be proficient in a foreign language like you and me, when they can get on very well with their own mother tongue? You can easily imagine how much a stranger gets upset when he alights at a very big and busy railway centre. The train covered the distance in 13 hours and by 8 in the morning the Japanese metropolis was reached.

Yokohama railway station is very many times as big as the Madras Central Station and its crowd will be 50 times the crowd in Madras. In spite of the severe losses and destruction caused by the recent earthquakes signs of which are evident all over the place, the great city is recovering, they say, in gigantic proportions and in greater grandeur like the Phoenix out of its funeral pyre. The whole city and the various municipal and other arrangements are all more or less on the American model. Rickshaws and motor cars, street cars and overhead railway and the teaming crowds—all these fill the stranger's mind with a very great admiration for this oriental nation which has come to occupy a proud position among the foremost of the world within 50 years. There is of course still a considerable amount of oriental and picturesque atmosphere though modern things are unfortunately overtaking and replacing many an old and remarkable national feature.

During the next 24 hours' stay in this city, it was not possible to see much of what one could have wished, especially was it almost impossible in such very disagreeable weather. The cold blast of Yokohama was icy and ice had fallen a few miles north that day; the breeze was so strong that it was found very difficult to walk along roads safely.

The display of Japanese Chrysanthemums in a flower market was an unforgetful and grand sight. The graceful manner in which friends greet each other by bowing in their characteristic manner—sometimes two or three solemn and slow bends of the head—is another excellent national custom one often finds and is eager to emulate. The display of silks of various qualities and colors is a thing which can be found nowhere else in the world.

The following day found me again on board a Japanese ship bound for America this time a huge ocean liner of about 20,000 tons gross tonnage—"Siberia Maru" (maru=ship). Though unfortunately I missed this boat at Hongkong, it was satisfactory to note that the same ship was still at Yokohama and my berth still reserved and kept for me. There were at least 500 passengers going to Hawaii or America and not less than 3 or 4 thousand others come to bid good-bye to the passengers. I can never forget the most wonderful and moving scenes at the Yokohama harbour just when the huge liner was preparing to start for the New World.

I was moved to tears myself when I saw a middle aged Japanese lady taking leave of her young son—a youth of about 22, who was going to Mexico to work as an oil engineer in some mines. She wept and prayed, prayed and wept, would come up to the ship, bid farewell to the boy and go back and again come up thus two or three times I noted and was very much moved.

Apart from this there was another thing which, they say, is a unique custom among the Japanese and that was this:—Long paper ribbons of all colors are held by the ends by passengers on the ship and their relatives on the quay and as the steamer slowly moves accompanied by the songs, farewells and band, these ribbons get unwound for long lengths till at last they break leaving some pieces on the ship and some on the shore; this scene was a very moving and wonderful one (I have a photo of this most wonderful scene with me).

As the steamer moved from the harbour a splendid view was obtained of the magnificent icebound Mount Fujiyama in all its glory. Just as we hold some of our mountains sacred all the Japanese regard *Fuji* in great reverence. A thing that amused me very much took place as the ship was leaving Yokohama harbour. A number of Japanese policemen with electric torches searched every nook and corner of the ship to see if there were any 'stowaways' and they returned to port in a steam lunch after this procedure. The ship sounded its final shrill *siren* and entered the great ocean heaving towards the Antipodes.

San Francisco: dated 3rd June.

T. V. R

RANGE OF VISION IN INSECTS. It has been stated on good authority that the range of vision in butterflies is limited to a distance of only 3 or 4 ft; but from personal observation on various species of butterflies, as well as many other insects, I am inclined to say such a range is much under-estimated. As an instance of the acuteness and power of vision of an insect which appeared almost incredible I am able to give the following fact: On May 30 last, while walking beside a hedge growing on a bank which had the top trimmed flat, in all standing about 6 ft. high I happened at the moment to be watching a queen wasp in very rapid, steady flight, going in a "beeline" over the hedge, some 7 or 8 ft. above it. Just as it passed over a large ichneumon fly

suddenly darted with great swiftness from the top of the hedge in an oblique direction with the course of the wasp's line of flight, and to my astonishment, its direction of flight was so accurately judged that it struck the wasp from beneath. The impact hurled the wasp completely over, but, quickly regaining its balance, it continued on its course; at the same moment the ichneumon fly darted back to its resting place on the hedge top. Such a feat could be accomplished only by remarkably accurate judgment of direction and speed, combined with acuteness of sight on the part of the ichneumon enabling it to strike its victim with such accuracy. The distance from the hedge to its striking point was about 12 or 14 ft. and the wasp's nearest approach to the ichneumon as it passed over was about 7 or 8 feet. A few hours afterwards I saw apparently the same species of ichneumon (which I was unable to secure for identification owing to some tall palings on private property) at rest on about a butter-burr leaf in the sunshine. A fly passed over and the ichneumon instantly darted upwards at it, but just missed its mark and as quickly again returned to the leaf and took up its former position facing the sun. In a few second's time it repeated its attack on another passing insect, to its evident amusement. F. W. Frohawk.

Y. R. R. (From the "Entomologist." Vol. 60 No. 770.)

APRIL RAINFALL IN MADRAS.

District.	First Half.	Second Half.	Mean average in month.	No. of rainy days	Mean average rainy days	
Ganjam (Littoral)	0.06	0.17	1.11	0.6	2.0	} Circars.
Vizagapatam do.	0.12	0.28	1.07	0.8	1.8	
East Godavari plains	0.02	0.03	0.64	0.2	0.9	
West Godavari	0.13	..	0.62	0.1	1.0	
Kistna	0.26	..	6.65	0.8	1.03	
Guntur	0.05	..	0.57	0.2	0.9	} Deccan
Kurnool	0.05	0.01	0.61	0.1	1.02	
Bellary	..	0.03	0.72	0.1	1.6	
Anantapur	..	0.06	0.64	0.1	1.2	
Cuddapah	..	..	0.48	..	0.9	

Districts.	First Half.	Second Half.	Mean average in month.	No. of rainy days	Mean average rainy days	
Nellore	0.10	0.11	0.39	0.4	0.6	Carnatic
Chingleput	0.05	0.22	0.49	0.7	0.7	
Madras	...	...	0.63	...	0.8	
South Arcot	0.16	0.92	0.79	1.8	1.1	
Chittoor	0.03	0.04	0.72	0.3	1.3	Central.
North Arcot	0.15	0.36	0.77	1.3	1.3	
Salem	0.32	0.46	..	2.1	...	
Coin.batore	0.32	1.02	...	2.7	...	
Kollegal	0.36	0.04	2.06	1.0	3.8	
Trichinopoly	0.54	1.02	1.36	3.1	1.9	
Pudukotta	0.14	1.49	1.35	3.3	1.2	
Tanjore	0.20	1.47	1.0	3.3	1.6	South.
Madura	0.90	2.43	2.04	5.6	3.1	
Ramnad	0.29	4.26	1.81	4.9	2.6	
Tinnevelly	0.13	4.32	1.84	3.9	3.1	
Ganjam Agency	...	0.19	2.25	0.8	4.3	Hills.
Vizag. Agency	0.09	0.57	2.05	1.5	3.8	
East Godavari Agency.	0.30	0.35	1.73	1.4	2.5	
Kodaikanal	1.67	3.89	4.86	8.0	7.0	
Yercaud	0.53	0.98	2.32	6.0	4.2	
The Nilgiris	0.91	1.81	3.18	4.7	5.8	
Anamalais	1.50	3.0	...	8.0	...	
Coorg	0.57	0.88	2.88	3.7	5.2	West Coast.
South Kanara	0.02	1.53	1.43	2.3	2.1	
Malabar	0.13	2.48	3.0	3.9	4.4	
Cochin	0.02	2.86	3.06	3.5	4.9	
Devikulam	0.94	3.14	5.07	8.1	8.0	
Kottayam	0.50	3.01	5.40	5.6	7.5	
Quilon	0.38	4.01	5.21	6.1	7.4	
Trivandrum	0.11	4.82	3.54	6.3	5.6	

N. B. Rainfall figures in inches. Mean averages are for a period of over 50 years in most cases.

DEPARTMENT'S WORK.

FEBRUARY.

Weather. This month was characterised by bright weather. There were moderate showers in the second week and in Tinnevely in the last week which improved the prospects of cotton in that district. Irrigation supplies were generally inadequate and standing crops were below the average especially in Guntur and Deccan.

Waltair Circle. At the Anakapalle station there was a welcome rainfall of 1.83 inches. Paddy harvest was finished and good yields were obtained. Green manure crops that had been grown enabled the paddy to resist the drought which affected crops in Vizagapatam.

Guntur Circle. Sugarcane cultivation is on the increase round about Jedlapalle where a demonstration in the use of the Sindewahe furnace attracted large numbers of ryots.

Bellary Circle. A demonstration with Kirloskar mill and Sindewahe furnace was given and exhibitions were held at Bellary, Kalyandrug and Kottur.

Madras Circle. The month was rainless and yields of paddy and sugarcane were below normal. 50 ploughing demonstrations were given and exhibitions were held at Tiruvettipuram and Avadham.

Trichinopoly Circle. The month continued hot and dry. A few showers did more harm than good. In demonstration areas improved methods gave better yields.

Madura Circle. Occasional showers were received. A number of lectures and demonstrations were held during Janabundi camps, local festivals and health week.

West Coast. There was no rain. Harvest of second crop paddy was completed and the third crop was sown. Series of lectures and exhibitions were given to the Military Camp and to lady students, Cannanore and at the 'Tenants' Conference, Mullasserri. The pepper crop at Taliparamba was harvested and gave higher yield viz. 7090 m. m. green.

Coimbatore Circle. Intensive propaganda work was undertaken.

MARCH.

Weather. This month was generally characterised by bright weather. There were moderate rains in Ganjam, Vizagapatam and the Nilghiris in the first week of the month, fair rains in Ramnad in the first and second weeks, and heavy rains in Tinnevely in the second week.

Irrigation supplies were adequate only in East Godavari, Kistna and Tanjore and generally inadequate elsewhere.

In Ramnad and Tinnevely, the rains damaged part of the cotton crop which was in the process of maturing; the rains were however, beneficial to the late sown crop in the south of the tract. Standing crops in parts of Nellore, Chittoor, Coimbatore and Madura were adversely affected by the unfavorable season. Dry crops in parts of West Godavari, Guntur, Anantapur and Trichinopoly were not satisfactory. Prospects were not good especially in parts of the Deccan.

Waltair Circle. A small exhibition was put up at Ramachandrapuram where the Collector held a ryots' conference. At Anakapalle cane harvest was in progress and the planting of early crops for a September cutting was completed.

The big demand for paddy seed was met.

Guntur Circle. Demonstrations were held at Buchireddipalayam, Yerukulapudi, Govada and Kottapakonda. Several iron ploughs and large quantities of green manure seed were sold.

Bellary Circle. The month was hot and dry. Cotton picking was finished. Second crop paddy and ragi on wet lands were harvested and milling of canes was completed. Arrangements were being made to help ryots with advance of money and of cotton seed in season for recovery of value next harvest season.

Madras Circle. The month was rainless. Demonstrations of No. 12 Chattanooga mill and Sindewah furnace are proving very effective. Exhibitions were held at Kalahasti, Mailam and Melmalayanur.

Trichinopoly Circle. Weather continued hot and dry. Green manure crops were drying up. Paddy seed was being distributed and the significance of the useful results obtained in the Tanjore Cooperative Society farm was vividly made known to the ryots.

Madura Circle. Demonstration and propaganda work in connexion with manures, ploughs and seeds were in full swing and officers attended the Kelugumalai cattle fair and Kallar Sports.

West Coast. Hot and dry weather prevailed. In result, pepper vines suffered severely and flowering of coconuts was retarded. The *Spodoptera* campaign was rigorously prosecuted.

Coimbatore Circle. Again a rainless month was recorded and shortage of water was felt. An exhibition was held at Kollegal and this tract was taken up for demonstration work.

Livestock. The long drought caused a good deal of anxiety on all cattle farms. There was no grazing. Crops failed or were poor but the silage available considerably eased the situation.

MADRAS AGRICULTURAL LOWER SUBORDINATES' ASSOCIATION.

Fourth Annual Conference 12th July 1927.

President, G. R. HILSON Esq. B. Sc.

Report of the Working Committee for the year 1926-27. The Working Committee of the Madras Agricultural Lower Subordinates' Association beg to submit the report for the year ended 30th June 1927.

The Committee feel extremely glad to announce that the Association has just entered on the 6th year of its existence. Since its inception in 1921, the Association has been doing useful work in all directions towards the betterment of its members. It has twice sent in memorials to Government; it has waited upon the Director of Agriculture and made representations to him; annual meetings were held and resolutions passed and communi-

cated to proper authorities. All these have had as their aim the increase of the salaries and the acceleration of the chances for promotion by absorption of Lower Subordinates to the Upper Cadre or by affording them facilities for higher studies.

The last Annual Conference was held on the 12th July 1926 under the Presidency of Mr. A. C. Edmonds, B. A., Deputy Director of Agriculture, I Circle, when Messrs. R. C. Broadfoot, C. Tadulingam G. N. Rangaswami Ayyangar and Rao Saheb Y. Ramachandra Rao were present. After an interesting discussion, the following were the resolutions passed and communicated to the authorities concerned and the replies thereon.

"1. This Association prays that the Government may be pleased to sanction the promotion to the Upper Cadre of Lower Subordinates of approved service and to issue early orders. Director's reply "This is being done".

"2. This meeting requests the Director of Agriculture to consider an increase in the higher posts of the Lower Subordinate service and a proportionate reduction in the number of sanctioned posts in the Lower Grade as early as possible." D. A's reply "This can only be done gradually"

"3. This meeting begs the Director of Agriculture to secure for Farm Managers and Assistant Farm Managers on all Farms rent free quarters or a house allowance of Rs. 20 per mensem. They also request that in all cases suitable quarters be provided." D. A's reply "Government have definitely decided against the grant of free quarters for anybody."

At the close of the Conference, approval was given of the election of the following as office-bearers for the year 1926-27.

Messrs. T. V. Rajagopalachariar, President; S. Ramaswami Raju, Vice-President; R. Narasimhan, Secretary; M. S. Purnalingam Pillai, Assistant Secretary and Treasurer; C. V. Sankaranarayana Ayyar, and P. S. Suryanaraya Ayyar, Auditors.

Mr. Narasimhan resigned his Secretaryship and Mr. Purnalingam Pillai took his place. Mr. P. M. Appasami Pillai was transferred and S. Muthusamy Aiyar was put in.



Madras Agricultural Lower Subordinates' Association.
Fourth Annual Conference.
July 12th 1927.

The representations to the authorities and the replies thereto were duly printed and communicated to members. The committee, however, regret to note that the representations submitted have not met with adequate response from the authorities concerned and not much advance has been made in increasing the salaries and raising the status of the Lower Subordinates.

In the year under review, only three Lower Subordinates, viz., Messrs. V. Shenoi, T. S. Aziz-ud-din Sahib and P. S. Venkusan Ayyar were promoted to the Upper Subordinate cadre. A few promotions also were made from the last three grades.

It may be seen from the above that at the end of 5 years out of its 127 members only eight have been promoted and that this rate of promotion is slow, halting and disappointing. Were this proportion to be continued, it would, the Association apprehends, take an infinitely long period, almost a generation for complete absorption and most of the incumbents who are anxious about their future may not have chances to be benefited by the concession.

The Lower Subordinates, as you might see, are started on a low salary of Rs. 45 and have to struggle on with a small increment until they reach Rs. 75 where they have to stagnate, whatever may be their length of service, until a vacancy occurs in the higher grades, the number of appointments in which are disproportionately low. Thus chances for absorption to the higher cadre have already been seen to be very meagre and this is aggravated by still continuing to recruit to the Lower Grade and above all by completely blocking up the access to the Upper Subordinate cadre by the abolition of facilities for special courses. Thus the position of the Lower Subordinates is not better than what it was 6 years ago. And one who is recruited to-day would not reach the 1st Grade until it is time for him to retire.

Our condition, therefore, will not be materially bettered by these alluring hopes and the only solution, in our opinion, lies in the revision of pay on the lines suggested by the Madras Agricultural Students' Union in 1924, which, all will concede to be, the very minimum of our requirements in the circumstances.

Gentlemen, we are very lucky that for this year's Conference the Committee has been able to secure the sympathy of Mr. G. R. Hilson, the seniormost officer of the Department to guide our deliberations. And we hope with his guidance this meeting will usher in a more prosperous year.

We take this opportunity of thanking our President, at the last Conference, Mr. A. C. Edmonds, for his very sympathetic attitude towards the Lower Subordinates Association and guiding its deliberations.

We also offer our grateful thanks to our Director for his good-will and magnanimous attitude in dealing with our representations.

Gentleman, notwithstanding a small percentage of promotions of Lower subordinates to Upper Cadre, and a few promotions in the grade itself, it has tended but little to ease the situation of the Lower subordinates. The lack of sufficient response from the authorities to our representations and the consequent sensations of pain and depression, which this occasions, should not dishearten us but on the other hand should stimulate us to further work and make us more cautious, wary and prudent, so as to be more useful to the Department. It is very disconcerting, gentlemen, that there are still Lower Subordinates who stand outside the Association with perfect indifference and unconcern doubting the usefulness of an Association of this nature. The activities of this Association should not be measured by the achievements made so far which may appear to be meagre and disappointing but the ultimate potentialities of furthering the cause should be visualised before they sit in judgment on the Association. With all these misgivings, Gentlemen, we feel convinced as ever, that this is the *one and the only medium* through which our grievances could be represented to the authorities so as to get them redressed. We might also mention for the enlightenment of those non-members that, though it has not materially improved out lot in any striking degree, it has at least made the authorities realize the existence of an honest and hardworked set of people like the Lower Subordinates and beset with innumerable difficulties as it was, the Association has honestly endeavoured to bring to the notice of the authorities their legitimate grievances.

Humble as our position is, being more or less in the bottom-most rung of the official ladder of this Department, we beg to assure the authorities, that we form a very useful and indispensable link between the Department and the ryots. And as such the interests of the Department are indissolubly bound up with our interests. We beg to submit that the Department will stand to gain in the matter of Agricultural advance, which all people have at heart, in making this set of people contented, by raising their status and increasing their salaries. We hope this aspect of the work of the Department will not be lost sight of by the Departmental officers. And we feel convinced that the training given to us in the Agricultural College has eminently fitted us for the discharge of duties entrusted to us.

The Committee may also offer a note of warning to the Lower Subordinates, in that they should not be misguided so as to believe that anything and everything will be achieved by this body. While they are striving hard to impress upon the authorities the necessity to have a sympathetic attitude towards us the Committee feel it their duty to exhort one and all of the Subordinates to exert themselves to the maximum in the discharge of their duties and make themselves more and more useful and indispensable to the Department.

With the active sympathy of the officers of the Department under whom it is our privilege to serve, the Association hopes that better days are in reserve for the hard worked Lower Subordinates. But the committee takes this opportunity of making a fervent appeal to you, *Experts and Circle Officers*, who have assembled here to guide our deliberations to extend a helping hand by actively sympathising with our aspirations in order to lift us up, from the sad plight in which we, the ill paid and half starved Lower Subordinates find ourselves plunged and thus earn the eternal gratitude of this set of helpless officers.

BALANCE SHEET.

RECEIPTS.		CHARGES.	
By cash on hand on	Rs. A. P.	Expenditure during the	Rs. A. P.
18-7-1926	... 110-4-7	year	... 13-9-6
Admission fee	... 1-8-0	Cash on hand	... 113-11-1
Arrears of subscription.	5-8-0		
Other receipts	... 3-8-0		
Interest from Bank	... 6-8-0		
TOTAL		Total	
... 127-4-7		... 127-4-7	

May God Almighty help us in all our endeavours.

M. S. PURNALINGAM,
Secretary.

Resolutions passed:—

1. "The Madras Agricultural Lower Subordinates' Association in their Annual Meeting assembled to-day offer their respectful congratulations to R. D. Anstead, Esquire, M. A., on the C.I.E. conferred on him and hope that in due course his services to Madras ryots will receive greater recognition at the hands of Government."

2. "Since, in spite of the sympathetic attitude of successive Directors and a clear reference in the College Calendar, it has been found difficult since 1922 for the Lower Subordinates to be admitted to the Higher Course and qualify themselves for the Upper grade, this meeting requests the Director of Agriculture to move the Heads of Sections and Circle Officers to give such training as they consider fit to equip them for the Upper Subordinate grade."

3. "Resolved that the Director of Agriculture be requested to move Government to revise the grades of pay of the Lower subordinates' service as follows:—I. 45—3—75, II. 85—5—120. and that the number of posts in the two grades be in the proportion of one post in the higher to two in the lower."

Messrs, R. O. Iliffe, A. C. Edmonds, D. G. Munro, C. Tadulingam, D. Balakrishnamoorthy S. Sundararaman, M. Govinda Kidavu, Rao Sahib Y. Ramachandra Rao, and G. N. Rangaswami Ayyangar were also present and helped with their valuable suggestions.

Mr. G. R. Hilson, through his tact, practical sympathy and shrewdness was able to conduct the deliberations successfully.

At a later meeting Office bearers for 1927-28 were elected, they were:—

Messrs. T. V. Rajagopalachariar (President); V. Muthuswamy Aiyar (Vice-President); M. S. Purnalingam Pillai (Secretary); P. S. Suryanarayana Aiyar (Assistant Secretary.) Members:—R. Narasimhan; K. M. Venkatachalam Pillai; and C. V. Sankaranarayana Aiyar.

Circle Representatives:—R. Sitaramiah (Waltair); V. V. S. Varadarajan (Guntur); K. Hanumantha Row (Bellary); P. Janikarama Aiyer (Madras) Seetharama Aiyer (Trichinopoly) C. J. Balraj (Madura); P. Kannapa Nambiar (West coast); G. K. Subramania Aiyer (Coimbatore); T. D. Eswara Aiyer (Nilgiris); Narasimma Sastriar (Livestock).

Auditors:—Messrs. C. K. Subramania Aiyer and U. L. Srinivasa Row.

MADRAS AGRICULTURAL STUDENTS' UNION, Sixteenth College Day and Conference.

JULY 9TH TO 14TH

(a) *Report of the Union for the year ending 30th June 1927.*

MR. PRESIDENT, LADIES AND GENTLEMEN,

The Working Committee of the Union beg to submit the report for the year ending 30th June 1927.

Two Outstanding Events. The year 1926 was unique in the annals of this Institution in respect of two matters which are of more than local or provincial importance. The Committee refer to the *celebration* in July last of the *Golden Jubilee* of the introduction of Agricultural Education in India and to the *advent of the Royal Commission* in October.

It was a very happy coincidence that the new building for housing Teaching Sections was completed almost on the eve of the College Day and advantage was taken to combine the two functions of the opening of the "Freeman Building" and the celebration of the Jubilee.

Largely through the unstinted support and active co-operation of Messrs. R. C. Broadfoot and R. D. Anstead, the functions were a tremendous success.

On behalf of the Union, Mr. Anstead invited His Excellency the Governor and Viscount Goschen was graciously pleased to accept the invitation and opened the Freeman Building on the 9th July in the midst of a very large gathering of guests, visitors and members of the Department. In the spacious halls of the new building the several sections at the College had put up a very *comprehensive and instructive exhibition* which was kept open during the whole of the Jubilee Week for the benefit of hundreds of visitors from far and near, who anxiously thronged into the halls to avail themselves of this rare opportunity and drink deep at the fountain of modern agricultural improvements.

Mrs. Anstead was generous enough to be '*At Home*' to the guests of the day for which the Union takes this opportunity of expressing its warmest thanks.

Sports. Sports came off on the 12th. There were over twenty items in most of which there was a large number of competitors.

The only event which was as usual open to other institutions also was the 'Half Mile Race' in which local schools took a prominent part. The champion of the day was Mr. K. Ramaswami of Class III who came out first in the 'Cross Country Race', 'One Mile Race' and in a number of other events. Mrs. Anstead kindly gave away the prizes and in addition showed her practical sympathy in distributing fruits to children that had assembled on the sports ground.

The Conference. The Conference was opened by Professor Roland V. Norris in the unavoidable absence through sudden illness of Sir R. Venkataratnam Naidu, the Vice Chancellor. Owing to pressure of work however Dr. Norris could not continue throughout and Mr. Anstead occupied the Presidential chair on the third day till the sessions closed.

As many as 33 papers were contributed for this Conference. They covered a wide range of subjects and evoked lively discussions.

The papers were of a high order and special mention may be made of the contributions of Messrs. F. J. Warth, A. K. Yegnanarayana Ayyar, V. Krishna Menon and Captain A. Guthrie, who kindly undertook to be present and cooperated with us though they were not officers of this Department. These papers have appeared in the journal of the Union.

The Journal: Its present position and prospects. The Committee feel glad to announce that in spite of misapprehensions and misgivings entertained in the earlier part of the year, arrears have all been wiped off and the *journal* has been *brought up to date*. Only, owing to certain circumstances beyond the control of the Committee, the special Jubilee number is still in the press and will issue shortly. This Committee opines that its successor is more fortunate in starting with a clean slate and with no handicap.

The Committee believes that the time has now come for the *Union* to own a *Press* of its own so as to ensure more speedy publication of its organ and for more intensive and satisfactory work in attaining the objects of the Union and thus obviate the occurrence of arrears which militate against the utility of the journal.

Now that the Journal has come up to date and become regular, the Committee expects a *wider circulation* and a consequent increase in the number of subscribers from among past students, officers of the Department and the general public.

The Journal has limited circulation because of the name it was christened with, and it is obvious that its usefulness as an authoritative and reliable organ on agricultural matters pertaining to the province of Madras is in consequence lessened. "The Journal of the Madras Agricultural Students' Union" is (in spite of important articles appearing therein) wrongly believed by a large body of the lay public to be the production of inexperienced students under training in the College and therefore it does not get the recognition it deserves at the hands of contributors of an advanced type as also to some extent from members of the Department who know its working. In order to remedy this defect partially though, the present Committee consider it incumbent on them to make a submission to the general body in another place to have the title of the Journal changed to befit its contents and correctly to reflect its usefulness to the public.

The Royal Commission. The Royal Commission on Agriculture in India under the distinguished chairmanship of the Marquess of Linlithgow soon after arrival in this country issued a fairly compre-

hensive questionnaire on the 18th of October last. His Majesty's Commission took down evidence in this Presidency in two places, Coimbatore and Madras between which they spent nearly three weeks in November. During their sittings a large number of witnesses were examined and the representatives from this Department were Mr. Anstead, Rao Sahib Ramaswami Sivan and Rao Sahib T. S. Venkataraman.

The bulk of the evidence tended, in the opinion of this Union, to show that "the Indian ryot whom Lord Linlithgow characterises as the "brave, patient and lovable individual" needed to be freed from the shackles of agricultural indebtedness, from lack of facilities for marketing his produce and from the barriers that now separate him from agricultural scientists both in India and in foreign countries.

Seasonal Outlook. The agricultural year just ended has, owing to the failure of the North East monsoon, witnessed a severe strain on the part of the cultivator—especially in the dry land tracts—a feature popularly associated with the Hindu year, Kshaya—the last in the sixty year cycle—though we are happy to note that the year commencing has shown unmistakable signs of turning out to be more prosperous. We may not be far wrong in supposing that it is not an uncommon experience of the toiling peasant in this country to suffer from such droughts periodically.

Ameliorative Measures. And it has been the anxious care of Governments from ancient times to devise ameliorative measures to mitigate their effects. The present Government has been keenly alive to this most important duty and been investigating large and comprehensive schemes and wherever and whenever possible increasing the facilities for ensuring supply of water to precarious tracts and thus for converting them into smiling gardens and fields of waving corn. One such project which has brought prosperity and contentment to the people is the mighty Godavari irrigation system designed and completed by Sir Arthur Cotton about 70 years ago.

The impetus given by the Irrigation Commission has moved Government to take up schemes recently in this direction and it is fortunate that a pretty large arid tract in one of the eastern districts covering about 300,000 acres has been proposed to be irrigated by husbanding the resources of the Cauvery river very near Bhavani in the village of Mettur.

Further, the utilisation of steam and water power and electricity for agricultural purposes is perhaps a feature of which we in Madras

have little knowledge. But in the go-ahead America and in wide Canada these are being largely utilised by farmers. With a tremendous amount of rain and the presence of innumerable falls on the hills of the Western ghats it would seem sheer waste of power and would argue ignorance or apathy on our part if the water power available is not turned to profitable use.

The trial which is to be made in this direction by the Hydro-Electric scheme in progress in the Pykhara fall may prove an immense advantage to the producer and this Union feels glad and would sincerely thank the Government of His Excellency Viscount Goschen and You, Sir, its chief exponent in this matter for initiating the *Mettur Project* and the *Hydro-Electric Scheme*.

Agricultural Education. The Committee feels gratified to note the beneficial changes in the regulations of the University in respect of the Intermediate Examination in Arts and Sciences which have made it possible for a candidate with an agricultural bias or leaning towards it to take up agriculture as an optional subject.

The University has also declared graduates in agriculture eligible for research studentships in agricultural subjects. We hope before long a degree in Agriculture similar to the M. Sc. in other sciences will be instituted and Government will be pleased in due course to provide facilities at the College for post *graduate* studies.

It is a happy augury that since the advent of His Excellency Lord Irwin the whole Indian atmosphere has been surcharged with agricultural bias and no public man of whatever school of thought he be can now afford to forget, omit or ignore a reference to rural reconstruction.

The Committee may be pardoned for indulging in the hope that the dynamic force that has been set free during the past ten years will be made to flow along healthy and productive channels especially since His Excellency—our "Farmer Viceroy"—has shown an abiding interest in agricultural matters by his transparent sincerity in attacking rural problems from a new angle of vision, by paying frequent visits to agricultural farms and colleges and by instituting prizes and medals for University students so as to divert their attention and wean them from mere literary studies.

In this connection the Union would congratulate one of its members Mr. K. Ramanathan, now B. Sc., Ag. for the provincial silver medal he has won for the essay he submitted in January last.

Out of the twenty—two students who sat for the B Sc. Ag. Degree Examination this last April, 20 came out successful and have been absorbed by the Department.

It is a matter for concern for the Union however that agricultural education as at present imparted does not reach all classes of people in the Presidency. As Sir Daniel Hall observes in a lucid and masterly article of his in a recent number of the Scottish Journal of Agriculture it would seem necessary that a variety of methods ought to be adopted for teaching the adult ryot, the educated absentee landlord and the conservative women—folk, and we may add that greater success will result if agricultural knowledge is made to filter to the masses through training schools. Demonstration and propaganda work have certainly effected some substantial improvements but have not proved the sole panacea for the ills the ryot is subject to.

When on this matter, the Committee feel inclined to think that with the gradual passing of existing farms under the control of breeders or crop specialists a necessity will soon arise for opening of more general purpose farms in important tracts as, otherwise, the demonstration staff especially students recruited fresh from the college will get little training and cannot acquire a firm grip of the local conditions for giving an authoritative opinion or advice on any local practices. This is especially so as conditions vary in different tracts and as at the College facilities cannot exist, the scope cannot but be limited and mossful conditions cannot be reproduced for students to acquire a wide knowledge of all possible situations in the solution of rural problems.

Ramasastrulu Munagala Prize. It has been the experience of successive committees to record the inadequate response by members for papers for this prize. This year again only one essay was submitted and for want of competition the Committee has decided that the prize should be held up.

Finance. The financial condition of the Union is detailed in the balance sheet which will be placed before the Business Meeting.

Obituary. The Union has had to record with much regret and sorrow the deaths during the year of Mr. Walter Keess and Mr. O. K. Balasubrahmanya Pillai. The late Mr. Keess was Principal of the Agricultural College for twenty years between 1887-1907 and he was a very loving and much loved Principal. Mr. O. K. Balasubrahmanyam was a promising young man who was cut off in the prime of life and almost at the threshold of his useful career.

Our Presidents. Mr. R. C. Wood, Principal and President of the Union for several years retired from the Indian Agricultural Service in October. With his many sided activities, alertness, his work at the College as Principal and at the Union as the President, Mr. Wood's name will long be remembered in agricultural circles both in this country and elsewhere.

Mr. R. C. Broadfoot who was Principal and President for three years went on leave in the last week of December when Rao Sahib Ramaswami Sivan was appointed to the post. Mr. Sivan was virtually the founder of the union and has been a tower of strength to it. On his retirement in the middle of May Mr. C. Tadulingam, our Vice President, who has been actively connected with the Union since its inception was appointed permanent Principal and thus has become our President. And in his place as Vice-President Mr. T. V. Rajagopalacharya was elected by the Committee.

Our Friends Abroad. One of the senior—most Provincial officers of this Department, Mr. T. V. Ramakrishna Ayyar is now on a long holiday in America acquainting himself with up-to-date methods in all aspects of entomological work especially in "parasite laboratories"—institutions unique to America which is far ahead of other countries in agricultural development. It is presumed that he will also visit important natural history museums and University centres in America, England, France and Germany on his way back to India in February next year. Mr. K. Ramayya, Assistant Paddy Specialist, is on deputation in England undergoing a special course of training in breeding work under Professor Biffen in the Cambridge School of Agriculture.

Congratulations. We congratulate our patron Lieutenant the Rajah Sahib of Parlakimedi on his being made a member of the Royal Commission.

The Committee feels a legitimate pride in extending the Union's felicitations to Mr. R. D. Anstead on the well merited distinction of C. I. E. and we offer our hearty congratulations to Rao Sahib Ramaswami Sivan on the title of Rao Bahadur conferred on him.

Conclusion. The Committee begs to thank Mrs. Anstead, Mrs. P. V. Ramayya, Mrs. Hiffe and Mrs. Munro, other ladies and gentlemen, the volunteers and their captain Mr. P. N. Krishna Ayyar who helped in the celebration of the Golden Jubilee in July last year and also those ladies and gentlemen who have helped the Committee in the course of this year through contributions of papers and donations and in diverse other ways.

The Madras Agricultural Students' Union appeals through this meeting to the Government of Madras for allotment of larger funds towards the expenditure on development departments, now that the incubus of financial stringency has vanished and the extinction of provincial contributions to the central exchequer in the course of a year or two is within sight.

(b) The College Day Athletic Sports.

The spacious College maidan presented a festive appearance on the 9th morning, all arrangements being complete by the previous day. The grounds were tastefully be flagged and artistically decorated, the monster Union Jack majestically flying in the middle. The courses for the different items were marked and the whole arrangements reflect credit on the Sports Committee who were ably supported by the gallant band of student volunteers under their Captain Mr. H. Shiva Rao. Special seating accommodation was provided for the large concourse of visitors who graced the occasion in spite of the threatening weather. Punctually at the stroke of time the bugle announced the opening of the afternoon's function and the judges, starters and timekeepers were at their posts in an instant. A special feature of the year was that every event was keenly contested and it was not known till the end of the programme who would knock off the Championship. As it proved in the end, S. Ramaswamy of B. Sc. II won the coveted distinction having knocked off three first prizes in the races, viz. Cross country, one mile and half mile and he was a good second in High-jump. The events for students were alternated by several items-such as races for boys under seven, girls under seven, boys above seven, old boys' race, peons race etc. which provided unusual merriment to the spectators. The interval saw the Estate Troop of Boy-scouts at their display and the gathering adjourned to the Freeman Building where sumptuous Tea was provided both in the orthodox and occidental styles. The Indian section was in the hands of a small sub committee consisting of Messrs. C. S. Krishnaswami, T. R. Naganathan and R. Narasimha Ayyar, while the European section was ably conducted by Mrs P. V. Ramaiah in her inimitable way.

After Tea, there was a heavy shower which marred the occasion to a certain extent but almost all the items were gone through, leaving only the Intertutorial Relay race and the Tug-of-War to be decided later.

At the request of our popular Principal Mr. C. Tadulingam, Mrs. Anstead very kindly gave away the prizes to the winners in the following list.

100 yards. The Saidapet Old Boys' Cup. (1) Hanumantha Rao K. (2) Govindakutti Kurup P. and (3) Saldanha R. J.

Long Jump. (1) Hanumantha Rao K. (2) Subramanyan C. N. and (3) Govindakutti Kurup R.

Putting the Shot. (1) Hanumantha Rao K. (2) Sundaresan G.

High Jump. (1) Subramanyan C.N. and (2) S. Ramaswamy

Quarter mile Race. (The Prince of Wales Cup):—(1) Govindakutti Kurup P. (2) Mahamud Ali A.

Throwing the Cricket Ball. Kunhikannan Nambiyar K. and Saldanha R. J.

Half mile Race. (1) Ramaswamy S. (2) Mahamud Ali A. and (3) Kalimuthu M.

Sack Melee. Kalimuthu M. and Menon V. M.

Old Boys' Race. (1) Balraj C. J. (3) Narayan M. and (3) Seshaghiri Ayyar C. S.

One mile Race. (The Anstead Cup). (1) Ramaswamy S. (2) Mahamud Ali A. (3) Kunhikannan Nambiyar K.

Obstacle Race. (1) Natesan K. V. (2) Padmanabhan M. K. (3) Makundan T. K.

Cross-Country Race. (The Norris Cup). (1) Ramaswamy S. (2) Kalimuthu M. and (3) Kunhikannan Nambiyar K.

(B) THE COLLEGE DAY CRICKET MATCH

The Cricket Match between the residents and visitors which was inaugurated during the Jubilee year has apparently come to stay as an annual function. This year the match was played on 10th July and was very largely attended. The arrangements were in the hands of the executive of the Officers' Cricket Club and every possible convenience was provided for the comfort of the players and spectators alike. In spite of the rainy weather during the previous night the sky cleared up in the morning and the bright sunshine which followed provided ideal conditions for the great fight. The pitch was a bit soft and as it proved later it was a bowler's paradise as the low scoring on both sides indicated.

The visitors captained by Rao Bahadur Mr. M. R. Ramaswami Sivan fielded a very strong eleven included in which were several stalwarts like Messrs. R. D. Anstead, C. Ramaswamy and H. P. Ward who have distinguished themselves in the game far and near. Besides these, the team had the pick of the "ex-stars" of the Agricultural College who at one time or another and some in succession for several years fought for their college either as students or as members of the staff.

The home team fielded the pick of the staff and students and it must be said to their credit that they offered a good fight to their great rivals.

Winning the toss from the home captain, the Rao Bahadur elected to bat and sent in Ramaswamy and Chockalingam to face Vasudevan and Venkataraman. Ramaswamy opened his account with a full blooded drive past cover, but both bowlers kept very good length so that both batsmen played a defensive game though Ramaswamy with his usual aggressiveness found the boundary more than once. Chockalingam was soon bowled by one Vasu's expresses (11-1-2) and Ramaswamy was joined by Ward amidst applause. Though a bit shaky at first Ward set going immediately. Great things were expected of this combination and Ward was vociferously cheered for a hefty pull which soared high but landed a yard within the boundary line. But this merry partnership was not destined to last long for while attempting to cut one of Venkataraman's tricky slows, Ward played the ball into Saldanha's safe hands at point (30-2-11). Bhandary stepped into the breach and had an early life but went merry so that the home captain put Vaidyanathan to replace his brother. Soon after Bhandary lost great partner who in trying to pull the new comer to leg sked the ball and was smartly held by Natesan (55-3-31) Anstead joined Bhandary and after conceding a maiden to Vasu hit up 12 runs in quick time but he mistried a ball from Saldanha and Natesan brought off another good catch (76-4-12) Bhandary was soon after caught and bowled by Venkataraman who came on to bowl again. (18-5-23). With the cream of the pack out for 81 it was thought the bowlers will have their day but Hegde and the veteran skipper defied all attacks so that the home skipper rang more changes. Thomas who replaced Vasudevan at the pavilion end broke through Hegde's defence with his

first delivery (91-6-2) but the skipper continued to defy the attack till eventually the same bowler found his wicket (98-7-13). The same bowler met with more success when he got Ramanujam stumped off his bowling (102-8-7). The whole side was dismissed for 120 runs, a creditable performance for the home team. For the homesters Thomas and Venkataraman shared the honours with 3 wickets each while Vasudevan was unlucky to have bagged only 2 in spite of his excellent form. Saldanha and Vaidyanathan shared the two remaining wickets.

At the interval the teams adjourned to Freeman building for tea and after an enjoyable tea provided by Mr. C Tadulingam the President and other members of the Officers' Cricket Club the teams sat for a group photograph.

On resumption the homesters opened with Shiva Rao and Vaidyanathan to face the attack of C. Ramaswamy and Hegde. Hegde soon gave place to Chockalingam and with Ward to support them behind the stumps the bowlers were deadly with the ball so that there was a sorry procession of batsmen till the telegraph showed 32-6-4. Vaidyanathan defied the attack very successfully though conceding maidens in the bargain and it took him nearly $\frac{3}{4}$ hour to break his. At his stage Ramasubramaniam the home skipper came on the scene and defied all bowling scoring freely on all sides of the wicket. Several changes were tried and though the skipper lost three more of his men without noteworthy support, he raised the score to 77 out of which 30 runs came off his own bat. Time intervening, stumps were drawn leaving the match in a draw. For the visitors Ramaswamy and Chokalingam captured 4 and 3 wickets for 17 and 14 runs respectively while one wicket each fell to Karunakar and Pattathan.

(C) THE COLLEGE DAY DRAMATIC ENTERTAINMENT.

The Entertainment Committee placed on boards three dramas during the College Week:—"Entangled" an English play and "Shivaji" a Telugu play on the night of the 11th July and "Manohara" in Tamil on the 12th.

"Entangled" written for the occasion by Mr. and Mrs. P. V. Ramiah was a "pot pourri of laughs and sighs" as advertised in the

hand bill and was a farce moving in one scene into a terrible tragedy to become a comedy after all. There was no purpose beyond that of amusing the audience, no moral attached to it, and it had no historical basis and though written entirely in a week's time, did disclose talents and originality on the part of the authors. One critic said that there was not enough of comedy in it, perhaps he was right, perhaps not. Since what constitutes a real comedy is a difficult question we shall not answer it.

"Sivaji" was an adaptation from the famous play "Roshnara". Its get up reflected great credit on its conductor, who spared no pains to secure the local colour of the Maharatta period. Several scenes were well acted and the whole play was a great success from the point of view of histrionic art.

The third play "Manohara" needs no introduction. The well acted Tamil play made a great impression and nothing but praise is due to the actors and the conductor. Both the acting and singing were of a very high order.

The amateur acting of the Agricultural College once more kept up its traditions and it is hoped that with more encouragement more may be done to organise the undoubted talent.

NOTES

A New Substitute for Platinum. This is known as palorium. It has chemical and physical properties very well suited for a platinum substitute.

Palorium is a white alloy, and it is very difficult to distinguish it in appearance from platinum. The hardness and tensile strength compare favourably with platinum, as does also the temperature coefficient. When heated it retains its original stiffness and does not soften like platinum. It is a malleable, ductile and homogeneous alloy, melting at 132 c.

(Mechanical World. Vol. 82 No. 2114). Y. R. R.

On Leprosy. The chief direct causes of endemicity of leprosy in India are dietetic, the poor diet available being supplemented by decomposing fish, meat, rice etc.

2. Caste and race have a certain bearing due to habits regarding diet and to certain original tribes being driven into the less fertile tracts or into serfdom or debt. Venereal diseases, which predispose to leprosy, are specially common among certain low castes.

3. The poor soil of certain tracts, its porosity and the slope of the land are of importance, as the crops are exceedingly poor or precarious and dietetic errors result.

4. While a very low humidity makes for a low incidence of leprosy as shown by Sir Leonard Rogers, this survey has not shown a close correlation between humidity and leprosy.

5. Excessive rainfall by washing away and impoverishing the soil, by leading to mosquito-breeding and malaria and in other ways may have an indirect effect.

(From Indian Journal of Medical Research, July 1927).

Queensland. Queensland is seriously considering migration. The Dawson Valley scheme is one of the biggest things it has ever tackled. It is the development and opening of the Dawson Valley for irrigation farms and dry farm areas. The area suitable for irrigated farms is 1,000,000 acres, to which will be attached 200,000 acres of dry lands. About 7000 new irrigated farms are included in the project, each a living area for an average family of five persons, producing cotton, rice, tobacco and lucerne. When completed, a great dam—to be known as the Nathan Dam as a compliment to the late Governor of Queensland (Sir Matthew Nathan)—will impound sufficient water to supply Brisbane for more than fifty years without any rainfall during that period. One hundred and thirty square miles of country will be submerged. The scheme provides for five distinct zones of from 40 to 50 thousand acres each with its own township. The first of these, the Theodore Zone was opened for selection recently.

(Queensland Agricultural Journal, July 1927).

Okra seed. Six samples of okra seed (*Hibiscus esculentus*) examined at the Agricultural Experiment Station, Raleigh, N. C., U. S. A., had the following composition, calculated on the moisture-free material: proteins 21.28 per cent., fat 21.72 per cent., fibre

31.37 per cent., and ash 4.7 per cent. These analyses show that okra seed contains 6.5 per cent more proteins than uncorticated cotton seed. It is considered that the plant, being prolific and a vigorous grower in the cotton belt, has possibilities of economic importance, due to its high oil content, and to the feeding value for animals of the meal remaining after the oil has been extracted. (Journ. Oil and Fat Indust., 1926, 3, 386). G. N. R.

Three times milking. Mr. Holt—Thomas whose name is closely associated with the British Friesian cult advocates three time milking and advances the following claims:—(1) It insures increased yield of butter; (2) Cows are sure of being fed three times daily, which lightens the two heavy feedings and is better for the cows; (3) It ensures cows being milked late in the evening which tends to raise the usually lower percentage of the morning milk and (4) a much more regular daily yield is obtained with greatly reduced strain upon the cow.

Mr. Thomas' cow which was not allowed to be milked until she entered the show-ring yielded 55 lbs. at that milking. Her total yield for two normal milkings was 10 gallons. Another cow—Ayreshire Milliantae May flower, in 1925 gave 76.4 lbs., in a three times milking record it was 85.4. In 1925, her heaviest milking was 47 lbs. and in 1926 it was 30.7 lbs. The strain on the cow in the three times milking was less.

(From Scottish Farmer June 4.)

The Nordic Farmer. Electrical power is seen everywhere at work in Sweden. "Transforming Stations" dot the landscape on all sides especially among the well-to-do-farmers.

In Sweden *rents* are paid in *milk* and also in labor done for the landlord by the tenant and his family. (This is so in the Kangayam tract to day:—Ed).

Of the arable land in Sweden 50 per cent is electrified. The Swede has discovered that he has in his water power a substitute for coal.

New cotton Species. Five new species have been recently described by Messrs. O. F. Cook and F. W. Hubbard. These are found among desert vegetation or in dooryards and along roadsides

in North-Western Mexico. One species *G. Morrilli* produces great numbers of bolls. *G. Contextum* has numerous additional fibres which form a lining to the inner walls of the carpels. The third *G. Davidsonii* has no lint but only short brown fuzz on the seeds.

(Nature, May 28).

Cattle in Europe. The Cattle population of Europe excluding Russia in 1926 was about 72.750 millions.

Great Britain. The total area of agricultural land in Great Britain in 1926 was 45,142,888 acres of which 30,369,281 acres were under crops and grass and 14,773,607 acres were rough grazing. (The net area cultivated in Madras Presidency during the year 1925-26 was 33,833,765 acres).

The average annual reduction in arable land in England and Wales during the five years 1921-26 was 214,000 acres.

This year over 220,000 acres are under sugarbeet in England.

In 1925 there were more than 700 electric engines in use on farms in England and Wales.

The average daily consumption of fresh milk in Great Britain is between $2\frac{1}{4}$ and $2\frac{3}{4}$ millions and of imported tinned milk 6500 cwt. or equivalent of 21000 gallons of liquid milk. Certified and grade A milk accounts for about one per cent of the fresh milk consumed.

Mr. David Ferguson, M. A. (Glasgow) has been appointed chief of the Economic service of the International Institute at Rome.

Sir Daniel Hall. K. C. B., F. R. S., L. L. D., retired from the civil service on 4th June. He was Director General of the Intelligence Department of the Ministry of Agriculture and Fisheries, England.

South African Farmers who were on visit were received by His Royal Highness the Prince of Wales and in reply to their representation that South African produce should get preferential treatment, the Ministry of Agriculture told them that no Government could give farmers what the electorate would not allow. In other words votes determined policy.

List of Students who joined the B. Sc. Ag. Course in July 1927. Andhradesa:—Ganjam Balsundram M. L. (Non-brahmin, Telaga); *Vizag T. Natraj* (Panta Reddi); *East Godavari:—M. Satyanarayanamurthi* (Brahmin); *C. Venkatachaleu* (Brahmin); *Brahmeswara Sarma* (Brahmin); *D. Hanumantha Rao* (Brahmin); *D. Achyutha Rama Raju* (Kshatriya); *West Godavari G. Ranga Rao* (Non-brahmin); *Kistna nil*; *Guntur nil*; *Kurnool nil*; *Bellary nil*; *Cudappah nil*; *Anantapur M. Bhimachar* (Brahmin); *Mysore Venkoba Rao* (Brahmin); *Chittore nil*. Total 10.

Tamil Country Madras:—K. Balakrishnan (Non-brahmin), *C. I. Dasa Rao*, *Pattabiraman T. V.* and *M. A. Singarachar* (Brahmins); *Chinglepet:—A. Gulam Mahamud* (Mahammudan); *Kalyanaraman K. V.* (Brahmin); *Tanjore:—R. Kolandavelu Nayakar* (Kalla), *M. K. Gopalan* (Brahmin); *Trichinopoly nil*; *Madura K. Dorairaj* (Nadar) *P. K. Palaniswami* (Non-brahmin); *Ramnad:—G. Venkatakrishnan* (Brahmin); *Tinnevely M. Subbayya* (Non-brahmin) *M. Venkatachalam* (Brahmin); *North Arcot nil*; *Salem:—C. R. Seshadri* (Brahmin) *R. Krishnamurthi* (Brahmin); *Coimbatore:—A. Mahamud Ali* (Mahammudan), *M. Royappa Pillai* (Non-brahmin) *C. N. Subramanyam* (Brahmin) *Nilgiris nil*; *Bangalore C. B. Sankara Ayyar* (Brahmin). Total 19.

Kerala Malabar:—T. S. Lakshmanan and *N. S. Vaidhyathan* (Brahmins) *K. Narayanan Nayar*, *Govindan Nayar*, *K. Achyuta Nayar* and *T. Govinda Menon* (Nayars); *K. R. Muthugopal* (Vaisya) *South Kanara K. Hanumantha Rao* and *Damodara Prabhu* (Saraswat) *K. Deju Shetty* (Non-brahmin); *Cochin Kerala Varma* (Kshatriya) and *P. Raghava Menon* (Nayar). Total 12.

List of officers who have passed the Agricultural Officers' Account Test held in 1927:—

Agricultural Section:—P. S. H. Narayanaswami Nayadu, *S. Mahadevan S. Varadarajulu Nayadu*, *N. Anna-swami*, *M. Yegnaswami Ayyar*, *S. V. Doraiswami Ayyar*, *S. S. Katchapeswaran*, *V. Suriyanarayana*, *A. K. Anna-swami*, *M. V. Narasimha Sastri* and *P. A. Venkateswaran*.

Scientific Section:—V. Margabandu, *M. S. Kailasam Ayyar*, *N. S. Rajagopalan*, *T. R. Narayanan*, *V. Panduranga Rao*, *N. Krishnaswami* and *Ratnavelu Gounder*.

*Indian Officers' Association:—*The agricultural section of this association were "AT HOME" on the 11th July to the Hon'ble Sir C. P. Ramaswami Ayyar, K. C. I. E., the President of the parent association, and a group photo was taken.

*Agricultural Clerks' Association:—*A deputation of 6 members waited on Mr. R. D. Anstead C. I. E. the Director, in connexion with the recent refusal of the Government to recognise their association on the ground that their interests were in no way separate from those of the large body of the nongazetted officers of a similar status in this Presidency.

*The Chemists:—*At the instance of Mr. B. V. Nath, F. I. C. Dr. Gilbert J. Fowler who was here to discuss the question of feasibility of introducing the "Activated Sludge Plant" delivered a very interesting lecture on 'Synthetic Farm Yard Manure' on the 12th July.

The chemists paid a visit to the Vellalore Betelvine Station on the afternoon of Saturday the 30th July to study the chemical aspect of the experiments conducted there.

Visitors. Dr. Gilbert J. Fowler, lately of the Indian Institute of Science, Bangalore and now at Nasik. Rao Bahadur Sir A. P. Patro, Mr P Ramanathan, and a host of distinguished visitors that had come to Coimbatore in connexion with the historic meeting of the South Indian Liberal Federation, Diwan Bahadur T. Rangachari, ex. M. L. A; Mr. P. V. Isaac, Dipterist, Pusa. Dr. W. H. Harrison C. I. E. Pusa.

CORRESPONDENCE.

Mr. J. R. Ranga Raju, Novelist, Saidapet requests information from research workers on coconuts and practical farmers and coconut planters on the following points:—

(1) What is the actual period taken for ripening of coconuts (for seed purpose) from the time of the bursting of the spathe and (b) after the opening of the female flowers in a particular tree.

(2) Does the ripening period vary with the different tracts and according to seasonal conditions. What factors control this?

(3) How many gatherings or pickings are ordinarily obtained in one year per tree? In what months generally?

(4) Is there any difference in the yield in the number and size of the nuts obtained in each gathering from a particular tree. If so what is the cause of this variation in the yield?

(5) Has any one tried sowing in nurseries seeds in different months or nuts gathered in different seasons? Is the germination in all cases satisfactory conditions being equal and

(6) Why should seed coconuts gathered in January-February give better percentage of germination and those gathered in July August when sown in nursery give poor germination.

DEPARTMENTAL NOTIFICATIONS.

Appointments, Postings, Transfers etc.:—

Mr. A. V. Tirumuruganatham Pillai, Assistant Director, on return from leave to Trichi Circle.

Mr. S. U. Khan, on return from leave, to be Deputy Director Trichinopoly.

Mr. N. S. Kulandaiswami Pillai, Assistant Director, to semi-independent charge of Tanjore district with headquarters at Tanjore.

Mr. A. V. Tirumuruganatham Pillai, on relief, to the Guntur Circle.

Mr. T. Budhavidheya Rao, to be temporary Assistant Director; Live Stock Chintaldevi.

Mr. M. Manghesa Rao Upper subordinate, to be temporary assistant to the Deputy Director Live Stock, Hosur.

The following appointments are ordered with effect from 8th July: in the Upper Division, 5th Grade, on probation for two years:—

Science Section. Messrs. S. Mayandi Pillai and P. Sudarshanam Nayadu (Cotton) Mr. K. Ramaswami (Paddy) and Messrs. P. Subramanyam and Achyutha Wariar (Millets).

Agricultural Section. Waltair Circle:—Messrs. A. Ram Mohan Rao and D. Bappayya. Guntur Circle:—Mr. S. Ramachandran; Bellary Circle:—Mr. M. V. Sundaresan; Madras Circle:—Mr. K. B. Vaidiswaran; Trichinopoly Circle:—Messrs. V. Krishna Rao and K. Ramanathan; Madura Circle:—Messrs. S. V. Ramachandran and C. S. Sankaranarayan; West Coast Circle:—Messrs T. Gopalan Nayar and A. Kunnikoran Nambiyar Coimbatore Circle:—Messrs. P. K. Parameswara Menon, K. Sivasankara Menon and C. V. Thangavelu.

Mr. P. R. Daniel to be Lower Subordinate, 5th grade on probation, St. Thomas Mount

Mr. P. S. Venkuswami Ayyar Lower Subordinate 4th Grade is promoted as Upper Subordinate 5th grade from 1st April 1927.

Messrs. M. Narasimham and V. Surpanarayana, upper Subordinates and M. V. Narasimha Sastri, M. Ratnavelu and K. Suryanarayana, Lower subordinates are confirmed in their posts.

Mr. M. A. Balakrishna Ayyar, Farm Manager, Sugarcane Expert section to be Agricultural Demonstrator Tirvettipuram; Mr. M. Ramunnikidavu, Assistant Manager, Sugarcane Expert section, to be Assistant Manager, Paddy Breeding Station Pattambi.

Mr. P. Gopalaratnam, Upper Subordinate, Agricultural section to be Assistant to the Cotton Specialist, 5th Grade Mr. P. Narayana Nayar is transferred from the Cotton Specialist's section to the Coimbatore Circle.

Mr. D. Panakala Rao, Manager, Samalkota, to be Agricultural demonstrator, Samalkota.

Leave etc. Mr. P. H. Rama Reddi, Deputy Director, extension of leave for eleven days.

First Circle. B. Madhava Rao Technical Assistant, Anakapalli Middle School, privilege leave for 20 days from 29th June.

Second Circle. Mr. V. G. Dhanakoti Raju, Farm Manager extension of leave on average pay for 4 months on medical certificate, Mr. K. Gurumurthi Demonstrator, extension of leave on medical certificate for three months.

Third Circle. Mr. K. Ramanatha Ayyar, Farm Manager, extension of leave on average pay for one month and 15 days, and leave on half average pay for one month and 15 days. Mr. G. L. Narasimha Rao, Assistant demonstrator, extension of leave on average pay for 2 months on medical certificate. Mr. C. Subba Rao, Assistant Demonstrator, Allagada, leave extended by ten days.

Fourth Circle. Mr. A. J. Mascarenhas, Farm Manager, leave on medical certificate for 3 months from 14th May. (Died on 26th July '27.) Mr. S. R. Srinivasa Ayyengar extension of leave on average pay for one month and 2 days.

Sixth Circle. Mr. A.M. Muthaya Natan Demonstrator leave on average pay for 15 days from 14th June. Mr. C. S. Namasi-vayam Pillai, assistant demonstrator, extension of leave for one month and 15 days. Mr. C. A. S. Ramalingam Pillai, assistant demonstrator, extension of leave on average pay for two months. Mr. P. Kannappa Pillai, assistant demonstrator leave on average pay for 15 days from 1st July.

Seventh Circle. Mr. K. V. Shenoi, Demonstrator, leave on average pay for one month from 15th August 1927. Mr. E. Achyutan Nayar, assistant manager, Pilicode, leave on average pay for 10 days from 25th July.

Live Stock Section. Mr. F. L. J. Lobo, assistant manager leave on loss of pay for one month and for one week in continuation of the leave already granted. Mr. Ranganatha Mudaliar, Supervisor Hosur, leave on average pay for one month and 14 days. Mr. A. Venkobachar, assistant manager extension of leave on average pay on medical certificate for 3 months. Mr. K. Ramanujacharya, Manager, Buffalo Breeding Station, Guntur, leave on average pay for two months from 21st June. Mr. K. Raghavacharya, manager, Hosur leave on average pay for 4 months.

P. S's Section. S. Venkataramanan, assistant manager, Aduthurai, extension of leave on average pay for 5 weeks. Mr. M. Ramaswami Pillai, Sub-assistant leave on average pay for 20 days from 5th July.

G. M's Section. Mr. P. Doraiswami Mudaliar Artist, leave on average pay for 20 days from 4th July.

SIR GANGA RAM'S GENEROSITY

Last year Sir Ganga Ram, Kt. C. I. E., M. V. O., R. B. Lahore, with that generosity for which he is now so well known handed over to the Punjab Government a sum of Rs. 25,000 for the endowment of a prize to be awarded for a discovery, or an invention, or a new practical method which will tend to increase agricultural production in the Punjab on a paying basis. The property has been vested in the Treasurer of Charitable Endowments for the Punjab and is to be administered by a Managing Committee consisting of

1. The Vice Chancellor of the Punjab University (Chairman).
2. The Agricultural Adviser to the Government of India.
3. The Registrar, Co-operative Societies, Punjab.
4. Sir Ganga Ram, and after him a nominee of the Sir Ganga Ram Charitable Trust.
5. Sir John Maynard during his lifetime.
6. The Director of Agriculture Punjab (Convener and Secretary).

The interest accruing from the property shall after such deductions as are authorised by the rules framed under the charitable Endowments Act, 1890, be payable by the Treasurer of Charitable Endowments to the Managing Committee.

The prize is to be known as the Maynard Ganga Ram prize and is to be awarded every three years provided a satisfactory achievement is reported to the Managing Committee. It will be of the value of Rs. 3,000 approximately and competition will be open to the world.

Applications for the first award should reach the Director of Agriculture, Punjab by the 1st of January 1929.

The Punjab with its many rivers, its fertile soil and warm sun has great possibilities for agricultural development and development in this direction is of the utmost importance as practically

the whole population of the province both rural and urban depend either directly or indirectly on its agriculture. With a strong staff of capable researchers to tackle the many problems involved the province could soon be placed in a position in which few countries could compare or compete with it.

It is now recognised the world over that research is the key to all progress and the Punjab public are under a deep debt to Sir Ganga Ram for providing the valuable stimulus to agricultural research above referred to.

INDIANS FOR INTERNATIONAL OFFICE, GENEVA.

1. A selection will shortly be made by the Director International Labour Office, Geneva, from among persons of Indian nationality to fill a vacant post of the grade of member of section, Class A, in the International Office, Geneva.

2. The nominal salary attached to this post is 19,000 Swiss francs a year, rising by annual increments of 800 francs, to a maximum of 28,000 francs. This salary is subject to modification in accordance with fluctuations in the cost of living at Geneva. In 1927 a reduction of 2·6 per cent will be made on this account. A deduction of 5 per cent will also be made representing the official's contribution to the Staff Provident Fund, the League of Nations making an equal contribution to the official's account with the fund.

3. Candidates should be between the ages of 30 and 45 years.

4. The essential qualifications to which importance will be attached are as follows:—(a) Administrative experience; (b) University training, preferably in Economics and (or) political science; (c) Experience in research work and (d) Excellent health.

Weight will be given to knowledge of the French language, though this is not indispensable.

5. Applications must be on the prescribed form which can be obtained on payment of 4 annas in postage stamps from A. G. Clow, I. C. S., Deputy Secretary to the Government of India, Department of Industries and Labour Delhi.

6. The application form contains a medical certificate which must be signed by a doctor possessing a Degree in Medicine of a European University. Candidates are warned that this is merely a preliminary certificate and that the selected candidate will be required to undergo a medical examination of a stringent character, the particulars of which will be prescribed by the International Labour Office.

7. No application can be considered unless it is accompanied by certificates proving the possession of the qualifications specified in para 4 above. As such certificates will be forwarded to Geneva and cannot be returned to the applicant, candidates possessing certificates which they desire to retain should send duly attested copies of these.

8. No application can be considered unless it is accompanied by a birth certificate or other documents proving the age of the candidate in satisfactory manner.

9. Candidates may be asked to attend for an interview at Simla or such other places in India as may be fixed for this purpose. The expenses of appearing at such an interview must be borne by the candidate.

GENERAL CONDITIONS OF SERVICE.

(a) The successful candidate will be entitled to the payment of his travelling expense to Geneva.

(b) He will be required to undergo a period of probation of one year.

(c) At the end of this probationary period he will be required to submit himself to an official medical examination.

(d) On the confirmation of his appointment, subject to the results of b and c proving satisfactory, he will receive a contract of 21 years subject to the retiring age of 60 years.

(e) After the confirmation of his appointment he will be entitled to the reimbursement of the necessary expenses for the removal of his family (wife and children) and the transport of his personal effects to Geneva.

(f) During the probationary period he will be entitled to 24 working days leave and on the confirmation of his appointment to 36 working days leave per annum.

(g) Every three years he will be entitled to the return fare for the journey to India on home leave, the number of days required for him to make the return journey from Geneva to his home being granted to him in addition to his 36 working days annual leave.

WOODHOUSE MEMORIAL PRIZE.

In memory of Mr. E. J. Woodhouse, late Economic Botanist and Principal of Sabour Agricultural College, who was killed in action in France in 1917, a prize of books to the value of Rs 85 will be awarded to the writer of the best thesis on some botanical or horticultural subject.

Competitors must be graduates of an Indian University and not more than 30 years of age.

Papers should be forwarded to the Director of Agriculture, Bihar and Orissa, Sabour, Bhagalpur, E. I. R. Loop, before November 1st.

Failing papers of sufficient merit no award will be made.

A. C. DOBBS,
Director of Agriculture, Bihar and Orissa.

List of Honorary Visitors to the Agricultural College and Research Institute, Coimbatore.

Appointed in G. O. No. 1256, Dev., dated 17th August 1927).

1. The Raja of Parlakimedi.—Parlakimedi, Ganjam District.
2. M. R. Ry., Rao Bahadur C. V. Ranga Reddi Garu, B.A., B.L., Kurnool.—Kurnool District.
3. The Raja of Ramnad.—Ramnad, Ramnad District.
4. M. R. Ry., Rao Bahadur N. Chakkarai Manradiyar Avergal Pattagar of Palayakottai.—Palayakottai, Coimbatore District.
5. Lieut. Colonel J. G. Dennistoun, D. S. O.—Nilgiris.
6. M. R. Ry., V. Krishna Menon Avl., B.A., Calicut—Malabar.
7. „ A. V. Banoji Rao Garu, M. L. C.—Vizagapatam.
8. „ Rao Sahib Kali Chetti Abboy Nayudu Garu—Pulla, West Godavari.
9. Tahavar C. Jaladat Dasladah Raja M. R. Ry., Venkataadri Appa Rao Bahadur—Nuzvid—Kistna District.
10. Rev. William Bembower, M. Sc., Guntur—Guntur Dt.
11. The Kumara Raja of Venkatagiri—Venkatagiri—Nellore Dt.
12. M. R. Ry., Nookala Venkatsubbayya Garu.
13. „ R. Naganna Goud Garu, Ph. D. M. L. C.—Hospet Bellary District.
14. „ Kambinayani Zavvayya Venkatapathi Nayani-varu, Zamindar of Kangundi—Kuppam North Arcot.
15. „ Rao Bahadur K. Sitarama Reddi Garu, Cuddalore—South Arcot District.
16. „ N. Ranganatham Nayudu Garu M. A.—Madanapalli, Chittore District.
17. „ Rao Bahadur J. Chelvaranga Raju Garu—Saidapet, Chingleput.

18. M. R. Ry. A. Veerayya Vandayar Avl.—Poondi—Tanjore District.
19. „ K. C. Saptharishi Reddiyar Avl.—Kattuputhur Trichinopoly District.
20. „ R. Sivarama Ayyar Avl.—Ravanasamudram, Kadayam, Tinnnvelly Distrct.
21. „ N. Subba Rao Avl., M. A., B. L.,—Udipi, South Kanara.
22. Mr. K. T. Paul—The Thottam, Salem.
23. M. R. Ry., Diwan Bahadur G. Narayanaswami Chetti Garu, President, Madras Corporation, Madras.
24. „ K. R. Venkatarama Ayyar Avl. B.A. B.L., M.L.C. Madura, Madura District.
25. „ G. Rami Reddi Garu—Anantapur.

The term of Appointment of each visitor will be three years with effect from the 1st September 1927.

EDITORIAL NOTES.

Agricultural Prizes.—We invite the attention of our readers to a notice published elsewhere in this issue, regarding the “Woodhouse Memorial Prize.” We wish several such prizes were instituted in India in order to stimulate the interest of young men in the study of scientific subjects and at the same time to keep green the memories of men who have lived and died for science.

Mr. A. C. Dobbs states in his letter that “competition in the past has not been very keen.” We are of opinion that unless it is made really attractive and worth ‘doing’ for, it will not receive due recognition. We venture to suggest, if conditions would permit any change, that such prizes be made available at agricultural colleges alone and offered once in 2 or 3 years. When we say this, we have in mind the practical example of the ‘Maynard-Gangaram prize.’

Mr. H. Shiva Rao.—Mr. H. Shiva Rao, B. Sc. (Allh) Dip. Agri. (Cantab), has been admitted as an Associate of the Institute of Chemistry. The subject of his thesis was “A Preliminary Note on the Formation of Laterite and Black Cotton Soils of India.” Mr. M. N. Koppikar, M. A., B. Sc., (Bombay) is the only other Indian who shares the honor this year, the remaining 88 being all members of British nationality.

Our congratulations to Mr. Rao for the distinction he has won fairly at the threshold of his career and which comes to most, only late in life.

The late Mr. A. J. Mascarenhas.—On the 26th July, passed away in the General Hospital Madras, after an operation for appendicitis Mr. A. J. Mascarenhas, one of the young and promising officers of this department.

The late Mr. Mascarenhas was a graduate in agriculture of the Bombay University and was one of the two B. Ags. from the Poona College who were drafted into this department by the then Director of Agriculture Mr. H. C. Sampson.

He joined the Cotton section in August 1922, later worked on the same subject in the Lam farm, Guntur for over a year, when he was transferred to the agricultural section. He was in the Guntur circle doing district work and was subsequently posted as demonstrator, St. Thomas Mount.

At the time of his death, he was one of the members of the staff on the Palur agricultural station.

Mr. Mascarenhas was a good shot and a keen sportsman—a very good bowler—and played for the College Eleven at Coimbatore.

He was a Second Lieutenant in the Indian Territorial Force when he joined the Agricultural Department and had to resign this position when he found his duties in the civil line more exacting.

A man of noble bearing and amiable nature, he made many friends in the department who mourn his loss today.

We offer our sympathies to his father Mr. Rao Sahib E. C. A. Mascarenhas and other members of the bereaved family.

considered to be a peremptory duty. He has therefore died in harness. India has every reason to be proud of having a man like Sir Ganga Ram as one of her distinguished sons. I tender both my congratulations and condolences to the family of the deceased reformer.—(*Mahatma Gandhi in Young India*).

To express its sense of loss in its own humble way the Madras Agricultural Students Union in the conference assembled on the 13th July passed a resolution of condolence and forwarded it to his son at Lahore and under the circumstances therefore a melancholy interest attaches to the notice regarding the Maynard-Ganga Ram Prize published elsewhere in this issue.

We hope *Young India* will profit by the worthy example set by the late Sir Ganga Ram and rally round the cause which was dearest to his heart.

The moments of Lazarus.—It is understood that nearly 150 lakhs of rupees have been made available to the Government of Madras through the remission of Provincial contributions this year. Several suggestions are being made for the disposal of this sum. One is with a view to the reduction of land revenue, a second aims at the introduction of prohibition of drink in selected areas, a third is for "doles" to the different departments of Government. A number of other demands are likely to be made from several quarters but it seems to us that, as the remission of contributions is probably permanent and as the cry of rural parts is insistent rural problems should take precedence. Before rural reconstruction is thought of it would be well and prove economical in the long run if small local committees are instituted in each distinct agricultural tract to make local enquiries and submit reports. In the meanwhile the questions of supply of drinking water, roads, houses for the homeless, and extension of village sites—which are beyond all controversy may be taken up. Each of the items is big enough to tax the energies of hosts of workers and absorb all the surplus that may arise.

Our Viceroy. Their Excellencies Lord and Lady Irwin paid a private visit to Coimbatore on the afternoon of 7th August at the end of their short sojourn of a week on the Hills. His Excellency Viscount Goschen accompanied the guests. Their Excellencies first drove to the Y. M. C. A. Reconstruction centre at Ramanathapuram

where the work in progress was explained and a little exhibition was put up. The Imperial Sugarcane Breeding Station under the control of Rao Sahib T. S. Venkataraman was next visited where the Agricultural Adviser was present to receive Their Excellencies. The last half hour was spent at the Agricultural College where special arrangements had been made by the Principal Mr. Tadulingam for reception on the spacious hall downstairs. The Director received Their Excellencies at the entrance. The local boy scouts formed a guard of honour and the students were lined up in two rows between which the guests passed. Mr. R. D. Anstead presented the heads of sections and showed their Excellencies over the several sections. The Viceregal party left the same evening at 8 by special train for Simla. It was very gracious of His Excellency to have included the Agricultural College in his programme and we hope his official visit will also come off in the course of a year.

Cultural value of games. As a means of diversion in one's daily activities, of relaxation from brain work, or of giving freshness and vigor to the tired muscles, games have from ancient times been considered of very great value. In all countries they have played an integral part in national life. The most conspicuous example in the old time world was Greece which has given the name "the Olympic Games." Medieval India enjoyed this phase of life to an extraordinary degree; the village common grounds affording facilities for the practice and important festivities, opportunities for the display of one's skill.

British Government have continued the traditions but insisted on provision for games mostly in schools. The indigenous games became entirely forgotten in most places or did not evoke the enthusiasm or receive the support and encouragement that they should, though a few Indians like the Hon'ble Mr. Parekh thirty years ago foresaw the extinction of this indigenous institution and made desperate attempts at keeping them alive.

The sullenness of outlook that was a common trait in the Indian of the past generation has happily changed with the march of events during the past few years and there is now better appreciation due to the modern conception of discipline associated with games.

A recent developmet of this idea as an essential element in the cultural life of a nation is therefore most welcome and is brought out in a latter which Sir Arthur Crosfield, Chairman of Council of the National Playing Fields Association England has written to Earl of Elgin, Chairman of the Carnegie Trustees in England.

While thanking the Trustees for the munificent gift of £200,000, Sir Arthur says:—

“Your letter (announcing the gift to us) says that hitherto the Carnegie Trustees have confined their benefactions to ‘cultural movements.’ One cannot fail to read into it that the Trustees regard the playing of games, and especially of the team games which we advocate as having a kinship with, even if they are not an integral part of culture itself. We hold the view that there is a whole range of human qualities, such as those of leadership, self control, ‘playing for one’s side’ rather than for oneself, playing in the spirit of a game rather than to the letter of its rules—which are valuable factors in the makeup of a really broad, general culture—and that these qualities can be inculcated better by team games than in any other way. This fact has lately been recognised very widely outside this country. Germany and France, to mention no other countries, are devoting concentrated attention to games holding them to be an essential part of their educational curriculum and of the development of the character and physique of their rising generation by outdoor exercise.”

“That a body so keenly watchful of all educational trends as the Carnegie Trust should, after careful consideration, assess our moven ent as you have done, as a cultural and educational factor, is to us most heartening and I am sure that your decision cannot fail to have effect on the judgments and policies of all those who are concerned in the affairs of the country. We believe that your action will hasten the day when an elementary school without a proper playing field will be as impossible as an elementary school without desks and a blackboard.”

We hope that this aspect of games will appeal to old and young alike and change their individual angle of vision.

The College Day and Conference.—The annual celebrations in connexion with the College Day and Conference were held this year on July 9—14th. The dates are appropriate. They now form the end-links of an ever-lengthening chain which establishes a connection between the immediate past and the present, which indicates the steady progress that has been made in spite of impatience and haste that characterise this century and which symbolises generally the rapid expansion in the activities of this useful department which is still undermanned. For, July 9th has become memorable to us as the date on which His Excellency Viscount Goschen opened the Freeman Building last year. July 14th recalls to mind a similar function in 1909 with which Sir Arthur Lawley’s name is associated, when the first and important building in the Agricultural College and Research Institute which may perhaps now be christened as the Lawley Hall was opened, and when a new era in agricultural improvement was inaugurated and a definite scheme of agricultural development was launched.

It is necessary and we hope it will be felt as necessary that the *alumni* of this college and members of this department as well as all lovers of agriculture outside should help to build up a tradition which may centre round this institute so that its beneficent influence may radiate in all directions and ennoble this ancient land. This is only possible when all realise that every successful yearly celebration leads us a step forward in this right direction.

The programme this year was as full as circumstances permitted. Sports rightly formed the first and most engaging item. The Conference commenced on Monday the 11th and continued on the two following days. The Hon’ble Sir C. P. Ramaswami Ayyar, K.C.I.E., Law Member was pleased to attend and presided on the 11th. After Principal Tadulingam made his welcome speech and the Secretary Mr. U. Vittal Rao read the annual report, the Hon’ble Sir Ayyar first presented medals to students and then gave his presidential address *ex-tempore* which lasted full three-quarters of an hour and which kept the audience spell-bound.

This over, Mr. R. D. Anstead unveiled the portrait of Rao Bahadur M. R. Ramaswami Sivan which had been presented by his wards. After this had been done, the President called on Mr. R. C. Woodford, Deputy Director, Live Stock, Hosur, to read his, he first paper of the day, the subject being “Further Feeding

Tests with bulky Fodder at Hosur." He was followed by Messrs. K. Venkataraman, Rao Sahib Y. R. Ramachandra Rao and K. Unnikrishna Menon. Their papers were (1) Effect of delay in transplantation of Paddy, (2) The Role of Patriotism in Scientific work (3) "Agricultural Co-operation with reference to the West Coast." With the thanksgiving by the Director to Sir Ramaswami Ayyar who had unavoidably to leave the next morning and the taking of a Conference group-photo, the proceedings of the day were brought to a close.

On the 12th and 13th Mr. Anstead kindly presided over the further deliberations and the following papers were read:— (1) "The Deccan ploughman" by Mr. G. Rajagopala Nayadu, the enthusiastic retired agricultural officer; (2) "Metamorphosis of the dreary tracts of Madras into delightful fields" by Mr. M. Satyanarayana (Hagari); (3) "Marketing of Cotton in Nandyal" by Mr. S. N. Kalyanaraman (Nandyal); (4) "Vitamines in Milk" by Mr. M. P. Kunhikutty (College Dairy); (5) "Ongole Cattle Survey" by Mr. T. Budhavidya Rao (Chintaldevi); (6) "Camphor Cultivation in Burmah" by Mr. K. Venkataraman (Aduthorai); (7) "Sheep Breeding" by Mr. P. K. Kannan Nambiyar (College Dairy); (8) "Development of an indigenous agricultural machinery works" by K. L. Kulkarni (Poona). The proceedings were throughout marked by lively discussions.

On the 11th morning the meeting of the "Advisory committee on experiments" was held, on the 12th forenoon the "Madras Agricultural Lower Subordinates' Association" held their fourth annual conference preceded by a group photo, on the 13th afternoon the Director convened meetings with circle officers and heads of sections.

The Business meeting of the Union was held on the 14th at 8 a. m. under the Chairmanship of the President Mr. C. Tadulingam. The two amendments to the rules which had been notified in the May—June issue were taken up for discussion and pressed by the retiring Committee.

These amendments were:—

Rule 3 IV.—For "the conducting of a journal as an organ of the Union primarily to cater for members of the Union but also to contain information of general agricultural interest."

Read "the conducting of a journal which will be styled "Madras Agricultural Journal" and run as the official organ of the Union primarily to cater for members of the Union but also to contain information of general interest."

Rule 13.—Journal—For "The conduct of the Journal shall be in the hands of an Editorial Board of 7 members consisting of Editor and Publisher, Sub-Editor, Manager and four other members."

Read "The conduct of the Journal shall be in the hands of an Editorial Board of 5 members of whom two—the Editor and Publisher and one member shall be members of the Working Committee and the other three may or may not be members of the Working Committee."

But the legality of their discussion at that stage was hotly contested. In result, the first was allowed to be dropped for the present and in lieu of the second the House tentatively agreed that for the period of one year only, the Editorial Board be constituted and function as suggested by the committee in their amendment. The question of Press for the Union was left to the Editorial Board. There after, it was proposed and decided that as the accounts had not been scrutinised by the auditors the balance-sheet presented by the Committee might be published in an earlier issue of the journal after the auditing was over and that a general body meeting of the resident-members be held at a later date as was done on a former occasion which might settle the budget for the coming year. The election of office-bearers was then proceeded with (the results are noted elsewhere). With the vote of thanks by the President to all guests, members of the several committees including Mrs. P. V. Ramaiah and to the volunteers and their captain Mr. H. Shiva Rao the Conference week which a few were inclined to name the M. A. S. U. week came to a happy and successful close.

An Ideal Ruler.—Monday the 8th of August is a red letter day in the annals of Indian History. Mysore, in fact the whole of India rejoices and celebrates to-day the Silver Jubilee of the reign of an ideal Prince—His Highness Sree Sir Krihinaraja Wodiyar Bahadur G. C. S. I., G. B. E.

Even in these humdrum days of machinery and iconoclasts, His Highness enjoys a popularity and receives a homage which has been the share of very few brother Princes in his exalted position.

Succeeding his illustrious father who was the first to occupy the throne after the Rendition, following the tradition set up in his days and nurtured in the school of self discipline, constitutionalism, godliness, benevolence and simplicity of life his is a loving and honoured name in all South Indian homes.

During his reign Mysore has witnessed very many changes and in a marvellous degree. The Kaunambady Dam and the Bhadravati Iron Works are two among the beneficent acts for which his name will go down to posterity as that of a ruler who had the interests of his subjects at heart. Unlike a few other brother Princes who spend their leisure and savings in other climes Sri Krishnaraja sacrifices himself and devotes all his time and private property for the welfare of his subjects and fellow countrymen.

We are particularly happy that his reign more or less coincides with the reorganisation and development of the Agricultural Department in the State. With our countrymen in general and our brother Union members in Mysore in particular we offer our respectful congratulations and pray to the Almighty to vouch safe to His Highness long life, and health and sage counsel.

Spanish International Exhibition.—Spain was almost the first country to equip a Navy and send her adventurous spirits for the discovery of unknown lands in the sixteenth century. It was her colonies in Latin America that have populated the rich tracts of World to-day. She had her days of downfall and lost supremacy and all colonial possessions with the passing of the Philippines into the hands of the Americans 4 decades ago. But with the accession of King Alphonso to the throne and with his relations with the House of Windsor, Spain has shown much advance and the British empire will be considerably interested in the International Exhibition which Spain will hold at Barcelona on the 1st of April 1929. The Exhibits will consist of Arts, Industries, Athletics, etc., etc. This Exhibition, it is reported, will close on the

31st of December of that year. As this Province has for a long time been interested in the fabulous yields of paddy in Spain and is trying in her own way to breed varieties, it would be well that Madras sends her Representatives and Exhibits to this Exhibition. Last time that a similar but smaller exhibition and congress were held at Madrid in 1914, Dr. E. J. Butler, Pusa, attended as a representative of the Government of India and made a fairly exhaustive report on the cultivation of rice in the fertile Provinces of Valencia and Cordova. Sugarcane also is grown in Spain, sheep are a common feature in Spanish Agriculture, the irrigation system adopted in Spain is noted for its simplicity and efficiency. These questions therefore which engage the attention of different departments of the Local Government may very well form the subjects of study by representatives from this Province. Particulars, about the Exhibition if needed, may be obtained from the M. A. S. Union Lawley Road P. O. Coimbatore (South India) by enclosing stamps to the value of one anna for every letter addressed.

TOUR PROGRAMME FOR B. Sc., CLASS III OCTOBER 1927.

- Date.
1. Morning. Class assembles at Rajahmundry.
 - Evening. Visit Batavian Orange and other gardens.
 2. 7 A. M. Visit Dowleshwaram (4 miles) Irrigation Works and Nursery Gardens at Kadiam (4 miles) and return to Rajahmundry by train 12-23.
 - Evening. Visit vegetable gardens.
 3. 10 A.M.—6 P.M. Leave by boat for Bobber Lanka (6 miles). Visit Godavari Irrigation Works and study Dry land cultivation along the canal and proceed by boat to Palivala (20 miles).
 4. Study Garden cultivation in Avidi and Modekurru and arrive Mukkamala in the evening (6 miles).
 5. Dasara holiday. Visit Cattle Fair at Ambajipetta (5 miles) and Gunnavaram Aqueduct (4 miles).
 6. 7 A. M. 10 A. M. To Amalapuram. Study Wet land cultivation along the canal and arrive Amalapur.
 - Evening. Study Garden cultivation in the neighbourhood.
 7. 7 A. M. 6 P. M. To Allavaram (6 miles) to study Coconut cultivation and Coir Fibre Industry.
 8. 7 A.M.—6. P.M. To Mukteswaram (6 miles) To Kotipalle (4 miles.) To study cultivation in Lanka and Padugai lands.
 9. 7 A.M.—10 A.M. To Ramachandrapur (11 miles). To visit Pattimannu Deposits and study Garden cultivation.
 10. A.M.—6 P.M. To Draksharama and back (8 miles). To study Betel Vine cultivation and visit Cattle Fair and weekly market.
 11. 9 A.M. 12-47 13-15 Leave Ramachandrapur for Samalkota via Biccavol (12 miles).
 - Evening. Visit Farm.
 12. Halt. Visit Sugar Factory and study local Agriculture.
 13. 6-35—10-14. To Anakapalle. Visit Farm and study local Agriculture.
 14. 6-57. Leave for Coimbatore.
 16. 17-47. Arrive Coimbatore.

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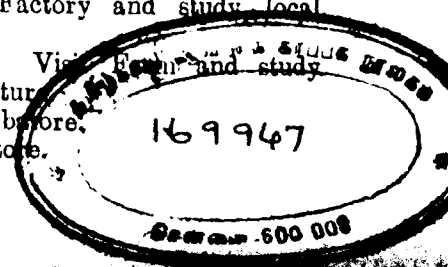
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