

# UNITY NEWS

OFFICIAL ORGAN OF THE SYDNEY TECHNICAL COLLEGE UNION

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ISSUED GRATIS

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## Daylight Training Call Issued By Student Leaders

A meeting of some thirty councillors, Association Committee members, and class representatives, decided that the Union should press immediately for 2 days' daylight training per week for the rest of the year, so that students could have some opportunity of passing their final examinations.

Mr. Moore, from the Electrical Engineering Dept., informed us that Bunnerong was expected to continue blacking out until 1953. For that reason, he suggested, the College should investigate the possibility of installing its own lighting plant permanently. This, he pointed out, would serve three purposes:—

Firstly, it would save the College from the consequences of power rationing.

Secondly, it would ease Bunnerong of quite a considerable load, and thirdly it would provide valuable experience for students of Electrical Engineering.

The meeting also discussed the position regarding gas for practical classes, and was informed that Mr. Hunt of Science had that position in hand.

Mr. Crawford (E.E.) reported that a meeting of staff at St. George Tech. College had protested against the closure of the College and had made certain proposals on future Technical Training.

Mr. B. Thomas (Chem.): Daylight training should be brought in.

Mr. Nivison Smith (Eng.): Strongly in favour of Bill for Daylight Training to make up the loss in Tech. works over past weeks.

Mr. Ryan (Tech. Uni.): Supporting Smith. No matter what equipment we get all students have lost one month—can any Student catch up? Must carry on abnormally regardless of emergency plants etc. Daylight training is essential.

Mr. N. Piper (Science): Was the only one present to oppose two days' daylight training, said that when we go to work we have a moral obligation to the employers, we can't expect employers to give us time off!!

Mr. Harrant (Elect.): Have emergency plants at C.S.I.R., no restriction, organising night classes. Dr. Murphy would only be too pleased if we put pressure on Mr. Conde for more plants.

Mr. Crawford (Elect.): Daylight Training essential to finish college year.

The meeting elected the following deputation: Mr. Smith (Eng.), Mr. Crawford (Elect.), Mr. Ryan (Science), Mr. Moore (Elect.), Mr.

Kellett (Archit.), Mr. Spies (Science), to meet Mr. Conde, Mr. Riddell and the Minister.

The meeting also discussed the recently appointed Council of the University of Technology.

A committee to fully investigate the situation and contact the Minister the Hon. R. J. Heffron, was formed. Mrs. Spies (Science), Mr. Vanry (Eng.), Mr. Crawford (Elect.), Mr. Keene (Eng.), Mr. Hirschl (Elect.).

The Technical Teachers' Association and the Teachers' Federation will also be contacted.

Full text of all resolutions passed may be seen in another part of this paper.

### NEW FORM — SAME PAPER

As from this issue "Unity News" appears in a new form. In this new form, "Unity News" will contain besides its usual cover of college news, departmental news from "Pinion", "Transmission" and Technichem.

This new form should be most acceptable to students, most of whom, have, this year, missed their departmental journals. Correspondence on this change is welcomed, and students should, as far as possible, address any letters to the person in charge of their departmental journal.

### Mr. Riddell Sheds Light on Power Situation

Following on the meeting at the college on power, Union delegates interviewed Mr. Riddell, Director of Technical Education.

When asked about building a power plant for the college, Mr. Riddell replied that this was completely out of the question, that the proposition had been examined many years ago, and that such a plant would be entirely too large and too expensive for a college that was already desperately short of space and funds.

Regarding the acquisition of emergency plants, Mr. Riddell answered that all emergency plants possible had been obtained,

### MILITANT UNIONISM.

The following resolution was carried unanimously at a meeting of 28 class Reps, Committee members and councillors on Tuesday, 12th July:—

"We, class representatives, committee members and councillors of the Sydney Technical College Union view with concern the cessation of classes at the Sydney Technical College and urge emergency plants be installed in all colleges and

(1) that because of the inability of Bunnerong even in normal times to supply power that the College should have an independent power supply.

(2) that immediate Legislation be enacted to allow students to attend College 2 days per week until the end of the year. Students Curricula has already been severely hampered and in order to successfully complete their 1949 courses this measure is essential.

"This meeting views with some concern the composition of the Council of the University of Technology and feels that there is a preponderance of industrial representatives and no adequate balance of representatives of Technical Education on the Council."

### STORE IDENTITY LEAVES

It is with regret that we record the resignation of Miss Hart, Store Manageress who is leaving the State. Temporarily, Store Management is being handled by Miss C. Coleman

### Proposal Regarding Future Technical Training

That all members of the Teaching Staff at St. George Technical College view with grave concern the closing of Technical Colleges for two weeks, and urge that, in this two weeks' period, either of the following courses of action be followed:

◆ Emergency lighting apparatus be procured so that classes can continue at normal times after this period.

◆ Legislation be enacted to enable students to attend full Technical Training in daylight for the period of the present emergency.

Should emergency plant be unobtainable through normal channels, we urge that the Government exercise powers conferred on it by the Acts covering the present emergency, to requisition plant at present being used to supply power for motion picture theatres and other non-essential purposes.

We further express our willingness to do any work necessary in the installation of any emergency plant obtained during the two weeks enforced vacation, in order that, should students be unable to attend for full Daylight Training, they will be able to resume full Technical Training on Monday, 25th July, 1949.

This resolution was carried by all the teaching staff present at the college on the day of the meeting. The decision was unanimous.

### F.S.T.W. Award Hearing

### Under Way Again

Award hearings were recommenced before Conciliation Commissioner Blakely on 6th July, and were adjourned at 2.30 p.m. on 6th July to the 2nd August.

F.S.T.W. submitted that as Commissioner Mooney had ruled that a prima facie case for an award has been made, the case was on employers to prove that an award should not be made. Without the point being determined, cross-examination of F.S.T.W. General Secretary, A. M. D. Richardson, proceeded. This cross-examination was still in progress when the hearing adjourned.

Feature of the hearing was the intervention of the Electrical Trades Union and the Association of Professional Engineers.

# UNITY NEWS

Editor . . . . . Joe Ryan Art Editor . . . . . A. D. Thornell  
Sports Editor . . . . . J. Presdee Ed. Phone No. . . . . MA 7402

## EDITORIAL

**T**HIS issue I propose to wander a little off the beaten track in so far as U.N. editorials go, and deal with something that happened recently in New Zealand.

At the Annual General Meeting held over Anzac Weekend, the New Zealand University Students' Association decided to disaffiliate from the International Union of Students. To some students this step may mean very little. What is this I.U.S.? What is it doing?

The average student may be moved to mutter in his beard when he hears of Student repression in India and Egypt, when he hears that students in Eastern Europe have to start their classes amid the bombed out ruins of their Universities. He thinks that something should be done about it, and even though we in Australia may be isolated in the South Pacific, we can do something about it.

The persecution of students by the Nazis, and in particular the treatment meted out to Czechoslovakian Students, convinced the students of Europe in particular that a strong world organisation of students was necessary.

In 1946, due mainly to the work of the British National Union of Students, I.U.S. was formally set up.

The preamble to the constitution states "The purpose of I.U.S. shall be to defend the rights and interests of students, to promote improvement of their welfare, and to prepare them for their tasks as democratic citizens."

A Press and Information Dept. responsible for I.U.S. publicity was set up, among other activities it publishes "World Student News", which some students of this college have probably seen. I.U.S. has been foremost amongst those working for Student relief. The sports dept. has recently concluded the 8th world university Winter Games, and the Summer games will take place this month immediately on the conclusion of the World Festival of Youth and Students.

The Travel and Exchange Dept. have been for many months conducting a vigorous campaign for a 50 per cent. reduction in Travel expenses for holders of the International Student Identity Card. This campaign has been taken up in Australia by the Union.

That brings us to the point. The disaffiliation by N.Z.U.S.A. followed closely upon the disaffiliation earlier this year of the National Union of Australian University Students. Main point in both disaffiliations was that I.U.S. had done nothing for the students in these countries.

It is significant that N.Z.U.S.A. had never paid their affiliation fees and that N.U.A.U.S. were very much behind with theirs. Neither had ever taken up an I.U.S. campaign.

*In Australia, who is I.U.S.? The answer is obvious, we, the students of Australia, are I.U.S. It is up to us, as students, to pursue those campaigns of I.U.S. with which we agree. Then, perhaps, the students of Australia will have something achieved for them by I.U.S., through the solidarity of seventeen million students affiliated to this body. If we become active in this organisation, if we, through our delegates, press our own particular needs, and support the claims of students in other countries, then I.U.S. will become in Australia, as it already is in Europe, a vital living force, a force to be reckoned with*

### Transport Reduction Campaign

Following on a motion that the S.T.C. Union Council should proceed with the I.U.S. campaign for a 50 per cent reduction in Travel costs to students holding the I.U.S. identity card, replies have been received from the Balmoral School of Mines and the Undergraduates Guild of Crawley University, W.A., expressing support. Crawley University, in particular is organising a deputation to their Transport Minister.

Replies from Transport Minister so far have been unfavourable.

### The Vicious Circle.

The typical successful American businessman was born in the country, where he worked like hell so he could live in the city, where he worked like hell so he could live in the country.

"Neither let us be slandered from our duty by false accusations against us, nor frightened from it by menaces of destruction—nor of dungeons to ourselves. Let us have faith that right makes might, and in that faith let us to the end dare to do that duty as we understand it."

—Abraham Lincoln.

greatly, he said.

Paul Robeson had just come from a very strenuous tour of England and Scandinavia, where he sang to huge crowds (thousands) in each country.

By these tireless efforts to sing and speak for progress and peace to the people of so many countries, Paul Robeson is proving himself to be a very great man, worthy of his art, and a true and courageous fighter for peace, in a world in which today there are only two sides, for peace or war.

## Paul Robeson Sings for the I.U.S.

Today Paul Robeson sang to an audience of 10,000 in his concert to the I.U.S. Relief Fund, specifically, to enable representatives of Youth and students from the representatives of Youth and students from the Colonial countries to participate in the World Festival of Youth and Students in Budapest this August.

Mr. Robeson sang many songs. Those included were Joe Hill, Water Boy, Scandalizin' my Name, Mississippi, of which he has changed the words to

"But I keeps laughin'  
Instead of cryin'  
I'll go on fightin'  
Until I'm dyin'."

He also sang "The Four Insurgent Generals", a Spanish anti-Fascist song and the song of the Warsaw Ghetto and Chee Lai. Each song was preceded by a short explanation of its history and significance. Mr. Robeson spoke in Russian, which is close to the Czech language. There was a terrific roar of applause when he said "Thank you very much" in Czech.

The programme also included songs by groups of young people from Indonesia, Vietnam, India, and China.

At the close of the concert, a resolution was passed condemning the action of the Indian Government in shooting down eight young people demonstrating in Hyderabad.

Two days previously the I.U.S. Secretariat, which has its headquarters in Prague, gave a reception for Mr. Robeson. This great singer spoke very warmly to the young people present. He spoke of the struggle of his own Negro people, both in Africa and in the U.S.A. He said that their struggle against the Ku Klux Klan and other criminals could not be divided from the struggle of all oppressed people everywhere in the world, be they black, yellow, or white.

He said that as an artist he must use his art to help all the democratic people in the best way he could to bring peace to the world.

Here in Prague, Mr. Robeson said, he could walk with full human dignity, but this was not so in America.

The crucial question for civil liberties in America at the moment is the fate of the 12 Communists at present on trial, and what happens to them affects him very

(Cont. bottom Col. 2)



**GOOD NEWS is always worth reading**

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# TRANSMISSION

Acting Editor: **T. M. CRAWFORD**

## EDITORIAL . . . .

**T**RANSMISSION" is the official organ of the Electrical Engineering Association. For some years it has been published in magazine form, and we very much regret having to make the change. We hope, however, to include in this page, all details of Association news, articles of interest to members and to Students of Electrical and Radio Engineering who are not members of the Association, and to provide a forum wherein any interested reader may air his views on any matter.

This page is for Electrical and Radio Engineering Students. We want you to use it. We will welcome contributions. There are many controversial questions facing all Students today. Many never receive the publicity that they should. By submitting letters or articles to this paper, you will help to overcome one of the greatest handicaps under which the Association works.

We know what our fellow committee members think about various subjects, but we cannot claim to know what is the opinion of the great majority of Students. It is impossible for you to all come together at any time, but it is not at all impossible to express your opinion through these columns.

We will print all letters that are not libellous or obscene, that bear the writer's name.

If you wish to use a nom-de-plume, do but please let us have your name and address as evidence of good faith.

(Ed. Note.—This may be taken as policy for the whole of "Unity News".)

## ASSOCIATION NEWS . . . .

The Association, this year, has arranged tours of Inspection to Bunnerong Power House, Balmain Power House, The A.B.C. Recording Studios, William Street, and Overseas Telecommunication Corp. installations at Pennant Hills.

A report of the Bunnerong tour appeared in a previous issue of "Unity News".

Sixteen made the party which inspected recording apparatus at the A.B.C. studios on 11-6-49. Much that was of interest to Radio Engineers was explained and no one regretted their trip.

The tour of Overseas Telecommunications Corp. Pennant Hills plant was marred by rain, nevertheless nine Students and Lecturers made the journey on 18-6-49.

On 25-6-49 twenty three students were shown through the Balmain Power House. All who had previously seen Bunnerong Power House came away amazed at the difference (and they were not amazed at the difference in size).

An unfortunate result of the advancement of the 2nd term Vacation was the necessity to cancel a lecture by Dr. Bhar, visiting Indian Scientist on the subject "The Wonders of the Upper Atmosphere". Dr. Bhar's lecture was arranged by the Association, and was to have been given on 13-7-49. As Dr. Bhar is due to leave Australia in the near future, it is unlikely that we will again have the opportunity of hearing him speak. It is possible, that we may get the text of Dr. Bhar's lecture, and, if so, it will be published on this page.

Another Association project which had to be postponed was the announced photographic Competition. It is not forgotten, and will be under way as soon as the College is back to normal. Good prizes are offered. Watch for the entry forms and conditions!

*This year's End of Year function is to be a departure from precedent. The Dinner-Theatre Party will be replaced by a Dinner and Smoke-Oh for men only. We have hopes for an adequate supply of various beverages for all tastes. It is the Committee's opinion that such a gathering will bring students closer together in an informal atmosphere, and provide a meeting ground between them and lecturers. One serious disadvantage of Part-time study is that students are together only for their lecture periods. They have no time for a normal social life. It is the Committee's hope that such an informal evening as is proposed for our End-of-Year function will become a regular feature of our Tech. life. If it does, and I can see no reason that it should not, it will not come before time. That we, who spend so many years of our youth in the pursuit of Technical Education under the most difficult of circumstances, should complete our courses and go our ways ignorant of each other, is a serious reflection on all of us. We are all of us interdependent. We are fools if we do not make the time to learn to know our fellow Students, for in later years we must know them.*

*Whilst we are on the subject of Students getting together, we would like to put up a suggestion that has come our way—that we organise periodic debates or discussions on controversial subjects—any ideas? Let us have your views on the manner in which such an event should be staged, or on the subjects you would like debated or discussed.*

The Annual Prize Presentation will again be the occasion for a small dance. The date and place should be announced within two or three weeks.

(Continued column 3)

The Association was represented by te Secretary and by M. Moore, Radio, on a deputation to Mr. Riddell concerning the advancement of the Second Term Holidays and the efforts made to secure sufficient lighting equipment to enable the College to start again on 25/7/49. The necessity of having our own Power Plant at the College is emphasised by the present crisis. Such a plant would be a very valuable addition to the laboratories of both of the Engineering Departments. It would not be as costly as a guided missile, either. Mr. Riddell stated that the aim of the administration is to have this plant, but it seems a long way off. Meantime we will have to get by on the limited emergency plant built up from our Laboratories. If anyone knows of a plant that may be made available, ring Mr. Riddell, M 0422 or let us know

Laboratory work in Electrical Engineering Subjects is still going to be hamstrung because there is not sufficient power available.

And more of Class Reps! It is the Class representative's responsibility to know what is the opinion of his class on matters that have arisen concerning Students. He should find one for himself, but if he does not ask you, then you tell him! He must then put the views of that class before the Association Committee at its next meeting. His is not a very difficult job, but it is one that is most important. That sufficient classes are not represented at Committee meeting is apparent from a glance at the attendance at meetings. At the last meeting only Stages 1 and 4 Elect. Engineering and stages 4 and 5 Radio Engineering were represented. Two graduates also attended. Class representatives or Students not represented should get in touch with the Secretary, T. M. Crawford, E.E.4, at Union Rooms or with any other member of the Committee. All will be glad to assist.

## PERTINENT . . .

### . . . POINTS

What about that cup of tea in the middle of long classes? The Association will provide the urn. You supply the tea and sugar and your cup. The College will find room to store the chattels. It is being done in some classes. Lecturers and Students say it is a good idea, and works smoothly. Why don't you start it in your class? See your Committee member.

On the last occasion that the writer was in the Elect. Engineering Building, all four drinking fountains were working, and both toilets were open. Congratulations. Can it last?

If the Coal Strike continues, we will be making up after we're finished Fifth year, what we missed in Fourth year, while we were making up what we lost in Third year, while . . . .

As far as we know, no Association official beat our President, Paul Hirschl, in adding to the population whilst in office. Congratulations to Paul, the father of a bouncing girl.

We think that a few members could be more active in the Association's doings. At present, most of the work falls to three or four. Besides helping out, members could bring more Student opinion to our meetings.

Fred Leake is organizing a Theatre party to the Kivis Current Show. Class Reps. will have tickets shortly. If you're thinking of seeing the show, save 2/- of your seat money with the Association. If you have not thought, start thinking now!

(Continued page 6)

## DAYLIGHT TRAINING

The Association, and the Union generally has been plugging Daylight Training for years. It seems not unreasonable, that a man who sacrificed his youth in a Technical College is entitled to receive some assistance from the Country that eventually will benefit from his knowledge. Of the present 10-11 hours at present spent in night work by most students, 4 pass while he overcomes the pangs of hunger.

Thirty five to forty per cent. of his lecture time is wasted. After four nights' Tech, and a couple of hours' homework he may do the necessary revision work to assimilate his scribbled notes. After all this his time is his own. Some employers have realized that Students cannot live normal lives under these conditions, and that it is to the employer's advantage to facilitate a Student's course through College by allowing him one or two half-days per week to attend classes. Unfortunately this is not generally true. Legislation to enable this Daylight Training is necessary. Until it is in force, there will always be Students forced to improve their knowledge at the expense of their health. A civilized nation should be ashamed of the position.

Students could greatly assist one another in this campaign by doing two things. First, by becoming active in whatever brand of Politics they uphold and urging their representatives to enact suitable legislation, and secondly by asking their employers for time off to attend Tech. Some have done so, others will, and will so weaken the position of those employers who still cling grimly to their "rights."



## STUDENT NEWS AROUND THE GLOBE

*"It is our duty as students to join the men and women of all countries, of all creeds, of all colours, who, wanting peace above all things, and having taken stock of their position, now determine to resist war and the threat of war.*

*Young Intellectuals have nothing to gain from war but have everything to lose. Youth are the first to suffer in war when the blood of young workers, young peasants, and young intellectuals, flows in a common wasted stream.*

## The Work Of The IUS During The Current Year

Report from S.T.C. Union Rep. in Prague, Moira Cole.

"Peace, National Independence, and a Democratic Education." This is the slogan of the International Union of Students. In the following article I will try to show how the I.U.S. is carrying out these aims during the current year.

Since its inception in 1946 the IUS has always pleaded for peace, and opposed any moves towards a new war. At the recent World Peace Congress, the IUS sent representatives to both the Paris and Prague Sections. A special Peace message was sent out to all member organisations, and a great response was made by student organisations outside the IUS as well as those affiliated. Since the Congress, the IUS has issued an appeal to students. (see heading).

Conversely, the I.U.S. has consistently opposed threats to peace, such as growing re-armament drives in certain countries and fascism wherever it has occurred. Therefore this year on April 14, the anniversary of the Spanish Republic, the I.U.S. ran a huge campaign in support of the Spanish Students fighting against Franco's regime. A petition in three languages requesting that Franco Spain be not admitted to the United Nations was circulated to all the I.U.S. member organisations for signature. In addition the I.U.S. issued a wall newspaper entitled "Students Fighting Fascism", and special documentation exposing the Franco terror.

Since the 1948 Council Meeting of the I.U.S. there have been 2 other main campaigns. In connection with February 21st, the Day of Solidarity with Colonial Youth and Students, members of the I.U.S. secretariat toured several European countries to speak to the students on the terrible conditions of their fellow students in colonial countries. The representative from the All-India Students Federation, Vimla Bakaya, toured England and Wales with Carmel Brickman, who represented the I.U.S. at the South East Asian Youth Conference last year. Huong, the Viet-Nameese Representative, toured Poland, and Reddy, another Student from the A.I.S.F., went to Italy, while Sugioni, the Indonesian representative went to Austria.

During World Student Week 1948, from 11th to 17th November, member organisations made special drives to collect for the I.U.S. Relief Appeal. The culmination of this was the opening of the I.U.S. sanatorium at Trebetov, Czechoslovakia on International Students' Day.

Together with the World Federation of Democratic Youth, the I.U.S. will hold a World Youth and Student Festival in Budapest, Hungary, next August. This will enable young people of all lands to come together and participate in the cultural and sporting events, Exhibitions of the work of the I.U.S. and the W.F.D.Y. will be shown, together with exhibitions from the national delegations. There will be an Australian exhibition, the material for which is

## IUS Works For Indian Student

(I.U.S. News Service)

A delegation of six students led by Australian Universities Rep. Ken Tolhurst, waited on the Indian Ambassador at Prague, to protest on student repression in Indian Universities.

One particular case was of a student, detained by the Government of West Bengal, for "having contact with the W.F.D.Y. and the I.U.S."

The banning of the journal of the Indian Student Federation "The Student" was also taken up, and the freedom of the student press in India pressed strongly by the deputation.

The deputation handed to the ambassador copies of recent protests to the Indian Government on student conditions and repression, and asked that the attitude of the Indian Government be defined in all cases, full explanation be given, and that student rights be upheld.

The Ambassador agreed to take up with his Govt. all the questions raised by the deputation, and to communicate the answer as soon as possible.

## PEACE MEETING HELD ON LINER

One hundred and fifty tourist-class passengers in the Orion attended a meeting on world peace when the ship was crossing the Indian Ocean, three days out from Fremantle, on her way to England.

The passengers warmly applauded addresses on peace by three delegates to international youth congresses in Europe.

The meeting on world peace was called by an After-Dinner Club, which the tourist class passengers set up at a meeting between Adelaide and Fremantle, to conduct addresses and debates on important problems affecting the common people.

The club's committee invited as its first speaker Miss Muriel Lester, who this month completed an Australian lecture tour on behalf of the International Fellowship for Peace and Reconciliation.

## Forbidden to Speak

Miss Lester agreed to speak, but was refused permission to address tourist class passengers. The reason given was that Miss Lester was travelling 1st-class, and her visit to the tourist section would break down the division between the first-class and tourist sections.

(Continued column 3)

# SEPTEMBER 27th

## HEAR — —

### SECRETARY'S REPORT

### FINANCIAL REPORT

AT

## ANNUAL GENERAL MEETING

TURNER HALL 8 p.m.

being sent from all those groups in Australia who will be represented at the Festival, and is being assembled in Prague by a group of young Australians living there.

There will also be many Festival Competitions, including ones for I.U.S. song and craft work, and literary competitions in which young Australians should participate.

During the Festival, the I.U.S. 10th World Student Summer Games will be held in Budapest. Competitors come from as far away as Cuba and Syria.

It is clear that the forthcoming Festival will be a great event in the annals of the I.U.S. and will enable all the students represented, as well as those actually taking part on the spot, to demonstrate their desire for peace and a better international understanding.

M. COLE.

The three youth delegates who addressed the meeting on peace were: Mr. Kurt Merz, delegate from the Christian Social Order Movement to the World Federation of Democratic Youth congress in Budapest next month; Mr. Max Stewart, leader of the New Zealand contingent of Rover Scouts, travelling to a Rover meeting in Norway; and Mr. David Bottomley, Melbourne delegate from the Unitarian Church to a Unitarian conference in Holland and a work camp near Munich.

After the meeting Mr. Merz said: "The unity displayed at this meeting shows very clearly that all young people are worried about the threat of war and are anxious to work for peace."

"It remains for the W.F.D.Y. to reach these young people, to guide them, to show them how to fight for peace."

# PINION

Editor: **DES SHERLOCK**

EDITORIAL . . .

The question of Daylight Training is one of greatest concern to the Engineering Diploma Students. The need for it in this Department is probably greater than in any other. New subjects introduced in the new 5 year Course, the 8 hour Exam at the end of 5th Year covering practically the whole course, additional Laboratory work, harder Exams and higher standards are slowly making it impossible for the average students to obtain the Mech. Eng. Diploma under Night study conditions. Every year hundreds of prospective Diplomates are finding the strain too much for them and are forced to give up the course. Surely in an age of Technical advance in which more and more trained Engineers could be employed to design, invent and produce Machines, which would reduce the burden of human labour, this should not be so.

To reduce the standard would be a step backwards, to be satisfied with the present percentage of final passes would be a callous disregard of the interests of the community, as well as of the intending students who are out of sheer physical or mental exhaustion are forced to throw in the towel.

The only solution to this problem is the one advocated by this Association and the Union generally, namely immediate daylight training of at least 2 half days per week, for all diploma students brought into force by legislation.

**PINION**

Unable to finance Pinion without advertisements, in its old form and unable to obtain them elsewhere the Eng. Association Executive was faced with the choice of either going back to the old form of Roneoed Sheet, or to introduce a Supplement in Unity News. The Executive decided for the latter and recommended the same to the other Associations, faced with the same difficulties.

Mechanical Eng. Students should recognise Pinion for what it is, nameyl "their paper". It is the medium through which they can and should voice their opinions, complaints, criticism or suggestions, about anything troubling their mind. It is with great pleasure that we are able to present in this first issue for 1949 articles of controversial issues from Students, which should stimulate lively discussion on subjects undoubtedly of vital importance to the welfare of all students. Whether you agree or disagree don't hesitate and come forward with your opinion and we will print it for you.

## A BIGGER BETTER UNION

No doubt a storm of protest will arise from amongst some of my fellow students on reading this article, but I feel that it must be written, so write it I shall. The subject is, I think nothing entirely new to most students, but by way of a change I intend to bring it out into the open instead of hearing it spread around like rumour by word of mouth.

What should be brought to the attention of the reader is that there is room for improvement in the policy of the S.T.C. Union and its various departmental associations. As I have seen it, the policy of the Union has become over the past few years more than ever political, not only this, these politics have strong Communist tendencies. The reason for this I feel is that quite a large portion of the executive of the Union and its associations either is Communist or have Communist sympathies. While not failing to recognise the excellent work that has been done (and is still being done) by executive, it is my desire that the policy of the Union be reconstructed on strictly non-political lines, or that those politically minded executives be removed from office. I feel quite sure that many students will back me up in that direction. As a class representative, it has been my duty early last year and this year, to approach students personally and to persuade them to join the Union, and in many cases I have met with the reply that they would not join because they resented the fact that the policy of the Union was political. Should this fact prevent the Students from becoming Union members? I say NO! It should be all the more reason why they should join, because strength of membership of people such as these would so improve the position whereby the

Union could be run along lines that are more desirable.

The reader will agree, I am sure, that the brains of the younger generation are concentrated in our colleges and universities, so, if a Communist faction exists in an executive position in those colleges and universities, these latter become potential breeding ground for officials and executives of a future and stronger Australian Communist Party, something which the reader will realise as wholly undesirable since learning of the anti-church activities in the Communist controlled countries in Europe.

Further to the above, I see no reason why politics should enter at all into the Union policy, for, after all, is there anything in the Constitution of the Union which says that the interests of the Union should be directed towards Party politics? Definitely not! I shall quote from clause 2 of the Constitution headed "Objects."

"The objects of the Union shall be:—

- (a) To obtain adequate recognition of the College and its Diplomas throughout the community generally.
- (b) To promote and foster a college spirit amongst members.
- (c) To initiate and provide for social activities amongst members of such means as the establishment and maintenance of club rooms, and the holding of social functions from time to time.
- (d) To provide for the acquisition and inter change of technical knowledge amongst members by such means as lectures and reading of papers of general interest, and to assist the Departmental Associations to do likewise.
- (e) To undertake any activities not already mentioned for the interest and benefit of members.

## WHO WANTS WAR?

This is a most burning question and indisputably one of utmost importance to everyone of us today.

The usual answer is Nobody, nobody wants war.

However every thinking person with the least bit of commonsense will not be able to accept this as the correct answer.

*True the great majority of common people throughout the world are against war—however, if it were true that nobody wanted war, since it is a man made business, no wars would occur.*

Since some people do want war, our job is to find out who they are and why they do. When looking for a criminal the first thing any sensible detective will do is to look for the people most likely to reap the benefit from the crime.

We must then apply this principle here, and ask ourselves who reaps the greatest benefit from this terrible crime, War!

And the answer is simple—the shareholders of Armament Factories in every country making them. Shareholders live on the profit made through the sale of goods manufactured by the concern in which they hold shares, and of course the amount of profit is determined by the demand for the goods.

Therefore if there is no demand for war there is no need for Arm-

ament, and no profit can be made by Armament Manufacturers.

Here then can be found the reason for considerable opposition by some quarters to demands such as the general reduction of armaments.

Although a resolution on this was passed unanimously by the General Assembly of U.N.O.—no reduction in armament is taking place and rather the opposite is carried out. Year after year millions of pounds of taxpayers' money is being poured into death reeling weapons, of Mass Murder instead of being used for the purpose of building Homes, Hospitals, Schools, Power Stations, decent cafeterias, and all those many useful things so badly needed by the living. Although Poison Gas was outlawed 25 years ago, today Atomic Weapons and germ warfare many times more horrible are legitimate and boasted of by some Nations.

"The Economic Outlook", the bulletin published by the Congress of Industrial Organisations, U.S.A., in its issue No. 11 for 1946, gives interesting data regarding the increase of profits, after payment of taxes, of 50 companies during the years 1945-46. It can be seen from these data that individual monopolies received exorbitant profits from the war, having pocketed 200-300 and more per cent, in some cases these profits amounted to 500 and even 800 per cent (Atlantic Refining Co. for instance).

According to this bulletin these profits exceeded four times the average profits for the period 1936-1939. As far as the commercial profits are concerned, they reached in October 1946 their highest point in history.

The source of those profits was human blood, demolished cities and millions upon millions of widows and orphans who bewail their lost bread-winners.

Thus, the war is not so hateful after all to those groups of society which skilfully utilize the hardships of wartime for the purpose of their own enrichment. James Allen in his book "World Monopoly and Peace" states that in capitalist countries economy suffers "long-time imbalance" and "radical realignments" and quotes from the report of a governmental body engaged in the research of this particular problem some extracts which lead to the conclusion that "only through war can the present economic system be operated in

M.J.

(Continued page 8)

## OUR NEW PROFESSORS

(A series of character sketches issued for our consumption by the Technical Education Department.)

### Chair of Electrical Engineering

Professor of Electrical Engineering and co-ordinator of Research, H. J. Brown, B.Sc., M.E. (Sydney). For the past two years he has been Acting Assistant Director of the University of Technology and co-ordinator of Research in the Technical Education Department. He will be responsible for the co-ordination of research in the new University.

After working in the research laboratories of Amalgamated Wireless and as an Electrical engineer in the Tasmanian Hydro Electric Commission he became Principal Research Officer in the C.S.I.R. during the war and was one of the leaders in radar research and development. He studied research and manufacturing developments in America in 1943 and again visited America and England in 1945 and 1946 in connection with international civil aviation conferences and electrical and communication developments.

### Chair of Architecture

Professor of Architecture, F. E. Towndrow, F.R.I.B.A., F.R.A.I.A., M.T.C.P.I. (Aust.) is at present Head of the Department of Architecture at the Sydney Technical College. Before taking this position he was Senior Architect to the Ministry of Works, London, and Controller of Experimental Building Development (Great Britain). He has made extensive studies in Europe and has exhibited in the Royal Academy, London. He was Assistant Principal, also, to the Polytechnic School of Architecture, London.

He is a Member of the Council of the Town and Country Planning Association, London, and was formerly a member of the Building Research Board of Great Britain. He also acted on the Central Housing Advisory Committee for the Ministry of Health in England, and on the Scottish Housing Advisory Committee. He was for several years Hon. Secretary of the Arts Committee of the R.I.B.A.

He is the author of a number of books on architecture and planning. He is at present the Vernon Memorial lecturer on Civic Architecture at Sydney University. He served in the first World War in both France and India, receiving the Indian Frontier Medal.

### Registrar

Mr. J. C. Webb, M.Sc., F.G.S., M.I.Min.E., is a graduate of the University of Wales, where prior to coming to Australia he was engaged in lecturing and in research on mining problems. Mr. Webb has visited America and Europe investigating the problems associated with the industry.

Since 1946, Mr. Webb has held the position of Head of the Mining Engineering Department of the Technical Education Department and has organised courses of mining instruction throughout New South Wales. In this capacity he was responsible for the establishment of the first Coal Mining

Engineering degree course in Australia, together with a valuable scholarship scheme to provide financial assistance to Students' welfare and has taken an active part in the organisation of the social and sporting activities of students in the New South Wales University of Technology.

### Chair of Chemical Engineering

Professor J. P. Baxter, O.B.E., B.Sc. (B'ham), Ph.D. (B'ham), M.I.Chem.E.

He was awarded the Priestley Research Scholarship (1925-27) and later the James Watt Research Fellowship (1927-28) of Birmingham University, during investigations in Mechanical Engineering and Chemistry for which he was awarded the Frankland Medal. In 1928 he was appointed to the Research Staff of the General Chemicals Division of Imperial Chemical Industries Ltd. In 1936 he was appointed Research Manager and in 1945 Director of the General Chemicals Division of the company in charge of their research laboratories. Dr. Baxter has been connected with the development of many new chemical products such as Polyvinyl-chloride, "Gammexane" and organic fluorine compounds, together with a comprehensive programme of research into Chemical Engineering problems.

During the last war he was responsible for intensive researches on Chemical warfare problems and collaborated on the chemical side of the atomic energy programme. In this connection Dr. Baxter, at the request of the British Government, went to the United States in 1944 to join the American team working on atomic energy at Oak Ridge, and remained on this work until after the war. For his work on atomic energy development he was awarded the O.B.E. in 1945. Dr. Baxter has been in charge of training of the Chemical Engineering staff in his Division.

### Chair of Mining Engineering

Professor D. W. Phillips, B.Sc. (Wales), Ph.D. (Cambridge), M.I.Min.E., F.G.S., is also a certificated Colliery Manager.

He served as an officer of the Safety in Mines Research Board, first as a Mining Engineer and Geologist and later as Chief Mining Engineer. In this capacity he was responsible for the direction of research on problems of haulage subsidence and roof control in mines, and of shotfiring in coal mines.

In 1943, Dr. Phillips was appointed Principal Scientific Officer to the safety in Mines Research Board and following the nationalisation of the British Coal Industry, was appointed Chief Safety Engineer to the National Coal Board.

Dr. Phillips has established a high reputation as an authority on roof control in mines and has published a large number of papers on the subject in British and

European Journals. He has a wide experience of mining in all its branches and has also studied mining methods employed in Holland, Belgium and America.

Professor A. E. Alexander, M.A.B.Sc. (Reading), Ph.D. (Cambridge), is at present assistant Director of Research in the Department of Colloid Science, University of Cambridge. He is a Fellow of King's College, Cambridge. He was awarded the Ramsay Memorial Fellowship in 1937 and the Rockefeller Travelling Scholarship in 1939, the latter enabling him to work in the Department of Medical Chemistry at Uppsala University (Sweden), with Professor T. Teorell. He was the Tildon Lecturer of the Chemical Society in 1947. He was invited in 1948 to give a series of lectures at the Mt. Sinai Hospital, New York, on "the application of surface chemistry to the biological problems" and gave an address at the Colloid Science Symposium, held in June, 1948, at the Massachusetts Institute of Technology.

Dr. Alexander has been engaged in research and teaching at Cambridge University since 1935, chiefly in the field of surface chemistry, polymers and colloid chemistry. During the war Dr. Alexander was engaged in research for the British Ministry of Aircraft Production and the Petroleum Warfare Department working on polymers, aluminium soaps, and such problems as—the camouflage of grass on aerodromes to make it resemble ploughland, hedges, cornfields, etc., the camouflage of water by means of thin films of coal dust and oils, rubber substitutes, particularly in connection with the oil-incendiary bomb and flame-thrower fuels.

In the industrial field he has been adviser to industrial undertakings, particularly in connection with paints, emulsions, soaps and detergents. Dr. Alexander was responsible for the organisation of a Summer School held under the auspices of the Royal Institute of Chemistry at Cambridge in 1945 which was attended by chemists from the major industrial, governmental and university Laboratories.

He is the author of a large number of publications on colloids, surface chemistry and polymers and has recently particularly concerned himself with the effect of the surface activity of substances on their microbiological and drug action. He has been a contributor to various books on Colloids and his recent 2-volume general textbook on "Colloid Science" (with P. Johnson) has had a very good reception.

## HOME - BREWING (cont.)

designed as to be easily and thoroughly cleaned before use.

### 6. Prevention of Contamination.

Before and after use the brewing vessel should be washed out thoroughly with soap and water, and then be rinsed thoroughly to remove any adhering soap. The boiled wort should be strained while still hot, and then cooled in covered vessels. When cool it is tipped directly into the brewing vessel, the yeast inoculum added, the vessel stood in a trough of water and then covered with two or three thicknesses of clean muslin. These precautions are essential, as they prevent entry of fruit flies and ants, which are notorious carriers of bacterial souring organisms and wild yeasts. The implements used for stirring and sampling the wort during fermentation should be washed thoroughly before and after use to remove any adhering organisms. All bottles should be washed thoroughly with soap and water (using a good bottle brush) before filling. If these relatively simple precautions are taken, spoilage of brews due to souring should be a thing of the past.

From this discussion it is evident that the sovereign rules for the home brewer are:—Use a good grade malt, a suitable yeast culture and adequate hops. This coupled with scrupulous cleanliness in all operations, should produce beer which is as good in quality as most commercial products. If the suggestions I have made are followed, I am certain that the home brewer will have considerable success in the production of his "atomic-bombo"! With a little experience he should be able to produce a brew which will bowl its consumers over in short order (which, incidentally, reduces the cost of beer-drinking still further, since the consumption is lower).

"SACCHAROMYCES".

## TRANSMISSION (cont.)

The last monthly meeting of the Committee was held on 7.7.49 at the residence of the secretary. Present were H. Hesse, chairman; T. M. Crawford, secretary; F. Leake, H. Lainson, A. Hill, H. Harrant. Jess Brunner, Union President came along as an observer.

Matters discussed included Student Health Campaign, Closing of Tech, End of Year Party and Examination Papers.

Opinions varied quite a bit, but we want greater representation of the mass of Students.

Next Meeting will be in Union Rooms at 8.30 p.m., Tuesday, 2nd August, 1949.

\* \* \*

The collection and sorting of previous year's examination papers has begun. Fred Leake, Elect. Engineering Graduate, is the man in charge. Class Representatives will be around soon with application forms. Meantime there are still some left from last year in the Union Rooms. Members may have them on application. To non members 1/-. Call down and see what is there, or see your class reps. If you have no class representative elect one now.

\* \* \*

# TECHNICHEM

Editor: A. D. THORNELL

## HOME — BREWING

### Dodges, Pitfalls and Triumphs

The beer drought which has existed in this State for most of the war years has caused many otherwise law-abiding citizens to take up the production of their own thirst quenchers. Thus the important art of "Home Brewing" has achieved an important place in our Australian culture. However, many would be home-brewers are discouraged by the poor results they receive from their fermentation process.

A little knowledge of the fundamentals of brewing practice would greatly reduce losses due to souring-off, flavour and other faults. This article is an attempt to present the fundamentals of brewing, with particular reference to home brewing conditions.

#### 1. The Malt.

The basic ingredient of beer is malt, as the malt supplies the sugars and nitrogenous substances necessary for the fermentation process. Malt is prepared by allowing barley grain to germinate and then drying it in kilns. This process causes the development of an enzyme, diastase, which converts the starch present in the grain into sugars, which provide the food necessary for the yeast cells during the fermentation process. These sugars are extracted from the malted grain by mashing with warm water. The water extracted then becomes the fermentable liquor. For home brewers, however, by far the most convenient source of malt is "malt extract." This is prepared as described above, the extract being evaporated to produce the thick malt extract of commerce.

#### 2. The Hops.

The other main ingredient of beer is the hops. Hops are added to give the characteristic bitter flavour. In addition to their flavouring actions, hops have a slight bacteriostatic action, and so tend to discourage the growth of the souring organisms which cause so much spoilage of beer.

The flavouring action of hops is due to two of its constituents, namely the hop resins and the essential oils. The resins are extracted from the hops by boiling, and it is these resins which, on fermentation, produce the bitter flavour of beer, whilst the essential oils impart the characteristic hop flavour. To obtain good extractions of the resins, fairly prolonged boiling is necessary, but this treatment has the disadvantage that much of the essential oils are driven off in the steam, this producing a weak hop flavour in the finished beer. The best method of overcoming the difficulty is to add about three-quarters of the total hops to the liquor and give it the full boiling time in a container with a well-fitting lid. The remainder of the hops are added about 15 minutes before the end of the boiling.

#### 3. Composition and Preparation of the Wort.

This is an opportune moment to introduce some information on the composition and preparation of the fermentable liquor or "wort". In commercial practice the wort is usually controlled so as to have an initial specific gravity of from 1.040 to 1.050 at 20°C. I have found the following mix-

tures satisfactory:—

Type of Beer:				
Fairly Dark, full flavoured.				
Malt	Sugar	Water	S.G.	
1 lb.	8 ozs.	1 gal.	1.049	
Type of Beer:				
Pale ale type, lighter flavour.				
Malt	Sugar	Water	S.G.	
8 ozs.	1 lb.	1 gal.	1.050	

The concentration of ingredients given here may be varied to a considerable extent according to the taste of the individual home brewer, so long as the final density does not exceed 1.050. The hop content of the beer may be varied from ½ oz. to 1 oz. per gallon of water according to the intensity of the bitter flavour desired in the beer.

To prepare the wort, the water is placed in a suitable boiling vessel, the sugar added and dissolved. The solution is then heated, and the malt dispersed in the hot liquor. The wort is brought to the boil and the hops added. The mixture is then simmered gently for one hour.

The liquor should be strained through several layers of fine muslin to remove the bulk of the coarser suspended particles. This straining is done before the wort is cooled, as the heat from the liquor will kill any organisms, which may be present on the muslin, and so prevent contamination of the wort. The liquor should be cooled to the temperature of 30°C. or lower, in order to obtain good fermentation conditions. The cooled liquor is then transferred to the brewing vessel and is ready for inoculation.

#### 4. The Fermentation.

The fermentation process is the result of the growth of yeast cells in the wort. The yeast break down in sugar present in the wort producing alcohol and carbon dioxide. The type of yeast used is very important, as it has a marked influence on the final flavour of the beer. Commercial brewers use a pure strain of yeast, which is carefully maintained free from all other organisms. Two types of fermentation are carried on in commerce, namely top fermentation and bottom fermentation. The names of the system are derived from the growth habits of the yeast, "top" yeasts aggregating in a layer on top of the liquor, whilst "Bottom" yeasts tend to settle on the bottom of the brewing vessel. Top yeasts are used mainly for the preparation of ales, while bottom yeasts are used to prepare lager beers. If it is humanly possible the home brewer

should endeavour to obtain supplies of brewer's yeast, as this is by far the most satisfactory material. However, if it is impossible to obtain brewer's yeast, baker's yeast may be substituted, although this sometimes leads to the development of peculiar "off" flavours.

The first obvious sign of fermentation is the development of a light white frost on the surface of the wort. This carries up a quantity of dark, resinous material, which should be skimmed off to prevent its redistribution in the liquor as it tends to impart a harsh flavour to the beer. The next stage is the segregation of yeast cells on either the top or bottom of the wort. At this stage the mixture should be stirred at intervals (night and morning for instance) to ensure that the cells are thoroughly mixed with the wort so that they have a plentiful supply of sugar available. As fermentation proceeds, the sugar content decreases, due to its being decomposed by the yeast cells. The liquor is ready for bottling when the sugar has fallen to 1.5 to 2.0 per cent. Most home brewers tend to judge when the fermentation has reached this stage by observing the sweetness of the wort and the slowing down of the fermentation. However, this method is very subject to error, and frequently results in either exploding bottles due to bottling the material too early, or flatness due to bottling too late.

The method I use is to follow the fall in density of the wort by using a hydrometer calibrated for a suitable range (namely 1.000 to 1.050). These instruments are quite cheap, and anyone seriously interested in home brewing should invest in one, as it removes all the uncertainty from the bottling process. The brew is ready for bottling when its density has fallen to between 1.008 and 1.005. A day or so before bottling skimming should be commenced to remove the bulk of the surplus yeast cells. The day before bottling it is a

good idea to sprinkle about one tablespoonful of granulated gelatine over the surface of the liquor, as this aids in the coagulation of suspended particles and gives a "brighter" product.

The total brewing period should not exceed seven days. This means that a good heavy yeast inoculum must be used in order to obtain rapid fermentation in the early stages of the process. When the batch is ready for bottling, the liquor is syphoned off into the bottles, filling them just to the shoulder of the bottle.

The bottles are best sealed with crown-seals, as they are inexpensive and easy to use. A small type of crown sealer may be purchased at most ironmongers and chain stores. The beer is ready for drinking about a fortnight after bottling although longer storage greatly improves the flavour. The bottles should always be stored in a cool, dark place.

#### 5. Fermentation Process.

This is one of the chief sources of difficulty for the home brewer, as vessels of sufficient size are not usually found around the home. The vessel should be made from some material which is not attacked by the wort and which does not impart any flavour to the beer. The best type of vessel is a small cask with one end removed. These are relatively cheap and produce excellent beer. However a word of warning with regard to casks. They should always be filled with water and allowed to stand for 24 hours before use. This causes swelling of the wood in the staves and renders the cask water-tight. If this is not done, almost all of the wort will be lost due to leakage. Other suitable brewing vessels are clean earthenware crocks or enamel vessels. Kerosene tins may also be used as long as they are in good condition and free from rust. Galvanised vessels should on no account be used, as they impart a repulsive off-flavour to the beer. Any vessel used should be so

(Continued page 6)

Dear Joe,

I received your letter (dated 11-7-49) today. I have been at Young for the past two weeks and your letter had been readdressed from Coogee, thereby the delay. My return to Sydney (damn it) will be governed by either the restarting of night tech. or a return to work—whichever is the earlier.

I'm sorry that I couldn't keep the appointment but it was humanly impossible, as you have probably seen.

I'll see you when I return to Sydney.

Yours,

ALLAN THORNELL.

(As you see by the above letter, Allan is out of town indefinitely. On the page devoted to "Technichem", therefore, we are printing an article submitted to U.N. but which to us seems more fitted for Technichem, and we are also reprinting an article which seems to us to be very timely.—J.F.R.)

# FEES PAID -- YET STUDENTS DENIED ADMISSION

Since the 24th June students enrolled at the Technical College, all of whom have paid their fees, have been refused admission to the College at night.

This amazing state of affairs was highlighted on the night of the 14th July when Union Council was refused permission into the Union Rooms to hold a meeting to discuss ways and means of getting students back to Tech.

A broad meeting of class, reps. councillors and association committee members had been held in the Union Rooms on the night of the 12th July (they provided their own light) and it was imperative that Council meet to implement the decisions of this meeting.

After persistent efforts, secretary Harold Spies had to report to Council (standing in the cold at Mary Ann Street entrance) that Dr. Murphy had definitely given orders that the meeting was not to be held.

The following motion was carried unanimously by an irate Council.

"We are of the opinion that this Council, and its executive, are sufficiently responsible people to be allowed to hold whatsoever, student meetings they consider necessary in the Union Rooms during the present and any other period. Thus we wish to express our concern at Dr. Murphy's cancellation of tonight's Council Meeting and request that the Union Executive be empowered to convene and conduct any meeting they deem necessary. The administration to be informed when the meetings are to be held. The Executive to inform Dr. Murphy and Mr.

Riddell of this decision immediately."

The elected representatives of the Students are very concerned at the closure of the college and are making every effort to assist the administration in the solution

### THE LIBRARY MUST BE OPENED.

There are 50 Tilly lamps used in the Administration Offices every day. These would be more than sufficient to light the College Library at night and allow students to catch up on much of their work which needs reference to journals etc.

This would be a great boon, particularly to diploma students and we feel that the administration must act immediately.

At the time we go to press, Union Secretary, Harold Spies is pressing the administration to make these lamps available. If you can't get into the library at night when you read this send a telegram to the administration or write to Harold supporting his actions.

### WE QUOTE.

Technical Colleges. The approved standard for colleges provides for a minimum of twenty acres." (Report prepared for the intermi standing committee appointed by the Minister to advise upon National Fitness Policy November 15th, 1949.

The University of Technology, Mr. Heffron's baby, as is National Fitness, will be built on an area of eighteen acres.

of the problem.

Unity News feels that the administration must realize that it is only with the co-operation of students, staff and all concerned that we can solve our problems speedily.

## PINION (cont.)

such a way as to approximate full employment."

Hence the only solution seems to be a replacement of this system by one which will make it impossible for anybody to make a fortune out of the sufferings of so many innocent people. Then and only then can we be sure of lasting peace, because there will be nobody left to gain anything from War.

A.P.

A visit to Warragamba Dam is being organised for the first or 2nd Saturday after Crisis.

Details are: The party leaves Parramatta at 9 a.m., 2 buses will be going and the programme for the day is:

1. Prospect Reservoir.
2. Screening Works.
3. Pipe Line.
4. Warragamba Dam.

Return to Parramatta by 5 p.m. Cost 7/- from Parramatta.

Suggestions for further visits are also invited. In charge of inspection tours for the Association is Peter-de-Courcy Brown.

### ENG. ASSOCIATION Current Events.

#### Photo Competition.

A Photo Competition initiated by the Electrical Eng. Association has met with enthusiastic support by our Association. And we are determined to win the best prizes. Elec. Students think they have it in the bag. A challenge Mech. Photographers cannot ignore. So roll in your entries fast and furious.

Organiser for the Eng. Association is George Keen, so hand your entries to him, direct to your class rep., or leave them in the Committee Rooms with Miss Cooper.

#### Exam Papers.

A good job was done early this year by our Class Reps., in distributing past Exam papers left over from last year.

However a few are still left in the Committee Rooms.

Past Exam papers are available free to all union members, but may be purchased by non-members for a small fee.

See your class reps. for details. *played it the way you should, you wouldn't have!*

#### Bridge—the friendly game.

*Harold Spies. Well I made slam didn't I?*

*Clare Spies. Yes, but if you'd*

## TECH-

TECHNICALITIES



By JOE RYAN

Electrical Engineering President, Paul Hirschl is a broken man these days. Luck is with him for the first time in his life, and the shock has practically killed him. A cushy job with C.S.I.R.O. doing nothing but improvising power equipment, a graduate (no night tech. for him, if there was any) a baby girl and a brand new home. Don't know how he stood up to it.

*This no night Tech. business is not as good as it may seem. What with the high cost of . . . living, one is tempted to hope that the classes start again very soon so that yours truly can be saved from complete and utter exposure as a bankrupt of the worst type. She wouldn't like that.*

#### Those Emergency Editions of U.N.

*Big crawl job. Many thanks to Truda Cooper for valuable help with material and for typing the stencils. To Clem Millwood for drawing the cartoon. To the Spies for not being too annoyed at my barging in on them at midnight to discuss the plan, and help write it, and last but not least, to Bert Kahana, at the Union Store, who ran them off on the duplicator, by hand, and helped distribute them.*

Sidelights on the Science Ball. First arrival, Frank Peacock, App. Science Degree 1a, unfortunately with ticket for the Sydney Homeopathic Hospital Benefit. He gave an I.O.U. for two Ball tickets, which I hope, was redeemed.

Arthur Everett, Stage V. Science, who turned up to collect his prize. Just in case the going got a little dull, Arthur brought his chem. notes with him.

About the last depression. An economist could have said this: "It came at a bad time. Everybody was out of work."

### REFERENDUM AT MELBOURNE

A referendum is to be held at Melbourne University in conjunction with the Students' Representative Council electors. The question to be decided is whether the present S.R.C. should continue in office until the time set down in the constitution, (i.e.) after exams, or should the newly elected S.R.C. take office immediately. Allegations against the present S.R.C. include inactivity, political bias, and conduct prejudicial to the students. Main point of defence by the present S.R.C. is that the charges are levelled by the Labour Club.

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