



FELIX

4d.

WEDNESDAY 2 NOVEMBER 1966

Nr. 236

FELIX LOOKS AT:
SIR OWEN SAUNDERS
AND TONY DUKE

BEECHING WARNS

Commemoration Day Address

Scientists tend not to branch away from scientific occupations—this was one conclusion reached by Lord Beeching, Director of Imperial Chemical Industries, in his address as the Special Visitor at Commemoration Day.

Lord Beeching's speech was the finale to IC's annual pomp and circumstance. The celebration, held in the Royal Albert Hall, began with the colourful entrance of the student Presidents, Readers, and Wardens, Professors and the principal officers of the Governing Body. The procession was effectively performed to a background of 'Gaudamus igitur' sung by the IC Musical Society Choir.

An unprogrammed event was a brief speech by Lord Sherfield, Chairman of the Governing Body, of the regret of the College at the death of the late Rector. He spoke of the moving address by Lord Florey at the Memorial Service and of the tributes in the Press. The College, he said, has lost a sympathetic administrator, the University a staunch member and all who have come into contact with him have lost a good friend.

Deputy-President David McBain was the Student Orator and gave a dignified rendering of the Opening Proclamation.

The reading was followed by the presentation of Associateships and Diplomates to an accompaniment by the orchestra, the orchestra winning by several lengths. Lastly the six new Fellows were presented with their Parchments by Lord Sherfield.

The Address

The Special Visitor's Address followed 'The Clerk of Oxenford' from the Canterbury Pilgrims by Geoffrey Chaucer and sung by the Choir.

Lord Beeching's Speech touched on one of the vital issues one might have expected from such a distinguished industrialist. Its content was much more relevant to IC and quite uncontroversial. Lord Beeching, who is a Diplomat of IC, devoted the first quarter of his Address to an explanation of how he had changed since leaving the College. He justified this as a warning, that, as an observer and commentator "I am biased by my own particular experiences".

Moving on to his main subject he punctuated the average graduate starting out 'pursuing a career... within the confines of (his) own speciality'. Then later in life finding himself 'increasingly interested

in adjacent fields of knowledge, until eventually he is 'likely to take interest in the overall effectiveness with which science and technology is applied within our social and economic structure'.

This led him to a visual representation of the distribution of science graduates and social science and arts graduates in 'the jobs... filled by well-educated men'. The diagram was difficult to follow but by careful consideration it can be seen to represent the situation. He described a rectangular display in which "scientists" are represented by black spots and "artists" by crosses, while those job filled by none graduates are marked with circles. Moving across the diagram from left to right the scientific content of the jobs increases, climbing up the diagram the organisation level and degree of influence increase. Lord Beeching concluded that black spots would congregate in the lower left corner and spread upwards more or less vertically; the crosses would be spread across the lower right-hand side but these move sideways as they rise. 'At the very top levels of the diagram, representing the levels of most powerful and widespread influence, we see a lot of circles, a lot of crosses, but very few black spots'.

Our fault

He expressed regret at the situation but pointed out that it is partly the "scientists" fault and arises from a vicious circle which we can do much to break. There is an opinion, he said, that "scientists" are less versatile than "artists" and the conclusion was drawn that this is due to inability. In fact it is a result of the excessive demand/supply ratio and the relative qualities of arts and science teachers. The graduate of "science" is less rounded than an "arts" man.

It is our job, he concluded, to think of ourselves 'as highly intelligent, which you are; as well-educated people, which you should be; and never hesitate to broaden your experience'.

The two hour ceremony finished with the Choir leading the Assembly in 'God Save The Queen'.



Lord Beeching giving his address on Thursday.

Memorial Service-glowing tribute

Lord Florey paid glowing tribute to Sir Patrick Linstead in his address at the Memorial Service for the late Rector. The College had lost this dedicated and sympathetic person at the height of his powers. In a period when most had a dread of being incompetent he stood out and determined that we should not fail.

Following his appointment as Rector in 1955, he became involved in discussions at Government level on education and research. From then on he devoted the finest years of his life to the College and it is due to his great administrative ability that the College owes its present position. Its students will have cause to be grateful to him all their lives.

To achieve a sufficient control over the College, another man might have been ruthlessly efficient, but under Sir Patrick one sensed a happy atmosphere about the College. It was always his aim that although the principal task was to produce scientists, the products should be "rounded" scientists.

Lord Florey pointed out that Sir Patrick was a very human person and enjoyed his home-life. Without the great help given by Lady Linstead the success would not have been achieved.

At the Royal Society Sir Patrick and Lord Florey worked together; on Lord Florey's election to President he was told he was lucky to have Sir Patrick there to keep him straight. In judgement and action he was superb and made a delightful colleague.

Lord Florey ended with the reminder that Sir Patrick Linstead was a scientist of great distinction and a splendid friend.

Lord Florey, who is Provost of Queens College, Oxford, was a great friend of the late Rector and the emotion he felt at the loss was readily discernible in his speech.

Among the many distinguished visitors present with Lady Linstead were members of the Governing Board; Lord Sherfield, Sir Charles Cunningham, Dr. D. H. Follett, Lord Stamp; also present were The Mayor of Kensington and Chelsea, the Lord Mayor of Westminster, Sir Edmond and Lady Playfair, Sir Solly and Lady Zuckerman; and indeed a veritable host of dignitaries. They were seated in the nave with the senior members of the Union.

The service was simple and lasted only half an hour. The lesson was read by President Tony Duke and this progressed after prayers led by the Rev. Cleverly Ford, to Lord Florey's address. The blessing was given by the Bishop of London and the IC choir then sang.

General Studies: 'THE TWO CULTURES'

Leonardo da Vinci

On Tuesday 18 October in the General Studies course "The Two Cultures" the Rev. Gordon Phillips, Senior Chaplain to the University, gave the record of his discourses on Leonardo da Vinci. He set out and, in his own brilliant way, succeeded to give the most important events in the life of Leonardo and to connect these events with aspects of this most interesting personality.

Leonardo received only a basic education, first in the peasant home of his mother and then later in the more luxurious Florentine home of his father. He spent his apprenticeship with Verrocchio where his style of "over neat" paintings and sexless subjects emerged.

It was at this time that he was charged with, and cleared of sodomy. Another event of this period which, according to Mr. Phillips, obsessed

him was the sight of a man suffering from the effects of lynching. From Florence Leonardo went to Milan where he made his name as a lute player, doing little painting but designing a number of buildings including a brothel with concealed doors, for embarrassed customers, and a stable with an automatic feeding system.

This period also brought a number of designs for machines which had many useful accessories, but he did not find a practical means to propel them. These included a 50 ton "hand powered" tank, a steam cannon and wings for men.

Before leaving Milan he painted the famous "last supper". His method was to work for periods up to 24 hours without stopping for food or rest and then to work on something else before his next stint days later.

After Tynan, Gascoigne, Gilliatt...

Ronald Bryden

Why? How? What's it like?

RONALD BRYDEN was born in Trinidad and went to school in Canada. He produced shows there. When his college put on *1066 And All That* he played the Decline and Fall of the Roman Empire. Do we have here the first, distant stirrings . . . ?

Cambridge. Bryden was at Cambridge from 1951 to 1955, where incidentally he wrote theatre notices for the Cambridge Review. When he went down he wrote for The Spectator, moved on to become the New Statesman's dramatic critic. It was the success of his work here—intelligent, witty, literary—that led to his being chosen by The Observer.

Full marks for homework. Being The Observer's theatre critic is hard work. He has to see a lot of plays, obviously. It takes research. Bryden was the only London critic to find, then read, a copy of Lope de Vega's *La Fianza Satisficha*, the original of Osborne's *A Bond Honoured*. (The Guardian had started a rumour that it didn't exist.)

Still not bored. After more than 1,000 plays Bryden has still not been bored. Whatever the reason for this, it seems to result in not being boring. Read him in The Observer every Sunday. You may agree.



Bryden · The Observer · Every Sunday



JAZZ BENNY GREEN

Such is the drawing power of Benny Green that two or three hundred people gathered in Mech Eng recently to hear the first talk in his General Studies lecture on "Aspects of Jazz."

In this talk Green examined the music of the contemporary players, Louis Armstrong and Bix Beiderbeche, and compared the differences in their music with the differences in their environments. Whereas Louis is the epitome of the negro jazz-man, having dragged himself up from poverty to the pinnacle of acclaim as a trumpet player, Bix was the middle-class white man who "made good" in the Jazz world and, as Benny Green demonstrated with records, this difference in class and upbringing is reflected in their music.

As boys, both were musically advanced although in different directions. Louis was born with jazz in his soul, while Bix's music was initially guided along most "respectable" lines. The social pressure of the day prevented Beiderbeche from playing in public with the better musicians of the period, who were mainly negro, so his records are, as Benny Green said, "indifferent recordings with one redeeming feature—Bix Beiderbeche." One the other hand, Armstrong was able to record with top-class jazz-men, an uncommon example of social inequality. But, after hours, the two frequently played together and such was their mutual respect that Bix called Louis "the greatest trumpeter that ever lived," while Louis called Bix "the greatest trumpeter that ever lived."

However, while Armstrong's forte was improvisation, Beiderbeche had a strong sense of harmonic values and towards the end of his short life was experimenting and trying to bridge the gap between jazz and classical music, with little success. Armstrong has now expanded his horizons and become perhaps more of an entertainer than a jazz musician.

So, Bix Beiderbeche died early of harmonic insecurity; Louis Armstrong entertains on, and Benny Green will undoubtedly return to play out his series of lectures to the same applause as he started them.

The first 'Mines Night' of this session will be the evening of Morphy Day, starting earlier than usual this year at 6.00 p.m. Ginger O'Reilly, Vice-President, made a plea for better behaviour than on the last such occasion, (the President won't be taking tea with... the Queen Mother this year).

CAVANAGH AT SOC SOC

"You have to bring it home to the average Union member that the beer isn't going to be turned off when a student politician takes over," declared Keith Cavanagh president of R.C.S. At the time, last Monday evening, he was addressing a well-attended meeting of the Soc Soc on the topic of "Student Politics at I.C." He spoke profusely on how the student politician (as opposed to the clowning, beer swilling union official) could make himself most effective in the union. He did, however, emphasise that some clowning was necessary for some people were actually bored by long dissertations on politics.

He regretted that so many students at I.C. seemed unaware and uninterested in what was happening politically on a nationwide basis. They were interested only in what affected them personally, and regarded the Union as a society for organising hops and socials. The fact that they

possessed a great deal of power in the Union seemed to escape them.

He was particularly critical of the political societies at I.C. They were always talking, he said, but never really doing anything. (He gave this as his reason for leaving Soc Soc some years ago.)

It also transpired in the course of his talk that he is in favour of I.C. joining N.U.S. and of a truly democratic election of the president of I.C. The meeting then closed after the election of three new committee members.

There was a special committee meeting held afterwards to decide what action should be taken in support of Battersea Soc. Soc., which has been closed down after some dubious manoeuvring by the president of Battersea Union. Three members of Battersea Soc. Soc. had come to appeal for help in trying to get their society reinstated.

FAIR RENTS FOR RCS

Last Thursday RCS became the twenty-first Student Union to realise that the Rent Acts can help students just as much as other tenants.

Briefly, all rents of unfurnished flats are now frozen until a "Fair Rent" has been fixed.

Premiums, key money and excessive charges for fixtures and fittings are now illegal.

As a tenant, you can apply to your local Fair Rents Officer for your rent to be reduced. If you or your landlord do not like his judgement, your rent goes to the Rent Assessment Committee. This hears both sides and then fixes the rent for three years, at a fair level.

Scarcity is not considered as a factor. Only the accommodation itself is valued. So if your rent is artificially high because you're in an "expensive area" it will probably be greatly reduced.

Furnished tenants can go to the local Furnished Rent Tribunal. You get six months security automatically—even if you are under notice to quit. This is also the place to go if you are in digs.

Leeds University Union encourages members to apply for a rent reduction, and also provides free legal advice on the merits of each case. This scheme has been working for over a year. I asked Vice-President Jack Straw some questions:

Q. What has been the overall effect?

A. A number of students have had their rents reduced. Many more have bargained with their landlords, got reductions by threatening to

Q. Do landlords discriminate against students as troublemakers?

A. No more than usual, and our lodgings bureau hasn't noticed any change.

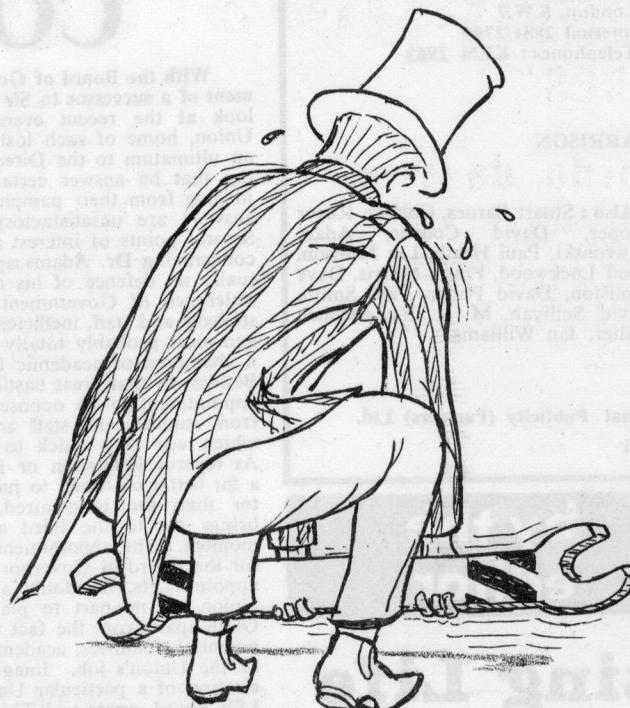
F. FUCHS

FOLLOWING the short article on the London Technical Colleges Conference Mr. Frank Fuchs gave an interesting interview to FELIX. He explained that the LTCC was in no way a "backdoor" to NUS and that the Conference was not directly linked with NUS. It is a forum sponsored by NUS where technical colleges, both members and non-members of NUS could meet and discuss matters of common interest.

Mr. Fuchs, who knows several members of NUS Council, said that he would like to suggest to RCS Committee that they send observers along to an LTCC meeting. However since he had not heard from the Chairman Chris Miller, President of the Borough Polytechnic, for some time, he was doubtful of the outcome.

When asked why he intended to suggest this to RCS rather than IC Union, he explained that there had not been the opportunity to present it to Council and also that he felt he knew RCS Union better than Council, of which he is a member.

He felt that there would be no serious objections to considering joining as it would provide an important meeting point for NUS and non-NUS technical colleges in London. The Conference would be keen for us to join as this is such an important college.



P*T* R*B*R*S

GUILDS UNION MEETING

Guilds Union held the first of their usual rowdy meetings on the 20th. October. The meeting began and Ian Gledhill, the secretary, promptly refused to read the minutes of the last meeting of last term in any other language than English.

Morphy Day plans were outlined by Phil Marshall, Vice-President, of which the essential feature was his role as director of operations from a convenient treetop. The President then mentioned the I.C. Carnival arrangements and appealed for volunteers to enter a pedal car race next Spring.

The election for Guilds Rep on I.C. Council, a position vacated by Tony Duke's retirement to I.C. President followed; neither of the two candidates appeared to know much about the position they were seeking, nevertheless Tony Lunn was duly elected.

After a mention of Guilds—Mines Carnival, to be held on Nov. 25th., the floor was handed over to Jerry Stockbridge who refused to take any responsibility for the Revue which followed.

How can you tell what it's like till you've worked there



That's always the difficulty with choosing a career; you can't get much idea what it's really like from the outside—which is why Unilever is giving you a chance to get an inside view. Next vacation, from Jan 2-4, we're holding an **Introduction to Industry Course** in London; it's designed to cover every essential aspect of industry; talks, discussions, a visit to a factory are all on the programme. Accommodation is in a hotel, and all expenses will be met.

For obvious reasons, places are limited. So if you're interested, and in your final year, get in touch with your Appointments Officer as rapidly as possible. He'll give you an application form and all relevant details. Or write direct to:—

C. R. Stewart, Esq., Personnel Division,
Unilever Limited, Unilever House, London, E.C.4



UST 48-5238

FELIX

Imperial College Union
Prince Consort Rd.
London, S.W.7
Internal 2881/2799
Telephones : KEN 2963

EDITOR C. G. HARRISON

Acting Asst. Editor : Nigel Shindler
Sports Editor : Alan Robins
Business Manager : Richard Davies
Sales : Chris Palmer, Peter Mundy
Asst. Sales Manager : Judith Pearson
Advertising Manager : Robin Hall
Cartoonist : Bob Russell
What's On Editor : Ken Simpson

Advertising Agency : Educational Publicity (Partners) Ltd.
CHA 6081

Comment

by the
editor

This Sporting Life

. . . "difficult years for the Exec" . . . "clean up Freshers' Dinners"

. . . "Morphy Day: Public v IC." Such topics were up for discussion last year, indeed they have come up for many years; this year they arise yet again in the first weeks of term, now with an added urgency in the void following the death of Sir Patrick Linstead. What do we want from Union life? Are we to be all poker-faced, serious-minded intellectuals shouldering the cares of the College, the country and the cosmos? Or should we disregard our responsibilities and enjoy our freedom in drinking and rough-houses?

In the last few weeks there have been several "incidents" created by inebriated members who are out for some fun. On one occasion following an RCS Freshers' Dinner a Theta bearer had his room ransacked by Minesmen—no serious damage was done and no one was harmed but it was an ugly situation for a few minutes. On 9 November comes Morphy Day, that "traditional" day for mock-fighting and general horseplay. This is an excellent opportunity for all boisterousness to be run off and directed into harmless channels.

Our 'image'

The "sporting" events are a common feature of Union life and why should there not be some levity, some horseplay among undergraduates? The products of a University: doctors, lawyers, scientists, chartered engineers are respected members of society, responsible, dependent members of a world which is less kind than the principality of South Ken. The undergraduate life is the ideal situation to learn responsibility by trial and error—if you get drunk, who worries? Better to err now than learn the hard way in the outside world; the College is your training ground.

However let us not forget our public image. A Union of unreliable, irresponsible drunks could not work for long and would not be permitted for long. This sporting life can be extremely enjoyable for all concerned but should its consequences be inflicted on the general public? Is it necessary to litter the pavements with broken glass, hold a toll-gate across Exhibition Road in the rush-hour or attempt to play football in Ken High Street? This kind of levity brings criticism of the College, not specifically the Union, and what might

Also : Stuart Barnes, Colcutt, Roger Cooper, David Cooper, Adam Gawronski, Paul Heath, Les Johnson, Geoff Lockwood, Frank Morris, Dave Ormiston, David Potter, Paul Smith, David Sullivan, M. K. Yu, Stephen Walter, Ian Williams.

COLCUTT

With the Board of Governors of IC no doubt deliberating on the appointment of a successor to Sir Patrick Linstead, it might be as well to take a quick look at the recent events at LSE which have hit the headlines. LSE Union, home of such lost causes as CND from time immemorial, has given an ultimatum to the Director-designate of LSE, Dr. Walter Adams, demanding that he answer certain charges laid against him by an extremist (and judging from their pamphlet, inarticulate) group of students. If Dr. Adam's answers are unsatisfactory, then the Union will oppose his appointment. Several points of interest arise from this situation. First, the Union meeting condemning Dr. Adams appears to have been badly conducted, allowing virtually no defence of his reputation. Second, the charges made against him (tolerance of Government oppression of academic freedom, isolation from students and staff, inefficiency and indecision) are all very poorly substantiated and most probably totally untrue. His past history clearly shows him to be a champion of academic freedom and the very apotheosis of a racialist. Besides, in that great bastion of freedom of political thought, is an academic appointment to be opposed on political grounds? The charges of isolation from students and staff are based on an unpublished report, the author of which was very quick to dissociate himself from the happenings at LSE. As regards indecision or inefficiency, surely the Board of Governors are in a far better position to judge Dr. Adams' personal qualities as an administrator than the long-haired, weirdie trouble-makers of LSE Union. This brings me to the third and final point—especially relevant to IC at the moment. The appointment of Director of LSE as of Rector of IC is a matter for the Board of Governors to decide, and, whilst in the case of controversial appointments, no doubt a reasoned Union view would be listened to, the Union has no part to play in the decision-making, and should have none. Quite apart from the fact that the Board is in a far better position to judge potential nominees, academic appointments are quite simply outside the realm of the Union's job. Imagine the furore if the Board attempted to veto the election of a particular Union President. As Lord Bridges, Chairman of the LSE Board, wrote to "The Times" a week ago, it is ". . . neither necessary, nor indeed proper, that any reply should be made by LSE . . ." The power of LSE Union has been immeasurably weakened by this hysterical outburst. Let us hope that IC is a little more grown-up than its baby sister in Houghton Street.

The letter published in this issue from Roarer Redmayne is typical of several complaints I have heard about my last article. I did not imply that Union officials were unaware of Murray and Compton's failure to return, and I agree. Murray was about College just prior to this term, but as regards Ets., he seems to have been less than helpful, as apparently neither the Exec. nor Keith Guy were given any indication of what has been done and what has not. Minutes books did not appear to exist. I agree that both Murray and Compton did a lot of good work last year, but to say because of this they are above criticism is analogous to saying that because the N.C.B. does a good job in general, minor incidents such as Aberfan may be overlooked. If Mr. Redmayne, bless him, is unable to decide whether I am him or her, why can't he be like everyone else and just say "it".

I was told the other day that R. Hayfork and his Wooden Spoon Club are making Guilds a new, lightweight Mini-spanner.

'Some Other Guys'

IN THE LAST ISSUE of FELIX an article was published describing the running of the Freshers' Hop and this contained references to Mr. Jim Murray, ex-Chairman of Ets. Committee. In particular it was stated that the bass-guitarist and the singer of the group 'Some Other Guys' were personally connected with Mr. Murray. Mr. Murray emphatically denies any such connection. It was also stated in several places that Mr. Murray had failed his Final exams; in fact he obtained his ARCS and merely failed to return to the College and take up his appointment as Carnival Organiser.

The article was based on information obtained from responsible and supposedly reliable sources and in ignorance of the facts stated by Mr. Murray. The Editor regrets these errors and apologises to Mr. Murray for any embarrassment the article may have caused.

THE EDITOR does not necessarily agree with the opinions expressed by advertisers, columnists or correspondents.

ART OF SCIENCE EXHIBITION

MORE ENTRIES WANTED FOR :

Music
Robots
Inventions
Science Fiction
Time Capsule
Films & Photos

Final closing date Nov. 4th.
Entry form from

C.E. Phillips,
637, Tizard Hall.

INTERESTED IN :

QUOTATIONS
QUIZZES
QUAKERS

Then come to the

HALDANE LIBRARY

13 Princes Gardens
for a book about it.

Open 11-7pm. daily (11-5.30)
Monday & Wednesday

LAMLEY'S

technical & general
books

art materials

drawing
instruments

stationery

paperbacks

1.3 & 5. Exhibition Rd.,

London S.W.7.

Letters to FELIX

STUDENTS: FAIR RENTS

Sir,

At the first R.C.S. Union meeting this session a motion was passed, that "all students" in flats should apply to the rent tribunal. It was said that this would produce a pool of low fixed rents.

I believe that this will not happen, because students form too small a proportion of the flat-dwelling population of London.

It would be naive for a student body to try and force rents down when it is in such a minority. The only effect of such a move would be to create a "studentbar" making it impossible for students to find flats at all. Landlords and their estate-

agents would soon notice that flats rented to students were being considered by the Rent Tribunal. The estate-agents would be unwilling to send client such tenants and would veto all students.

If a student feels that his rent is excessive he could apply individually to the tribunal. A register of rents fixed in the area is open for inspection at the local authorities offices, so it is easy to check if an application is worthwhile. A tenant is given six months security of tenure, after the tribunal's decision, after which time the tenant can apply for an extension. The tribunal can limit the security to as little as seven days and even if a longer period is granted the landlord can apply to have it reduced if the tenants' behaviour has been unsatisfactory. For example, if he has not complied with the terms of his contract.

It seems a pity that when London colleges are expanded little or no government money is directed towards student accommodation.

S.E. Barnes

WE won?

Sir,

In view of the statement apparently made at the last Guilds Union Meeting and also in the almost non-existent IC Union Handbook to the effect that Guilds were the winners of the 'towpath' event at Morphy Day last year, I would be pleased if you could allow me to make use of your columns to state that in fact RCS were in possession of the pushball for the whole of the event except the first ten minutes and thus there is no question but that they and not Guilds were the winners.

R.D. James

Carnival mess

Sir,

I should strongly like to recommend to whoever was in charge of the Carnival squad on Saturday the 22nd October that, if it is absolutely necessary to use the tennis courts for cleaning bill-boards on, that in future he comes to some arrangement with the tennis captain over reserving the courts in Princes Gardens. As I believe these boards were being taken over to the Chemistry Dept. Might I suggest they be cleaned on the car park which is relatively free on Saturdays and where the mess created would be free to run into the public drains. I believe the Chemistry Dept. has running water so that the hose would pose no problem.

R.P. Ibbitt

Addenda

AS IN THE PAST the Editor will be pleased to receive letters for publication. However, the right to withhold from such letters, either in part or in toto, is reserved.

In defence

Sir,
Not only rubbish, but anonymous rubbish! It could not possibly be considered the responsibility of Jim Murray or Brian Compton to have continued the arrangement of the Freshers' hop. On failing their exams—which failure can be largely attributed to their wholehearted efforts for IC Union all last year—they presumably had jobs to take up, which, even if in London, would presumably occupy their whole working day. Further, Colcutt's implication that Union officials were not notified in advance of their absence during the coming session appears to be erroneous as I saw Jim Murray in the Union buildings over a week before he start of term.

To use his (her?) own words, it is typical of the malaise that runs through much of Colcutt that a large part of his comment should be devoted to sleighting two of the Union's hardest workers who are not now in a position to reply.

Roderick J. Redmayne

Ed.: Mr. Redmayne has requested that 'On failing their exams' be amended to 'On failing to return'.

R. N. Conforth.

A CAREER IN ENGINEERING

Modern developments in the Generating Board such as Advanced Gas Cooled Reactors and the 400 kV transmission supergrid require graduates of the highest calibre. Our graduate training schemes are intended for mechanical and electrical engineers and honours physicists who are interested in a career in operational aspects of the Board's work.

The Board is carrying out a number of research programmes closely related to its engineering interests. These include such topics as plasma physics, aerodynamics, combustion studies, stress and vibration analysis, heat transfer, erosion and corrosion studies, materials research and reactor physics.

Research careers are available . . .

FOR MATHEMATICIANS CHEMISTS PHYSICISTS METALLURGISTS AS WELL AS ENGINEERS

If you would like to learn about the Generating Board and career opportunities you will be interested in the following:

Visits to our Research Laboratories. Visits will be arranged for postgraduates and final year undergraduates to our Laboratories at Leatherhead, Berkeley and Marchwood and to our Computing Branch during the week 2 to 6 January 1967.

Two-day Engineering Course. This will be at Headquarters in London on 2 and 3 January 1967 for those interested in operational work.

Vacation Training. This is given in all aspects of the Boards work. Those interested should apply as soon as possible.

University Visits. Representatives of this Industry will visit this university on CITY & GUILDS FEB. 15. PHYSICS DEPT. JAN. 27. CHEMISTRY/METALLURGY JAN. 30. MATHEMATICS FEB. 20. and will be pleased to meet you to discuss opportunities.



Further details from your Appointments Officer or W. H. F. Brooks; Recruitment and University Liaison Officer, Sudbury House, 15 Newgate Street, London E.C.1.

CENTRAL ELECTRICITY GENERATING BOARD

VIETNAM

The war in Vietnam has meant untold suffering for the country's 31 million inhabitants. Peace can only be achieved by the implementation of the 1954 Geneva agreement.

This necessitates an immediate cessation of the bombing of North Vietnam by U.S. aircraft.

Britain, as co-chairman of the Geneva Conference, must work for the carrying out of the Geneva agreement. We therefore urge the British Government to :—

1. Cease support for the U.S. presence in Vietnam.
2. Intensify its efforts to reconvene the 1954 Geneva Conference.
3. To accord the N.L.F. (Vietcong) full status as an independent negotiating body at such a conference.
4. Work towards the complete implementation of the 1954 agreements, including the reunification of Vietnam.

Dr. J. P. Astbury

Mr. A. E. Lowe

Mr. N. C. Barford

Miss P. R. Martins

Dr. I. Butterworth

Prof. P. T. Matthews

Mr. K. Cavanagh (Pres. RCSU)

Dr. C. W. A. Newey

Mr. R. Conn (Vice-Pres. RCSU)

Mr. B. Parker (Hon. Sec. ICU)

Mr. R. G. Davies

Mr. S. P. Patience

Dr. S. Doniach

Dr. S. Raimes

Mr. A. Duke (Pres. ICU)

Dr. J. L. Robinson

Dr. A. R. Edmonds

Dr. S. Rose

Mr. H. Fairbrother

Dr. K. H. Ruddock

Mr. J. A. Gee

Mr. A. G. Siel

Dr. J. S. R. Goodlad

Professor J. T. Stuart

Mr. A. D. Greenwood

Dr. D. L. Thomas

Prof. W. K. Hayman

Dr. R. J. Threlfall

Mr. J. C. de C. Henderson

M.J.J. Warren (Hon. Sec. RCSU)

Dr. H. H. Hopkins

Mrs. D. E. C. Wedderburn

Dr. T. W. B. Kibble

Mr. R. Wilkins

TOP PEOPLE

Sir Owen Saunders -Acting Rector

The sudden death of the late Rector Sir Patrick Linstead leaves a gap at the head of Imperial College's administration. The gap has been filled by Sir Owen Saunders, Pro Rector at Imperial College since 1964, and now appointed Acting Rector. Sir Owen Saunders has a distinguished record both in the academic field and in an administrative capacity, in various academic bodies, inside and outside the College. Born in 1904 he was schooled at Emmanuel School and Birkbeck College, London. He entered Trinity College, Cambridge as an undergraduate and there became a Senior Scholar. His long association with Imperial College began when he was appointed to a Lectureship in Applied Mathematical Physics in 1932. Academically his work has been centred on Applied Thermodynamics and in particular heat transfer. Made Professor of Mechanical Engineering and Head of the Department in 1946, he became Dean of City and Guilds College in 1955.

While the function of Sir Owen Saunders' appointment is to bridge the gap before a permanent appointment is made, his task is not a light one, and the College is going through a stage of vast development and reorganisation. He sees this task as maintaining the momentum of the change and the policies introduced by the late Rector. It would be disastrous, and ill-fitting too, to the memory of Sir Patrick Linstead, to allow the pace of the College's present development to lag. The Acting Rector compared himself to a caretaker Government, and while his hands are not bound, not a great deal can be initiated in the interim period before a new Rector is appointed. His job is to see that the present development is carried through with vigour. In particular, the Sports Centre, the new College Block—both started in October 1964—and the new Halls of Residence will be advanced to completion.

Sir Owen's view of Imperial College is that it has a 'twin role' to fulfill. It is an institute to produce specialists, specialists that a technologically based community requires, and for this it must be a centre of academic excellence, holding a special, if not unique, position in British training and research. In addition, the College must provide a 'University Education'—in the broad sense of the term—to produce future leaders of industry and business who may move completely outside their own specific discipline. It contains a broad spectrum of discipline from the Pure to the Applied—Mathematics to Engineering—and to help to achieve this latter role, greater contact between the departments, between



Tony Duke- President of ICU

Tony Duke was elected President of ICU in June of this year. At the time the reaction of many people was: "Who?" Even now his genial features are none too well known, though most evenings he can be found in Southside bar—"I'm trying to get to know the people."

During the speculation last year concerning possible candidates it was pointed out as a guide that the President usually came from the lower ranks of Council. Tony came in from quite a different direction so let us trace his rise to the Presidency.

Having grown up in a rough area of Plymouth he arrived at IC with an impressive sporting record. At school he was Captain of Swimming and he played Rugby for the school (Plymouth College) and the country. At IC he went straight into the 1st XV in which he still plays. His other social activities have included being Leader of the Church Society and owning (and bending) sports cars, the present one being an MG TF.

It is now four years since Tony arrived at IC as a Freshman in Civ Eng. For the past three years (two undergraduate and one postgraduate) he has been a Year Rep on Guilds' Council and would this year have been Guilds' Rep on IC Council. A knowledge of Council procedure he considers to be "not essential"; what does matter is that he has a great understanding of the general layout—probably best obtained from outside.

Tony comes to the Presidency with an open mind, probably as a result of not working previously on Council which can have a restricting influence. The accomplishments of the Union and its present state he finds satisfactory but he feels that there is a lack of pride in the Union, an insufficient loyalty to it. To him it seems that there are far too few active members; all that is needed is for everyone to support one or two clubs or organisations really actively and there would be a great improvement in the Union's strength. Probably this support could come equally from undergraduates and P.G.S.—the latter could help greatly by bringing in their experience and responsibility while the former have great scope available to them.

This is a difficult year for the Exec., the President sees danger to the Union's freedom from "empire builders" and fears that a new Rector might be less permissive than was the late Sir Patrick Linstead. It is a year for the Union to demonstrate its solidarity and responsibility, "though I don't mind a little horseplay." Whatever happens Tony Duke feels that the Union will run happily.

A. L. Rawtree, Fallow

the groups within the departments and a more fluid motion of ideas between these groups must be aimed at. The broadening of Imperial College can be achieved, too, by incorporating new schools within the College. In this sense, the Acting Rector will continue to work, as Sir Patrick Linstead did, for an amalgamation with the School of the Architectural Association.

In reply to the suggestion that many undergraduates treat Imperial College as an educational factory, rather than participating more fully in the life of the College, Sir Owen thought that there were three ways to remedy this; much of which is already provided. The Halls of Residence must be expanded, eventually to absorb more students. Residential life will then be the centre of the College outside academic affairs. Those living in digs will then naturally gravitate to the Residences for a corporate cultural and social life.

Secondly, Imperial College provides and should provide a wide range of social and cultural facilities; whether the student uses them is another matter. All that can be done here is to see they exist and to help them flourish.

Thirdly a greater contact with other Colleges of London University could be achieved. London University as a whole provides a vast range of activities.

A general complaint of British Universities is that the undergraduate courses are too specialised, and restricted directly to their own discipline. This, in particular, is a problem at Imperial College where a high academic level must be achieved within a 3 year undergraduate course. Sir Owen would like to see the undergraduate courses broadened so that students may defer their decision to specialise in a given direction till the end of their first year. Some departments are anxious to see this change although others fear a lowering of standards.



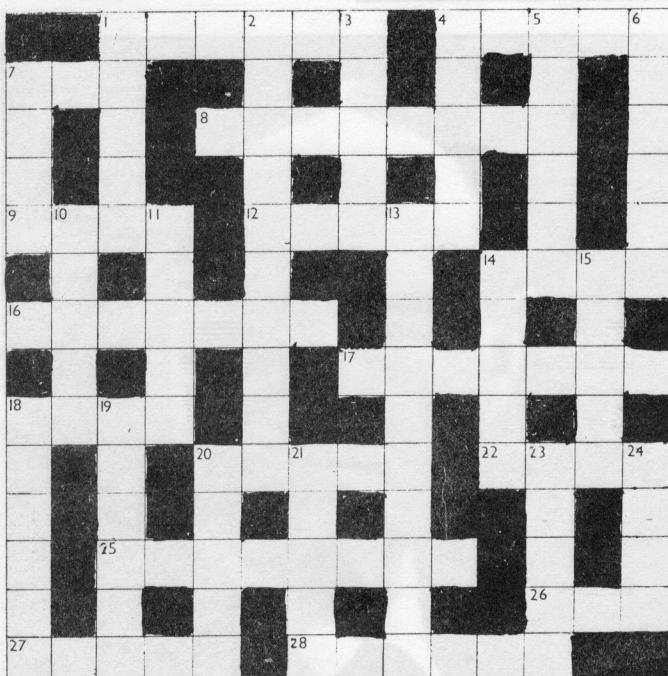
CROSSWORD

Clues Across

- 1 Almost a giggle from the goose! (6)
- 4 Does the pianist play this by ear? Hardly! (5)
- 7 Spoil a most singular planet. (3)
- 8 A profit of 501-6-500? Put an end to it then. (8)
- 9 Set loose for nothing . . . (4)
- 12 . . . , as the Romans used to say. (5)
- 14 He tops the bill each night. Only one, though? (4)
- 16 Don't work on this one. (7)
- 17 A sporting arbitrator. (7)
- 18 Pack in a suitable place. (4)
- 20 Brewer is muddled, as yet, but growing! (5)
- 22 Estimate a measure of speed. (4)
- 25 "Eine Kleine Nachtmusik," by Chopin? No, but the right idea! (8)
- 26 Equipment for a small cat, commonly. (3)
- 27 An heraldic wave-top, perhaps. (5)
- 28 Make certain of getting this one. (6)

Clues Down

- 1 Rub small particles roughly in the fireplace? (5)
- 2 The perfect cure for headaches? How cutting! (10)
- 3 Expel six in a headless sect. (5)
- 4 Birds do this to stop getting ruffled. (5)
- 5 Subtract and almost infer. (6) . . .
- 6 A second string? Certainly not! (6)
- 7 It's a mistake to cover a lady's hands. (4)
- 10 Cook those changed rotas! (5)
- 11 The Spanish bow—in the arm. (5)
- 13 In a Latin test I need inspiration; the appendix, perhaps? (10)
- 14 How to direct an ox. (5)
- 15 On this? Look out then! (6)
- 18 It's still found from attics in confusion. (6)



The 10/- for the best Crossword goes this week to S.D. Walter of Maths. 1. The Crossword is judged by the Editorial Board, whose decision is final. The Board reserve the right to hold over to a succeeding issue any Crossword submitted. Entries must be received by the Wednesday before publication.

- 19 Colourful fruit at point blank range. (6)
- 20 Many get the wind up in this vessel. (5)
- 21 Ill-treatment if you make the short sailor use it. (5)
- 23 Fifteen? Could be, but certainly conscious. (5)
- 24 A point from twenty across. (4)

S.D. WALTER

Crossword

Result of No 235

C	R	O	S	S	P	U	R	I	P	R	O	S	E	S
R	E	N	P	U										
O	A	P	R	I	C	O	T							
T	C	A	L	D	O	S	A	N	L	E				
O	A	"	R	A	G	E	U	R						
D	N	I	S	L	C									
B	I	N	D	E	N	T	"	R	U	M	T	O	T	
L	I	G	M	D	I	I								
E	N	"	S	P	A	T	E	O	T					
T	O	G	"	A	R	"	A	N	T					
E	A	G	R	E	E	R	E							
A	A	U	I	L	E	N								
Z	R	E	L	E	V	E	N							



Some might call him a zebra. To me he's Socrates. Matches the scarf, too. Difficult in the digs. But not at Martins. They understand. They're so friendly at Martins—especially to students. Martins have an especial knowledge of a student's need to budget grants and allowances carefully which is why so many students find it worthwhile to open an account at Martins. Martins go to extremes to be helpful

MARTINS
BANK 
LIMITED

IC

WHAT'S ON

WEDNESDAY 2

Folk Concert Featuring The Young Tradition. 3/-, 5/- and bar. Upper Refectory, 19.30.

THURSDAY 3

FELIX 12.45 Press Room.

Rover Crew: Safety on Mountains, 303 Mines, 12.35.

IC Union Meeting. Concert Hall, 13.15.

Gliding Club 254 Aero, 17.45.

Dancing Club: Beginners Ballroom, 19.30 to 20.45. Upper Refectory

International Relations Club/Political Societies Council. The American Political System: David Moore. Physics Building, 20.00.

FRIDAY 4

Films. Hitchcocks "The Birds" and "Conquering the World's Highest Peak," 19.30 Concert Hall.

Folk and Square Dancing: Snack Bar 19.30 to 22.30. Beginners welcome.

Selkirk Party. 20.00 onwards. Wine, beer, spirits, women, free.

SUNDAY 6

Catholic Students Mass followed by social. Little Oratory, Cromwell Road, 07.30.

Anglican Chaplaincy. Eucharist, 09.00. Evensong, 19.30. St. Augustines, Queen's Gate.

MONDAY 7

Christian Union. Colossians 1, The Supremacy of Christ. Rev. K. H. Hooker. Room 266 Aero, 13.10.

Joint Christian Societies. The Coloured Community. Rev. Wilfred Wood. 303 Mines 13.10.

Wells Soc. Dinner, Union Upper Refectory, Lounge Suits, 19.00. Tickets from Mrs. V. Burdett E.E.P.G. and Committee.

Dancing Club. Beginners Ballroom, 19.30 to 20.45. Beginners Latin American, 20.45 to 22.00 Concert Hall.

TUESDAY 8

FELIX Staff meeting. 12.45 Press Room.

General Studies. Across Two Cultures 5. Music and the Two Cultures? The Logic of the Emotions. Catholic Society Mass. 12.35, 11 Princes Gardens.

Wells Society. Is there a limit to progress? by Mr. E. F. Schumacher. 13.30 First of two lectures.

Films: War of the Worlds, The Time Machine. Room 220 Mech Eng. 19.30 Tickets 1/- members, 2/6 non members from committee.

Railway Society. Professor E. R. Laithwaite, Presidential address. Room 554, Mech. Eng. 17.40.

ICWA Sherry Party, ICWA Lounge, 18.00 All Icarians welcome.

Dancing Club. Intermediate Ballroom, 19.30 to 20.45. Intermediate Latin American, 20.45 to 22.00 Concert Hall.

WEDNESDAY 9

Engineering Soc. Visit BBC t.v. Centre, 13.15

Methodist Society. Communion Service, Main Botany Lecture Theatre. Rev. Neville Ward, all Christians welcome. 13.15.

Wells Soc. Art of Science. Exhibition. Judging of Music entries. Room 220, Mech Eng. 19.30.

Anglican Chaplaincy, Eucharist, 08.30. Concert Hall.

THURSDAY 10

FELIX Staff meeting. 12.45 Press Room.

General Studies. It there a limit to progress (cont'd.) (arranged by Wells Soc.). Trades Unions within the Modern State. Fuels, Brains Trust arranged by IC Chemical Engineering Society.

Wells Soc. Is there a limit to Progress, by Mr. E. F. Schumacher, Lecture 2 13.30. Films, Things to come, the first men in the Moon. Room 220, Mech Eng. 19.30 Tickets, 1/- members, 2/6 non members from Committee.

Rover Crew. Crew Summer activities 1966. 12.35 303 Mines.

CND Neocolonialism in Vietnam by Malcolm Caldwell. Main Botany Theatre, 13.15.

Dancing Club. Beginners Ballroom, 19.30 to 20.45. Upper Refectory.

Gliding Club, 254 Aero, 17.45.

Conservative Society, Rt. Hon. Quintin Hogg, QC, M.P., Kensington Town Hall, 20.00.

FRIDAY 11

Folk and Square Dancing, Snack Bar, 19.30 to 22.30. Beginners welcome.

Wells Soc. Art of Science Exhibition.

Wine and Cheese Party. Will enable exhibitors to meet the judges, 19.30. Tickets, 7/6 from Committee.

SATURDAY 12

Organisation for Social Service. Work party for weekend, 12-13 Nov. See notice Southside.

SUNDAY 13

Catholic Students Mass followed by social. 07.30, Little Oratory, Cromwell Road.

Anglican Chaplaincy. Eucharist, 09.00. Evensong, 19.30 St. Augustine's Queen's Gate.

MONDAY 14

Christian Union. Do All Roads Lead to God? by Ed Reis. Room 266 Aero 13.10.

Joint Christian Societies, Mrs. Parry, "Teilhard de Chardin" 303 Mines.

13.10 Joint Chaplaincies Dinner Southside Refectory, 19.30.

Dancing Club. Beginners Ballroom, 19.10 to 20.45. Beginners Latin American, 20.45 to 22.00.

Wells Soc. After the Moon by Prof. Sir Harrie Massey. Room 408 Elec. Eng. 19.30.

TUESDAY 15

FELIX Staff meeting, 12.45 Press Room.

General Studies. Across Two Cultures 6. Prehistoric Anatolia. Aspects of Jazz.

Catholic Society Mass, 12.35, 11 Princes Gardens.

Exploration Society Travelling with the News, Room 303 Mines 17.10. Dancing Club. Intermediate Latin American 20.45 to 22.00 Concert Hall.

WEDNESDAY 16

Folk Concert featuring Nigel Denver, 4/-, 3/- and bar. Upper Refectory 19.30.

Anglican Chaplaincy, Eucharist 08.30. Concert Hall.

THURSDAY 17

FELIX Staff Meeting. 12.45 Press Room.

"Guide Working Party" by a Guide Commissioner Rover Crew 303 Mines 12.35.

General Studies. Collective Bargaining Response to Automation's Challenge.

Conservative Society. Annual Dinner, Union Dining Hall, 7 for 7.30 p.m. Tickets, 25/-.

Gliding Club, 254 Aero, 17.45.

Dancing Club. Beginners Ballroom, 19.30 to 20.45 Upper Refectory.

FRIDAY 18

Folk and Square Dancing, Snack Bar, 19.30 to 22.30. Beginners welcome.

ULU

WEDNESDAY 2

English Folk Dancing Society. School of Pharmacy, Brunswick Sq. 19.30.

THURSDAY 3

Marxist Soc. The English Revolution. Ian MacCalman. LSE 13.00.

Debating Society. Assembly Hall 19.30 "There is too much litter in literature and sin in the cinema."

Hellenic Soc. General Meeting. ULU 19.30.

Christian Science Organisation. Room 3A ULU 20.00.

FRIDAY 4

John Clifford Soc. Group Discussions Bloomsbury Central Baptist Church Shaftesbury Ave. WC 2 19.00.

Film Soc. "Gigi" 19.15 ULU.

Inter Faculty Christian Union Eastern Lecture, 19.30 Alliance Club.

SATURDAY 5

Hop. Malet Street 3/6d. 19.30 to 23.00.

Inter Faculty Christian Union. Bible Reading, Rev. H. M. Carson. Bedford College 19.30.

SUNDAY 6

C of E In University of London. Christ the King Church, Gordon Sq. 08.00 Holy Communion 09.30

University Eucharist and Sermon, 19.30 Evening Service and University Sermon. 20.30 Evening Eu-

charist.

selling" Mr. Anthony Mann. Hinde St. Methodist Church, Manchester Sq. W1. 16.00.

Catholic Chaplaincy. Literature and Society by Terry Eagleton. J11 Gower St. 20.00.

Presbyterian and Congregational Soc. Film of a visit to the Holy Land. Regent Sq. Presbyterian Church, Wakefield St. WC1. 20.00.

MONDAY 14

Bridge. Duplicate Pairs Contests. ULU games room, 18.15.

Flying Club ULU 19.30.

TUESDAY 15

'History of the Mormon Church' at North America Club, ULU 19.30

Humanist Soc. "The Handicapped Child" Mr. Peter Henderson.

WEDNESDAY 16

English Folk Dancing Soc. School of Pharmacy, Brunswick Sq. 19.30.

THURSDAY 17

Debate. "John Bull's Term of Office in Northern Ireland Must be Terminated." Assembly Hall ULU 19.30.

Christian Science Organisation. Room 3A ULU 20.00.

Methodist Soc. Debate "This House Wishes That Guy Fawkes Had Succeeded. 16.30 Hinde St. Methodist Church, Manchester Sq. W1.

Christianity and Medicine by Dr. P. Backus Whitefields Memorial Church, Tottenham Court Road, W1. 16.00.

Catholic Chaplaincy. Social Evening. 111 Gower Street. 20.00.

MONDAY 7

Flying Club ULU 19.30.

TUESDAY 8

Fencing Club Trials. ULU Badminton Court 18.30.

INTER FACULTY CHRISTIAN UNION. GENERAL COMMITTEE MEETING, COUNCIL ROOM ULU 19.00.

WEDNESDAY 9

ENGLISH FOLK DANCING SOC. SCHOOL OF PHARMACY BRUNSWICK SQ. 19.30.

NORTH AMERICA CLUB. FILMS OF SOME OF THE U.S.A.'S NATIONAL PARKS. 19.30 AT UC.

THURSDAY 10

CHRISTIAN SCIENCE ORGANISATION. ROOM 3A ULU 20.00.

FOLK SONG CLUB. PEGGY SEAGER AND EWAN MCCOLL. MEMBERS 3/- NON MEMBERS 5/-. MIDDLESEX HOSPITAL MEDICAL SCHOOL, CLEVELAND ST. W1. SOUTH SIDE OF GPO TOWER. 20.00.

FRIDAY 11

UNIVERSITY OF LONDON NATURAL HISTORY SOC. NOV. 11/12/13 TRIP TO GIBRALTAR POINT NATURE RESERVE, LINCNS.

LEADER J. S. HARRISON. NUMBERS LIMITED.

JOHN CLIFFORD SOC. ANNUAL WEEKEND CONFERENCE. ST. GEORGE'S PLACE BAPTIST CHURCH CANTERBURY. SPEAKER REV. MICHAEL WALKER. "TRENDS IN MODERN THEOLOGY."

SATURDAY 12

INTER FACULTY CHRISTIAN UNION. MISSIONARY CONFERENCE. BEDFORD COLLEGE 16.30.

SUNDAY 13

C OF E IN UNIVERSITY OF LONDON. CHRIST THE KING CHURCH. GORDON SQ. 08.00 HOLY COMMUNION 09.30

UNIVERSITY EUCHARIST AND SERMON, 19.30 EVENING SERVICE AND UNIVERSITY SERMON. 20.30 EVENING EU-

CHARIST.

SELLING" MR. ANTHONY MANN. HINDE ST. METHODIST CHURCH, MANCHESTER SQ. W1. 16.00.

CATHOLIC CHAPLAINCY. LITERATURE AND SOCIETY BY TERRY EAGLETON. J11 GOWER ST. 20.00.

PRESBYTERIAN AND CONGREGATIONAL SOC. FILM OF A VISIT TO THE HOLY LAND. REGENT SQ. PRESBYTERIAN CHURCH, WAKEFIELD ST. WC1. 20.00.

MONDAY 14

BRIDGE. DUPLICATE PAIRS CONTESTS. ULU GAMES ROOM, 18.15.

FLYING CLUB ULU 19.30.

TUESDAY 15

'HISTORY OF THE MORMON CHURCH' AT NORTH AMERICA CLUB, ULU 19.30

HUMANIST SOC. "THE HANDICAPPED CHILD" MR. PETER HENDERSON.

WEDNESDAY 16

ENGLISH FOLK DANCING SOC. SCHOOL OF PHARMACY, BRUNSWICK SQ. 19.30.

THURSDAY 17

DEBATE. "JOHN BULL'S TERM OF OFFICE IN NORTHERN IRELAND MUST BE TERMINATED." ASSEMBLY HALL ULU 19.30.

CHRISTIAN SCIENCE ORGANISATION. ROOM 3A ULU 20.00.

Folk Club

goes

Irish

The McPeake family, a traditional Irish folk group, brought a new and enjoyable type of music to IC when they were the guests at the first Folk Song Club meeting.

Despite only half of their normal complement of six being able to appear, they gave a varied, and, judging by the applause, an extremely well received performance. The combination of an original presentation of Folk Music seasoned by traditional Irish wit, produced splendid entertainment for the Club.

Martin Beer, a new member of the Folk Club introduced the evening, followed by an older resident, Steve Grant, whose songs varied from the unaccompanied traditional to those of Derek Hall. Unashamed by their lack of numbers, the McPeake family continued until the interval. An Irish harp and Killien pipes—a form of Irish bagpipes played with bellows and operated by the elbow—produced a novel sound for two instruments, while guitar and banjo were used to accompany traditional songs.

Local College talent resumed the evening after the interval. The White City Ramblers moved through some well known melodies, followed by Ivor Grayson-Smith, in good form after his illness, Sheila Henrywood and Steve Grant.

The McPeake family returned to complete the evening; their repertoire extended by tin-whistle and bones (a traditional form of spoons). Both their traditional songs and instrumental produced loud applause, to the extent that the end of their performance was protracted by overwhelming encore.

An excellent start to the term was undoubtedly produced for the Folk Club. For those unfortunate to miss it, the next concert will feature the Young Tradition.

Pooh: a chump?

The Pooh Club, on its fourth exhibition, went to the Ancient Roman City of Verulamium in search of a National Poohsticks Bridge, and was declared to be "the Biggest Load of Chumps I've ever seen" by a self-appointed spokesman for the local Residents Association.

Notwithstanding, it was a Good Game. The match was won by the ex-officio chairman, who dropped his last stick at 5.30 p.m., by the light of the Cat's well buttered Mini.

Advertise Free

YOU CAN advertise free of charge in Felix, subject to certain conditions. Our WHAT'S ON column is open to everyone at Imperial College, though particularly to club organisers, to advertise events to which any student of IC may go. Private individuals may take advantage of this service only at the discretion of the editorial board, under whose scrutiny all wording must pass. Please address to What's On, delivered to the Felix pigeonhole in the Union rack by Tuesday week before publication.

Imperial College Dramatic Society presents

Penny For A Song
by J. Whiting
Dec 6-9 at 7.30
Tickets: 4/6, 3/6 :
Party bookings available from:-
Imperial College Dramatic Society,
Imperial College Union,
London S.W.7

FOLK AT STUDENT PRICES!

Elecra Records, in association with Folk Directions Limited, present

**JUDY COLLINS
TOM PAXTON**

ROYAL ALBERT HALL

NOVEMBER 4th, 7.30 p.m.

Tickets: 12/6, 10/-, 7/6, 5/-, 3/6

From R.A.H. Tel. KEN 8212 and Agents

2,000 seats at 5/-

GUIDS - CZECH EXCHANGE

by
Tidu Maini

This year saw the first international exchange visit organised by the C. & G. Union.

Ten Czech students arrived in London in June for the first part of the trip. The students (7 girls, 13 boys) were led by Senior Lecturers in Civil Engineering. All efforts were made to familiarise the Czechs with the English way of life from the very beginning of the trip. The majority of the people had never been out of their country and the ones who had travelled had been only to Russia. Therefore this trip had very special significance.

Czechs in England

The visitors were shown around London extensively by members of the College. Trips included sightseeing, shopping, theatres and visits to pubs. The staff kindly co-operated

ed and showed them a great deal of our institution. After London the Czechs were taken to Cardiff where they saw the Steel Co. of Wales. This industrial visit was of special interest to the Czechs since they were all engineering students. Ex. Guilds President Dai Howell, who now works there, used his influence to obtain translators and afterwards tea. This was followed by a tour of the countryside and a beautiful day by the sea near the Gower. From Wales we went to Coventry where we saw the Cathedral and Community Centre. This was followed by trips to Stratford-on-Avon and Oxford University.

Guilds goes abroad

Seven of our students then went to Czechoslovakia—the trip was very similar in plan though their ideas were a bit different. During our stay we saw a great deal of the country and met very many students—we saw some very interesting plays using rather advanced drama techniques which to the best of our knowledge had not reached London.

It is very difficult to accurately assess the significance of such an exchange. However, it did almost

achieve what we set out to do. In fact, it did mean a great deal in terms of personal friendships members of our group established. We did get the unique opportunity of seeing the Communist community at work and play. Language difficulties were enormous and certainly made a lot of difference in the standard of intellectual conversation. What we discovered on the whole was that the Czechs were friendly people, but lacked humour. This is something which we hope we gave them individually and certainly as a group. I am certain that we made more friends than enemies.

I have been asked a great deal about future trips and the costs of these visits. On this my opinion is purely personal. These exchanges are invaluable; but either a) learn their language, or b) go to countries where English is spoken e.g. Scandinavia and U.S.A. Finance—the trip can cost a great deal—we contributed personally for the visit and I think we could slightly increase this contribution, and also get more help from Industry. Finally, these trips ought to have a definite timetable printed well ahead of the trip, discussed and agreed by the two Universities involved. I am fully in favour of such visits provided the financial burden be shifted from the Union to Industry.

In conclusion, on behalf of the Ex President and members of the exchange, I would like to thank C and G Union, Centralians, I.C. Union for their kind help and trust in us to carry through the first, and I hope not the last, exchange with a foreign University.

NOW SHOWING FOR A SEASON

ASTORIA

CHARING CROSS ROAD;
Tel. GERard 5335

Performances Daily:
Mats. 3.0 p.m. Eves. 8.15 p.m.
Sundays: 4.30 p.m. and 7.45 p.m.

Circle: 20/- 15/6
Stalls: 12/6 10/6 7/6

ALL SEATS BOOKABLE

A PAUL CZINNER PRODUCTION

THE ROYAL BALLET

MARGOT FONTEYN / RUDOLF NUREYEV

Romeo & Juliet

DAVID BLAIR DESMOND SOMES

JULIA FARRON MICHAEL GEORGI ADIS

Music by SERGE PROKOFIEV

Choreography by KENNETH MACMILLAN

Scenery and Costumes by NICHOLAS GEORGI ADIS

The Orchestra of the Royal Opera House Covent Garden

Conducted by JOHN LANGRISH

Produced and

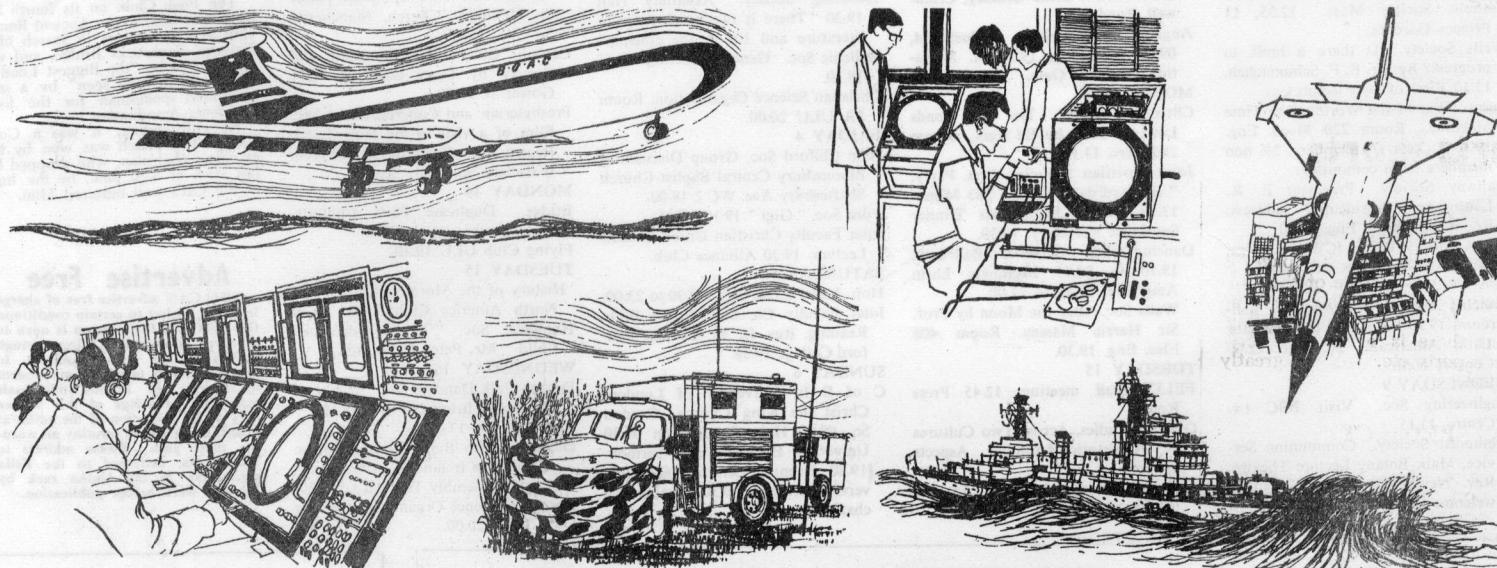
Directed by PAUL CZINNER

FILMED IN COLOUR

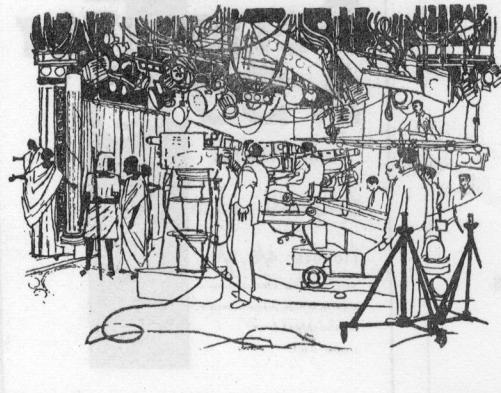
at Pinewood Studios

BOOK NOW

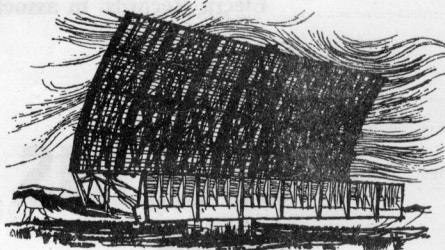
SPECIAL CONCESSIONS FOR PARTIES OF 25 OR OVER



encyclopaedic Marconi



Electronic and mechanical engineers, designers, system planners and manufacturers of telecommunications, broadcasting, maritime and aviation radio equipment; radar, television, specialized components, microelectronics, data processing equipment and navigational aids on land, at sea and in the air



The Marconi Company Limited

MARCONI HOUSE, CHELMSFORD, ESSEX, ENGLAND

LTD/X51

SUCCESSFUL VISIT TO NATIONAL FIREFLY WEEK



Fireflies and wind at the Welsh Harp.

Winners And...

THE COLLEGE made news in the field of sailing, during the summer, by winning National Firefly Week, held at Felixstowe Ferry Y.C. John Patisson, an eighteen-year-old 1st year, sailed the College's new Mk. II Firefly, "Petula," to gain four wins during the week—thus taking the maximum number of points and producing the most overwhelming victory for years.

Beginners

THE CLUB HELD its preliminary trials on Saturday, 15th October in bright sun and good wind, which is rather unusual for the Welsh Harp. Eighteen people, mostly Freshers, sailed in four races during the morning, and showed great promise. The standard of racing was unusually high for such an event, and there appeared to be no one who had not raced previously—though some were hampered by unfamiliarity with Fireflies and the "Harp." Team racing practices will be held on Saturdays, and the club hopes to be able to field some very strong teams.

Sailing lessons for novices will be held on Wednesdays, thus giving the club even more talent, in the future. This Easter a cruising holiday on the North Sea is planned—details will be appearing on the notice board, in the near future.

I.C. Sharp
Commodore I.C.S.C.

Sports Shorts

PURPOSE

The chief purpose of this page is to give an overall picture of the College sporting scene. This may be somewhat dominated by the 'big' clubs, but there is room for everyone,—so reports etc. will be greatly appreciated.

PROJECT

Next issue there will be a full page report on the Underwater Club's summer exhibition—mainly relying on pictorial content. It is hoped to run similar articles on other 'big' events.

FELIX Small Ads

FELIX small ads. from 8d. per line.
For more details contact Adman
Robin Hall via FELIX rack.

M. Paluch

Sorry!

Apologies to the Rugby Club for the truncation of your report—normal service will be resumed as soon as possible. Actually though, it was a Printers' error over which I have little, or no control.

A. Robins



Spot the ball as I.C. attack.

NORTHERN POLYTECHNIC TAKEN TO EXTRA TIME

I.C. 7 : NORTHERN POLYTECHNIC 4.

Scorers for I.C. : Easteel 3
Hopwood 3
Squire 1.

"OVERCONFIDENCE IS THE ally of defeat." This was certainly true at Harlington last Saturday when I.C. stumbled to the brink of defeat, only just managing to scramble back from the abyss and go through to the second round of the U.L.U. Cup Competition.

The difference between the two teams was only apparent in fitness, footballwise neither had anything to offer—when the teams tried ten goals were scored in forty minutes, including fifteen minutes of blind mans buff in near darkness.

The game started off in a scrappy fashion, and continued in a similar vein for the first hour; the only real efforts, for I.C., coming from Taylor, at half back. Northern Polytechnic opened the scoring when slack marking by the I.C. defence allowed on inside forward to scramble to ball home.

The exhausted state of the opposition slowly began to show in the second half, as I.C. gradually began to predominate. Eventually flashes of ability from Eastell produced three goals in as many minutes, putting I.C. in the lead. The third goal, from thirty yards, bulged the back of the net before the keeper had moved.

It said much for the courage of the Northern Poly team that in the last four minutes they came back from near defeat and forced I.C. to extra time. The college defence was again easily pierced and the match entered a half hour extra time with the score three all.

The gallant Northern team could not summon up the reserves of energy of spirit to beat their superiors in fitness, and I.C. scored four more goals in extra time, coming from Hopwood, Eastell and Squire, to the opponents one.

I.C. will indeed be relieved to get through this round after coming so close to ignominious defeat. Firmer control is needed in midfield, by the wing halves and inside forwards—someone with the ability to read the game would be welcome.

The fighting spirit and the will to win at all cost is necessary in every game, when I.C. learn and practise this they will be a better team.



When the pressure's on, strange things can happen.

Photographs by D. Cooper

Report by R. Grundy

FELIX WEEKEND DEADLINE



Professor Sir Willis Jackson

Jackson Committee on manpower

By 1968 it is predicted that for the first time in recent history, the number of scientists required in Britain will be greater than the number of engineers. This is one of the conclusions of the Jackson Committee report on Manpower Resources which was published recently.

The committee was reporting a comprehensive survey of the deployment of technically qualified people. The committee, which was headed by Professor Sir Willis Jackson, Head of Elec. Eng., also produced the first study of the employment of technical supporting staff.

The figures for 1968 are based on the results of enquiries made to industry on their requirements and are, as such, only estimates. The output of scientists from universities for that year would have to be 14,000 while 12,000 engineering graduates are required. This is 24% in excess of the foreseeable numbers and could only be met by redeployment from other sectors.

Another revealing fact produced in the report is that although during the period 1963-66, there has been an increase of 35% in the numbers of engineers employed in teaching at university level, at school level, where students are choosing their careers, there has been only a 5% increase in the number of engineers employed.

On the same day, the Swann Committee Report on Manpower Parameters showed that from the 4,000 engineers and 9,000 scientists who graduated in 1965, 19.6% of the engineers and 34.2% of the scientists went on to higher studies and research. 5.1% of the scientists left the country, as did 5.9% of the engineers.

The committee, of which Professor M. M. Swann, Principal of Edinburgh University, was chairman, criticised the present system in which

the "student tends to enter university already convinced that research is the goal worth setting his heart on". It was this view which Professor Laithwaite attacked at a recent meeting of the Eng. Soc. In his opinion graduates needed for research were being lost to industry where their talents were wasted. Jackson Committee Report on Manpower Resources for Science and Technology H.M.S.O. 5/6d. Swann Committee Report on Manpower Parameters for Scientific Growth. H.M.S.O. 3/-.

'SCRUTINY' WOUND UP

At the Social Clubs Committee meeting on October 25th, it was decided to wind up SCRUTINY, the Committee's magazine. The reason given for this was that it was impossible to obtain sufficient advertising: it was suggested that the literary geniuses of S.C.C. should apply their talents to PHOENIX, which at the moment has no editor to accept or reject their efforts. Apparently PHOENIX has plenty of advertising but "could use more copy". In view of these facts, the motion to wind up SCRUTINY was passed by a considerable majority.

Published by C. G. Harrison on behalf of the FELIX BOARD, Imperial College, S.W.7, and printed by WEST LONDON OFFSET CO.

86 Lillie Road, S.W.6 (tel. FUL 7969).

CARNIVAL WEEK POP CONCERT?

This year's Carnival Board intends to hold a "gigantic concert" next March, in the Albert Hall. Jerry Stockbridge, the Carnival Co-ordinator has contacted the manager of the hall and is confident that the proposal is practicable. If this were to come off, Carnival would have the choice of either a concert of classical music which involves hiring an orchestra and charging high ticket prices or a pop concert which would certainly attract more students but would need insurance and extra staffing if a big name group were obtained. According to estimates supplied by the R.A.H., a pop concert might produce takings of £2,400 at normal prices—i.e. maximum of 1 guinea. It is hoped that the concert will be held in early March.

Carnival Week will be May 6-13, the possibility of holding it in March was discussed—a FELIX survey, last year, showed that the end of the Easter Term was the most popular period for Carnival—but this has been rejected in view of the present policy to extend Carnival over the whole year and use Carnival Week as the last fling before exams. In keeping with this policy it was proposed that film shows, concerts, etc., be held in March and the Easter term in general while still retaining important events such as the Carnival Hop and the fete until May. It is unlikely that a Carnival Profession will be allowed this year as a result of a bye-law forbidding processions.

Phil Marshall, Vice-President of Guilds, is trying to organise an auction to be held in the Union. He wants articles such as cars, tape-recorders, record-players, in fact, anything of reasonable value. The aim is to sell the articles—if necessary with a reserve price—for the students, Carnival taking a percentage as commission for the service. Contact him at Guilds Union Office or I.C. Rack.

OSS WEEKEND PROJECT

An O.S.S. working party recently completely redecorated one room of an elderly couple's flat. This was the first weekend project carried out by O.S.S., the newly-formed college society which arranged for bands of volunteers to undertake projects in the Kensington and Notting Hill areas.

The project arose in a fairly typical way. The need for redecoration, with its attendant boost to morale, was first noticed by an organisation for social work, and they passed the request on to O.S.S. The Ministry of Social Security provided the necessary equipment and materials and everyone concerned gave their services free.

Similar projects will continue through the session and anyone wishing to offer his or her services will be welcome. As projects are arranged, lists to be signed by volunteers will appear on the O.S.S. notice board, which may be found at boot level near the lower refectory, South Side.

You can help O.S.S. to help others by being involved yourself.

WELLS SOC: COSMOLOGY

Looking at the stars without a telescope! Professor Bondi in his lecture to Wells Soc. presented and explained some of the basic theories of the Universe.

Speaking to a very large audience, he showed how from a few classical physics' concepts the modern model of the Universe is built up: how the elements were formed and why their natural distribution is as it is. The concept of time as seen by classical physics (time is reversible) and as seen by thermodynamics (time not reversible) and how these concepts fit into the picture of the Universe as we see it; the reason why a gyroscope keeps a set position with respect to the distant stars and how it is postulated that the distant stars are moving away from us at a speed proportional to their distance.

SEEING THE RISK

THE POOR ATTENDANCE at this year's Safety Lecture was extremely disappointing, only about fifty of all the undergraduates, postgraduates, technicians and staff of the college bothering to attend. Even despite the poor publicity, considering the fact that the workshops and laboratories of the college contain no fewer dangers than a modern factory, a greater attendance would have been expected.

The lecture, entitled "Seeing the Risk," was given by Dr. R. B. Buzzard, who said that most accidents are caused by lapses in concentration and not by slow reflexes as had once been thought. Extremes of

heat or cold and even prolonged constancy of temperature are likely to cause concentration to flag and increase the likelihood of accidents. However, in many cases, machinery can be built to concentrate the attention of the operator on important instruments or on dangerous parts of the machinery to help stop the mind wandering from them.

Much work remains to be done on the subject, which is increasingly more important as more complex machinery is introduced into industry, but at any rate, as Dr. Buzzard informed us I.C. has a safety record to be proud of (despite the attendance at his lecture).