

2nd October, 1973

NEWSPAPER OF IMPERIAL COLLEGE UNION ISSUE No. 340 UNION MEETING Thursday 13.00 hours

Great Hall

Don't forget

REFECTORY PRICES TO BE INCREASED BY 5%

All refectory prices are to be increased by 5% over last term advise the Board of Governers in their meeting on June 29th.

that was mounting up on the catering side of the refectory services, the Refectory Committee had drawn up for its meeting of 21st May a series of five proposals for stopping the loss. These suggested price increases of between zero and 7½ per cent.

These increases have been necessitated, from the College point of view, because of the soaring cost of food in the last year which shows little signs of abatement in the coming term.

Although hardly a surprise this news must come as a shock to many students despite the extra £40 for the year just started, which some claim has

Realising the huge debt been eaten away by inflation already.

> There is no motion up before the UGM on this question at the time of going to press (a week ago) and President Norm Sayles said. "It's difficult to know what else we can do apart from accept the increase."

The increase advised by the Board of Governors could have been more if £6,000 hadn't been taken from two 'emergency' funds to help cover the costs of replacements and repairs.

The President will be checking over the recommended new prices to ensure that the 5 per cent rise is not surpassed.

Free Books! Free Records! Free Films! Free Plays!

Free books, records, theatre and film tickets are YOURS for the asking from the FELIX office. Every week we get bombarded with free objects and services from Sir Oswald Moseley's autobiography "My Life" to Leon Trotsky's autobiography also called "My Life", and from tickets to communal grope sessions at the Camden Town Revolutionary People's Almost Free Theatre to Godspell.

The choice is yours: free literature, music or entertainment or, of course, any combination thereof. In fact even as I sit here and write this, the mid-day postman has just brought a range of Fontana books and Polydor records.

Ahah! Cynical student, I know what's going through your head, you're asking what's the catch? Well, to give you a clue let me draw your attention to a few more vacancies on the FELIX staff:

Book reviewer(s) Film critic(s) Record reviewer(s) Theatre critic(s)

And that's all you have to do! Just churn out a bit of spiel, or write a highly sensitive review embodying all your artistic experience of the infrastructure of the medium. We couldn't possibly review everything we get without a 12 page daily paper, but as long as something gets reviewed occasionally they will keep on send-

So call in the FELIX office during the Freshers' Fair or anytime and let us load you up with gratuit

NUS Conference Motions due in by October 5th

The National Union of Students is holding the next of its twice yearly conferences at the beginning of December this year. This Conference will decide policy of NUS on basic issues for the rest of this year. Imperial College Union will be sending a delegation to this conference to represent your views and we are also entitled to send in up to six motions to be put on the agenda for the conference. Motions may be sent in on any subject though only those on subjects of a fairly general interest stand a chance of being debated. Subjects debated at recent conferences include grants, student representation, housing, union autonomy, entertainments, gay rights. As you probably know, grants is at the moment a priority of the National Union and will almost certainly be debated again in December.

Motions submitted by individual unions, known as Constituent Organisations, have to reach NUS Headquarters by Friday, October 5th, thus a final decision has to be taken on the views Imperial College Union wants to put to NUS at the Union General Meeting on Thursday, October 4th. Any member of ICU is entitled to put forward a motion to be debated at this UGMin this case the text of motions should reach Paul Wadsworth in the

Union Office as soon as possible. However, there will also be an open meeting of the External Affairs Committee (since the Committee has not yet been elected) on Wednesday, 3rd Octo-

ber at which all students are invited to put their ideas and try to arrive at some motions to be submitted to the UGM. This is designed to save time at the Union Meeting.

Last year it proved al-

most impossible to have much discussion these motions at a union meeting, much business was done in lengthy committee meetings and the final policy was hardly known let alone approved of by the majority of students. This time we hope procedure can be more democratic but it would help both us and NUS if motions are kept fairly short and if the texts come in as soon as possible. There will be further stages at which we can put our views to NUS, such as the amendments to motions stage later on in the term about which I shall keep you informed. If you want your union to represent you, you must actively take part in forming its policy. Further information is available at the meeting on Wednesday or from myself c/o the Union

SONIA HOCHFELDER, NUS Secretary.

IC/US COMPUTER LINK

. A plan to link the computer research department of British universities with the ARPA network in the United States which incorporates the computing facilities of a large number of research centres and universities there has been put into operation.

"We should be linked up by the end of the week," said Mr. Marovac of the Elec Eng department here at IC. He went on to say that the link with ARPA should mean advantages for both sides as computer night time can be used by the other hemisphere.

It is hoped to form further links with other European countries later on, and to increase the number of terminals in Brit-

ain to 24.

He said that there was not much likelihood of a terminal for general use but consideration will be given to projects especially if they involve languages or programmes not available in this country.

The project, jointly sponsored by the Institute of Computer Sciences, the National Physical Laboratory and the Post Office, is being led by Professor Peter Kirstein of the In-

stitute's computer systems and programming depart-

Already research groups from Cambride, Heriot Watt, Essex, Durham and some London colleges including I.C. have expressed interest in the scheme. The link is from the SRC's 360/195 computer at the Rutherford Laboratory via Norway to the ARPA network in the U.S. For the first year the link to Norway is being paid for by the Post Office, but later on it is hoped the finance will come from the universities.

This link may give access to far larger storage facilities than are at present available in this country, for example the ILEAC 4 computer, part of the ARPA network, can store up to 100 times. the amount of bits of information as can the

So far about 3 of the bumph sent from NUS has been about gayness. So if anyone wants to find out about how to run a gaysoc or gaydiscos or read up about gayrights or where you can buy or produce gaymags, then contact Dave Sinclair, Deputy President ICU, who has it all at his fingertips.

Professor Alan Skempton, professor of civil engineering at Imperial College has been appointed to the National Environment Research Council. He will take up office immediate-

The lavatory/shower/ bathroom complexes in the first floor of newly integrated Beit Hall, New Hostel are unsure of their identity.

The doors of the loos each have a word and a neatly nailed cartoon figure of a man or a woman on them. However due to a technical oversight, or an impish sense of humour, the female diagram is stuck over the word MEN and vice versa.

Still incinerators apart, no doubt they will soon settle down to be used by both sexes like they always were.

LETTERS

GOODBYE FROM LINDA

Dear All

I would just like to thank everyone who contributed to my Leaving/Wedding present last session. At the Union Council Dinner and Dance I was presented with a cheque and an inscribed pewter tankard. No better present could have been given me than a tankard, as it really symbolises Imperial College Union, doesn't it? However, it will be well used, I can promise!

I'd like to wish the Union every success for the future, I'm sure that under the guidance of Norm, Paul and Dave things will look up again!

Goodbye.
Linda Sommer (better known as Linda Creagh, Union Clerk)

"Hillend",
Portbury,
BRISTOL, BS20 9TW.

Purple Patch

Well, here we are again at the start of yet another academic year. For some of you this is the beginning of a new phase as either an undergraduate or as a postgraduate. For most of you it is merely the beginning of another year in your University career. I would like to take this opportunity of welcoming each and every one of you into the Union for the coming year, and hope that we get on well together.

For me, this year is a completely new experience in that I am in the HOT seat both for and with the Union. I have never been in a situation like this before, and so all the help or ideas which you can give will be most appreciated.

One thing which should be made clear at the beginning of this year, is that the Union meetings should take the form of a Forum in which anyone can speak. What makes these meetings so boring is when the same people speak on every motion, and thus one satisfactory conclusion to the boredom problem is to speak when you have something to say. It doesn't take much to stand up and say what you think. If you honestly don't have the nerve to stand up then please come to the Union office before the meeting and put forward your views to one of us in here and we will try to put forward your point of view.

The first tasks which will beset the Union this year are the election of certain union officers. We also have to elect a group of people to represent the Union at the November N.U.S. conference. Although these elections may seem boring, it is essential that we have a representative vote at the meeting so that those persons elected really do represent you.

The larger issues which we will face this year are

again those of the Accommodation crisis and also the Grants situation. All freshmen should have received in their mail from the college a sheet outlining the grants situation as it stands at present. During the Union meetings this term we will be discussing our position in the fight for better grants for all, with special reference to area action at the end of October, and the correct forms of action for the rest of the year.

The problem of accommodation is a very complex one in the area around College, and poses gigantic financial prob-lems for both the Union and also the College. More about this problem will be seen in future editions of FELIX, as we get more information on the problem. By the way, if anyone either knows of someone, or is in possession of about £2 million which is not being used for anything, then please see me as soon as possible as this is the sum required to build the new hall of residence on top of the sports centre!!!!!!

Have a good year, and please feel free at all times to come into the Union office for a talk about any problems which you have —either your own, or the Union's.

Looking forward to seeing you, that's me below!

Norm.



Imperial College Publications

All ICU publications are under the aegis and sanction of the Publications Board. They fall objectively into two categories: regular and

irregular.

Felix and the RCS Broadsheet appear weekly and fortnightly respectively. The former needs no further mention as you're reading it now. The RCS Broadsheet is produced in the RCSU office (opposite the Southside refectory entrance) and costs a penny. It has been the subject of many threatened libel suits but through a liberal dosage of Tartan to the suitors remains as yet unlitigated. This year it is in the hands of editor Digby L. James. It is rumoured that another edition of Pentsheet, the infamous cornucopia of naughty bits that appeared last term, will not be attempted this year as the entire stock was stolen before it could be sold last time.

The irregular publications are Guildsheet (once/twice a term) and Minesletter (defunct). The former is filled with ribald stories, articles and poems and occasional political comment (see the Moscow Trials issue) as well of course as flowing tributes lauding the successes of Guilds sportsteams. Only those geriatric few doing research or deferred honours can remember the last appearance of Minesletter but rumour has it that it was even more blue in content and politics than Guildsheet.

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There is one other student publication at IC: CEFE. Produced weekly by Socsoc it contains political commentary and analysis from the various

groups that attend Socsoc meetings. Last term it sprang to fame when it published the name of the third minister involved in the Lambton/Jellicoe affair when everyone tried to disown it, fearing a libel suit. However nothing happened and since the Young Liberals published a similar exposé and didn't get sued it seems that nothing will

Other publications that find their way into IC are "Sennet" the University of London Union newspaper which appears fortnightly, and "Magnus" the NUS glossy which will actually pay

you for articles.

Not to be forgotten are the University of London Bulletin published primarily for staff, and our own IC News which appears weekly and is difficult to read owing to its texture of intricately folded sheet metal. However both of these will keep you up to date with what's going on in the lofty circles of the non-student University areas.

Produced once a year (at present), and in the distant past the only publication at IC, is the Phoenix. Primarily a literary magazine it prints stories, poems, drawings, photographs and commentary and welcomes any contributions from all students. Last year's Phoenix was somewhat delayed in going to press but should be out in the beginning of this term.

So then, with all that to occupy your sleepless nights as well as the occasional flurry of bumph sheets, you will soon discover that not being able to read and write is no excuse for doing science!

HON. SEC'S BIT

Welcome to Imperial College. I would like to spend time explaining all the virtues and the ins and outs of various aspects of college life but there are numerous other publications in which this is adequately done and there is enough business in this column this week without this extra burden.

BOMBS

I would like to give a timely warning. Already during the vacation, the college has been the victim of a bomb hoax. The next one, however, may not be a hoax. All students are asked to keep a look-out for any suspicious parcels, boxes, bags, etc. If you have any doubts as to its contents then don't touch. Warn the people in the immediate area and contact College Security/Fire Officer on internal 2741. Do not under any circumstances tamper with the parcel yourself.

Make sure that you are acquainted with the college alarm systems. They are here for your benefit. Please take notice of them.

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LEGAL AID

The Union has telephone access to a qualified solicitor. If you have any legal problems, e.g. accommodation, drugs, motor accidents, etc., contact me in the Union office and I will put you in touch with him.

COMMEMORATION DAY

This annual event takes place on Thursday, October 25th. All members of the college are invited and admission to the degree ceremony at the Royal Albert Hall and the following tea is free. Note: to get the free tea you are expected to attend the ceremony! In the evening the Commemoration Day Ball is held. For the second year running this will take place in College Block. The price is £5.50 a double ticket and this includes a five course meal with sherry, dinner wines and port. Also provided is a late bar (approx. 2 the next morning), a dance band, cabaret and discotheque. This is the first formal event of the year and is an excellent introduction to this aspect of college life. Tickets are limited and last year it was a complete sell-out well in advance, so get your tickets early. They are available from Jen (Union Clerk) in the Union office.

U.G.M.

As you will soon find out, these happen at frequent intervals throughout the year. They are supposedly the most important meetings within the Union. Through these, elections are held, policy decided and numerous debates

held. For the sake of the Union it is important that you attend all U.G.Ms. The first one will be held this Thursday, October 4th in the Great Hall, College Block at 1.00. Among the items to be discussed are entertainments, Chile, S. Africa, Grants Campaign, as well as elections for numerous posts. Before you come, however, please read carefully the standing orders for Union Meetings which will be found on page 45 of the Union Blue Book.

UNION DIRECTORY

This year there will be a Union Directory, To be of most use it is necessary for this to be published as soon into term as possible. This is an urgent plea for information. All clubs, societies, bodies and anyone who has reason to believe he/she should be included in this directory are asked to send me information as to their name, address, telephone no., etc. If possible I would like this information before October 10th.

PARKING

Parking space at Imperial College is limited and because of this it is the policy of the Union to choose the applicants on the merit of each application. Parking application forms are available from the Union office and these should be filled in and completed on or before Friday, 5th October. On the 6th and 7th of October the Union parking committee will meet and consider the applications and a list of successful people should be published in the Felix edition of Tuesday, 9th October with details of how to obtain the permits.

There are areas within the college precincts specifically allocated for motor-cyclists. In particular these include an area to the south of Linstead Hall, west of the P.O. in Imperial Institute Road and behind the Physics building. Motor-cyclists are asked to keep to the marked areas and to refrain from parking be-

tween cars.

REGISTRATION CARD

On the back of your yellow registration card you will find two sets of boxes. At the bottom there are seven numbered 1—7. These are crossed off when you vote in college elections. At the top there are 15 boxes lettered A—P. These are crossed off when you buy discount tickets for the large I.C. Ents concerts held in the Great Hall.

COMMUNITY ACTION GROUP (ICCAG)

The purpose of this first article is basically to describe the function of the group. It would have been nice if I had had the time and space to write a longer article on the theory of student community action. I hope to be able to do this later on in the term.

The group was formed out of the College's Organisation for Social Service in December 1971. The name change was to signify a change in the emphasis from a narrow "do-gooding group to a more politically aware action one. There are many difficulties involved in a change of this sort in Imperial College, such as not being situated in an area which faces the problems most other areas in London are faced with and an unwillingness among students at IC to face up to the political implication of what is happening around them. The first of these difficulties is overcome because we have contact with people in areas like North Kensington and North Westminster and most of the students at IC do not live in South Kensington.

Now perhaps is a good time to outline the present activities of the group and some of the possible future ones. A playgroup goes for outing in group's van every Saturday and Sunday afternoon, with children from North Kensington. The play group have also been for several weekends at a cottage in the country. On Wednesday afternoons the van is used for outings for children from adventure playgrounds. these activities need drivers and helpers. Students have also visited adventure playgrounds as helpers dur-

ing the term time and extra help has been provided for such events as Bonfire nights and Christmas parties. Several of our members including myself have worked on summer playschemes.

A soup run has taken soup to the dossers at Charing Cross on a Friday night regularly for the past year and it is now hoped to run one on a Wednesday night as well.

Old people in the Chelsea and Kensington areas are being visited by students, after a bad start last year it is hoped that this activity will expand this year.

The group organises several decorating weekend work camps each term, during which old people's homes in North Kensington have been decorated.

We have also helped Westminster self-help housing, who are a legal squatting group. The original finance for this group was from an IC Rag, and assistance in duplication and surveys has been provided.

There is the possibility of helping with an alternative local paper in Paddington and in providing assistance in setting up a women's centre in the same area.

Also I would like to start up a group to research the housing position of students in this college to find out such things as where they live, how much they pay and what housing difficulties they have.

That's really a brief outline for further information. See you at the freshers' fair, the freshers' meeting on Thursday, 4th October in the Biology Common Room (under the Union Arch on the left), or in our office near the Union Bar most lunchtimes.

JAZZ : BIOLOGY
COMMON ROOM
8 p.m.
SAT. 7th OCTOBER

HARRY BECKET
QUINTET
30p

FELIX NEEDS YOU!

This wot your're reading is FELIX, the weekly newspaper of ICU. Due to the untimely passing of some of last year's staff we still have a few vacancies left unfilled, viz:—

Assistant Editor
Features Editor
News Editor
Advertising Manager
Circulation Manager
Staff Reporters
Staff Photographers
Lay-out Artists
Sub-Editors
Typists

Insert inserters
Purveyors of scurrilous gossip hot from the depths of
the Union bar or the upper echelons of the college
admin.

And of course all news/articles/comments/features/ letters would be gratefully accepted, especially those with a high coefficient of readability.

The FELIX office is on the top floor of the Union building opposite the lift entrance. Contact can be made by appearance, phone Int. 2881, ext. extension 229 or by pigeon (there's a pigeon hole for FELIX in the outer Union office).

Duty Officers

For the first week of term, and then at weekends, Duty Officers will be present in the Union building and Southside Union areas. They are in charge of the building and act with the full support of the Union Executive. They must maintain discipline and make sure Union property is not damaged or stolen.

The Duty Officer may ask anyone for a Union card and may, at his discretion, expel any suspicious characters. Union members are asked to assist the Duty Officer in his duties.

In Southside and College Block bar there is to be no singing or sit-

ting on the floor or tables or feet on the tables. People making a noise will be asked to retire to the Union bar or to keep quiet. There is to be no gambling on Union premises. The bar closes at 11 p.m. (except Sunday—10.30 p.m.) and Union members and their guests are asked to leave the bars within ten minutes and the building within half an hour.

Anybody interfering with a Duty Officer or anybody found by a Duty Officer to be committing anti-social acts will be dealt with under Union and College discipline procedures.

CONCESSIONS

Copies of the N.U.S. Discount Directory are available for consultation in the Union.

ELECTIONS

Once more we start again on the round of annual elections. Nomination papers are already up for the following: 3 members Academic Affairs Committee, 8 members External Affairs Committee, 1 member Union Finance Committee, 2 members Publication Board, 2 members Community Action Group. All members of the Union are eligible to stand for any of these posts. The elections for these, along with the delegation for the N.U.S. Autumn Conference will be held at the 1st UGM on Thursday, October 4th. The list of candidates is displayed on the Union notice board in the Lower Lounge and I would remind all candidates that their presence would be appreciated.

Papers are also up for the Carnival Coordinator, Social Secretary and Chairman of the I.C. Union Overseas Students' Committee. Election for these posts will be held on Tuesday, 16th October.

For members of the Aeronautics department the post of departmental rep is vacant. Nomination papers have been posted.

PAUL WADSWORTH | the event of death or

EDITORIAL

Hello and welcome to Imperial College, doyen of the technological institutes. You are not alone in coming fresh to IC for we have a new rector: Sir Brian Flowers, following the retirement of Lord Penney this year.

Imperial College was formed by one of the earliest tripartite agreements when the Royal College of Science, City and Guilds Institute and Royal School of Mines decided that as they all cohabited the same patch of bog in prehistoric South Kensington they might as well merge and pool their facilities.

The inter-collegiate wars that occurred as a result of that amalgamation have since subsided and are now-adays mainly fought on the battlegrounds — sorry, sports pitches — at Harlington, and in the pinching of violate mascots.

Such constituent college chauvinism can have very constructive results, e.g. monster RAG collections, and the occasional lapse if it impinges on federal bodies like ICU.

Freshers' week is under way now in the Union building and is the only chance you'll have of getting free membership to clubs and societies. We have over eighty here at IC which cover all possible interests, however deviant. So do join and remember IC doesn't aim at producing academic automatons, or it wouldn't grant so much money for the social and political sides of student life.

Although the inequality of the sexes at IC can produce problems for both sides, there is a lot of social liaison with the numerous women's colleges in the area and helps ameliorate the situation.

Anyway these should be three of the most interesting years of your life and when you will have the chance to get involved in more varied pursuits than at any other time. So, there it is, go ahead and above all, enjoy yourself.

If you feel like writing any impressions you have of your first few days at IC, comments, criticisms or whatever, then please address them to the Editor, Felix and pop it into the Felix pigeon hole in the outer Union office.

Many thanks - Ali.

INSURANCE AND THE ICPGG

The chances of any student having a serious accident whilst working in the College are very remote, and probably few people reading this article will have seriously considered the consequence of what might happen if they do. But although accidents can't be prevented entirely, their unfortunate side effects can be minimised. One of these side effects is financial. IT a student is unable to attend College, after four weeks the grant is halved and after eight weeks it is stopped altogether. The implications of this could be very serious especially if the student has no outside financial sup-

The I.C. Post Graduate Group (ICPGG) brought this to the attention of the College, and the College Authorities have agreed to take out an insurance policy which will enable students to be paid £10 per week for up to two years in the event of an accident preventing the student from attending college. There are also lump sum payments which will be made in loss of limbs, etc. Further details should be available at registration.

The policy covers all students, not just post-graduates, and is the result of a year long campaign by the ICPGG.

If you are a new postgraduate, having just collected your grant cheque, you may not be quite sure whether or not you have a London Weighting on grant. Let me assure you, YOU HAVE NOT! Undergraduates staff do, but not postgrads. You may wonder what you can possibly earn by demonstrating. Well, you could earn £1 per hour or £1.50 per hour depending which department you are in. If your department only pays £1 per hour, YOU ARE MISS-ING OUT!

If you would like to help overcome some of these anomalies and find out more about the work of the ICPGG, you are welcome to come to its first OPEN MEET-ING of the year on TUESDAY, 9th OCTOBER at 1 p.m. in the UNION CONCERT HALL (UNION BUILDING).

FELIX OFFERS YOU A FREE AT-A-GLANCE DIARY FOR THE TERM

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FELIX GOES TO PRESS.

Miterate students, how does FELIX ever reach the newstands?

The initial preparatory work on the next issue is due to start the Thursday the previous FELIX finally emerges by some miraculous Throughout the following week articles trickle in, are sub-edited and sent for typing. The page layouts are concocted and sent by special messenger (P.O. for short) to our printers, Baileys. The type is then set, the proofs returned for checking and finally FELIX is printed to reach us on the Wednesday before publication.

That is the theory; now for the practice. O.K. Day one is the day of recovery and conception; the editor sits in the press room with the rest of his staff, scratching his head and saying "Well lads, what shall we put in the next one?" This process continues sporadically between pints until the weekend when the first pages have to be sent to Baileys.

At this point the press room telephone glows red with constant use as the reporters and other contributors are chased for their articles. When the articles, mainly features at this stage, finally arrive they are sub-edited and typed, then the fun starts.

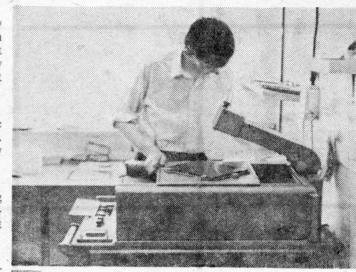
The articles, now readable, are proof read and instructions relating to size and type of print, column width and other mysterious instructions are included for the benefit(?) of the type setters. The layout of each individual page is then decided upon.

This is the real hairy stage of the process — trying to squash or stretch each article to fit the available space, decide roughly the shape and size of the photographs which depends on the subject and the aesthetic tastes of the editorial staff.

These conceptions are then transferred into semi reality on the layout sheets which then accompany the copy to the printers.

This process continues throughout the week until the Sunday before publication.

Born in a beery, smoky hole, or perhaps several, mishandled by On arrival at the printers the photos are separated from the copy and sent to the room shown below. In this photo the machine operator can be seen setting up the raw material for making a photographic block. The photo is placed under the plate, and the machine arm is lowered. Hey Presto, ten minutes later, a plate, wonderful stuff this science you

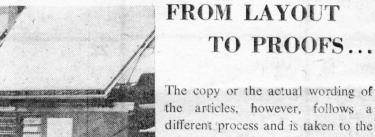




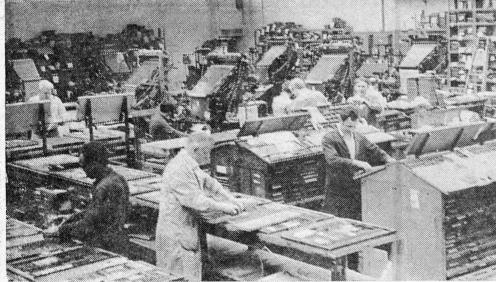


Many thanks to Bailey's staff for their co-operation in the production of this article.





the articles, however, follows a different process and is taken to the type setters. In the photo on the far left, one can see the various linotype machines in the background which are used for setting the type. In the foreground of the same photograph can be seen the pages of type. photos, etc., being set in their frames ready for printing. The type is set by two different means, depending on the size and style of type face being used. The large letters are set by hand from ready made type one letter at a time and this process is shown in the photograph directly above. The two photos to the left show how the bulk of the type is set by linotype machine. Each letterhas its own individual die or matrix. These are selected by the keyboard from the magazine which can be seen at the top of the upper photo. The words and spaces formed in this way are assembled in a line, which when complete forms a mould into which is pumped a molten alloy of lead, tin and antimony, which forms the actual print used to produce the newspaper. The line is then trimmed and ejected on to the storage galley (which can be seen above the kevboard in the photo bottom left). The dies used to mould the lines are then returned automatically to their respective spaces in the storage magazines. As a large number of magazines are available, many different sizes and styles of type can be used such as BOLD, ROMAN, ITALIC. When the pages are set up, the type





NO PENS?

NO PAPER?

NO FILES?

NO SCARF?

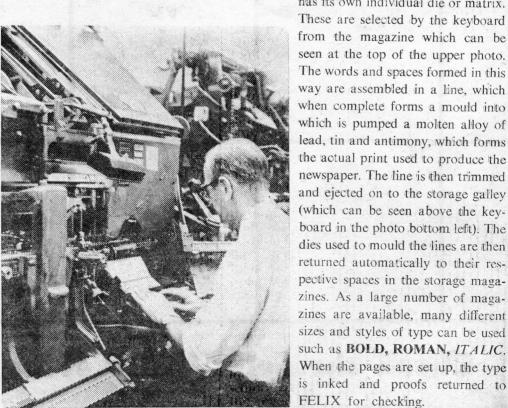
NO DRAWING INSTRUMENTS?

THEN DON'T GO TO LECTURES: COME TO I C BOOKSHOP AND

GET ALL THAT AND A LOT

MORE BESIDES!

(You'd be surprised)



PROOF CHECKING & NEWS PAGES...

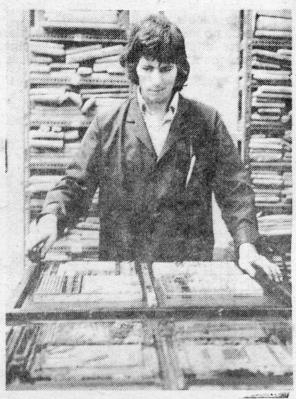
On the Sunday before publication the are returned in proof form. This is when we realise what a mess we made of the firmly in position during printing. initial layout and articles are again expanded or cut to get them to fit.

At about four o'clock on Sunday when this stage is finally completed the work starts on the news pages. The editorial staff can be again seen scratching their greying heads and asking what happened during the week that is interesting and printable. At the same time as this is happening, the photographic editor is busily trying to transform the vertical pictures to fit horizontal spaces and vice-versa.

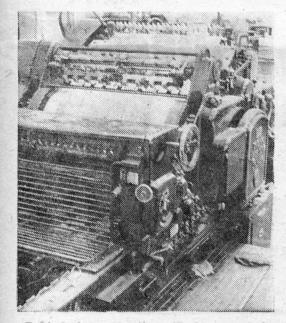
The final pages then begin to shape up by a process not dissimilar to that of the first pages. One member of the staff is then detailed to entertain the printers' representative, our great friend Mr. Milsom, while this process is completed with great haste. He then transports the pages to the printers who bring these ten days' work to harsh reality.

The photos below show various views of the printing machines which produce FELIX. The process is described in the captions below the photos.

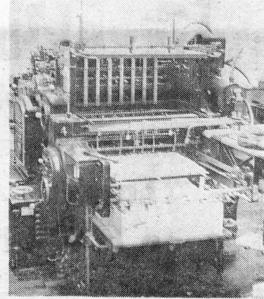
The photo below shows in greater detail the process of setting up the type, photos and adverts in the frames ready for printing. Each frame contains two pages so in fact this whole article has been set in a frame as shown below. The person in sports, features, letters and editorial pages the picture can be seen setting the clamps contained in the actual frame which hold the material



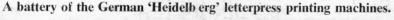


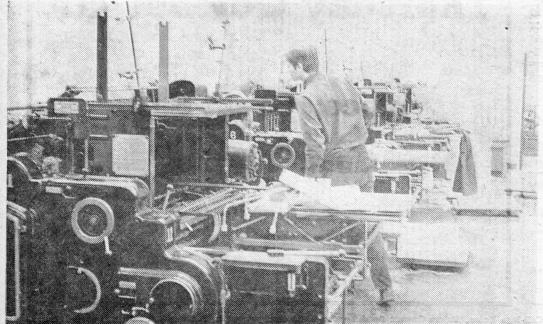


Behind the protective grill the pages of type reciprocate under the printing cylinder. The cylinder, complete with sheet of paper, is in the centre of the picture. Above this is a sheet of paper "queueing up" to be printed.



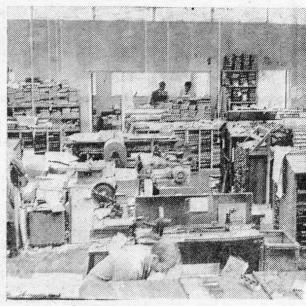
Here at the back end of the machine, the board at top holds the unprinted sheets. Above the pile, the last sheet to be printed is about to descend.

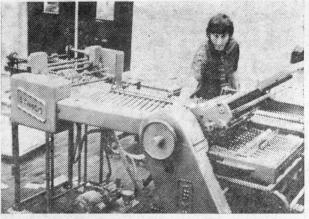




When the pages have been printed they have to be collated together to form the newspaper. The photograph below shows the folding machine used to fold the double pages in half, under the watchful eye of the operative.

The photo on the right is a general view of the workshop where the type is set. The news pages thus follow the same process as the earlier pages but are not returned for proof reading because of lack of time, instead they are checked for any obvious errors at Bailey's. Greater





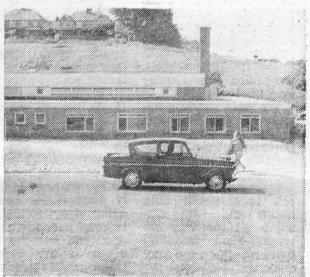
care is therefore needed over the last pages to try and ensure they fit the available

The picture below shows the exterior of the printing works of F. Bailey and Son at Dursley in Gloucestershire.

The two thousand copies of FELIX are finally completed before publication and transported to London.

by Bailey's on the Monday

WANTED All Ents info for the What's on diary to be in as soon as possible please



The Twenty-Fifth Imperial College

COMMEMORATION BALL

will be held on Thursday, 25th October, 1973 at Imperial College

Reception 8.30 p.m. for 9.00 p.m. Dinner Dancing till 2.00 a.m.

Tickets at the give-away price of only £5.50 double which is inclusive of a fivecourse meal, dinner wines, port and sherry. All applications for tickets should be made on an order form found in the Union Office and returned before 17th October, 1973.

HURRY-THEY SOLD OUT LAST YEAR!

SPORTS PAGE

RACKETS AND REAL **TENNIS**

ate, postgraduate or staff member of the Col-lege who is interested in playing (or in learning to play) either Rackets or Real Tennis please contact Professor J. R. A. Pearson, Department of Chemical Engineering and Chemical Technology (internal ext. 3801) by Friday, 12th October.

Those already familiar with these incomparable court games should need

Would any undergradu- no further encouragement. However, many enthusiastic games players may be unaware of their charm and of the facilities available for playing them at Queen's Club (near Baron's Court tube station). Those of us who have savoured their delights would welcome an opportunity to establish a corpus of players in the College and to make arrangements to play when convenient



Having proved that it was possible to cram nine people, associated tents, camping stoves, ice-axes, rucksacks AND three weeks food into a 12-seater Transit, we pulled slowly away from the Union Arch.

We were heading initially for the hoverport at Ramsgate and then northwards through Europe to Denmark and the ferry to Oslo. The crossing of the Skagerrak took about nine hours and with sunshine all the way we soon roasting quite nicely on the sun-

The campsite in Oslo was two miles from the city centre, surrounded by lakes and woodland, a pleasant change from London! The following day was spent sightseeing, visiting the Kon-Tiki and Viking-ship museums, and swimming in Oslofjord.

One day's drive took us to the Jotunheimen or "Land of Giants" region. The roads began to deteriorate the further we travelled from Oslo and the final 20km to the mountain "hytte" at Spiterstulen were along arrow dirt track that had to be negotiated all the way in bottom gear, owing to the large number of hairpin bends and potholes.

Spiterstulen is a good centre for climbing the highest mountain and the highest peak in Northern Europe, Gald-nöpiggen and Glitter-The map shows that their heights are 2469m and 2470m respectively. However, the top of the Glitertind is covered by a large snow-cap and the exact height varies according to conditions.

The day after arriv-

ing at Spiterstulen we staggered out of our tents fairly early and set off for the Glittertind. We reached the top four hours later, wearing only shorts in the blistering heat.

For our assault on Galdhöpiggen we went with a guide so that we could traverse the glacier on the way up. Having donned cramp-ons and been roped together we headed slowly through the specta-cular ice formations before ascending the snowfield and the final climb to the summit. Unfortunately we were unable to reach the top as the weather had worsened, with the wind

approaching gale-force.
Our next stopping
place was Andalsnes in
Romsdal. Here, we got
our first glance of the
incredible Troll Wall, although the top of the 5000 ft. high cliffs were partially obscured by cloud. A few wet days followed and we visited Alesund and Trondheim before returning to Andalsnes to camp at the top of the Trollstigen, the Troll's Way, with the Stigfoss 2000 ft. down into the valley only a few yards

We camped for three nights with the spectacular mountains Bispen, Kongen and Dronningen (Bishop, King and Queen) dominating the skyline.

We waited for a clear day before setting off for the back of the Troll Wall. After floundering about in two or three feet of very recent snow we reached a gully be-tween Breidtind and the first peaks of the Wall — Stabben and Klumpen. One by one

we gingerly approached the edge of the cliff to test the theory that a snowball thrown from the top would hit nothing before reaching the valley 4500 ft. below.

After Romsdal we drove southwards to Geiranger in the true fjord country and then on to Olden and the Briksdalsbre glacier. This glacier flows down from the Jostedalsbreen ice-cap and as we ' arrived great chunks of ice were breaking off at the bottom of the glacier and falling into the lake below.

We left Olden and camped around Voss, visiting the beautiful Lysefjord with its overhanging Pulpit Rock. With our three weeks nearly over we drove on to Kristiansand and sailed for Harwich with Fred Olsen.

Norway has plenty to offer the climber, walker and fisherman (unfortunately we were not too successful in this last pursuit) and it is hoped that it will be possible to return next summer. Bispen and the impressive Romsdalshorn are two targets for

Closer to home, the Y.H.A. Club is visiting the Brecon Beacons, Dartmoor, and the Peak District this term. Anyone interested in the weekend trips and/or the Easter and Summer expeditions should contact one of the following for further informa-

Publicity Officer -Phil Craven Mech.Eng.

President - Steve Robertson Chem.Eng.3. Hon. Jun. Treas. Mike Wright Chemistry

M.J.W.

CRICKET CLUB 1973-4

The College Cricket Club, which is about the strongest in the University of London, fields up to five teams during the summer term, the first XI now participating in a league of west London clubs. At the end of the term, a tour of South Devon, based at Torquay, finishes the season in style.

The Club's activities are by no means limited to the cricket season. Throughout the Christmas and Spring terms, indoor nets are held on Sundays at Alf Gover's Cricket School, a valuable introduction to College cricket and Club members, new and old. The Club's annual Dinner will be held at the end of November, our guest speaker being a well-known name from the cricketing world.

Anyone interested, no matter whether a budding first-class player or

keen "coarse cricketer" should come along to our stall on Freshers' Day (in the Union), watch our notice-board outside the Union bar, or contact any Committee member (the Captain, Ian Menzies, the Vice - Captain, Rob Young, and the Secre-tary, Pete Totterdell, all of whom are Chemistry postgraduates) via departmental or Union letter racks.



Never touched 'im ref! I.C. laid low-for a sec.

Knobbly Knees?

You too could be Mr ICWA Nominations by midnight Thursday 4th October on ICWA Noticeboard

Union General Meeting **Thursday October 4th**

> place: Great Hall time: 1.00 p.m.

RCSU is pleased to announce:-

October 2nd Freshers' UGM Phys.Th.1 October 6th Tiddly-winks race down Oxford Street