No. 216 WEDNESDAY MARCH 24 1965

Mar Pingree Educational Values - page 7

UNION DEBATE, THURSDAY, 18th MARCH

In spite of an impassioned plea by Mr. Enoch Powell, the Conservative one-time "rebel" MP, that the opposition speakers had consistently evaded the question that "this house has no confidence in Her Majesty's Government," his motion was defeated by 199 votes to 130. There were 30 abstentions.

Mr. Powell opened with charges against the Labour Government's five months of office. He did concede, however, that its personnel had an organising ability of the highest order—but the country was not ready for organised chaos and disorder.

The new administration had implemented even more "stop-go" policies. And the talking-down of the British economy—to the tune

of \$3 billion credit-and the Concord review had far from improved our standing abroad.

The Labour Government," he said, "has succeeded in spreading alarm and despondency in British industry" and "discord and distrust not only in Europe but throughout the world.'

In reply Mrs, Babara Castle, the Minister for Overseas Development, began with a long tirade on the character she was opposing. She noted that Mr. Powell had had no confidence in the previous Government either, and further gave vent to his chequered ministerial career.

Thirteen years of Conservative rule had shown a remarkable lack of co-ordination. She stated that when the Socialists came to power they were faced with the largest-ever trade gap. Something had to be done rapidly, even if unpopular, "To stop the gap and prevent the economy running more and more into the red." (Laughter.)

In the long-term the Government was giving incentives to exporters, had set up a prices-and-incomes review board, and had given the British computer industry a big boost. Such, she insisted, were expansionist policies, not protectionist ones.

David Reich, President of IC Debates, referred to the present "Mock" Government as "One in which the left hand, or wing, doesn't know what the right is doing." While the left wing doing." While the left wing quibbled over Vietnam, the right disagreed with the Government on steel.

"Healthy discussion," cried Mr. Needham from the floor. "I'll be dealing with the Ministry of Health later," Reich retorted, and described the abolition of prescription charges as the worst feature of the Budget. (Hisses.)

Point of information," begged Chairman of SCC. "You the Chairman of SCC. "You wouldn't have any information for me," Reich told Mr. Anand.

David Watson, last year's ICU President, thought Tory Governments had been too complacent-"If foreigners don't want to buy our goods, then they can go elsewhere." An incomes policy, he stated, was just around the corner

Mr. Powell smiled knowingly.
In comparing the two major party leaders, he described Sir Alec "Like a dinosaur that this emerged into the hard light of the 20th century.

Tory David Pinsent felt that the Labour Party preferred the purity of Opposition to power. Many of their recent actions had been harmful due to haste.

Hilary Thompson considered man to be naturally perverse, and, of the Conservatives, "This malingering rag-bag is not fit for government!"

The Liberals were not forgotten. Edward Fortune forecasted a Liberal gain at Roxburgh, the Labour candidate losing his deposit! Under Labour, he added, "London will come to a standstill—and nothing will stop it!"
In summary Mrs. Castle re-

minded the house of the election pledges already fulfilled-at a rate of over one a week.

A full-scale attack on Mr. David Reich, President of Debates, was launched by Mr. Uppinder Anand, Chairman of the Social Clubs Committee, on Tuesday, 16th at the S.C.C. Meeting. Mr. Anand moved that "In view of the irresponsible behaviour of Mr. Reich it is proposed that the financial account of the Debating Society be frozen. It is also recommended the committee of the Debating Society reconsider the position of Mr. Reich as president."

Mr. Reich, Mr. Anand stated, was "either not capable of being President of Debates or irresponsible" and had "generally let his

Society run into chaos.

The cause of the trouble was finance. The Debating Society had failed to submit financial figures for the half-yearly check, had failed to collect money from students who had entertained visiting guests to sherry and luncheon, when instructed to do so by the S.C.C., and had overspent their publicity grant without approval from the S.C.C.

Mr. Anand went on to enlarge on Mr. Reich's misdeeds. Mr. Reich—who was not present—apparently refused to answer letters, failed to arrive at meetings on time and generally did nothing to

alleviate the financial troubles of his society.

The Debating Society account was overdrawn £2 and some bills had not been received. The only light Mr. Hilary Thompson, the Debating Society Treasurer, could throw on the affair was that Mr. Reich lived away from College and only came to the Union two days a week.* Mr. Anand replied that letters sent in December should have been answered by now.

The motion was about to be put to the vote when Mr. Reich arrived with profuse apologies. The charges were repeated and he Continued on p. 12



Barbara Castle speaking during the debate.

We Believe In Fairies!

A sparse audience was present at the Debate on 11th March to concur with Viscount Barrington's motion that "this House believes in fairies."

Lord Barrington treated the motion scientifically, pointing out the folly of disbelieving in the existence of fairies merely because they were not obvious. He cited the peculiar clicking sounds in RCM due to metro-gnomes—and the house was reminded of the mean gold-grasping gnomes of Zurich, responsible for so much recent distress. In conclusion, he even persuaded the audience that recent "leaks" in the College telephone system were due entirely to fairies!

In opposition, Michael Scott appealed for commonsense. little to offer in the way of argument, he made a number of jokes,

a few of which bore some rele-

vance to the motion.

Reuben T. Sawdaye, President of ULU Debates, supporting the motion, related two fairy stories and sat down again. Mike Edwards' main contribution to the opposition was the deleterious effect lucky charms made in Hong Kong were having on British Industry.

Thrown open to the floor, several jokes, thinly disguised as speeches for and against the motion, ensued. Summarising for the opposition, Mike Scott had little to add to his previous speech, his main argument remaining one of commonsense. Lord Barrington amplified his main points in support of the motion and concluded by reading a poem on a leaf-by fairies, of course!-found beneath the statue of Peter Pan.

G.B.

In an hour which passed all too quickly Dr. Nicholson explained some of the difficulties facing astronauts and told of methods used to cope with their unnatural environment. His talk to Wellssoc included an interesting film of Colonel Glenn's historic orbital flight showing Glenn's reactions throughout and his reaction to the news from base that he would have to use manual control. Having heard Dr. Nicholson, one was inclined to sympathise with Glenn.

One of the major problems encountered in spacecraft is that of

providing a breathable atmosphere for the astronaut.

The partial pressure of oxygen must be less than 450 mm. of mer-Above this level oxygen toxity sets in. A gas must be mixed with the oxygen to keep the alveoli in the lungs inflated after the

blood has absorbed the oxygen from the inhaled gas. Mixtures of helium and nitrogen with oxygen are commonly used, but the complexity of the problem is enormous, and new mixtures are constantly under investigation.

Another grave problem is that of withstanding the acceleration and decelerations involved. The first ill effects from acceleration are experienced at a value about four times that due to gravity at the earth's surface (four "G"). This results in a reduction of bloodflow to the eyes and eventually unconsciousness. This is remedied by the simple expedient of laying the astronaut on his back. This reduces the height to which the blood must be pumped and accelerations up to 6G can be sustained, without loss of consciousness.

The film of Colonel Glenn during his orbital flight was interesting, showing as it did how much could go wrong with a space flight and how far such a project depends on the human element. In spite of his extremely thorough training and preconditioning, Glenn was quite shocked when the automatic controls failed to work, to the extent of forgetting to lower his visor on re-entry. Had any puncturings of the craft occurred, this could have proved

D. S. VIRK. BRITAIN TO BLAME

The most important contributory factor to the troubled political situation in Southern Africa to-day was the formation and subsequent disintegration of the Central African Federation. This was the main point of Professor Kenneth Kirkwood's lecture on "Rhodesia's Policy in Race Re-lations" in General Studies on March 16th.

The speaker, who is Rhodes Professor of Race Relations at Oxford, told an audience' consisting almost entirely of African students that the bitterness in both black and white communities was due to the sudden aban-donment of high hopes and worthy objectives by the British Government.

Rhodesia is the nut between the nutcrackers of militant African Nationalism to the north and militant Afrikaner Nationalism to the

Continued p. 3, col. 2

Mountaineering

A college mountaineering club does not exist solely as a means to an end. If it did, the club would soon meet its down fall, but if the members treat the term mountaineering as an excuse for the club to exist, then it can be a great success.

The I.C.M.C. is just such a club. All its meetings are social occasions, whether they take place in the Union Bar, at the Outdoor

Life Exhibition, in Snowdonia or in the Alps.

Most members know everybody else, and this acquaintance is not the superficial one of so many other college societies, where someone may be admired for his speech-making or his goal-scoring. When two people have helped each other to the top of a stiff climb, experiencing the same ordeals, only then can a real friendship begin.

Why do we climb mountains? It is in a search for beauty. The hills are beautiful in their purity. their freedom, and their simplicity. They have a power for drawing out the best that is within us.

The club has expanded rapidly since its sisters—the Exploration Society and the Caving Clubsplit off depleting the membership of the parent club by half, and the present number of 55 is its highest to date. With the great wave of interest in the sport just beginning, it should not be long before the 100 mark is reached.

The club tries to obtain the best climbers in the country to speak at its meetings, Ian Clough, of the first British party to ascend the Eiger North Wall, was a recent visitor. An instruction of beginners is undertaken both in college and in the mountains themselves

Highlight of the week is the bar meet on Tuesday nights. Epic stories are told over a pint and the darts board is taken over

for the night.

The Scottish meets at Christmas and Easter and the Alps meet in the summer are something out of the ordinary. And there are whispers of an expedition much further afield for 1966. GREGORY TOUGH.

SMALL ADS

AUSTIN A 40 Somerset; grey, superb condition save for slight duelling scar. Engine just overhauled completely. Most effective anti-theft device; left-hand drive. Well-appointed and well-shod. £75 o.n.o. Apply P. J. Hills, Room 607, Civil Engineering Department.

DOUBLE ROOM TO LET. Share of sitting room, kitchen and bathroom. Hot water, tele-Linen supplied. phone. Linen supplied. 2nd floor, 39, Stanwick Mansions, Stanwick Road, West Kensington, W.14 (EMP 4826).



Scientific Civil Service

Scientists and engineers: research workers in new fields of human knowledge: and practical men to direct huge engineering enterprises; the Civil Service needs them all. More, it can provide them all with work exactly suited to individual qualifications and talents. The Government is today the largest employer of scientists and engineers in the country, and has staff working in almost every field of pure and applied science and engineering. Plant pathology and naval architecture, thermodynamics and physiology, celestial mechanics and highway engineering: these are just a few diverse examples.

Prospects in the Civil Service compare favourably with those existing in industry: every able scientist or engineer should achieve a salary of £2,500 within a reasonable period; and an outstanding man or woman (they receive equal pay) will do so in the early thirties. The top posts, which carry salaries of up to £8,000, are open to all. At each level, there is full scope for the exercise of personal initiative and responsibility. Laboratory equipment and engineering facilities are of the highest order. Conditions of service are good and pensions are non-contributory. Recruitment to the Scientific and Engineering Civil Service is by interview—there are no written examinations. There are openings at various levels and for almost every type of scientific and engineering qualification. To obtain detailed information, send a postcard mentioning age and qualifications, to:

The Secretary, CIVIL SERVICE COMMISSION

23 Savile Row, London, W.1

POWER BLOCK DANGER

The ideal for which Commonwealth countries should aim should be a free association of independent states with a high degree of technical co-operation. The formation of a Commonwealth "Power block" could be highly dangerous and should be avoided.

Such were the views which emerged from the most recent 74th Touchstone Weekend, on 13th—14th March, at Silwood Park. The guest speaker was Mr. Patrick Keatley, Commonwealth Correspondent of the Guardian.

In his opening speech on "Commonwealth Realities" made particularly interesting by frequent anecdotes and personal reminiscences.

Mr. Keatley traced the historical development of independence among the nations of the Commonwealth, leading to the present time with twenty member nations and seventy-four dependent countries.

He spoke of the immense differences in tradition and modes of government within the Commonwealth and considered that the problem of race relations with particular reference to Rhodesia

and South Africa was the most crucial one facing us to-day. The model of the Commonwealth as a wheel, with the United Kingdom at the hub, was out of date and a more accurate representation might be that of a lattice.

The next Touchstone Weekend

The next Touchstone Weekend will be on May 15th-16th, when Professor Cherry will speak on "Moral Attitudes in a Technical Age."

PAUL ROGERS.

NOTHING NEW

With the tragedies of Selma, Alabama, hitting the headlines the meeting of ICSFRE on Monday evening was a decided anticlimax. An audience of 13 (including Felix reporter) was there to hear David Freestone, from Oxfam, speak on the Negro and segregation in the United States, and how that problem could be compared with the problem of hunger and depression in the underdeveloped countries of the world. It was just as well there were not more people at the meeting, what the speaker had to say was neither new nor profound, and not even very interesting.

He began by recounting his experiences on a visit to the United States last summer, with the Clayton Volunteer Programme.

The speaker then went on to compare the Negroes poverty and oppression with that of the underdeveloped African and South American countries. The solution to these problems he said lay in education. In the United states the Negro schools had very poor teachers and as a consequence children would leave hardly being able to read and write. Because of this lack of education, these people could not improve their Therefore, it was, he said, the duty of the rich nations of the world to pour money into the education of the less fortunate so that they, in time, would be able to help themselves.

LIBERAL SEMINAR

New Look Government

At a Liberal Club seminar held at Oxford on 20—21 February, the view was put that many powers and functions of central and local government should be given to directly-elected regional assemblies, of which there would be about 12 in the country.

These regional assemblies would be financed partly locally by site value taxation and partly nationally by a block grant from the central government. Local government would be reformed to ensure that local problems would be dealt with locally, and that regional affairs, now dealt with by a conglomeration of authorities, would be considered regionally; the abolition of county councils was suggested.

Imperial College was represented at the conference by Edward Fortune, President of U.L. Liberal Federation, and Peter Towlson, two of four members from London.

The conference felt that local broadcasting could play a big part in developing these regions. And, in order that national economic and industrial planning should be effective, a degree of direction of industry and population was suggested.

MAY BALL 1965

Now, only seven years after the first May Ball was held, this formal dance with the informal atmosphere is fast becoming traditional. Little wonder either, for this Ball, which starts Carnival Week events rolling, is a night's merrymaking unsurpassed in the I.C. Social Calendar.

Simply fill in the application form enclosed in this week's Felix and return it (together with the very moderate sum required) to the Hon. Sec., I.C.U. Entertainments Committee, c/o the Union Office.

The ticket will entitle you to spend the night of Friday, May 7th, from 9.30 p.m. until dawn dancing to any of six bands (a cast

headed by the Mike Cotton Sound, the Paul London Orchestra and the New Sedalia Jazz Band).

Any time between 10.30 and 1.30 a.m., you may indulge in a sit-down buffet and the Gorgeous Goldway Girls will be giving their fabulous Limelight floorshow at 1 a.m. Other treats include seeing the Carnival Queen crowned, and merely drinking in any of the three bars.

To be sure of your ticket fill in the form and return it now!

STUDENT OFFICERS

UNEXCITING

A pen-pushing and paper job, is how Roger Hobbs, the Chairman of R.C.C., describes his job.

His main function is to look after the organization and finances of the Recreational Clubs. He is also their representative on Council.

There are many summer tours being arranged and it is also his job to keep tabs on their organization. He sits on several sub-committees including Student Finance and Felix and Phoenix Boards ("though God only knows why!", to quote).

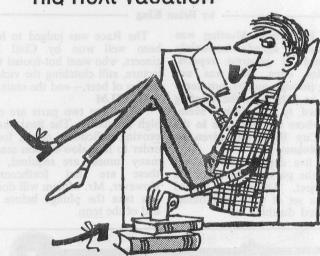
Mr. Hobbs does not mind admitting that his is a far from exciting job since, to quote, "I do not want to be President next year."

Rhodesia (Continued from p. 2)

south. In this situation not only was there racial division, but also bitter party division, both black and white.

Professor Kirkwood compared the situation with that in Britain in the early years of the Labour party. He stressed the need for African education and suggested that even minority representation by the more able African politicians would be better to the present situation, where the African Nationalists refuse any compromise measures.

This Man is going to East Germany for his next vacation



Why? well, for a start, because he's never been there—nor have any of his friends. And he's curious. Then there's money. He doesn't know anywhere else in Europe where he can live—and live comfortably—on 17/6 a day all in. Do you?

He's looking forward to visiting Dresden's Zwinger Art Gallery; the ancient town of Wittenberg; medieval Meissen; and the Weimar of Goethe, Schiller and Liszt. To hearing Leipzig's Thomanerchor sing Bach, and the Berlin State Opera sing anything from Verdi to Wagner. To watching the Berliner Ensemble perform the works of Brecht and Weil. He'll explore the bizarre landscape of Saxon Switzerland, and sunbathe by the tideless Baltic. And a great deal else besides.

He's busy persuading a party of his friends to go along with him—then his holiday will cost him nothing at all!

Details from:

JUGENDTOURISTIK,

REISEBUERO DDR,

BERLIN 104, FRIEDRICHSTRASSE 110/112, GERMAN DEMOCRATIC REPUBLIC.

JEZETTE AT BRISTOL



Guildfinger

by Brian King

The last Union Meeting was brief, and the agenda was mainly composed of progress reports. But, for once, this was not brevity through apathy, but keenness. At 1.15 p.m. the meeting adjourned to the Albert Memorial, where the first clue in the Field Cup Race was given by Chris Molam.

The five departments set out across the park in search of the first object. The objects proved to be a set of tyres, scaffolding poles and dustbins.

The Race was judged to have been well won by Civil Engineers, who went hot-footed to a lecture, still clutching the victors' bottles of beer,—and the crate. THE FILM

The first two parts are of a high standard. The final part is proving difficult to shoot, for in order to film slow-motion scenes, many lumens are required, and are not forthcoming. However, Mr. Molam will doubtless take the plunge before the end of the term.



R.C.S. CARNIVAL

A good turn-out of fancy dress, from pirate and grass skirts to American tourists, greeted the West Indian steel band. Films were shown all night; some excellent new groups and the cabaret seem to have met with approval. Well done, Dick Smith and the Ents. Committee, and well done, Adrian Fletcher and the cabaret cast! Those two cowboys did have the right tickets. R.C.S. DINNER

Surprisingly enough this is the first time a dinner for the whole R.C.S. has been tried. It will be held on the first Friday of next term, 30th April. This could well become the big event in the Union Calendar, with distinguished guests, if all goes well. The cost will be £1, but it won't be collected till next term. Lists are up, so please sign them before the end of term.

ATHLETIC SPORTS

The inter-college sports are soon after the beginning of next term, With our long cross-country season, distance running is usually strong but the short track season just before the exams means that any sprinters or field events people would probably be welcome. So contact Derek Wade, Botany Dept., if you were a reasonable school athlete, but haven't done any at college. I hear Needham is training for the tug-of-war by pulling his bed up and down the room. NEXT YEAR

Who's for president?

C. S. EVANS.

On a number of evenings at the end of February and beginning of March, dismayed Londoners saw a varied assortment of young men driving a pedal car between the post office and South Kensington Underground station by way of the tunnel. These young RCS men were training for the 24-hour pedal car race which started on Friday, 5th March, at Bristol. They succeeded in gaining 12th place overall, and 3rd in their class.

The car had been designed on the basis of last year's handicap formula, with 12-inch wheels. But, just before the start of the race, the organisers decided against using this handicap system, and "Jezette" was placed into class II (11-15-inch diameter wheels).

Being early arrivals at Bristol, the RCS team was able to choose the best pit site, and then they helped to clear the snow in front of the pits. But, in spite of their efforts, the track was still icy at the start of the race at 12.38 when Mr. Reginald Maudling, the Conservative MP, dropped the starting flag.

Early in the race, Jezette was lapping in 1 min. 33 secs., with drivers changing every lap. collision on the second lap loosened the car's right-hand front-wheel bearing, but the wheel never collapsed though the bearing mounting was elliptical at the end of the race.

As evening approached the car (No. 16) settled into 12th place, against the formidable opposition of 20 m.p.h. 18-inch wheelers, dragging to lap times of two minutes between 3 and 4 a.m.

The bright Saturday dawn and good breakfast raised the team's morale, so that by the time President Kish Sadhvani had arrived, with his eleven buccaneers, straight from the RCS Carnival, lap times had reached an all-time low of 1 min. 20 secs. Added incentive came from car 15, only half-a-lap ahead.

Only 44 cars out of the original 54 crossed the finishing line at 12.38 on Saturday.

OF MINES **GENTLEMEN**

An air of tension and excitement prevailed in the packed Union meeting held on Tuesday, 16th March. It was time once again for the annual election of next year's executive and officers. The executive posts were hotly contested, the calibre of all the nominees being high, as shown in the speeches from the respective proposers. The chosen executive elect is as follows:

Dick (Goalie) Gash-President. Dick (Mr. I.C.W.A.) Potts-Vice-President.

Mike (Ents.) Gibson-Hon. Secretary.

This is a strong executive and should really push Mines to the fore-front next year in all fields.

The other officers elected can

be relied upon to continue to kindle the traditional spirit of

The President, Des Kearns congratulated the captains and teams for their outstanding achieve-

The Rifle Club on winning the Courtman Shield.

The Hockey Club on winning the

Stephenson Cup.
The Rugby Club on locating,
Paris School of Mines and
R.C.S.

The Swimming and Water Polo Club on coming a close second in the Gala.

The Debating team in beating R.C.S. so strongly.

Left over from the Clementine

Auction, a typewriter and several other interesting articles remain, which are likely to draw some hard bargaining. The second year mining have already started sav-

The changes in constitution have again been passed at an extraordinary General meeting.

> RUGBY-MINES 16, R.C.S. 0

A really convincing win. On this showing Mines are certain to win the cup outright. R.C.S. although not particularly strong in the forwards had the whole I.C. first team threequarter line. Mines more than matched them, as the result shows, in good open rugby. Our backs were steady, Snagger Turner and Ginger Reilly playing very well, as was expected, in the back row, while Stew Green and Pete Ray put some tough fighting spirit into the scrum. Mitch Davies, as scrum half, gave a good display and quite a few points are due to his cunning.

The team as a whole are a top form—so Guilds, WATCH OUT

GORDON LOWES

The ideal Sports Shop

GOOD DISCOUNTS FOR ALL IC MEMBERS

21-23 Brompton Arcade, Knightsbridge, S,W,3

KEN 4494/5/6

Carnival Column

£1.800 GOAL

How many raffle tickets have you sold? Our economics experts have worked out that if every student in the college sells ten raffle tickets, we will get £1,800 net, or about £900 profit. Surely, it is not asking too much of you to try to sell tickets to anybody and everybody you meet with a bit of luck you'll get rid of some.

SALESMEN WANTED

We are hoping that parties from the constituent colleges will be patrolling London most evenings at the beginning of next term selling the Carnival Magazine. This could be good fun and very lucrative but to have any suggestive but to have any suggestive. tive but to have any success, we need good turnouts of "salesmen." So if you are at a loose end any evening, either join a college group, or if you like, just collect a pile of magazines and try selling them at your local job after all, the landlord can only throw you out!
NEW FILMS

The rumours of Pink Panther The rumours of Pink Panther and 007 for the midnight Film Festival were all wrong! Unfortunately neither film is available and we will be having the "Guns of Navarone" and "The Waltz of the Toreadors" instead.

JUKE BOX

The Juke Box will be in South-side Snack Bar this year. Whether there will be coffee on sale in the evenings depends on whether there are people willing to serve it. So come and volunteer, all you frustrated Southside coffeemakers!

BEGGING LETTERS

There are still a lot of begging letters for delivery. If you live in Kensington and haven't yet taken some round, please call in and get some. The work involved is very little-all you have to do is walk down your own street, knocking on doors, and delivering letters and it will help us no end. LETTERS RAIS £110

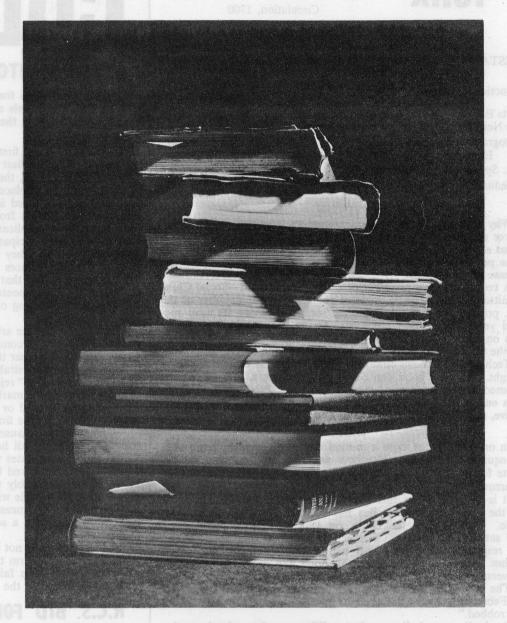
Replies to the begging letters now number 40 representing a rate of one per cent. and have raised £110 for I.C. Carnival.

ANY QUERIES?

If you have any queries, or want to help don't hesitate to call in at the Carnival office or Southside any lunchtime. You'll always be welcome.

J.H.A.

NEW GROUND will be broken next year by Felix-and new blood is needed to lay the seed. Applicants for staff posts and bright ideas please to 96 New Beit with all haste (if no response then just slip a note under the door or into the Felix pigeonhole in Union lounge).



Will it all seem worthwhile 5 years from now?

At Turner & Newall a man's degree - whether in science, engineering or the arts — counts for far more than a passport to a round of interviews. Our Training Scheme is planned to employ all his university attainments to the full, and to be adaptable to his individual

Just who are T & N? Turner & Newall is one of the strongest, most important groups in British industry. With a large and growing stake in asbestos-cement, in insulation, in brake linings and in plastics T & N is closely linked to all four major areas of economic growth. To the building industry; the motor industry; the newer plastics; and to activity in the developing territories of the Commonwealth... all adding up to a strongly expanding £100,000,000 business with 39,000 employees. Overseas, with 17 companies in 10 countries, T & N has doubled its interests in ten years.

Earlier Responsibility T & N thus offers outstanding graduates a career of great scope, keyed from the first to areas in which expan-

sion is at its fastest . . . opportunity at its best. Moreover, under our broad and flexible training scheme, the graduate assumes managerial responsibility more confidently and certainly earlier — than is often the case in industry today.

Note to Research Men T & N also recruits scientists and engineers direct into its research and development branches, whose projects are particularly closely linked to the needs of the expanding industries. Opport-unities for supervising work with a practical application, as well as for fundamental study, are thus outstandingly good.

Ask your Appointments Board for further details, or write direct to: Management Appointments Adviser, Turner & Newall Ltd., 15 Curzon Street, London, W.1. (Tel. GROsvenor 8163)

The Turner & Newall Management Appointments Adviser will be visiting Imperial College, London on Thursday 11th March 1965. If you would like an interview, please contact the Appointments Office.

IRNER & NEWALL LIMITED

turners asbestos cement co. Ltd · turner brothers asbestos co. Ltd · ferodo Ltd · newalls insulation & chemical co. Ltd · J. W. roberts Ltd · glass fabrics Ltd · british industrial plastics Ltd · stillite products Ltd turners asbestos fibres Ltd · and 17 overseas mining & manufacturing companies



felix

NEWSPAPER OF IMPERIAL COLLEGE UNION Circulation, 1700

EDITOR

N. J. WALKER

ASSISTANT EDITOR

D. I. WILLIAMS

Production Manager Alan Oxley Sports Editor Dave Hunt Sales Late News Editor Ted Needham

Photographic Editor

Asst. Sports Ed. **Bob Grundy** Subeditor Melvvn Owen

Business Robin Webster, Peter Combes, Geoff. Bean, **Barrie Pichler**

Andrew Mayo, Jocelyn Mackintosh Pete Ash

John Cawson Production Asst. Mike Leppard Graham Bolch Gill Steele S.Vogler Secretaries:

PETTINESS

Why is it we can become so worked-up over petty affairs, and yet over matters which affect us all we couldn't care a damn! The obvious answer is that we are students and, as such, reputed to live for the present only. But surely, we can behave as adults and get our sense of values right.

A recent example of pettiness is the David Reich—Social Clubs Committee battle (reported on front page). Not one member of the S.C.C. pointed out that the Debating Society is having its most successful year ever. Apart from Mr. Anand, no one had any valid points on the matter. With a little bit of "give and take" on both sides the whole affair could have been settled long before this.

Technically it seems that Mr. Anand and his executive are in the right, but what good can come from passing a vote of censure on someone who is, in most eyes, a successful President? NONE. It can only upset a lot of people and magnify things out of all perspective, as happened last year over Felix.

In or out? Once more a motion has been signed by more than the required 130 Union Members and the motion "that we disaffiliate forthwith from N.U.S." will be debated at a Union Meeting

It is high time that this question was at least settled for more than the one or two years has has become a custom of the past decade. The last N.U.S. debate, on 18th February, produced no really satisfactory answer. Neither side had had time to point out their respective arguments and neither side produced any good speeches. Even the proposer lost his notes and had to use the identical version that was used at the N.U.S. debate in 1963!

The opposition failed to do anything until after the motion on 18th February. They then tried to give the impression that "They

Again it seems ludicrous that a difference of one in the voting can decide this issue; especially since a two-thirds majority will be needed for the costitutional change required if an N.U.S. representative is to sit on Council.

ANTI-APATHY

We are always hearing the word "Apathy" bandied around in this Union. But are we apathetic? Most clubs and societies are flourishing, increasing their membership every year. Nearly all undergraduate s.udents are members of one or more societies. Post-graduates could be called "apathetic" as not many join in Union Life. But the majority of P.G.s have other interests outside of the Union (Marriage?) and anyway have already put up with their fair share of the pettiness that pervades this Union.

HALDANE LIBRARY 13, Prince's Gardens



Sorry! You won't find text-books or scientific treatises in this library, but you will find over 10,000 good books of general interest including all the latest

And it's Free too!



Open 11-5.30 p.m. and until 7.0 p.m. on Tuesday and Thursday

LAMLEY'S

TECHNICAL & GENERAL BOOKS

ART MATERIALS

DRAWING INSTRUMENTS

STATIONERY

PAPERBACKS

1, 3 & 5 EXHIBITION ROAD, LONDON, S.W.7

COLGUTT

GETTING INTO HALL

"Hall application forms must be handed in by May 1st"-or so it says on those little notices. You may be interested to know what happens between then and the day you receive a note of acceptance or refusal.

Well, Miss Burns first sorts the forms out into different piles for each hall. When, as last year, some halls are very over- and others very under-subscribed, the forms are reshuffled on an arbitrary basis until the application/places ratio is the same for each. By this time, each hall has appointed a selection committee—usually consisting of one departing student from each constituent college. These people look through the applications for their hall, and award each applicant marks for participation in College and Union activities, etc., and whether or not they think he's a "good chap" and a potential asset to the hall. Places are then offered to people with the highest marks, remembering that a certain number of places in each hall must go to departmentally chosen first year students, overseas students, people staying on for a second year in hall, warden's nominations, and so on.

I must say that the arbitrary basis on which forms are farmed out the halls' selection committees seems both unfair and unnecessary. Unfair because last year it led to one hall having to accept candidates it considered as undesirable—and who were probably less deserving of a place than many "rejects" from other lists. In addition, at least one other committee marked people down if their hall was down as the applicant's second or third choice, although the application was

never ever seen by the first choice hall.

Unnecessary, because the introduction of some form of central selection system for all halls would eliminate both above injustices "First time" candidates would put no choice of hall on their form, which would be marked by a six to ten-man committee drawn from all halls, and preferably the union also. It would then be an easy matter to fit the people with tops marks into available places-maintaining also a large measure of personal preference for a particular hall. Candidates for a second year in hall would be selected as at present.

I have pu osely not named any halls in the above, as this would probably do more harm than good, and would certainly not increase anyone's chance of a fairer consideration of his application. This

will only come when the system is altered.

R.C.S. BID FOR MINES

Take a quick glance at page 53 of the college calendar, and it is immediately revealed (wait for it)that Prof. Sutton is head of the Geology Dept.—which is part of RCS (Bingo!). therefore, to see last week that he has also become Dean elect of the Royal School of Mines. Of course, it has been widely felt for some time that the Geology department should be a part of Mines, and the staff expressed support for this change some time ago. Underlying all this, however, is the fact that the constituent colleges are becoming more and more superflous to the I.C. of the sixties.

COMMENT

Lest you think NUS is the only thing in the world (God help us), consider briefly your Union Council. Among others, it contains nine student representatives, who have to be divided equally between the three colleges—a ridiculous and unnecessary restriction for a start. There are also three reps from old student associations where one would surely be enough.

Anyway, on to the last gathering of this august body on March 15th, out of 26 members, six attended less than half the meeting, and three were completely absent. Although several relatively important points were discussed, the number of people who actively participated and put forward constructive ideas could have been counted on the fingers of one hand—the rest might as well have been observers. Moral? I'll leave that to you—I've done enough tubthumping for one week.









OPINION

There will be a conference on Lecturing Methods next term.

John Cawson gives his views on

In England, Science and Engineering are only taught properly for the first year or two at school; after this the very method of teaching contradicts what is first taught. The first steps taken into the maze of scientific learning are devised so that the young student can cultivate the "scientific method." Experiments are usually devised by the class making suggestions to the teacher. In this way the class learns to think for itself, and the experiments show something that the child has not seen before—notice the number of elementary books with titles "Finding Out" or "Discovery."

However, this early phase is soon over, and the student has to get down to "the serious work of learning." Exams press hard and the spirit of enquiry is soon squashed under a heavy blanket of endless facts. From this point on, the only target is the next exam and the fascination of enquiry is soon stifled.

No Initiative in Science

Until the time comes to enter the sixth form this does not matter very much, but at this stage the irrevocable choice must be made between Science and the Arts. To the fifth former making the deci-

sion, the study of the Arts offers scope for initiative, the study of science does not. In studying literature and history, one is put into the position of a researcher with a host of different sources to consult and opinions to be formed. Although these are very likely to be unsound, they are still acceptable and not "wrong." The science student, however, is faced only with the prospect of endless classes, and problems to be done. He is told continually "this is right," "you are wrong," "this is what you must learn." It is small wonder that too few opt for science in the sixth form.

No Better At University

At university it is no better; if anything it is worse.

Almost no scope is given for initiative. One's time is taken up with interminable lectures in which one is fed facts, and deluged with problem sheets. The sole aim appears to turn one into a reference catalogue from which facts can be drawn at will. In the laboratories a mockery is made of the word "experiment." In the second year light current laboratory course in Electrical Engineering there is only one experiment that is true experiment where any intelligence is required; all the others merely require one to follow an instruc-tion sheet almost word for word.

How Can It Be Changed?

Can this be changed at all? Is it possible to alter the course so that it can be made more interesting and constructive? I think it can be, and the suggestions that follow are based on two observations: one, no use will be

made after leaving college of the majority of the facts that are at present memorised; two, it is of great importance to know how to go easily about learning those facts which it does become necessary to know afterwards. I think that a scheme of the sort outlined below would go part of the way towards filling this latter need.

What About **Projects?**

The present scheme of lectures followed by exam could be replaced by a system of "projects." At the beginning of the year one would be given several projects which would involve the study of the different branches of the subject. This would have to be backed up by experimental work done in a laboratory which would be made available at specified times. It should be possible to see tutors frequently, so that help and guidance could be sought and given, and at the end of the year a full report would be prepared showing the ground covered, not unlike a text book. For example if one of the sub-jects was "transistor amplifiers" this would require the study of the basis of the transistor and the nature of semi-conductors, and the maths that this would entail. Experiments would have to have been devised and different amplifiers built and composed.

If such a scheme were adopted it would mean throwing over a lot of cherished beliefs and ideas but I feel that in the end the engineers produced would be educated in the proper sense of the although they might "know" fewer facts. Perhaps it is not too much to hope that it might attract a few more into the vital fields of Science and Technology.

COLLEGE PROGRESS

The Rector's March Bulletin (obtainable from I.C. bookstall, price 6d.) contains much interesting information on the progress the College is making in various fields. Some of its contents have appeared in other forms in past issues of Felix, but much of it covers fields about which a lot of students would otherwise be unaware. Staff changes and Honours figure prominently. The following is a brief digest of a few selected topics.

THE 1970 COMMITTEE

The Report of the 1970 Committee, which contains no less than 61 recommendations, is now complete. The Committee, chaired by Professor Ford, has since May 1962 been considering four fields: Academic policy for undergraduates, including types of degrees,

length and content of courses;

Postgraduate courses;

Teaching methods. The arrangement of terms and College hours.

The first three of these were referred to the departments concerned for their opinions, and the fourth to the Registrar. The Board of Studies has been discussing the Report since November, and will eventually decide which recom-

mendations to implement.

COLLEGE HISTORY DEVELOPING

A move was made early in 1958, to produce a full-length and definitive history of the Imperial College of Science and Technology. The first task was to complete the departmental histories; several of these are now complete, or almost so, and substantial work has been done in the remainder.

The Archives, in 180 Queen's Gate, contain much well-doeumented material connected with the college's history. All those interested are welcome to inves-

BOOMING COMPUTER UNIT

The College Computer Units' The College Computer Units' major piece of equipment, the IBM 7090 started doing useful work on 11th January. The auxiliary IBM 1401 computer arrived in February, and the computer installation should soon be peet installation should soon be propriet adequately with the heavy. coping adequately with the heavy workload expected.

Delivery of the high-speed data link to the University Atlas Computer has, unfortunately, been delayed; it is now expected to

arrive in April.

The Rt. Hon. Earl of Halsbury will inaugurate the Unit on Wednesday, 12th May.

\$1,000 TO LYON PLAYFAIR

On the initiative of the United States Embassy, the American Business Committee to Advance Education has selected the Library as the first centre in Britain to receive major gifts of scientific textbooks and monographs. Books to the value of \$1,000 have so far been purchased by this means and the Library has been asked to advise on the extension of the scheme to other universi-

THE HALDANE LIBRARY

Responsibility for the gramophone record collection has now passed from the Musical Society to the Haldane Library Commit-The Union has agreed to grant the Musical Society an annual sum of money for the purchase of new records, and a number of musical scores have been recently made available.

Other additions to the Haldane Library include texts and grammars for those interested in modern European languages, in particular, Russian, and a num-ber of novels in French and



Mr. Enoch Powell speaking at the debate (see front page)

UNION - FINANCES GOOD

Much of the business at the Council Meeting on 13th March was purely financial. The report of the Joint College/Union Study Group on the Union's Reserve Fund was approved. This reserve fund is adequate to meet the expenses of renewing furnishings and equipment, but needs to be increased substantially as the areas under Union control in-

MONEY VULTURES

Dr. Weale, Hon. Treasurer, commented on the present satisfactory state of the finances, and then the vultures descended to

get what they could.

The R.C.C. wanted £160 to enable the G. & S. Society to make a summer tour to Folkestone and Bristol. If they manage to fill all the seats they should bring back a profit—so a wet summer can bring benefits to I.C. Union!

Ents. Committee was granted extra money for guests at the May Ball and the Tours Subcommittee was allocated a further

SILWOOD SILVER

Down at Silwood an audit of the refectory accounts had re-

vealed a profit of over £2,000 accumulated over several years. Most of the money will be spent on facilities for the Silwood residents, such as washing machines and locks on doors. However £350 will be spent on silver cutlery for the Silwood Park Dinners-in-Hall,-of which there are but two

a year!!
On the Athletic front: Mr.
Jenkins—the Chief Sport—compiained about mis-use of the gym on dance nights and evenings of formal functions. The beer con-sumption at Harlington has risen by 40 per cent.

Council was warned that the Touchstone weekends are in danger of death by apathy. Two have been cancelled already this year and only 15 people attended the

CORRIDOR HALLS

Duncan Moore reported the results of his survey on types of Halls. Nearly 100 per cent. of those who replied preferred the Weeks (corridor) type to the Southside (staircase) type. Council sent Mr. Moore and Mr. Price hot foot to the planning Office.

N.U.S. was mentioned only briefly, Council approved the executive recommendation that, for this year only, we will send five delegates to the Easter Council, two of whom shall be executive committee members. penses will be paid by the I.C. Union.

UNION HANDBOOK

Mr. Tye proposed that the Union should publish a Year Book which would be available free to all those who wanted a copy. The blue-book will be retained in its present form. A likely editor has been found. Council unanimously approved

the proposal. Council also engaged in its favourite sport of setting up working parties. Messrs. Utting, Cox parties. and Mair were elected to investigate post-graduate problems. This proposal was only just approved; some members argued

against it on the grounds that most P.G.'s would not be interested if anyone cared about them

or not.

EARLY RISE

Council finished before 8.00 p.m. which is something of a record. In the two hour session much ground was covered under the efficient Chairmanship of Mr. Price—whose main fault is to use

the gavel rather like a frenzied rock-group drummer.

Before the close Council deplored the non-attendance of three members and early departure of five others. Among the early leavers were Messrs. Bishop and Sadhvani-to dinners. Since the executive committee, on which they sit, fixes the date of Council meetings some foresight on their behalf could have prevented this. Several members present might just as well have stayed away for all that they contributed to the proceedings.

If the present restrictions of two from each college were removed from the six members elected by the I.C. floor I feel Council would benefit because the Union would (ideally) elect the six most interested people who are not necessarily equally divided between colleges.

J. C. TYE.

on land at sea and in the air... MARCONI points the way Electronic engineers, designers, system planners and manufacturers of aeronautical, broadcasting, communications and maritime radio equipment. television, radar and navigational aids on land, at sea and in the air. THE MARCONI COMPANY LIMITED . CHELMSFORD ESSEX · ENGLAND

Dear Sir ...

The Carnival Raffle

Dear Sir,

Yearly, at this time, each undergraduate is given two books of Carnival Raffle Tickets to sell, postgraduates being given one book.

Last year, when I was selling them, a prospective buyer asked me what guarantee he had that the counterfoils of his tickets would actually go into the draw. In all honesty, I could only tell him that there was no guarantee, it depending solely on the integrity of the student selling them. This did not deter him from purchasing some

however, although he did not know me.

Nevertheless, it is still a valid point. There is nothing to stop a student from selling his tickets, throwing away the counterfoils, and keeping the money. It may be argued that the majority of students are honest, and I sincerely hope and believe that this is so. Since, however, many students stoop to taking copies of Felix without paying for them, and quite happily cheat the Post Office telephone service, and London Transport, my faith in students' honesty is perhaps rather

l'appreciate that it must have been quite a job just to distribute books of tickets, and that to check up on the whereabouts of every book distributed, prior to the draw, would strain the organizers' resources of manpower to the limit, and might even be impossible.

Despite this, I feel strongly that the slapdash method of previous years is hardly ethical, and hope that some sort of check will be made this year. Since I am creating such a fuss about it, I will be pleased to help those checking the counterfoils, but it is perhaps too late;perhaps no note was made of who got which twenty tickets?

Incidentally, what has happened to the one ticket free, given to each student selling a whole book, that has been a feature of previous years?

Yours faithfully, MELVYN OWEN, (3.E.E.)

Dear Sir.

In reply to Mr. Owen's letter in this edition of Felix, we would like to make the following points in defence of the present, apparently lax, system of raffle ticket distribution and collection.

The organisers do make a note of all cash and counterfoils and unsold tickets returned. Hence, knowing that each undergraduate receives two books and each postgraduate one book, we do have a check on tickets returned. There seems to be no more efficient method of dealing with the problem and there is little point in recording individual ticket numbers—a mammoth task where 90,000 raffle tickets, about 4,000 students and academic staff (and perhaps a further 1,500 non-academic staff) are concerned. Numbers on raffle tickets are merely to distinguish one from another in the draw.

We do, however, accept your point that much depends on the integrity of the individual, but we trust that where someone is collecting money for a charity they will not pocket that money. One cannot distrust everyone all the time!

As for the free ticket—that is illegal!
Yours faithfully

NEIL SUNDERLAND CAROLE WADE

(Raffle Organisers)

Come and support us

Dear Sir.

The inevitable Extraordinary General Meeting of I.C. Union has been called in an attempt to reverse the decision taken at the last Union meeting to affiliate to N.U.S. Since the meeting is to take place at the end of term, there is a strong possibility that the meeting might be inquorate.

This must not happen since then the issue will hang fire until it can be properly debated at a quorate meeting. As there are no General Studies next term and consequently no two-hour lunch break, this is unlikely until the start of the next session; a delay which can only do harm to the

To ensure that we join N.U.S., the motion to disaffiliate must be soundly defeated after full discussion. Only then will the decision carry the full weight of opinion of the College, rather than a single pressure group.

I therefore ask all who voted for affiliation at the last meeting to come and vote again (and to bring that friend who meant to come but didn't think it was worth going); thus reiterating this decision of the Union to at last affiliate to N.U.S.

> Yours faithfully MIKE EDWARDS

Letter racks

There is a further point nobody has yet mentioned against the misuse of letter racks for society notices and unaddressed circulars. I believe that many other post- in addition to second, third year graduates, especially those from and P.G. mechanical engineering overseas, have the same feeling students use the same racks.) as I in this.

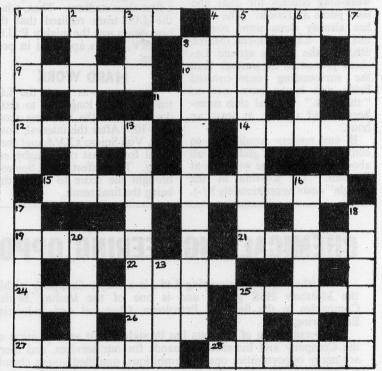
This latter point may be due to a

to stay in this country, the only permanent address I can use while at this College is my departmental address. This I have to use not only in my private correspondences, but in official communications planning their publicity?
as well. Then any correspondence
Yours faithfully,
connected with my research work
JOHN CHEUNG is of course again through the

department. These letter racks are the places I collect my letters and they are already serving a rough estimate of 400 students. (All first year engineering students in addition to second, third year In the few years I am planning bad arrangement of the department, but I sincerely hope the students themselves can help keep them in proper use. Can the eager committee members of the societies consider this point when

(Mech. Eng. P.G.)

Compiled by CROSSWORD No 4. Anthony Legge



Clues Across

1. Roman 100 roast may be a mixed up star. (6) Open Cilla's handbag may

provide a writing implement!

A play upon words. (3) 9. Steal in a scarlet waistcoat.

At the start, ten rant and rave, but get muddled as each does 5 down. (7)

Dehydrated Worthington ale, for instance. (3, 1) Domicile of an eagle.

14. More than one muddled old Ireland, perhaps. wash? (5) Will it

15. Be nasty and play it like this. 13. (4, 3, 4)

19. Anaesthetic is mixed there.

21. Alcoholic party, perhaps? (3, 2)

French friend D, in the middle. (4)

Lack (4, 3)

A missing, annual void! (5) Fickle company. (3)

Stab it, "doctors journal." (6) Without the fourth, ox-heart produces a body part. (6)

Clues Down

Horse owner in a crater? How uncomfortable. (6)

Salt mine home. (7) Now! It's mixed up, but

mine. (3) Feeble play on words. Why?

What 10 across does. (6, 3)

Heavy sort of mail. (5) Mail in a let terraced house?

(6)
Try noise pal! Public yet private. (11)
Stamina may be mixed under

cane. (9) 16. Half ran backwards, an ex-

position. (7) Let Harold be a killer. (6) 18. Heavenly twin to 1 across.

24 across loses a bible part to become a harbour. (5)

This point can be discussed.

25. Cinders Tree. (3)

Gliding

By M. C. Wooldridge This June the World Gliding Championships are being held at South Terney in Gloucestershire.

Though no I.C. students will be flying in the championships the club will be well represented in other ways since the Club's single seater "Skylark 4," together with van, trailer and I.C. driver, is being hired out to the Finnish team.

Club Captain, Bill Bailey, also hopes to do well out of the Champ's since he is crewing for the Irish team. After the championships are over a party of I.C. members and gliders will be setting out on an expedition to Austria for some mountain soaring.

Between now and the above events there will be the usual gliding at Lasham, including two, week-long courses for dual and solo pilots at Easter. The Club has already done some soaring this year. Last week-end (March 6th/7th) the woods around Lasham proved to be warmer than the surrounding snow-covered fields and hence gave rise to "thermals." Several club members stayed up for at least an hour.

If any readers would like to come and see what gliding is all about, they would be welcome at Lasham. (A joy-ride in the "Eagle" costs approximately 9/-).

I.C. Cricket Club would like to announce that Freshers' and Seniors' trials lists are up on the notice board.

All those interested in playing should sign these lists. Trials 28th at Harlington.

Rugby

PARIS MEETS VON SPIERO

Friday 12th March saw I.C. Von Spiero's XV on their way to Paris to pit rugby skill against the University. After being met at the station by University officials, the night was spent in the Ecole des Mines.

Saturday morning brought mixed feelings, and the team set out for the University Club ground. On arrival it was found that the game was to be played in a first-class stadium. Then, when the I.C. team realised that the opposition was the mighty P.U.C. 4th XV, bricks appeared in profusion.

HARD WORK

The game was nard, the I.C. team taking a long time to settle down—hence the half-time score of 3-10. After the interval, however, Von Spiero's XV found their usual form, fast open rugby ensuing. Total effort by all Spiero's brought the score to 19-19, this being the final result.

Rugby

Turner Sums Up

The 1964-65 rugby season can be summed up by the phrase "so near and yet so far."

The club was on the verge of regaining supremacy in the Gutteridge Cup and also having one of the best playing records for decades. The fate of both these ventures, however, came to an abrupt halt that fresh spring day when Q.M.C.'s penalty kick sailed between the posts, up until then the club had had a tremendous season as the record of 19 wins in 24 games had shown. Not only had the 1st team been winning but it had been scoring many points and conceding few. The Wednes-day record read 230 for-17 against in 11 matches. Crushing victories over Wasps, Vandalls (the first time in 13 years) Kings College Hospital, and Sandhurst had proved beyond doubt that I.C. had a team with immense poten-

It was not therefore, without justification, that I.C. took the field against Q.M.C., confident of victory. All dreams, however, were shattered in a fatal 8 minutes in the second half. When Q.M.C. fought back to take the lead, which they held to the end.

After the cup a lethargy set in; the number in the defeats column doubled while only a solitary victory was recorded. Even in defeathowever, I.C. were never disgraced, never conceding more than two tries and never losing by more than 8 points.

Good Name Restored

Perhaps people will say the Ruzby Club has failed again this year. This I can say with great conviction is untrue as I can speak for the 1st team when I say we have thoroughly enjoyed the season and the good name of Imperial College Rugby Club has been sown over previously barren ground.

Finally, I would just like to say a word of thanks to all the players and officials of the club who have backed me to the hilt in everything I've done. All in all the club and I have had a suc-

cessful year.—THANKS.
M. Turner,

20

30

Captain I.C.R.F.C.
Playing Record
P W D L F A

470 142

CHEMICAL ENGINEERING OPPORTUNITIES

Matthew Hall Engineering Ltd., is a major Company within the Matthew Hall group, and is one of the leading British Companies in the fields of Petroleum, Chemical and Industrial Engineering,

Diversification of interests has brought about an expansion of the Company and increased demands for our services, and there are many opportunities open to ambitious, qualified young chemical engineers who are interested in making a career in the petrochemical industry, working on the many large and varied contracts on which we are engaged in this country and overseas.

Typical of recent contracts are a Nylon Plant; a Fertilizer Plant, a Food Processing plant; three Sulphur Terminals. a num-

ber of petro-chemical plant installations, and important work at many of the country's nuclear establishments and power stations.

Matthew Hall Engineering Ltd., offer a complete service to industry, from the initial design of a process or plant which may include civil engineering, architectural design, piping and plant layout, mechanical and electrical engineering, and instrumentation—to the procurement of materials and equipment and the installation and commissioning of the completed project.

Analysis and evaluation of new and improved processes and methods is always in progress and our engineers make on-thespot investigations in any part of the world where new and promis-

ing developments are reported.



OUR DESIGN HEADQUARTERS

Housing a Design and

Administrative staff of over 1,200

If you would like to learn more about us, please write to our Personnel Department who will be pleased to arrange an interview with our Technical Managers. They will be happy to discuss any aspect of our work and to answer your queries.

Matthew Hall Engineering, Ltd., Matthew Hall House, 101-108 Tottenham Court Road, London, W.1

Clean Sweep By I.C.

The Rifle Club had a very successful weekend at the London University open meeting held at Twickenham R.C. on 12th and 13th March. The detailed results are not yet known but I.C. appear to have virtually swept the board.

The 1st team retained the University Championship (shot at 25, 50 and 100 yards), and an I.C. team of 3 won the Sharpshooter competition (breaking 2 clay discs at 100 yards).

In individual competitions R. D. Kennett won the University Championship, J. M. Edmond won Div. 2, and members of I.C. were 2nd and 3rd in Div. 3. I. P. Freeman won the Pistol Championship and D. H. Davies was 2nd. V. Coombs and I. P. Freeman were 2nd and 3rd respectively in the S. and K. Championship.

ship.
The finals of various knock-out competitions which have been continuing throughout the season were also held at Twickenham.
J. M. Edmond won Div. 2, I.P. Freeman won the Pistol K.O., and I.C. "A" won the Team K.O. Competition.

This meeting marks the end of a very successful season of smallbore shooting for the Rifle Club. It is to be hoped that the Club will be equally successful in full-bore shooting during the summer.

OTHER RESULTS

Rugby
I.C. 1st 8—9 Camelot
Sparkes Cup:
RSM 16—0 RCS
RCS 17—6 C&G
Soccer
I.C. 1st 3—2 Battersea
Tech. Cup Winners:
RCS
Six-a-Side Winners:
RSM
Hockey
I.C. 1st 10—1 Northampton
1—4 Battersea

POINTS PILE UP

By Tye
With the defeat in the U.L.
Cup and the approach of the end
of term the I.C. Rugby Club has
apparently sunk into lethargy with
the exception of flagins who are
still flourishing.

To date, the record is:

P W L D F A

31 21 8 1 641 167

This is a ffairly fformidable record. A scrutiny of rugby club records in the national Press reveals only three sides who have



D. Kirkley, R. Kennett, I. Freeman win the Clay Disc competition

Soccer

2nd TEAM LOSE

I.C. 1-2 Battersea

It was against all expectations when I.C. lost to Battersea at Motspur Park in the University of London Reserves Cup. The ball playing inside-forwards of I.C. did not come up to standard and as a consequence could not pierce a tightly packed defence. Crisp and Smart seemed lethargic in comparison with previous rounds and even Kemp was not his usual self.

The game was very even until half-time when the score was nil each. After the restart with I.C. playing up the slope Battersea at last broke through the College rearguard. The I.C. defence had to withstand tremendous pressure hereabouts and the fact that only one goal was scored was a credit to them. Kemp equalised for I.C. five minutes from the end when the Battersea goalkeeper fumbled with the ball and allowed the centre-forward to score.

The game went into extra time and after a hotly disputed corner, the Battersea centre-forward was allowed to head the ball home. From then on I.C. made little headway and with the forwards looking unlikely to score Battersea ran out worthy winners.

scored more points. Thus, with luck, a tally of over 800 points is possible.

A few changes have been made in the team due to injuries and retirements. "fformer ffagins," Williams and Stabler, and occasionally Richards are back in play again. Topliss, fflouting the accepted team etiquette by bringing a woman to watch twice, learnt his lesson well:—on both occasions he was injured and has now retired to be nursed by his ffemme ffatale.

Perhaps if more thought and consideration had gone into the game before the kick-off then the story might have been different, but as it was Battersea seemed to have more method than a disappointing I.C. side.

Rowing

I.C. Win U.L. Head

By D. Pollard
Wednesday, 12th March
The results of the Boat Club's

The results of the Boat Club's winter training and technique coaching became evident this afternoon when the 1st VIII beat Tyrian B.C. (the U.L. 2nd VIII) in the U.L. Trial Head of the river race. This was driven home even further by the 2nd VIII who finished 3rd on overall placing, only 2 secs behind the Tyrian crew.

This is the first time that an I.C. crew has actually beaten the Tyrian crew in this event, although the I.C. VIII has won the Dixon Bowl for the fastest college crew ever since the race was started.

esults:		
1.	I.C. 1st	19.51
2.	Tyrian B.C.	20.00
3.	I.C. 2nd	20.02
6.	I.C. 4th	20.38
11.	I.C. 5th	21.26
17.	I.C. Old Lags	21.54
20.	I.C. 6th	22.14

This followed a very successful outing on the Tuesday, when I.C. 1st VIII paced the Oxford Univ. crew for the last 1½ miles of their trial course; and another good performance was in the Reading Head of the river where the 1st VIII finished 14th, equal and tied for the junior-senior pennant.

Fives

By Ian Collins

A month ago I.C. lost a fives match against U.C./U.C.H. by 74 pts. to 73. On the strength of this close and enjoyable game a return fixture was arranged. The tryst was set for "shrove Thursday" the 4th March.

Late injury forced David McBain to withdraw, probably for

Late injury forced David Mc-Bain to withdraw, probably for the rest of the season, and so I.C. played with only 3 men, which meant more play and less rest for those 3. Such stiffer conditions can be an advantage as long as the overloaded players are fit, since it cuts down the period of waiting between games, during which concentration and touch can be lost.

As in the previous meeting, the I.C. composite strings found one U.C. string slightly stronger, the other slightly weaker than themselves.

At no time during the evening were the colleges more than 6 points apart, and at the start of the last set, I.C. led by 6 points, but the lead just couldn't be maintained. The final scores were a win for U.C./U.C.H. by 74 pts. to 72 pts., 4 games each.

Another Defeat

I.C. were comprehensively beaten on Saturday 13th March at the Bank of England's courts in Roehampton. The Bank strings have just returned from a successful tour in the South West, and they weren't at all extended in giving I.C. their heaviest defeat to date by 120 points to 42 and 8 games to nil.

Lawn Tennis

By E. C. Sones

At the beginning of next term Imperial College Lawn Tennis Club starts operating in full force. As the holders of the U.L.U. Cup, I.C. have a very high standard to maintain, but with four out of last year's 1st VI still at college the task should not be impossible.

Throughout the summer term I.C. will be arranging matches for 1st and 2nd teams, with free coaching for all members and plenty of court space for the casual players.

As an added incentive a tour to the South of France has been organised for the summer. Thus if you enjoy a game of tennis join the I.C. tennis club to ensure plenty of games with people of your own standard, plus free coaching. Also the subscription is less than you would pay for ½ hrs. coaching at any tennis club.

On Saturday 20th March the 1st VIII paced Cambridge on a trial course and the following Saturday (27th.) the six I.C. crews will be competing against over 300 others in the Tideway Head of the river

CARNIVAL LOSS

R.C.S. made a £15-£20 loss on their carnival held on Friday, 5th March, Dick Smith (Chairman R.C.S. Ents.) reported to the R.C.S. General Committee on Tuesday, 16th March. The main reason was the very poor response in tickets sales—only 170, were sold as compared with the 230 for the Guilds-Mines Carnival last term.

Dick Smith was doubtful whether the Carnival had been worth all the effort that had been put into it. He also thought that one carnival shared between the three Constituent Colleges would be adequate.

Jo Collins Chairman C. & G. Events holds the opposite opinion. He cannot understand why R.C.S. lost for the Guilds-Mines Carnival broke even. He did say, however, that next year the Guilds-Mines Carnival might be completely different.

Both Messrs Collins & Smith suggest that many students may not know what a Carnival is. A Carnival is an extended hop lasting through the early hours, with a Cabaret, Buffet and Licenced bar until 2.00 a.m. It is also used to distort the "reasonable hour" rule for visitors to leave Hall .-N.J.W.

SHORTTAKES

A student was caught stealing money recently from a Sennet sales tin by a security guard. The offender, however, gave a false name. Jock Henry, the chief security officer, is looking into the * * *

The Royal College of Music Union have again made representations to become associate members of I.C.U. After discussion this was withdrawn. The unofficial links will continue.

1.C. Ents. Committee are organising a Riverboat Rave on

Exciting Dream

Dr. Brown is to be congratulated on an impressive and movinterpretation of Elgar's "The Dream of Gerontius" performed at R.C.M. last Thursday. Martyn Hill's fine tenor voice did more than justice to the de-manding role of Gerontius, and he was ably supported by Hugh Sherrihan and Lesley Wood.

Perhaps most pleasing was the fine performance of the 130 strong I.C. Choir, especially in their rendering of the Devil's Their modulation throughout was commendable, and the tenor section at last seems to have found its feet.

Those who sat through the meanderings of the Iolanthe Orchestra, and were expecting the same treatment here, must have had a very pleasant surprise. The standard of play was professional throughout, stringing, overzealous drowning the soloists.

The near capacity audience indicated their appreciation by loud and prolonged applause, and it seems a pity that these occasions are limited to "one night stands."

ADRIAN FLETCHER.

19th May. Tickets will be 25/double. Musicians: Brian Green and his New Orleans Stompers.

Radio Tizard accidently transmitted a programme on 600 metres Medium Wave on Tuesday, 16th March. The reason was a faulty amplifier borrowed from the Electrical Engineering Dept. * * *

Another extension at Harlington will provide a flat for the sub-groundsman, more tea facilities

and more washing space.

Correction: —In the last Late
News we stated that the first prize in the Sir Arthur Acland Essay Competition was 25 guineas. It is, in fact, 15 guineas.

JAPANESE SANDWICH

What are you doing this long vac.? Working? Good, but you can't do that for three months; you've just got to have a holiday some time. But it can be boring lying on a beach doing nothing for a couple of weeks and travelling is expensive.

The Opera Group invites you to come on the best of all holidays. On our summer tour to Folkstone and Bristol we are performing the "MIKADO," one of Gilbert & Sullivan's best operas and when we're not performing there will be time for lying on the beach or walking on the Downs or in Wales.

Travel will be subsidized to Folkestone, Bristol and back to London, and there's the added attraction of female company. If you think you can sing and would like to come—between July 16th and August 1st drop a line to Chris Hocking, Jack Hopkins, or Harry Epton via the Union Rack. Oh yes, the sandwich men will be advertising on the prom. at Folkestonel

Foreign Affairs

Selected by Chris Lampard

L.S.E. PETITION

A petition has been presented to the U.G.C. and L.S.E. authorities by the students. It complains of overcrowding in the libraries, refectories, bars and lecture theatres and calls for more lockers, lavatories. telephones, cloakrooms and common rooms.

公本公

BEER TASTING

Sussex University held a beer tasting session recently to decide whether to have Tamplin's, Younger's, or Whitbread's beer in the bar

公本公 LIFE IN ANGLIA

Among the weird regulations of the University of Anglia are having to pay for all evening meals for a term in advance to encourage students to stay in college in the evenings, and having to obtain permission from tutors to leave Norwich even for just one night.

公大公

BAR BRAWL AT READING Two students have been banned

from the Union at Reading after an incident in the Union Bar. One of them objected to a remark made by the other about a female friend of his and a violent struggle ensued.

公本公

WAREHOUSE SURVEY

Despite Brother Brown's economy drive the really important research is still going on. A grant of £6,850 has just been awarded to Newcastle University for research "into the distribution of warehouses in the North East."

S.C.C.

(From p. 1)

took issue on almost every point; he did admit, however, that he might be incompetent.

There followed a whole series of arguments, between Reich and Anand, which were petty in the extreme and served no useful

The majority of the Committee appeared thankful when the motion was finally put to the vote. It was carried 12 for, 2 against, with 6 abstentions.

Other items of interest from the meeting were the approval of I.C.S.F.R.E. as a member of S.C.C. and a £20 grant to the Indian Society for guests at their annual dinner.

(See also Editorial and Late

News.)

* Mr. Reich failed his exams last session and was not on the Student Register for the present session. He was allowed to continue as President of Debates, only after much discussion last October.—Ed.

CRUEL SPORTS FLOP

When the Curate of Colchester's Museum of Natural History turned up to speak to Essex University's Anti-Blood Sports Association he had an audience of one of the society's seventy members. Not even the president of this allegedly thriving "Anti-" club turned up.

公本公

SEDUCTION OF STUDENTS

The Dean of Women Students at Stanford University (U.S.A.) has resigned after accusing Professors of English of seducing women students "by deliberately concentrating on sexual aspects of literature.

☆★☆

CARDIFF SINGING

The Cardiff University Rugby Team's singing was described as the "worst bilge and filth" heard since 1958 by the Bristol Union barman.



WELSH SECEDE FROM N.U.S.

The Students Association of Wales has been formed as a breakaway group by students who protest against the N.U.S. "ignorance of Welsh Conditions."

☆★☆ NOT QUITE LAST

Despite allegations in "Beaver" that the contents of this column were stale, things are not as bad as in "King's News." A recent edition included material (on the banning of Southampton's Rag Week next year) which was reported in this column last term.

ACNE, BOILS, PIMPLES!



If so get together NOW with fast working MASOPIL. A 30-day treatment of MASCOPIL is guaranteed to clear up existing skin troubles and prevent them returning. MASCOPIL gets to the source of the trouble—within the system! Just 2 tiny pills a day—what could be simpler! No more sticky creams or ointments, unpleasant squeezing or unsightly plasters—but most important of a!—NOMORE EMBARRASSMENT

Read what a student from the University of Liverpool has to say about MASCOPIL:—'Please send me a supply of Mascopil... A friend of mine has asked me to take this opportunity to thank you for your product, as it has CURED his 4ONE in two months, whereas a two year treatment at a Hospital had falled.', For a descriptive leaflet and a 30-day treatment just send 8/6-(post free) to CROWN DRUG CO.

(Manufacturing Chemist—Est. 1908)

(Dept. 5)

BLACKBURN, LANCS.

-£££££	LEEEEE	£	£	£.	£	£	£	CEE.	CE.	esasa.	LELLE	£:		£.	24th MARCH 65
£	£	£	£	£	£	£				£		SE		£	
£££	£££	£	£	£		£	S	966	SS	£	eee .	S	3	3	", in the same of the same
£	£	3	£		£	£	E		£		£	8		S.S.	
£	LLLL	33333	£	£	£	BLLLE	£		E	£	SEESE	3		3	EWS. NO.20.

Late News Staff: Editor: Ted Needham. Written and Compared by Nesta Pleaden and Tim Doe.

Hall Suspension.
Brian Bull, President of I.C. Folk Song Club, has been suspended from Falmouth Hall for one week at the start of next term because he put up two male companions in his room one night.

Tizard Party-Friday: A trail of broken beer glasses blazed the way from the Union to Tizard party on Friday night; by one thirty at least four complaints had been received from the mews, and it wasn't until the warden, Dr. Cameron, decided to leave the party that the choas subsided. Things seem to have got a little bit out of control, but after the party one pair o of spectacles, one pair of gloves, and one pair of gents underpants were found on the Falmouth gallery. Furthermore, "Snagger" Turner, captain of rugger, and "Ginger" O'Reilly, also of the rugger club, were singled out to see Mr. Stevenson (senior warden) on Monday morning.

DEBATING SOCIETY.

Following the S.C.C. meeting on Tuesday 16th March (see May issue) the debating society held a committee meeting last Thursday. This meeting unanimously passed the following motion; that the committee:-

1)Undertakes to putstheir accounts

in order this term.

2) Accepts that the social clubs committee had no alternative but to act in the way they did, and regrets that the conduct of the committee made this necessary. The committee unequivocably apologises.

3) The committee realises that not all the faults can be attributed to the president, and feel that he should be allowed to continue in his

term of office.

The debating society are to be congratulated on clearing up this matter once and for all, for as everybody knows this ridiculous business should never have occured at

SOCCER CLUB DIBNER -FRIDAY

Hardly, one would imagine, the most beery event of the year, but Union President, Norman Price, seemed to spend a lot of the time afterwards hlding onto his trousers. Many prom-inent Union members weren't so fortunate.

GUILDFINGER

(Sadly left out of the main issue,) hence the unnecessarily prominent position.)

Dates To Remember:

3rd. May - The Guilds Evening at the Countdown Club. Tickets 10/- double from Reps., or Joe Collins. 6th May - Union Meeting.

Hustings and the first showing of

the film.

20th. May - Annual General Meeting and Election of Officers.

I.C. CARNIVAL TROPHY.

It is reliably reported that an unknown benefactor has put up a trophy for the I. C. Carnival at the beginning of next term. This trophy will be competed for by each of the three colleges and the winner will be the one that sells the most Carnival magazines. Wednesday 28th April is Mines day. On 29th Guilds will try and do better, and on the 4th May R.C.S. will have to set a record. The trophy it is rumoured, wial be exhibited in the trophy case in the Union lounge, with the name of the winning college inscribed on its plinth.

I.C. EXTROGDINARY MEETING.

Imperial College Union will be holding this meeting on Thursday; it is the necessary response to a petition handed in to council stating that the Union should dissafiliate from N.U.S. forthwith. This is a rather belated response to the vote of the previous Union meeting, and will almost certainly be met with an unquorate house (quorum 300), thereby ensuring that we are in N.U.S. at least for the Ea ter holidays.

R.C.S.U. LEETING - TUESDAY.

At this extremely successful Union meeting, a film of the pedal car race enthralled the delirious men of RCS. Also Adrian Fletcher gave a series of council reports, making that dreary organisation more lively than it really is. T.N.

I.C. UNION YEAR BOOK

For the first time, next years freshers will have a special book to help them fing their feet. This will cover different ground and will be more informal than the Union "Blue Book", which will continue as before. Topics covered will include entertain-ment and activities in both the college and the surrounding area, and will take the place of the freshers copy of Felix. The editor is Melvyn Owen of 3rd year Elec. Eng.

T.N.

SUNDAY TIMES - SUNDAY

Note the highly significant article in Sundays Sunday Times on the possibility of a communist take-over of N.U.S. Should I.C. there-fore dissociate itself on these political grounds, or should we enter in an attempt to thwart any Red take-

COUNTDOWN

On March 24th. - The Jazz Congress will be giving a repeat performance. Also, last Sunday, our old friends , The Wayfarers, were met with an extremely enthusiastic audience. Roger "Fingers" Frost, the groups banjoist, is to act as host to the club throughout the Easter vacation.

THE HIGHLAND RAILWAY.

At a meeting of the Railway Society on Tuesday, March 16th, 18 members heard Mr. D.A. Vallance, a former editor of "Railway Magazine" presenteda paper on "Joseph Mitchell and the Highland Railway."

Joseph Mitchell was the man respeonsible for much of the Central Highland Railway system and played a considerable part in the construction of the Caledonian Canal. A stone-mason by trade, he did more than anyone else to bring the railway age to the wilds of the Scottish Highlands. His name is best remembered for the line between inverness a and Perth, for the bridge and tunnel he built are still in excellent condition. Mr. Vallance's talk, enlivened from time to time by photographs, provided a vast wealth of detail about the life and achievements of Joseph Mitchell.

STOMPS REVIEW.

The stomps this yaar have been an undouted success, as anyone who heard the Radio Tizzard Documentary will verify. At the beginning of term however, there had been doubts about the success of an all-jazz dance.

But the absence of beat-music h has turned out to be one of the most popular facets of the stomps. Many stompers, have been amazed to find how easy it is to dance to jazz, and many more have learnt to appreciate a new style of music. The last of the present series of Southside stomps is tonight (Wed). The feat-ured band is the London City Stompers The Clive Heath Trio will also be playing. Admission is still at the rediculously cheep price of 2/-. Al Higson.

MISPRINT - EDITOR APOLOGISES

A section of the report on the RCS Union meeting should read "making that dreary organisation sound" thereby casting aspers ions on council, not on RCSU.

LATE NEWS SHORTS.

The Dram Soc are holding their annual dinner on Thursday 29th April in the Union refectory. Tickets will be approx. 15/- each and can be obtained from the Dram Soc secretary Room 675 Selkirk.

Tim Doe, the long haired lad from Zoology, was mistaken by a copper for "one of them" in Soho at 4 a.m.

Monday.

SHORT AD.

Fair fellow of quiet and gentle disposition seeks a place in a flat for next term only. Any offers to the Union letter rack under the name of Doe.

SPORTS NEWS.

Water polo - This weekend I.C. formed the nucleus of the U.L.U."B" team at the championships held in London. They managed to beat teams representing the Irish Universities, the Welsh Universities, and the combined CATS of Great Britain.

RCS Sports Day - This was held this weekend at Harlington. In spite of a low response everybody there had more than their moneys worth and played a great part in the entertainment in Southside bar afterwards. During the afternoon, the Vice Presidents team beat the Presidents team by 10 9 in a scintillating soccer match. Also, the Physics 3 ensemble beat the post graduates by 1 - 0. Unfortunately, a large amount of money was pinched from coat pockets in the changing rooms - some people didn't use the valuables boxes.

Hockey - I.C. rugger club beat ICWA by 5 - 4. The high scoring was a result of the fantastic form shown by Dai Hulls and the peculiar kicking rules that had to be used in the circle: hockey captain Ed Castell had hidden the pads so that there could be no goal keepers.

M NES BOTTLE MATCH - FRIDAY, This year the bottle match was played at Harlington with about 150 minesmen in support. In one of the hardest fought matches for many years, Mines emerged worthy victors over Camborn School of Mines. Reminiscent of another match the following day, the issue was not decided until the final minute. The score - RSM 9 - 6 CSM.

U.L. Sixes - The I.C. "B" team consisting of our six U.L. soccer players were beaten by Kings"A" in their 1st. match, however, they went on to win the losers cup, beating I.C. "C"2-0 in the final

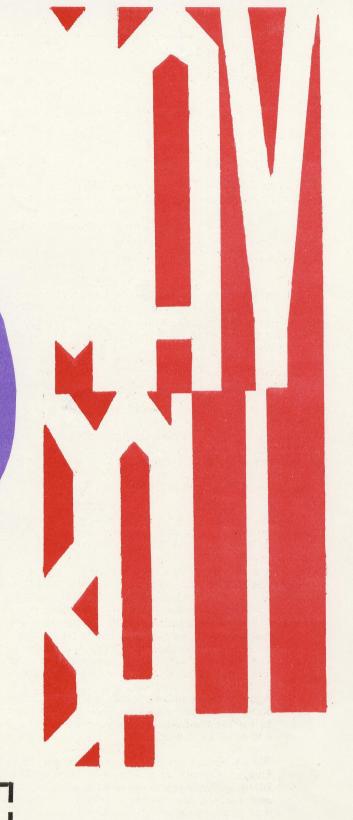
Fives - I.C. O-8 RFA

QUOTE - Dick Potts (Mr. ICWA elect)"They are all bloody daft"

& BUFFET FLOORSHOW THE EXCITING GOLDWAY GIRLS Crowning of CARNIVAL QUEEN MAY 7th

£ 2-10-0 DOUBLE TICKET

To the Hon. Se	c. its. Committee
Please send me	
DOUE	BLE TICKETS
for the	MAY BALL
l enclose	P.O. Cheque Cash to the
value ofto Imperial Co	



MIKE COTTON & PAUL LONDON & 4 OTHER BANDS