EDITORS

January	A. FLETCHER
February	R. KNIGHT
March-August	J. DRYNAN
September	P. DIEPPE
	A. FLETCHER
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Saint Bartholomew's Hospital JOURNAL

contents

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journal staff

CHANGES TO CONSTITUTION

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Changes have been suggested for our Students' Union constitution. No constitution is perfect. Here are two view points: One by a protagonist for change, the other by the chairman of the Students' Union.

viewpoint : 1

A number of amendments to the Student Union Constitution have recently been tabled with the sole purpose of encouraging active Student participation in a truly representative open Students' Union. A majority of these amendments were backed by the S.U. Council itself and unanimously voted in at the recent A.G.M., but three all referring to the open election of the Executive Council (Chairman, Hon. Secretary, Assistant Hon. Secretary and B.M.S.A. Vice-President) at the A.G.M. by the Students were deferred for further consideration, and will be further discussed and voted on at a General Meeting later this month. In addition a further amendment will be tabled in view of the totally non-representative elections of Year Representatives at the recent A.G.M., calling for more representative elections entailing the whole year by secret ballot. This would remove the obvious dangers inherrent in the present system whereby candidates in one division could be voted for by Students in another division. This would also encourage a greater number of Students to participate in elections, without it being necessary to attend the A.G.M.

council

To return to the most important and most controversial proposed amendments outlined briefly above, concerning election of Officers of the Union, it is felt that election of Students to these high posts should not be invested in a small group of people when it is perfectly feasible for a larger and therefore more representative body to cast their votes at an A.G.M. It might be argued that the Council are in a better position to know who is suitable and who is not; as they know more about how the Union works. That this should be the case is a sad reflection on the state of affairs. It is worth considering whether the previous Chairman could remain in office for three months helping the electee under the title of Chairman Elect to familiarize himself with his new responsibilities before he takes over fully as Chairman. It is to be hoped that the Council will nominate to the A.G.M. its own candidates, and that it will become standard practice to accept their nominations. At the same time, with canvassing now allowed, this would give people a real opportunity to get to know who the executive are and to oppose them if they so wished. To say that the Students are unqualified to know, and can be easily led is disrespectful and an insult to any electoral system.

wine committee

Finally concerning the Wine Committee, it will be desirable for five out of the nine members to be re-elected annually, with four retained as a nucleus of knowledge and experience. However no person should be retained without re-election more than once, and possibly an election system on similar lines to that outlined above for the election of the Chairman could be employed.

Above all in amending the Constitution, it is of utmost importance the present harmonious relations between the Medical College and the Union be maintained, and that any changes in the Constitution be fully considered prior to their adoption or rejection, according to the wishes of the Union members.

Trevor Hancock

viewpoint : 2

Before considering the constitution of the Union, it is first necessary to understand the objectives of the Union, since it was in order to promote these objectives that the constitution was drawn up.

The principle upon which the Union is based is to provide a service for the student body. Briefly the job of the Union is (1) to allocate grants to the clubs and societies, (2) to make known to the authorities, opinions relating to such matters as teaching and student amenities, (3) to officiate in the foundation of new clubs and societies, (4) to provide a link with organisations outside the Union that may benefit the students at Bart's (e.g. U.L.U., B.M.S.A.), (5) to run various student amenities (e.g. car parking. College Hall bar, stationery, ties, etc.). It must be emphasised that the Union is in no way a political forum.

co-operation

To achieve this, it is essential for there to be close co-operation with the staff of the Medical College, both administrators and teachers; and this is best done at a personal level. Thus it is more profitable that the officers of the Union be people known to the College authorities.

The system of election, as laid down by the present constitution, has provided in the past an efficient working executive. This system is based on the premise that those who have held office in the past, and know exactly what is entailed, are in the best position to judge who would be best qualified for doing the job in the future. This has been criticised on the grounds that it is unrepresentative, and does not stimulate sufficient interest in the Union, especially among the freshers who do not have a year representative at the time of the executive election.

The alternative suggested is that the S.U. executive should be elected by the student body. This would enable freshers to have a vote. However, this would be after having been at the Medical College only about six weeks. The present system gives them about a year to familiarise themselves with the workings of the Union, and the people involved. Thus they are better able to form an opinion, and through their year representative vote for the person they want to run the Union. Interest in the Union affairs is fostered by participation in the activities, and making use of the amenities of that Union; and not, as has been suggested, by having an immediate direct vote for the executive.

care

Whilst not saying the present system is perfect, it does work; and thus one must think very carefully before changing it for another, more comparable possibly with that of university colleges elsewhere but less relevant to the set-up at Bart's. The London Medical Schools differ from other university colleges in that they are divided into pre-clinical and clinical sections. The present election system at Bart's results in a Students' Union executive which is nearly always composed of clinical students, and this for a very good reason. The work of the Union brings us into contact with the Medical College. It is more often than not the clinical staff that are involved, and they are known to the clinical students. A senior clinical student has usually been at the College for at least from four to five years, and is thus well acquainted with the workings of the Medical College, and the Union, and also the people involved.

difficult

An Executive elected by the student body may result in it being less effective, because of loss of contact with the authorities of the Medical College, for the reasons set out above. This may in turn result in the affairs of the Union becoming more difficult to manage, and thus the best interests of the students not being served. It would be unfortunate if changes brought about in the name of democracy in fact resulted in less contact with, and good-will from, the people to whom our representations must be made, and upon whom success or failure ultimately depends.

DICK PAGE.
Chairman of the Students' Union.

It is no accident that the Victoria Line is the first to be built in central London for sixty years. Its estimated cost is about £80 million, and the line is expected to cover its operating costs and pay something towards the interest charges on the Government capital used. The development of the rest of London's tube railways was financed privately with difficulty. Most of the rest of London's tube railways was financed privately with difficulty. Most of them were built between the years 1890 and 1907.

London's first underground passenger railway, the Metropolitan, was opened from Paddington to Farringdon in January 1863. It was built by the cut-and-cover method. (St. B.H.J. May 1966 P. 183). The task of running busy lines under London required the development of more advanced techniques and of electric motive power systems; the Metropolitan and District Railways being steam powered in the first instance.

The earliest tube, the Tower Subway (1870), used cable traction to avoid the pollution problems of steam in the tunnels. Electric traction was installed in the world's first electric tube railway, the "City and South London Railway". This pioneer followed roughly the route of the Northern Line today, between King William Street and Stockwell, and was opened by the then Prince of Wales on 4th November 1890. The line used small noisy electric locomotives, rather than electric cars in the later fashion, and ran in tunnels of only 10ft. 2in. diameter.

So successful was this, that by 1892 there were six private tube railway Bills before Parliament. A committee was set up which made certain important recommendations, notably allowing tube railways to use the subsoil under roads without payment of compensation, and to buy "wayleave" under property without acquiring freehold. Thus in 1892 permission was granted to build the Great

Northern and City Line. The Baker Street and Waterloo, the Charing Cross, Euston and Hampstead, and the Waterloo and City Lines in 1893, the Brompton and Piccadilly Circus (1897), Great Northern and Strand (1899).

Great difficulty was found in floating any of the companies, and most schemes lay dormant for some years, the exception being the Great Northern and City (now Northern City) line, which was built mainly at the financial risk of the contractors. This opened between Moorgate and Finsbury Park in 1904, being unique among the "tubes" in using a 16 ft. diameter designed to be able to take main line rolling stock from the Great Northern Railway via a link at Finsbury Park.

As is well told by Charles Lee in his books on the London Underground, the finance necessary for further developments eventually came from American sources, principally represented by Charles Tyson Yerkes, who between 1900 and 1902 acquired control of the District Railway, and the rights of the Hampstead, Brompton and Piccadilly, Great Northern and Strand, and Bakerloo lines, unifying their administration under the "Underground Electric Railways Co. of London". Yerkes died in 1905, before any of his tubes were opened, but after the great Lot's Road Power Station, Chelsea, had been put into service. This enabled the elimination of steam power from the District Line, and with modernisation, still supplies most of London Transport's electricity requirements.

The next line to be opened was the Baker Street and Waterloo, which started as an idea to enable Westminster businessmen to see the last hour's cricket at Lord's. Work started in 1898, but stopped soon after the collapse of the original financing "London and Globe" Corporation in December 1900.

Yerkes acquired control and finished the line, the first trains running the three miles from Baker Street to Kennington Road (now Lambeth North) in March 1906. The line was popularly known as the Bakerloo from an early date, and officially changed its name in July of the same year. The fare was twopence for any distance, but traffic at first was very light.

CITY AND SOUTH LONDON RAILWAY

The Piccadilly Line was an amalgam of three originally independent projects. These were the District Railway's "Express Tube" from Earl's Court to Mansion House with one intermediate station at Charing Cross; the Brompton and Piccadilly Circus (South Kensington to Piccadilly), and the Great Northern and Strand, from Wood Green (G.N.) to Clement's Inn (now known as Aldwych Station). The lines were eventually linked and built, from Finsbury Park to Earl's Court and on to Hammersmith by Yerkes' Electric Railways Co., and opened by Lloyd George (then President of the Board of Trade) in December 1906. A short spur between Holborn and Aldwych left over from the G.N. and Strand line was opened in 1907, and its first few trains had no passengers at all! After a few years in which it was used for an evening after-theatre express to the north, it has been used for a single shuttle service in only one of its twin tunnels. Another unusual practice on the Piccadilly was running trains which stopped at roughly alternate stations, to improve the average time.

The complicated system we now know as the "Northern" line, with its busy junctions at Camden Town and Kennington, started life as two separate units, the City and South London mentioned previously, and the Hampstead Tube opened between Strand station (then Charing Cross) and Golders Green in 1907 with a branch from Camden Town to Archway (then Highgate). The further development of this system involved the following stages. The C and S.L.R. was rebuilt from Borough to Moorgate in 1900, and then extended to the Angel and Euston. Southwards it was extended to Clapham in 1900 and Morden in 1926. The original line was widened between 1922 and 1924 to enable the through running of the larger diameter (11ft. 8in.) trains from the Hampstead Tube. The link-up was completed by extensions south to Charing Cross (1914) and to Kennington in 1926.

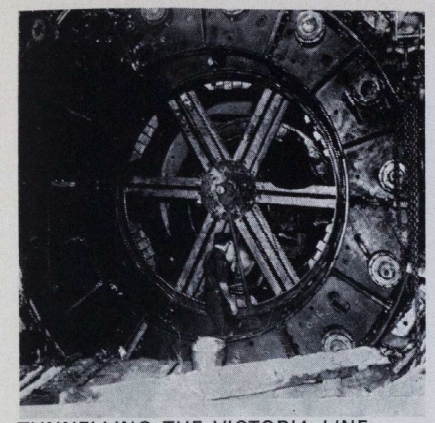
Between the two wars most extensions were towards the suburbs, often utilising existing tracks of the surface railways, as with the Northern Line to Barnet, the Bakerloo over the Metropolitan to Stanmore, the Central Line and so on. The tube schemes proposed by Yerkes and his successors still show their early unity in several ways. Notably, they all use the same basic design for their station buildings, i.e. a square building faced with red tiles, and designed to be incorporated in further building, as at Goodge Street or Oxford Circus, for example. interchange facilities between the various lines, as mentioned above, and some have closed. Brompton Road, South Kentish Town, Down Street and York Road are all recognisable though used for other purposes.

Integration of the different tubes was hastened in the 1920s and 1930s by rebuilding of many central stations to give convenient notably at Tottenham Court Road, Holborn, Leicester Square and Piccadilly Circus.

EXPERIMENTAL TUNNEL, CONSTRUCTION OF THE VICTORIA LINE

Many of the stations have changed their names,

In 1933, all London's underground railways, except British Rail's Waterloo and City Line, were merged into the London Passenger Transport Board, which also controls the buses and tramways. The changes in circumstances brought about by the war put paid to several extension schemes, notably to the Northern Line from Edgware to Aldenham, and the Northern City Line from Finsbury Park to Alexandra Palace via Highgate. Extensive use



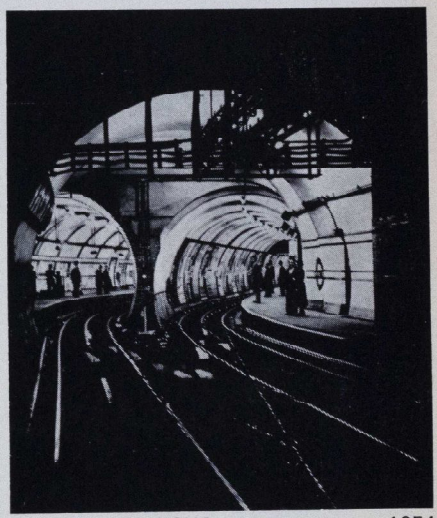
TUNNELLING THE VICTORIA LINE

was made of the stations themselves for temporary shelter and bomb-proof sleeping accommodation, and of disused parts such as Down Street Station, Piccadilly, which was used for War Cabinet meetings during the blitz. Heavy flood gates and other protective devices were installed in many stations. Since the war, effort has been concentrated on building and equipping the Victoria Line.

The tunnelling methods used for all London tubes were the same in principle. Shafts are sunk down to the working level, and a "shield" is placed at the working face. Soil is removed from behind this until it can be moved on. Almost all the tunnels run through London blue clay at depths of up to 190 feet (Hampstead) but averaging sixty feet in central Lindon. Where they strike water-bearing sands, compressed air working is necessary. For example, the Bakerloo Line under the Thames required working at a pressure of 35 pounds per sq. inch. Work on the Victoria Line involves modern, high-speed methods. A mechanical shield is used for the standard (12 foot) diameter running tunnels, and their integral gear-driven cutters feed clay on to a conveyor belt. The shield is moved forward and steered by hydraulic rams, and another set of cast iron lining segments is fitted to the tunnel circumference every two feet. This enabled a distance of as much as 470 feet of tunnel to be driven in a week, nearly twice the previous best.

Every station on the new tube will be fitted with escalators. The earlier lines had lifts, but many have been replaced during rebuilding programmes. Holloway station, Piccadilly Line, originally had a continuous spiral moving stairway, but this was never put into public use. London's first railway escalator was at Earl's Court from 1911, but the public were somewhat wary of it, so a man with a wooden leg was employed to travel up and down all day to give passengers confidence! The triple escalator shaft to the Piccadilly Line at Leicester Square is the longest (161 feet) with a vertical rise of 81 feet.

Work goes on: This month on to Warren Street, and next Spring will see the new tube opened right through from Walthamstow to Victoria. The automatically driven trains run at speeds of up to 50 m.p.h. The economic and social value of such schemes is tremendous; one example will suffice. The Victoria Line will be able to carry 25,000 pasengers an hour in either direction during the rush hour. London Transport point out that this is the equivalent of eleven motorway traffic lanes, built through the heart of London.



PICCADILLY CIRCUS 1954

The author would like to acknowledge the kind assistance of London Transport in supplying the illustrations from their library. Further information for those interested in the subject is to be found in the excellent little books "Sixty Years of the Piccadilly", "Bakerloo," and "Northern" by Charles Lee, available from their enquiry offices.

W. E. J. LEVERTON

PHOTO © ANDREW FLETCHER

Tony Blackburn

an interview by Clive Froggatt and Andrew Fletcher

Tony Blackburn was educated at Millfield, probably the most expensive public school in Britain. With one of the largest daily radio audiences on Radio One, he can hardly be described as the most typical product of that well-known establishment.

Tony Blackburn is 25. The son of a G.P. from Poole, he is one of Britain's most popular disc jockeys.

His career started with two years on Radio Caroline, followed by one year with Radio London. Now, he has his own radio and television shows on B.B.C. as well as working with Radio Luxembourg.

On Radio-One he has a two-hour breakfast show from Monday to Friday. The studio is very small. He sits, surrounded by turntables, racks of records and tape cassettes, a microphone and a series of complex switches. He integrates the entire programme himself and thus dislikes distractions which explains why he doesn't like being watched or photographed.

We spoke to him.

"How did it all start?"

"When I was at business training college I answered an advertisement in a newspaper which got me a job on Caroline. After two years I transferred to London which I thought was more professional. I'm glad I worked for pirate radio but I wouldn't go back to working on a ship."

"What do your parents feel about all this?"

"They're very delighted. They've known since I was five years old that I wanted to do something like this, though I didn't set out to be a disc jockey, I wanted to be a singer. I get on well with my parents".

"Have you any brothers or sisters?"

"Yes. I've got a sister who's a shorthand typist, secretary, or something like that".

intimate

"Do you prefer radio work to television?"

"Oh yes. Radio is a very intimate medium. On television, you have short episodes of 15 to 30 seconds. On radio you can take your time, and say things how you want. I try to talk to people the way I'd like them to talk to me.

"The humour on my shows is not spontaneous, and that's the art of being successful. Humour is a very serious subject. I've started taking my life much more seriously since I started using humour in my shows.

"My jokes are spontaneous when I'm with my friends—the few I've got. I don't have many friends. I find I don't get very close to people. I've probably got about two real friends. The best is my manager Harold Davidson, who made me (and also manages Frank Sinatra and Ella Fitzgerald).

"If you're going to be successful, you've got to live it. Fifteen to sixteen hours a day doesn't leave much time for anything else. Most people think my work is over at nine in the morning. It's not. I get to bed by ten o'clock to half past ten at night, and get up at five.

"It's a difficult job on the B.B.C., as you can't cover up with commercials. An awful lot of people were on pirate radios who should never have been there. They were able to get away with incompetence by playing advertisements. Request programmes are another easy way out. I rarely play requests. It's much more difficult when you've not got any set subject to talk on".

fan mail

"How much fan mail do you get?"

"About 9,000 letters a week from this programme, and somewhat less from Luxembourg. It's great to get response like this—especially as you haven't asked for it. It's a thing that gives me a kick more than anything else. Like in Birmingham last week, we got mobbed. I liked that".

"Did you get any threatening letters?"

"Yes, but you are bound to get cranks. You get some life threats. You've got to think every time you get up on a stage some lunatic might shoot you. It's like that with anyone who's famous. The public are like ants (but I don't think of them as ants), if you rise above them then people get jealous.

"I enjoy making money but it is not the be-all and end-all. Money is a corruptor. I don't particularly value material things—I have got an E-type Jaguar and a video tape recorder, but that's all. I live in a small flat in Knightsbridge".

student violence

"What do you think of all this student protest?"

"It doesn't annoy me, as long as people don't do any harm. What really upsets me is the state we're in. Man is a violent creature, and we'll always have to live with violence.

"I don't believe in mentioning politics on the radio—I mean on pop radio. If I can bring out the better side of life, and I know that sounds corny, but if I can make people a little happier, then I'll feel I've done something.

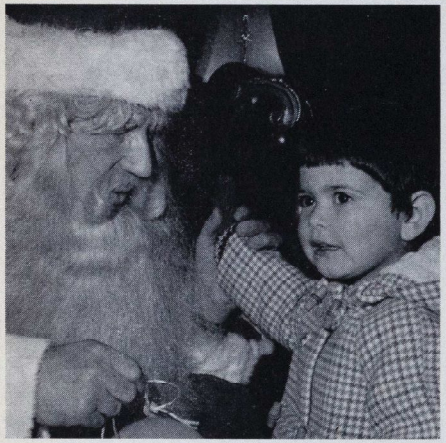
"People read into things. I was in Birmingham the other day being interviewed by some college students like you, and everything I said was misinterpreted. I only had to hold up a pencil and it was given some deep significance."

lonely

"Don't you ever feel lonely?"

"Sometimes. But you get used to it. I'm too busy to make friends. I don't go out much, but when I get the chance I like to get away from it all, and dash home. Anyway, no one is 100 per cent. happy all the time. Maybe I will meet someone someday and get married. Besides, I'm at my happiest when I'm actually working".

Santa Claus



an interview by Jake Mackinnon

Jake Mackinnon talks to Santa Claus of Selfridges, and makes startling discoveries about the Santa schools in Australia.

Santa Claus and his helper Uncle Holly took up residence in Selfridges in October. At a time when most people are still entangled with the pleasant memories of their last Summer holiday and getting used to Autumn. Santa is polishing his sleigh and settling down to the business of Christmas.

On the fourth floor of Selfridges, the camp where Santa will live for the next 10 weeks, is being constructed. The entrance to the camp is a small fenced-in enclosure where Uncle Holly stands and "packs 'em in", visitors then pay half a crown at a small house further on, and for this they receive a present after they have seen Santa. They need not pay of course, in which case they come away with only a balloon and the startling memory of having seen Santa. From the house they pass on through the colourful world of the Magic Roundabout, made of thick dazzling felt and coloured lights, and finally come upon the scarlet and silver painted throne where Santa will sit and distribute joy and balloons to all who pass by. So, the scenery and lighting are finished, the balloons are blown up, the music turned on, the presents have arrived in bulk, novelties from Japan and dolls from Italy: Christmas is ready to roll again, on 17th October!

Any visitor arriving first comes across Uncle Holly. Nobody has any idea that he is or ever has been anybody but Uncle Holly. To them he is just the big jolly man who greets them with a chuckle and an Uncle Holly badge. He is a man in his sixties, he is enthusiastic and jovial, has a large paunch and talks so quickly that he often stutters. He wears a green frock coat, yellow waistcoat embroidered with holly, a grey topper, and with his long straight white hair and sideburns he looks exactly like Mr. Micawber from Dickens.

He was once in Paris working in the circus. His father was a Frenchman and his mother an Irishwoman, and they, together with his two brothers were a troupe of trapeze artists called the Flying Powells. Uncle Holly worked as Noni the musical clown. He had ginger hair and a big red nose and used to play strange musical instruments; the trumpet he played was so high pitched that it used to catch fire. He also worked in Belgium and Holland and came to England on several occasions to appear with Billy Smart's Circus and in 1948 at Olympia with Bertram Mills. When he finally gave up the circus, he was a good musician and he played the violin in a symphony orchestra. He also started to work in Selfridges.

He started as Uncle Holly 18 years ago. Enid Blyton was wandering round the store with the manager looking for somebody to take the part of Uncle Holly, and in view of his previous circus experience and his eminently suitable build, he got the job and has been doing it ever since, seeing between 2,000 and 4,000 children a day for 10 weeks of every year.

Last year a lady from Australia came to watch him doing his turn at Selfridges and was so impressed with him that she signed him up for a two week lecture tour of the Santa schools in Southern Australia, from which he had just returned when I saw him. He talked about them.

Santa training schools were started, as one might have guessed, in America. Disciples spread westwards and the cult hit Australia. To enter the school one has to survive a rigorous selection procedure. One should be aged preferably between 55 and 60, one should be stout and of a genial disposition, although younger, thinner, more severe men have been known to succeed.

For those who are successful, there follows an eight week course of lectures on how to make up: how to approach and deal with children; how to look after wigs and costumes; and how to act and talk like a good Santa should. Animal husbandry, bellringing, and sleigh maintenance are optional extras, for the consciencious.

At the end of the course, all the prospective Santas have to take an exam. At one of the schools where Uncle Holly was honoured to lecture, 55 men started the course and only eight passed the exam. Tough going! Uncle Holly presented the certificates to the successful candidates among whom was a young man of 25 who had a degree in psychology. It suddenly strikes one as being very frightening when one thinks of a professional Santa with a degree in psychology and an enormous following of innocent adoring children: it is reminiscent of Hitler.

Since the Santa schools have been started, it has been necessary to be the possessor of one of these Santa certificates in order to practice, and as a result of this careful grooming there have been virtually no complaints from mothers or children about a "bad" Santa. But just wait until Barry Mackenzie steps into the scarlet robes and dons the cotton wool!

gargantuan

Santa is round the corner. He is in fact two people, not one of those Gargantuan duos with one on the other's shoulders, but two separate people, appearing separately for two hours at a time, so to the visitor it seems as if there is only one Santa but we know there are two.

The senior Santa has been at Selfridges for 18 years. He is a cosy north country fellow looking very ordinary out of uniform and interested in doing a good job. He did not know how to react to being interviewed, how much to be Santa and how much to be himself. His loyalty was split. When asked about the reindeer and Iceland and chimneys, he answered in a half-hearted manner, not giving the impression of entering fully into the role, although he didn't have the protective uniform and beard to help him; or perhaps he thought I was nuts.

grannies

Both the Santas said little about themselves, but talked a little about the children who came to see them, who ask mostly for dolls and train sets. One little girl once asked for a snake. She should have gone to see that wicked Santa in Australia with the degree. There are some adults who go and see Santa, mostly grannies trying to jump back onto the childhood bandwagon, they usually ask for pools wins.

The Santas receive many letters from children all over England; some unsigned; some without addresses; some illegible; some modest requests; like the little boy called Robert who could hardly write and wanted a desk; and some too greedy to mention. All the letters have a deep sense of charm and innocence, sometimes including instructions about the chimney geography of the area, assurances that candles will be left burning to light the way, and bribes that if all goes according to plan, there will be a glass of sherry on the table.

Many people find Christmas a bore, others think it is losing the warm elegant Dickensian sincerity it once had and is being replaced partly by a commercial free-for-all along Oxford Street and in the Sunday magazines; they even try and sell one a summer holiday before one has paid for the Christmas presents. Has goodwill been cashed-in on enough or is the worst to come? Are we going to be hearing about the super cigarette lighter that brushes your teeth and stops bad breath and tells the time and makes the tea in the mornings, and he'll just love it for Christmas . . . in March? Are we going to be asked to book up our holidays for 1972 next year? I don't know . . . do you?

CORRESPONDENCE

student grants

Sir,—Your November editorial on student grants draws some comment.

At the risk of being thought square, may one point out:

1. Vacations were always meant primarily for study and not for lucrative labour.

2. "Smart suits" are surely not an overriding necessity for students on wards. What is wrong with a good pair of dark flannel trousers and a plain dark blazer or jacket?

3. "A lower standard of living?" The average student would seem to travel, drink, smoke and ride about in mechanically propelled vehicles of one kind or another, having opportunities that most students in the past never came about.

4. There is a limit to the "bottomless sack of gold" that a great many think H.M. Government sits on. Can—and will—the taxpayer stand for any further addition to the high rate of taxation?

Yours truly,

14th November. "FORMER STUDENT".

thyrotoxic australian?

Sir, I always enjoy reading the *Journal* and was interested this week in the Radiology Quiz.

Surely the diagnosis was incomplete. It should read "inverted thyrotoxic patient". Or is it possible that too much penetration was used and you have caught a thyrotoxic Australian?

Finally, I like your little trick of referring to the answer on p. 468 and then not numbering the page!

Yours faithfully,

P. E. THOMPSON HANCOCK,
Welbeck House,
Welbeck Street, W.1.

11th November.

pathology revision courses

Sir,—I wondered if I might ask your help in making available information concerning revision teaching in pathology for those students who entered the clinical medical school in October, 1966. These arrangements are as follows:—

1. Live transmission and same day playback of televised first year course lectures in the practical classroom. The playback transmissions will be at 2-15 on Tuesdays, Fridays and Thursdays and 4.15 on Mondays. The lecture schedule is posted in the classroom and on the general notice board.

2. Museum demonstrations: these are put out for one week and are changed on Tuesdays. The first demonstration was set out on 1st October. This list is also posted.

3. Lists have been prepared of museum specimens of particular educational value to help the students use the museum most efficiently in their free time. These lists are available from my secretary's office.

4. Special revision course: A course has been arranged for students taking the London M.B. Pathology in April, 1969. This course will start in January of that year and will be posted nearer the time.

Yours sincerely,

Prof. W. G. SPECTOR,
Dept. of Pathology,
St. Bartholomew's Hospital,
London, E.C.1.

3rd October.

medical education

Sir,—I should like to congratulate you on the excellent articles on Medical Education in recent editions of the Bart's Journal. B.M.S.A. is, as you may know, in the throes of organising a symposium on the subject.

Yours sincerely,

ALISON P. HILL.
Chairman. London Region.

pretty bartsmen

Sir,—I read with interest your second Editorial comment in the last issue of your *Journal*. As you suggested we have taken note of the Royal Free Hospital's example in displaying a Bartsman on the cover of its *Journal*. Unfortunately we have not yet discovered a photograph of any Bartsman pretty enough to merit a full display on the cover of our magazine.

Please oblige, in this respect.

I am Sir, your Obedient Servant,

ANTHONY PRUSS.
Editor,
The London Hospital Gazette.
Clubs Union Building,
Stepney Way. London. E.1.

19th November.
Any offers?—Ed.

wessex rahere dinner

The Autumn Dinner of the Wessex Rahere Association was held on Saturday 28th September, at the Crown Hotel, Wells.

After an excellent dinner, speeches were heard from Mr. Geoffrey Dark ("hot foot from the continent"), and R. M. Page (Secretary, St. Bartholomew's S.U.) who spoke about Bart's today from the students' angle. Dr. Terry Glanville, who was voted in as chairman for next year, also spoke, giving details of coming events, and clarifying the position with respect to wives and dinners!

Amongst others present were Dr. L. W. Clarke, Mr. B. Bateman, Dr. T. P. Kelly, Dr. G. Hartill, Mr. R. M. Adam, and Mr. Philip Bliss.

DICK PAGE.

Obstetric Experience in Athens

by Jean Kay

Babies appear to be born in much the same way throughout the world. Jean Kay gives her observations on the Greek system.

The State and University Hospital, Alexandra, is a large new general hospital. The Maternity Department has 200 beds which cater for about 7,000 deliveries a year. The Director of the Unit is Professor N. C. Louros, the foremost Greek Obstetrician and Gynaecologist. All treatment is paid for and patients are divided into three groups according to their income: though the standard of medical treatment is said to be the same for all classes. The two students from Bart's (who were the only English people in the hospital) were only concerned with class 3 women in the Obstetric Department.

Here the differences were immediately obvious to anyone who has worked in British hospitals. The Delivery Room contained eleven beds arranged with the feet to the wall, there were no screens so that all examinations and deliveries were witnessed and overheard by all. For procedures such as forceps deliveries, breech extractions and suturing there was an adjacent room with a table for the lithotomy position. A double sideroom, was reserved for women with a known intra-uterine death or the dying. On the night that we arrived there was a maternal death from cardiac complications.

We were welcomed next morning by Professor Louros who gave us our timetable and assured us that those who spoke English in each department would teach us. We were to begin each day at 8 a.m. in the Gynaecological theatre watching the Professor or his assistants operating, and then go to Ante-Natal or Gynaecological Outpatient Clinics (alternate days) until 1 p.m. Siesta was from 1 p.m.-4 p.m. and our spare time might be spent in the Delivery Room.

Gynaecological Surgery:

Each morning we watched swift and elegant surgery, the Professor explaining each operation in English and in Greek. The lists were short and varied, usually three or four cases, aiming to finish by 10.30-11 a.m. by which time the temperature was well over 90°F. (only the luxury hotels and large banks have air-conditioning). We watched about 35 operations which included myomectomy, hysterectomy (for myomata or carcinoma), excision of ovarian and Bartholin's cysts, and one large hydatid cyst of Morgagni in torsion; repair of cystocoele and rectocoele, radical mastectomy and total vulvectomy.

Obstetrics:

Before describing the management labour it is necessary to refer to the methods of Professor Louros, which were used throughout the Department. These are well described in a paper in the *American Journal of Obstetrics and Gynaecology*, June 15th, 1967, entitled "Accelerated, painless labour", by N. C. Louros, G. C. Papadimitriou and M. G. Papapostolou. This is a survey of 66,150 cases delivered in 10 years. The aim, as shown by the title is to reduce the duration and pain of labour. The average duration for a primipara with cephalic presentation was 3 hr. 32 min., and 2 hr. 8 min. for a multipara. For breech presentation the figures were respectively 4 hr. 7 min. and 3 hr. 34 min. These times were taken on the basis of the first stage commencing with a cervical dilation of 1.5-2.5 cm. This acceleration was achieved by the use of three drugs:—

(1) Pethidine 50mgm. was given as soon as contractions were established, and repeated if necessary to give a total average dose of 118mg. for primiparae and 87mg. for multiparae.
(2) Buscopan (hyoscin-N-butylbromide) — a spasmolytic used with Pethidine in the first stage, especially in cases of hypertonic inertia and oedema of the cervix.
(3) Oxytocin—given intramuscularly 0.5-1.5 units if contractions decreased, especially in cases of unengaged head or breech, and repeated every 10-15 minutes until satisfactory contractions were resumed.

Chlorpromazine and anti-histamines had also been used in this series but do not appear to be in use now.

In addition the Kristeller manoeuvre was employed during the second stage, fundal pressure being exerted during expulsive contractions.

Observations in the Delivery Room

Forty random deliveries were witnessed, of which:

20 were normal deliveries
1 assisted breech
7 ventouse
5 Caesarean sections.

The acceleration of labour by injections of oxytocin was dramatic, patients were rarely in second stage for more than 10-15 mins. and the Kristeller manoeuvre was frequently applied by two or even three men at one. Episiotomy was performed in most cases, *except* in premature labour, when it was not considered necessary.

Pain relief was difficult to assess owing to our unfamiliarity with the temperament of Greek women and the presence of 11 labouring women in one room. The shouts of the doctors mingled with the screams of the patients who on occasions were shaken by the hair, slapped and held down by the doctors.

The third stage of labour was, by contrast, managed conservatively and often took 15-20 mins. Blood loss was not usually heavy owing to the large amounts of oxytocin administered earlier, often at five-minute intervals. There was no measurement of blood loss; a postpartium haemorrhage was assumed to have occurred if the patient collapsed after delivery.

Perineal suturing was done in the special procedures room, under intravenous thiopentone sodium (Pentothal). This was administered intermittently by a medical student, while another student sutured, under perfect conditions of relaxation, using retractors to give good exposure of the lacerations. If the operation lasted up to an hour, as it might if the lacerations were extensive, the patient's respirations were often considerably depressed; in these cases intramuscular colamine was given.

After recovery from their labour the patients were usually rather subdued, and had to wait some time in the Delivery Room before being taken to the lying-in ward. They had not been shown, or allowed to hold the baby, or given a drink, such as the cup of tea which is the standard reward in Britain after having a baby. One of the things which impressed us was the complete lack of joy on the part of mother, midwife, student or doctor, in what must be one of the happiest branches of medicine.

Assisted Deliveries

All assisted deliveries were effected very rapidly. The only breech witnessed was delivered in less than one minute from first appearance of the buttock and a foot at the vulva. Ventouse deliveries were achieved in 4-5 mins. and forceps deliveries were rapid, often accompanied by large cervical lacerations. In all cases the babies were a little slow to cry. Some of these were cases of foetal distress but in some it seemed that failure to deliver after 20 minutes in the second stage was the indication.

Inhalational analgesia was not used, though one patient was given ethyl chloride during crowning. Oxygen was frequently administered to the mother; whether this was specifically for foetal distress was hard to determine as there was no record kept of the foetal heart rate; indeed it was never counted, though frequently auscultated.

Examinations during labour were rectal in the first instance. The houseman would put on a glove and examine all the patients, rinsing his finger under the tap after each. The other houseman would usually repeat this and if they were uncertain of the findings the Registrar would be asked for his opinion. If still uncertain, a vaginal examination would be done.

Induction of labour

The first method used to induce labour relied upon the stimulus of external heat and light. A large wooden bed cradle containing six electric light bulbs was placed over the abdomen and the lights switched on for 20 mins. and off for 20 mins. During the fourth period injections of intramuscular oxytocin (Orasthin) 1 unit every 15 mins. This method was not popular with patients, especially during early July when temperatures were 100-108°F. If this had not induced contractions after two hours an intravenous infusion was set up containing 18-50 units of oxytocin per litre. As a

last resort the membranes were ruptured, but this was done reluctantly and regarded as dangerous.

Resuscitation of the Newborn

The airways and stomach of every baby were very thoroughly aspirated at birth. If there was any failure to respond to the stimulus of aspiration the methods of resuscitation tended to be vigorous. The baby was smacked, then held head down and shaken briskly. If this failed to make it breathe mouth-to-mouth respiration was tried. Oxygen was also given to those slow to cry. The premature baby unit on each of the three floors contained eight incubators, which were often shared by unrelated babies. It was difficult to elicit any details of the treatment of these babies as the staff did not speak English and my French proved too limited.

The perinatal mortality for the Unit in 1964 was 57.9 per thousand, corrected to 20.5 per thousand to allow for non-viable premature babies, intrauterine deaths and abnormalities incompatible with life.

Caesarean Section

The only method of Caesarean section used in the hospital is a modified classical operation. The uterus is opened with a vertical incision below the fundus. The incidence of Caesarean section in a subsequent pregnancy is 90%, and in two of the five witnessed there was impending uterine rupture. It was said that the lower segment operation is too difficult to teach the students who should know how to do a Caesarean section before qualifying.

The operation was rapid and in most cases the baby was extracted within a minute of starting. The blood loss was usually considerable.

There is a blood bank at the hospital, 70% of which is supplied by relatives of patients. Everyone admitted for an operation must produce a relative willing to give one pint of blood. The rest is obtained from service volunteers.

Ante-Natal Care

Ante-natal clinics took place every morning from 8 a.m.-1 p.m. and were chaotic: most patients were accompanied by husbands, mothers, friends and children who would wait patiently all morning, the long black-skirted peasant women seeming to grow out of the steps on which they squatted, motionless for hours.

Each patient paid seven shillings to be examined briefly by the doctor. At her first visit her medical and obstetric history were taken, a vaginal examination was done to assess the duration of pregnancy, which was calculated in months, not in weeks, and blood was taken for haemoglobin estimation, group, Rhesus factor, W.R. and Kahn. She would also be given iron and calcium tablets. There was no advice to drink extra milk as fresh milk is rare and expensive. She would be urged to come regularly to the clinic, but despite attempts at education it is quite common for a woman to make her first appearance at the hospital because she thinks she is overdue, and apparently many of the peasants deliver unattended. There is no system of being on a general practitioner's list, the patient will go to any doctor when she needs one.

Contraceptives are not commonly used in Greece, but abortion is frequent, though illegal, and large families seemed to be rare. The doctor in the Ante-natal clinic told us that when taking the history one should ask in a whisper how many illegal abortions the patient has had and then she will give the correct answer, also in a whisper! Four or five will often be admitted to.

Despite the high incidence of obesity there did not appear to be any more pre-eclamptic toxaemia than there is here. On admission in early labour the patient was assessed by a doctor and given routine shave, enema and shower before being taken up to the Delivery Room, where it was interesting to watch the change in facial expression in a young primigravida as she was first assailed by the sights and sounds of ten other labouring women.

Medical Staff

The Delivery Room is normally staffed by two newly qualified doctors and two registrars, together with midwives, pupil midwives and medical students. The latter evidently do not have to do any deliveries if they do not want to. Midwives have less responsibility than in Britain, as they are constantly supervised by doctors, who work 8-hour shifts. Professor Louros told us that there is a shortage of medical staff in the hospitals at present owing to a new law passed three years ago making it compulsory for every doctor to practise for two years in a village immediately after qualifying, followed by a further two years in the Army.

Cervical smear screening is being encouraged and we were told about the problems of starting such a department by the Cytologist Mrs. Koutifaris, a niece of Professor Papanicolaou with whom she worked for five years in America. She uses his methods and personally checks every smear taken in the hospital and sent in from the provinces.

Reflections from a Neo-Scrooge

by Malcolm Fletcher

Well it's here again isn't it? Christmas, that joyous day, when, at the crack of some apocalyptic starting pistol (around 4.30 a.m.) the little tots begin to stir and tear apart the wrapping paper on seventy million, monster, 'Chad Valley' teddy bears.

Father cringes under the bed clothes, picking furtively at the cotton wool and spirit gum on his chin, hoping no doubt that the bears will acquire teeth and devour the children.

Every year it comes and every year the streets are littered with geriatrics in paper hats and infants, drunk in charge of pedalling cars. The endless ring of new bicycle bells and the sound of new footballs in contact with new greenhouses. Your nephew bounces round on his new pogo stick, bringing with him three years growth of clematis, he picked up on the side of the house.

We have Santa Claus, that philanthropic whiz kid, whose existence has caused years of puzzlement and intellectual retardation for all but the most gullible children. They see this benevolent old eunuch in so many guises that, when they finally rumble the racket, it is to be wondered whether ever again they place any trust in the utterances of grown ups. Indeed, the admirable characters who portray him are thought by some to spend the rest of the year as part of the scenery among the art nouveau ceramics of the gentlemen's lavatories in our better known railway stations. Yet we allow these people to take our children by the hand, sit them on their knee and give them a present, an activity which would at other times of the year almost certainly receive the attention of a magistrate.

Finally, the worst excess of all, the Christmas dinner. This bunfight a l'extrodinaire, annually incapacitates the whole country and fills our hospitals with the victims of hepatitis, ulcer perforation and gut obstruction, taking turkeys from the mouths of needy Biafrans. They just don't rape nations like they used to.

Readers are invited to find the missing letters and rearrange them into a well known phrase or saying. There will be a prize for the first correct entry opened from our mailbag on 1st January, 1969.

Overheard

a Jake Mackinnon production

"One night of love is worth two years of psychoanalysis."

■

"I just find bits of it bitty." R.S.H. --m----y.

■

"Dr. J. Bo-n wants a tube train for Christmas."

"Sorry I'm late." Dr. J.L.R.--d.

■

"Good idea to turn this art gallery into a hospital," said he as he walked through the Q.E.II tunnel.

■

"I don't think it was incest; he just wanted to beat her up."

■

"The trouble with you is you're stupid." Overheard between two mongols.

■

"Yes, . . . well . . . " Pr--. L-----d R--s.

Pop Articles

We are a student journal. Few dispute this—we are owned by the Students' Union. But who should we write for? Only a third of our readers are students. We are often reminded by young housemen of old consultants who don't want to read about Jimmy Saville or folk singers. "They can read about such things in the *New Musical Express*." How many consultants buy the *New Musical Express*?

We produce such pop articles in an attempt to interest everyone. Nurses, lay staff, and pre-clinical students, are seldom thrilled by lengthy clinical reports. We refuse to accept that all doctors are interested only in medicine.

Vandalism

Vandalism seems unnecessarily prevalent at Bart's. One expects broken windows and smashed beer-mugs occasionally—such is the expression of youth. But the destruction of telephones should be left to psychopaths and mental defectives.

It is happy that those who steal "no parking" signs and policemen's helmets for their rooms are not classed with shop lifters and car thieves. Students are expected to have their fun. But it is idiotic to upset one's own comfort and that of one's friends.

Medical students mustn't live too much by their image. That image must develop with the rest of society.

EDITORIAL · OPINION · EDITORIAL · OPINION · EDITORIAL

photo by A. F. Cornelius

Christmas Post

by Brendan O'Connor

Christmas always sees most of us reaching a financial watershed, and the grim decision between a holiday and no money, and no money and no holiday, has to be reached. For those of you who decide that the second decision holds more, here are a few tips about jobs.

Though the G.P.O. is at present a bad word, the Christmas post is by far the most popular student vacation job. Those who reckon that the hours between 5 a.m. and 9 a.m. do not exist, read no further. For those left, you will no doubt find your fingers and a letter rather too wide to fit into those natty new ground-level letter boxes, to say nothing of the difficulty of actually finding the door to fit the address. Snow is an additional hazard, though the romantic will find it picturesque. (A more frequent irritation is the rain.) An escapist will find a solution by sorting the post in the warmth of the sorting office, where the day begins at the more reasonable hour of mid-day. Working knowledge of British geography is a useful qualification, but the regulars are very helpful (at least, during the few minutes between the tea breaks). Make sure that you meet the resident joker at the office: like the one whose wife asked him to look over the family's Chrissy cards at home, "Give over, dear, I've just looked over a couple of thousand since lunch." Collection and delivery forbid the use of one's own car for security reasons, but try to avoid that undelivered registered letter being found a week later under the back seat.

The really outdoor and athletic people should investigate the department at the local council offices concerned with parks and gardens. Start at half past seven and spend the next two hours of darkness reading a library book and drinking council coffee. Circumstances might dictate wielding a spade and trowel at about one o'clock to hoe the odd flower bed, but do help the resident nutter on his stint of occupational therapy, and try and dissuade him from "feeling just right to dig up everything today." The private enterprise sexton has all but disappeared these days, and the Fairy-Godmother welfare state (viz. the local council) now provides this essential service, so don't get caught trying to pick-axe your way through 6 feet of frost and clay, unless that's your idea of fun. It's not mine.

A laundry job will suit those accustomed to better weather than Britain's at Christmas. The working temperature is 105°, which rather cuts out those "pseuds" with glasses. The regime is rather strict, and includes clocking-in and long hours, but you are certain to hear how Edith's last Christmas party ended in drunken ecstasy down the local.

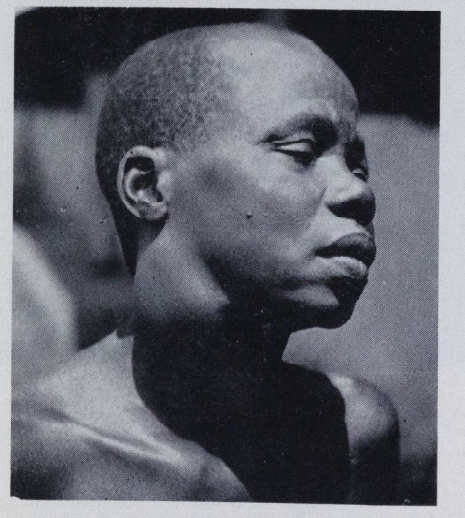
For the ace drivers, a delivery job at the grocer or off-licence will hold many fun-packed hours. The tips are first class, but the biggest hazard is the faulty catch on the back door. Predictably the realisation comes too late, but when the contents do fall out, avoid one of those rather tiresome demarcation disputes between the two road-sweepers from different boroughs who argue as to whose actual territory the eggs/butter/whiskey has fallen into.

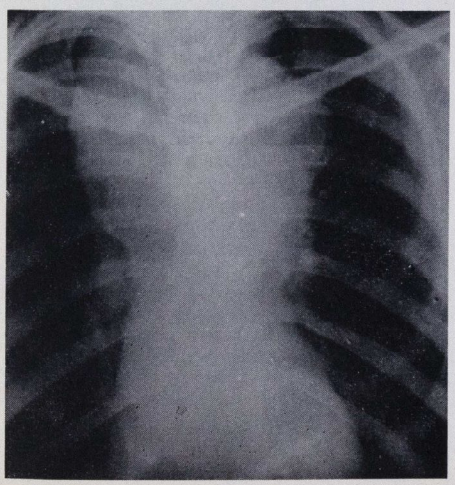
A more leisurely time is provided by the job of garage hand and petrol pump attendant. All the thrills of motorway driving in high performance cars may be condensed into 8 secs. down the 30 feet roadway into the garage inspection pit. Unlucky workers may find the floor needs sweeping or that the new road outside requires heavy work removing concrete pillars or laying crazy paving.

No account of jobs from Smithfield would be complete without a mention of the butchers. One trouble: the unions are very parochial and seem suspicious of any arrangement which could prejudice their work, so part-timers, even at Christmas, are avoided. However, the poultry men are more amenable, and the strong stomach boys might like to spend the pre-Christmas week gutting turkeys. This tends to take the edge of the Christmas fare, though.

Despite committees and commissions who insist that the days of the cottage hospital are numbered, the work of a porter in one is probably the most varied to be found anywhere. Work begins excruciatingly early and vigorously. (Those hospital mini-buses always seem to need crank starting.) Matron uses it as a chauffeur-driven taxi service to and from home, and anyway, someone's got to take her dog for a walk. Just because the government won't provide a special meal-van from the parent hospital five miles away doesn't mean to say that the patients can go without dinner. It just means you go and get the dinners. After dinner the day takes on a much more professional aspect (there never do seem to be enough people to assist at the operations), and the day ends (evening begins?) by taking the nurses home in that mini-van.

The connoisseurs among you will no doubt have your own little favourite job lined up at home. The steel mill, biscuit works, tinned fruit factory, iron foundry, etc. The one common denominator in all, however, seems to be that the work is quite exhausting for the financial return.





case history from Africa

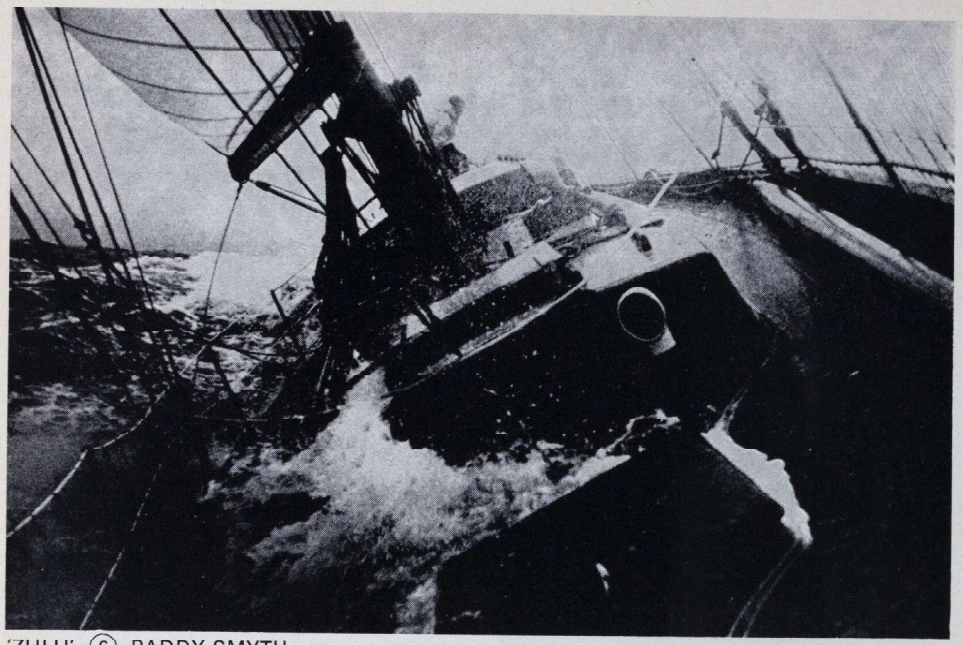
On page 229 of "Round the Fountain" I find this ruthless rhyme for heartless hospitals.

Jim mistook an aneurysm
For an abscess of the skin;
I, with well-meant altruism
Helped him stick a scalpel in.
Some spectator rescued Jim,
Fortunately I could swim.

An elderly African lady came to this hospital recently complaining of a swelling in her neck increasing in size for about a year and a half. Pulsation of the swelling was most marked and one must assume that this fortunately deterred some local knife-happy relative from endeavouring to 'let the pus out'. The first photograph shows the neck swelling, but our amazement reached its maximum when we looked at the chest X-ray shown in the second photograph. It seems unbelievable that this aneurysm has reached this size without rupturing. She has developed ptosis of the right eye since admission and her blood pressure readings are, Right arm 172/118; Left arm 140/90. There is no evidence of aneurysms elsewhere. The aetiology would seem to implicate syphilis, but this is rare here, as also atheromatous arterial changes. The electrocardiogram shows an electrical axis within normal limits with inversion of the 'T' wave in leads V 1-5 and a well marked 'U' wave also inverted in leads V 2-5. There is a very loud systolic murmur most marked at the aortic base as might be expected.

Treatment has been along the lines of sedation and cautious reduction of blood pressure. She will probably go home soon with sedative drugs to take until the inevitable happens. The hopeless prognosis has been explained to her relatives.

E. H. Williams
Kuluva Mission Hospital
Arua, Uganda.



'ZULU' © PADDY SMYTH

55° North and 5° East

by Paddy Smyth

A Tall Ships Race across the North Sea involves hazards. Doctors must deal with them.

"If he gets any worse, call us at 1800 hours". A perfectly normal finish to a doctor's telephone call, except that this one was over a Radio Telephone in the middle of the North Sea.

That particular case was of a Sea Scout officer on the yacht *Kaylena* who was suffering more than usually from 'hyperemesis maritimus', and was concerned for his ulcer. A question as to the quality of the vomit was a silly one that got a silly answer! All technicolour yawns are discarded straight over the lee rail. In fact, seasickness in a small boat can become serious if the victim fails to revive or respond to pills. On occasion, yachts have had to abandon races because of the condition of one member of the crew, or when the whole crew is ill. The traditional remedy of "sitting under a tree" is still the most effective!

Zulu was the only yacht in the Harwich-Kristiansand division of this year's Tall Ships Race which carried both a RT and a doctor (a houseman at Charing Cross), and our "Doctor of the Air", as he became known, held consultations at 0800 hours each day. At other times of the day, patients ran the risk of getting unqualified advice from me if Dave Revel was asleep!

Giving advice by radiotelephone is surprisingly difficult; quite apart from not seeing the patient, one usually has to work via the radio operator who knows nothing about the case and has to continually despatch messengers to find out more. Accidents like crushed hands and twisted limbs can often be better assessed by an account of precisely how it happened, and letting us work it out for ourselves. When an accident happens in very dramatic circumstances at sea, and with no immediate medical advice, the patient's own story and symptoms become rather colourful. At the other extreme, a cut hand while peeling potatoes was found to need stitches when Dave followed up his patients on arrival in Kristiansand.

Zulu however, often has medical students in the crew, and carries an excellent first-aid kit including suturing gear, scalpel blades and tulle gras, besides quantities of dressings. We even have plaster of Paris, though ironically none of this has ever been used, and our only "emergencies" have required nothing more drastic than Milk of Magnesia or Kaolin Morph.!

The Sail Training Association schooner *Malcolm Miller* also carried a doctor, a brother of the Captain, and who was travelling as purser. They had an enquiry from a Swedish ship about a boy who had done himself a mischief astride a yardarm, and complained of "swollen testimonials". This, needless to say, could be given little more than sympathy over a radio, but in Kristiansand the doctor received a gift. This was a wooden plaque to which was attached a brilliantly made model of the relevant anatomy fashioned out of spliced and plaited ropes. For the information of those wincing at the thought of trauma on a yardarm, the boy made a spontaneous recovery!

result

As far as the race was concerned, the result was a repeat of two years ago when *Zulu* had three Bart's men in the crew. We were second over the line after *Lutine*, the Lloyds Yacht Club yawl, but won the race on corrected time.

ART SECTION

part one;

Sculpture

Beyond Modern Sculpture, by Jack Burnham. The Penguin Press, London 1968. 84s.

This is a knowledgeable and meaningful study of modern sculpture. One sees that the rôle of the sculptor has always been a part of a general evolutionary pattern for the human species. This being so, the free standing figure sculptures of Greece, appearing at the same time as the beginnings of science, were preparing us for the conscious task of basically changing the human race far in the future. It seems that this change will be the disappearance of the physical boundary between the sculptor and his work. Jack Burnham's book attempts to trace signs of this phenomenon as seen in certain works throughout the history of sculpture, and the great acceleration of this process in the works of the last 20 years.

Rodin had wanted the 'Burghers of Calais' to be free standing—to be a part of the movement within the town. But his proposal was rejected and they were all placed on a single ungainly base. Giacometti, however, has many times accepted Rodin's suggestion with impressive results. The base has disappeared in modern sculpture and contemporary works lie directly on the ground or suspended in space. Removed from its pedestal a piece of sculpture is closer to us and our own comings and goings. A form of communication between the sculpture and ourselves becomes imminent.

Organicism is the term now used for the sculptor's desire for the understanding of living matter *through its creation*. Prior to this there had been only the organic sculptor whose work was based on biological characteristics, and the vitalist sculptor, for whom the 'life' of his works was a criterion of artistic success and developed from his ability to create a plastic unity.

The use of scientific processes in modern sculpture is the attempt to express a modern conscious reality. The concern is no longer

primitive visual truth. It is ironic that sculptors in the 1920's were influenced by scientific models precisely at the time when the models were beginning to lose their importance for the mathematician and physicist. The certainty of disaster, had Tatlin's 'Monument to the Third International' been translated from his laminated wood model into steel on the proposed scale, serves to illustrate the great need for engineering in modern sculpture.

The appearance of robots, dolls, mobiles and kinetic art, although superficially somewhat playful, involves much technical competence and ability to work with electricity. And it still has the inherent defect of not being able to respond to man in any intelligent fashion. The works are dead souls made alive through art and mechanization, yet still incapable of sustained two-way communication and experience. The paint handling of a Ruben's nude, the texture of a Henry Moore bronze, motion pictures, symphonic music, kinetic art—none of these result in true communication; only a one-way stimulation for the human party involved.

Then is this true communication, the next and ultimate stage of sculpture? It will be known as Cyborg Art, and within that framework the machine will be the rightful heir to the sculptural tradition of form creation. Meanwhile sculpture is hanging midway between the imperfection of the machine (due to the sculptor's shortcomings) and the artistically superior tradition of figure sculpture.

A 6ft. 2in., 195lb. plastic dummy is being used by medical students in the University of Southern California. It exhibits symptoms for student diagnosis and prints a critique of the student's mistakes. Such creations will soon be able to bleed and sweat and will be shaped to simulate different ages of each sex. The dividing line between man and robot is becoming blurred. And sculpture no longer imitates man, but imitates robots trying to become human. Few sculptors have the technical skill to create functional robots—a similar problem as was encountered by sculptors with the human model for thousands of years. The problem now is how to make imitation robots: 'Thus sculpture seeks its own obliteration by moving towards integration with the intelligent life forms it has always imitated'.

Being so intensely technical will not Cyborg Art lack spiritual vigour? Or, being a culture shaped with its own life blood, will it not become the quintessence of its own spiritual destiny—as in all other great periods of art? There is certainly a great social need for a symbiotic fusion between art and technology, since a dehumanised technology is bound to destroy itself and the world around it.

We should accept that art has not been for art's sake but a preparation for man's physical and mental changes. And these changes are now upon us. We are leaving the world where totems and icons are profoundly important for our culture. Sculpture will soon have no meaning for us. Art, as we have known it, when it has fulfilled its function, will become redundant.

M.E.T.

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part two:

Van Gogh Exhibition

review by Julian Toms

This is the second important exhibition at the newly opened Hayward Gallery on the South Bank. There are a hundred of van Gogh's drawings and a hundred of his paintings, mostly from the collection of the artist's nephew. A visit is worthwhile because much of van Gogh's work has been over publicised, and he has become well known to many through a few paintings of his maturity. A large part of this collection is unfamiliar and one is left with a deeper insight into the tortuous course by which this man became an artist.

The life of van Gogh, or parts of it, is widely known: the exhibition catalogue fills in the gaps and also groups the pictures to clarify the phases in his development. It is indeed almost essential in order to follow the non-chronological order in which the pictures are hung. The drawings, on the ground floor, are more eloquent than the paintings—they seem nearer

Pruning the vines. Arles, 1888.

to the inner eye that conceived them—and very few are sufficiently well known to arouse preconceived reactions. Also, the drawings are better lit.

Van Gogh lived and saw and drew and painted in terms of symbols. To the non-specialist his work is but the expression of his life in symbolic terms. The two become inseparable, and this fusion gives each individual work its undeniable significance. If we ignore one of them, then we ignore the man. This is not to say that the pictures cannot stand in their own right simply as works of art; the exhibition makes this abundantly clear.

First there are the early attempts of the young man, working without enthusiasm for an art dealer in The Hague. The atmosphere is one of oppression. The first drawing centres around a closed garden gate. The sky and the land meet inseparably in a claustrophobically near horizon. Birds scatter in the air as if from gun shot. This drawing is perhaps the most revealing of all about the nature of the man, and the similarity of mood to the last two paintings of his life is striking. Here the sky and the fields are once again clamped together in the near distance; there is no possibility of going beyond. And the same rooks flap away from some inapparent terror. Only this time there was a real gun shot, and van Gogh died from it. The feeling of coming full circle is hard to avoid, and the intervening years of mental vigour and freedom in Paris and Arles are seen as merely a remission in an affliction which he never completely shook off. While he painted with one hand he kept a hostile world at bay with the other, and after 37 years the effort became insufferable.

The exhibition is open until 12th January, 1969.

part three:

Gloucester Hall Art Exhibition

Detail from Marion Simmon's self-portrait

Does the artist's competence match his intention—does his physical technique convey the idea in his mind? At any level, profound or whimsical, the equation of means and end determines the success of a work. It is especially relevant to an amateur show where the sensitivity needed to balance the equation cannot always be counted upon. Until it is present, the second question—was the idea worth expressing in the first place?—cannot be asked. Put differently, it's accepting your limitations; which is why this sensitivity is not a matter of technical skill, and why success and thus pleasure may be expected from an amateur show as much as from a professional one. The distinction, while still obvious to the eye, becomes unimportant.

So among the most delightful things in this exhibition were the crayon drawings of G. Sullivan, who is a self-confessed beginner but intuitively aware of what she is capable and where to place colour and line and where not. Mr. Galloway's animal paintings, on the other hand, for all their finesse, told us nothing we did not already know about his subject; having mastered his materials so well, he now confronts the second question: to think and feel better. Ideally, the "what" and the "how" of expression develop together. Winifred Hector's fabric collage owl showed this. It was both sophisticated and modest and thus, though lighthearted, wise: as befits an owl. Nichola Stowell's little landscape, in a more sweetly serious mood, was as perfectly balanced.

The excellence of some works was so evident that comment is superfluous (Jean Kay, M. J. Simmons). Others failed similarly. The few completely non-representational works proved that 'abstract' art is more difficult than the other thing (for how do you apply that original equation to it?) Nothing was without interest.

Marion Simmons' paintings deserve mention. By being exceptions to it, they pointed up the overall character of the show and perhaps of amateur shows in general: self-contained, content and 'closed' in the sense of being objective and casual, not greatly cared about, the product of an evening and a relaxed mood;—whereas Marion's paintings question and relate beyond themselves, to her life and to each other, in a way that today characterises the "professional" approach. The world's masterpieces have come out of both traditions.

I was asked, as this thing "a professional", to comment on the paintings at the exhibition and then to write down my comments. I have kept them general because, away from the paintings, the particular is quite uninformative. The exhibitors and especially the organisers should be warmly congratulated on a full and varied show. It is a pity that many works were not better presented (in frames or mounts, the artist's responsibility) and that more upright screens are not available; the present sloping ones are disadvantageous to oil paintings though excellent for watercolours and small works. If, as is to be hoped, this exhibition will become an annual event, these things would be worth looking into.

S.B.

Student Protest: a Christian viewpoint

by John Rennie

Now that the furore of 27th October has settled into oblivion, it behoves us to examine the concern being expressed by many for student society. One factor was significant, in that Bart's students on the whole didn't participate in the demonstration. Perhaps it is because medical students in the two years corresponding to the university course have such a strict schedule to adhere to (in contrast with arts students), that the possibility of a jail sentence is enough of a deterrent.

However, as a Christian student, I believe there are certain Christian principles which are vitally important to the current debate.

Firstly, any society or university community, must have a structure where there is agreement about fixed points, so that the natural limitations of man can be accounted for; this is why anarchy is so unacceptable. Structures and rules may need modification, but not without a realistic assessment of the way people and things really are. Any change, while allowing for mens' good points, must take account of the evil, including selfishness and greed, for to do otherwise is to be idealistic. Our selfishness is socially incurable, although it is true to say some of the symptoms can be controlled.

We therefore need some authority which will encourage what is good, but also discourage what is not good for the community. We look to those with wisdom and learning for guidance in these matters, though the learned may not understand student life and the ablest of staff may yet lack wisdom. So the solution is for students to work in positive and rational co-operation with the staff, to expose all the relevant fact and experience available.

Before any reform is proposed, it must be shown that there is a better alternative to the present set-up. Therefore, emotionally charged slogans seeking change for the sake of change, and irresponsibly staged demonstrations leading to mass hysteria and mob violence, are of very limited objective, and often succeed in attracting attention towards the participants rather than towards the cause itself. But as a Christian, I would not support mere conservatism, or apathy towards burning social issues, and if there is an evil it should be exposed and attacked publicly. Although the force, and its consequences, can only be justified if it does less harm than the evil against which it is directed.

However, no amount of juggling with the structures of our society, or the rules governing student life, can ever get to the root of our basic human problem. While rightly being concerned to maintain social order, it should be even more of a concern to come to terms with man's basic needs. These arise from his attempts to live without God and the real facts about his own personality and nature.

That many students at university, having reached the zenith of education, seem to lead purposeless and aimless lives is not due to external and social pressures, but to the fact that they are cut off from God. These problems cannot be solved by radical changes in social or political programmes, but rather by accepting Jesus Christ, who alone can bring us back into a right relationship with God. Jesus Christ came and died for us, thus dealing with the root cause of our troubles by ridding us of the guilt of our evil nature, and subsequently putting us in a position in which we can begin to deal with our social and personal problems.

jointheteaset

latest scoop

from our tea correspondent

Robin Rayner discusses tea as it is grown today, and the different types found throughout the world.

Tea gardens today vary from 100 to 2,000 acres and are self-contained estates each with its own school, hospital, factory, warehouse, offices, bungalows and so on. They are at any altitude up to 7,000 feet and if the ground is fairly level the bushes are arranged in straight lines with geometrical precision, and if it is hilly they are planted along the contours. The labour and most of the clerical and supervisory staff will be native.

The 3,000 or so bushes in each acre will absorb ten tons of water a day and will produce about 1,500 lb. of tea a year. Japanese estates produce 3,000 lb. an acre but are very heavily fertilized. The labour varies with the yield per acre, but an average 1,000 acre estate employs at least 1,500 workers in the garden and the factory.

The factories are highly mechanized but as labour is cheap and plucking machines are inefficient, collecting about one tenth coarse leaf and twigs, most estates cultivate and pluck manually.

All the plants on the estate will be Camellia siniensis but as self pollination does not occur there will be considerable variety in the offspring as far as yield and quality are concerned. A check can be kept on each bush and better bushes can be duplicated vegetatively, but this is expensive.

Tea grows best in a warm damp climate and an acid soil, preferably jungle soil. It will not grow where human habitations have been or where lightning has recently struck—bushes struck by lightning have to be pulled up as their roots are very prone to disease.

In China and Japan tea seeds are planted where the bushes are required, but elsewhere plants are grown in nurseries for a year or fifteen months and the bushes are then planted four feet apart, or closer if hedges are to be produced. Hedges are said to reduce the damage done to the bushes by the pluckers, and are necessary if machines are employed.

If allowed to grow for the production of seeds the tea plant would develop into a pretty conical evergreen tree. For tea it is pruned frequently to make it sprout sideways and produce a flat-topped bush at a convenient height for plucking. Plucking does not start for three years, at greater altitudes one has to wait longer as the bushes grow more slowly, but the leaf is of a better quality. Bushes are pulled up after three score years and ten.

In Ceylon, and in other countries near the equator, the bushes grow and produce new leaves all the year round. Leaves suitable for tea-making must be plucked during a flush—a period when they are young and growing fast and are full of sap and are a fresh green colour. Where bushes grow all the year round the flushes are picked frequently—sometimes as frequently as once a week, but less often at higher altitudes. In Assam and northern India the altitude is considerable and the bushes, although they do not lose their leaves, stop growing from December to April and so are not plucked during this time.

Tea gardens smell of tea. Manufacturing tea merely brings out the flavour and aroma and leaves the leaf in an easily preserved form.

There are three main types of tea—Black, Green and Oolong—but all come from the same plant. Brick or tablet tea is Green or Black tea

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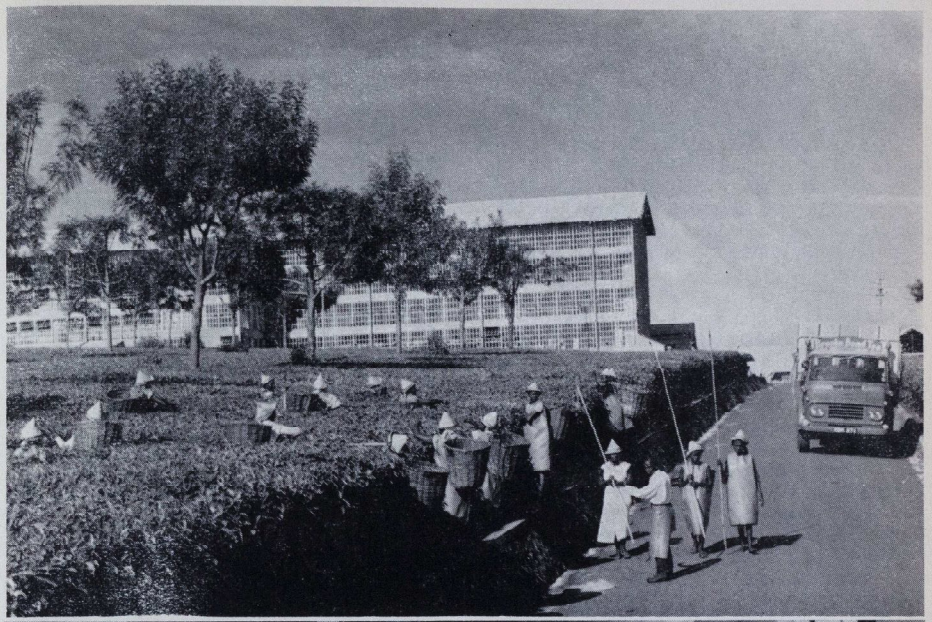
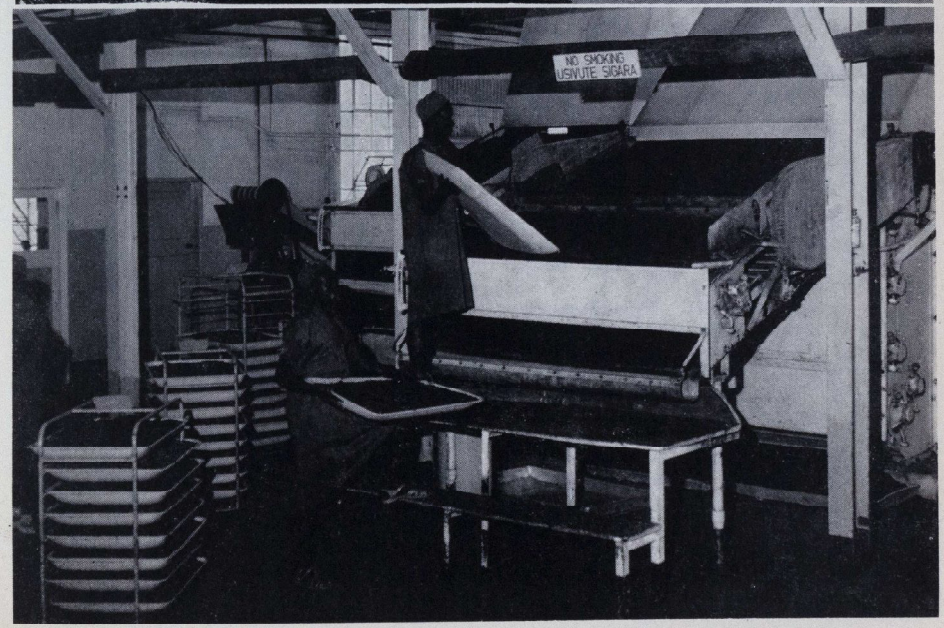
The two photographs opposite depict (above) a tea estate and (below) the transfer of fermented tea to a firing machine,





compressed into blocks; it is of poor quality, being produced in China for export to Tibet and inner Asia.

Green tea is steamed to make the leaves pliable for rolling and to prevent fermentation by denaturing the enzymes in it. It is then partially dried, rolled, dried some more, rolled again and so on until it is too crisp for such manipulation. Then it is completely dried. The important part of the process is denaturing the enzymes at the very beginning—the Chinese often heat the leaves in a dry hot pan instead of steaming them.

Oolong tea is bruised by manipulation to start the fermentation but this is stopped before it is completed by killing the leaf by roasting it. Oolong is not very popular in the West and is mainly drunk in China and Formosa.

Black tea is what most of the world drinks, and in the modern mechanized process there are six operations—withering, rolling, green-leaf sifting, fermentation, firing and grading. All are faster nowadays except for fermentation which is in fact slowed down by providing cool conditions—this improves the quality of the final product.

Withering takes between 16 and 24 hours and is continued until the leaves are flaccid and suitable for rolling. Minor chemical reactions take place within the leaf and up to a third of its weight in water is lost by evaporation. Tea can be sliced thinly (cf. tobacco) but the result is supposed to be less good.

Rolling crushes the cells and releases the juices so that fermentation (oxidization) can occur. The essential oils in the taea are liberated (to give the aroma tea has) and further chemical change takes place. The leaves change colour during fermentation and they are then very susceptible to infection with moulds so utter cleanliness is essential. Rolling the leaf gives the twist to it.

Leaves picked in the rains, and coarse leaves, are put through a C.T.C. machine (crushing-tearing-curling) to prepare it for oxidization—this replaces the first two stages in manufacture.

Between the roller and the fermenting floor the leaves are forced through sieves to ensure that they are all less than a certain size (green leaf sifting) because larger leaves take longer to ferment. The finer leaves are allowed to ferment for 2½ to 4 hours in four inch heaps on the floor in a hot and humid atmosphere.

Firing or drying is designed to remove the last traces of water, to denature the enzymes and to kill off the bacteria. Hot air is blasted through the tea, the air getting gradually hotter.

The tea is now graded. This is necessary because fragments of differing sizes respond differently to the various stages of manufacture. Leaf grades are the larger fragments, are subdivided into Orange Pekoe, Pekoe and Pekoe Souchong, give a less strongly flavoured and lighter coloured liquor than the broken grades, and are the teas favoured in Continental Europe. "Pekoe" means white hairs and "Souchong" means small. Broken grades give a stronger darker brew, and are the types generally preferred in Britain. They are subdivided into Broken Orange Pekoe, Broken Pekoe, Broken Pekoe Souchong, Fannings and Dust. Dust does not sound very good but it can taste better than Orange Pekoe as these terms refer only to the size, appearance and response to infusion of the fragments.

testing tea

Tea from different parts of the world, different estates only a mile apart, and from the same estate but picked at different times of the year all have different flavours. In order that a certain blend of tea sold in the grocer's shop should always taste the same, the various constituent teas have to be mixed in proportions which vary with each new batch of tea. The teas are classified according to their flavour and aroma by the taster, who might examine several hundred teas in a day.

A tenth of an ounce of each tea is infused for exactly six minutes and the liquor is decanted off into a cup. The leaves—the infusion—are tipped onto the lid of the pot and are left for examination. The room has a north light so that accurate colour appreciation is possible.

Each tea is examined visually for colour, twist, evenness of grade, presence or absence of dust and stalk; crispness is tested with the fingers; some is put in the palm, is breathed on to warm and moisten it and the aroma is inhaled. The tea may be clean (no dust or fibre), bold (contains bits too big for its grade) or blistered (swollen and hollow through being dried too rapidly).

The infused leaf should be the colour of a bright new penny throughout (black tea). It may be dull or uneven—it should not be. The taster may put his nose in a pile of the wet leaves to test the aroma.

A spoonful of liquor is noisily sucked into the mouth and is spurted out again a second later. It may be brisk, flat, fruity, hard, pungent, bakey (highly fired), gone off, malty, mushy, sweaty, smoky or weedy.

Altogether there are about a hundred terms to describe tea.

Most tea is sold in auctions which take place on Mondays, Tuesdays and Wednesdays at Plantation House, Mincing Lane. The selling brokers, acting for the owners, have previously tasted the teas and catalogued them. The buying brokers, acting for the packers, have selected from the catalogue teas they might buy, and have sampled them. At the auction they know what they want and how much they are prepared to pay for the lot. Each lot of 30 to 40 chests of 110 lb. each is briefly described by the auctioneer and is sold within about 20 seconds.

blending

The packers buy the various teas to make up their own particular blends. The blend must be standard in appearance, taste, body, strength, aroma, colour, bulk and cost. The blender adds a little of one tea and a little of another until he cannot distinguish the experimental blend from the standard one, and in so doing he must bear in mind the costs of the various teas and the fact that large grades take up more room in a quarter pound packet than does the same weight of small grades. He sends his formula to the factory for multiplying up and mixing of the 20 to 30 different teas. The blend is tasted once more to check that all is well before packetting commences, a fraction more than the net weight going into each packet. Incidentally, packet tea was introduced by John Horniman in 1826.

To make tea one should warm the pot, put in one teaspoon of tea for each person and one for the pot, pour in freshly drawn, just boiling water and allow it to stand for five minutes. If the water is not quite boiling the leaves will rise to the surface and will stay there. If the water has been boiling for 10 minutes the leaves will form a soggy ball at the bottom. If the water is just right the leaves will travel up and down for some time before settling—the air bubbles help to distribute the leaves and the water has the maximum effect on each leaf.

The average Briton drinks nine pounds of tea a year at the rate of five and a half cups a day. This represents only four and a half grains of caffeine a day—a subtherapeutic dose. Polyphenols (tannin) account for much of the taste (as opposed to aroma) and adding milk softens the taste as well as adding about 10 Calories to the four in the cup of tea. A sugar cube adds 25 more but has no chemical effect.

In five minutes, 80% of the caffeine and 40% of the polyphenols is extracted. On watering the pot, the rest of the caffeine is obtained and another 20% of the polyphenols.

Tea kept hot in a vacuum flask, not on the leaves, undoubtedly spoils in a few hours but the chemical explanation has yet to be given.

taking tea

For hundreds of years no-one thought of putting milk in tea and the originators of this practice were the English or the French, the first mention of it being made in 1680.

The Chinese invented the tea-pot for the European market but they still infuse the tea in the individual cups. Until a few centuries ago they added salt (and before that, herbs) to their tea but now they drink it neat.

Tea is taken in many different ways.

In Thailand, tea is chewed with salt and various spices, whilst in Burma *letpet* is made by pickling the leaves in oil and garlic—dried fish may be added to it! *Cha tulch* is prepared in Kashmir—tea boiled with salt, aniseed and red potash. Arabs make their tea very sweet and add mint to it. Koreans suck raw eggs between sips of tea. The Australian in the Outback will *stew* his tea in his (Waltzing Matilda) billy-can while he cooks his meal. The southern United States invented iced tea, and the old Alpine guides would mix red wine with cold tea for drinking on the mountains. Before vacuum flasks, the British farmer would take a bottle of cold sweet tea with him into the fields. The Russians use the samovar—an urn of hot water heated by a tube running up through it, with the tea-pot kept warm on top of it—the strong tea being poured out and then diluted to taste in the cups. In Tibet the Lamas put rancid yak butter in their tea. The Germans, Scandinavians and other European countries serve lemon with tea. I think we thought of putting sugar in tea, but we can probably blame the tea-bag onto the Americans.

There are several substitutes for tea—Labrador tea made from a relative of the rhododendron; Maté or Paraguay tea which contains *Ilex vomitoria* which is a diuretic and reduces the appetite in small quantities, and is an emetic in larger doses; Liberty tea from the U.S.A. made from the four-leaved loosestrife; balsam tea; sage tea; and tea made from the leaves of the hornbeam.

Many adulterants have been used in the past to increase the bulk of the tea at low cost and the most successful of these were sloe leaves.

Ash leaves, wheat husks, liquorice, ivy leaves, Deadly Nightshade, Cuckoo Pint and potato leaves were others employed.

the three types

As has been said already, tea may be Oolong, Green or Black. Formosa Oolong can be obtained over here but it is not very popular. The taste is distinctive and the aroma is vaguely reminiscent of peaches.

The only Green teas popular over here are Gunpowder and Jasmine. Gunpowder tea has a very small leaf (dry particle, that is) which opens up to give a green leaf almost an inch long on infusion. The liquor is greenish yellow, not very aromatic and has a taste which is rather bitter. It is delightful when made fairly weak, but otherwise a little milk might lessen the bitterness. Jasmine tea is a rather aromatic green tea served in some Chinese restaurants. Several different flowers are used for scenting China teas (both Black and Green), powdered flowers usually being added to the Black tea, and whole flowers (usually later removed) to the Green.

Black tea is the most popular type in Great Britain and consequently there are more varieties available. Assam tea is grown in the Assam region of northern India and is noted for its strength and "body". It produces the traditional British cup of tea at its best. Darjeeling grows slowly at high altitudes and is my favourite Indian tea—it produces quite a dark liquor and its smell is very reminiscent of grapes or raisins. A good one can cost 84s. a pound at Fortnum and Mason's but a quarter pound for half a crown is very good.

Keemun is an aromatic tea, and Twining's "Prince of Wales" tea is a rather better type of Keemun—probably the spring crop. The liquor is pale and is not very strong. It is a "China" tea although it is probably imported from India today. Lapsang Souchong is a very popular smoky or tarry flavoured China tea with a very pale liquor and a delicate taste. It is tantamount to a sin to add milk to it, but a minute quantity of sugar (dare I suggest it?) has the effect of bringing out the flavour in Twining's version, though Ridgway's does not require this.

"Nectar Tea" is a blend of several others, is cheap but has nothing else to commend it. Earl Grey is an extremely aromatic tea and is best suited to blending with less distinguished blended teas from the Supermarket. Its flavour is impossible to describe and it has a marked carminative effect.

Ceylon teas produce a golden-yellow liquor. Kandy is grown at fairly low altitudes and is quite strong. Uva grows at 4,000-5,000 feet on the east slopes of the central mountains and has a distinctive flavour, being much used in blending. Dimbula grows at 5,000-6,000 feet and was one of the first teas to come from the island. This is probably the best known of the Ceylon teas and produces a richly coloured liquor. Nuwara Eliya is grown at over 6,000 feet and therefore is a very fine tea with an extremely pleasant flavour and aroma. It is undoubtedly the best of the Ceylon teas.

No doubt there are many other varieties of tea, and I hope that one day I will have the good fortune to sample them. Any old tea will satisfy me in the early morning, but to sit down to a cup of decent tea after a meal or in the middle of the afternoon is an experience well worth paying a little extra for.

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(All photographs in the two articles by courtesy of Messrs. Brooke Bond Liebig.)

OBITUARY

Major General Barnsley

C.B.,M.C..M.B.,B.Chir., A.M.S.(retd).

Major-General Barnsley, known to a very large circle of friends as "Eric" died on September 11th at Osborne.

He was cremated with full military honours at Aldershot and a Memorial Service was held at the Priory Church of Saint Bartholomew's the Great on October 11th.

This was attended by many members of his family, high ranking officers of all three Services, personal friends and members of the 85th Field Ambulance, which was the first Unit in which he served.

It would, certainly be fair to describe Barnsley as the "very model of a modern Major-General".

He devoted the whole of his professional life to the R.A.M.C.

He started his clinical work at Bart's in 1908 as a surgery dresser in Sir D'Arcy Power's firm, when I was Junior House Surgeon and I have known him intimately since that date.

He was a born entertainer and was ready to make a "stump speech" at any time. He came from Trinity College, Cambridge to Bart's and got his Conjoint Diploma in 1912.

He graduated M.B., B.Chir. (Cantab) in 1930.

The explanation of this gap of 18 years is interesting. He actually went up for his Cambridge Examination soon after obtaining his Conjoint.

On a warm Saturday morning, he was being examined in Pathology and was handed a specimen to describe, which he did. The examiner, however, was absorbed in the "Westminster Gazette" and did not appear to be interested in anything that Barnsley was saying. After an interval, Barnsley said "Excuse me, Sir but have I your attention?"

This was the only part of the examination, in which he was ploughed. Soon after this, the World War came and Barnsley was fully occupied in the Army until 1930

When he came up for his finals at that time, many of his examiners were his contemporaries at Bart's and at Cambridge.

I persuaded Barnsley to join the 3rd London (City of London) Field Ambulance immediately he was qualified. He served in that Unit in France. He was wounded in the Second Battle of Ypres and was awarded the M.C.

He went with his Unit to Salonika in the 28th Division. He, subsequently, transferred to the Regular R.A.M.C. and became A.D.M.S. under Colonel Nickerson, V.C.

two world wars

After the end of World War I, he became Adjutant to the 50th (Northumbrian) Division R.A.M.C. from 1921 to 1923.

He, later, served in India and Egypt. At the R.A.M.C. College in 1927, he was awarded the Order of Merit in the Senior Officers' Course and passed with distinction in Medicine.

He did not specialise but continued in General Duties and this maintained his association with the soldiers in the R.A.M.C.

Early in 1940, he became Director of Medical Services in East Africa but returned home after the fall of Addis Ababa.

He then joined the Southern Command, in which he served throughout the anxious days before the invasion of Europe.

He became Hon. Surgeon to the King in 1941 and was appointed C.B. in 1944. He, also, became an officer of the Order of Metrit (U.S.A.) in 1946.

retirement

After his retirement, he devoted the whole of his life to the Army and particularly to the R.A.M.C.

He became Hon. Secretary to the R.A.M.C. War Memorial Fund and spent 20 years of his life in connection with the Charitable Funds of the R.A.M.C. He was Editor of Army Medical Services Magazine from 1948 to 1956.

He was Colonel Commandant of the R.A.M.C. from 1948 to 1951. In 1951, he began to organise the R.A.M.C. Historical Museum and built it up into an important position among Regimental Museums.

He was a great authority on Medical Military History and was a vice-President of the Army Historical Society.

In 1965, a special presentation was made to him in the presence of a large company to acknowledge the debt owed to him by the R.A.M.C.

He never married but was happy to be in constant association with the Royal Medical Corps. For some years he lived in a cottage at the entrance to the barracks and was a regular guest at the Mess Dinners when he often performed his famous trick with lighted cigarettes, which he reversed into his mouth without burning himself.

He was always a very smart soldier and wore an eyeglass without any attachment.

He was always a cheery soul and was happiest in the company of young officers.

It was a great joy to him to follow the careers of officers from their first enlistment in the R.A.M.C.

He will be greatly missed by everybody who knew him.

He was a fine example of the best type of Bart's man.

SPORTS NEWS

SWIMMING CLUB REPORT

The club has had a very good start to the season in the 2nd and 3rd Divisions of the United Hospitals Water Polo League.

First Team results:

St. Barts I v. St. Thomas's I: Won 13—0; St. Barts I v. St. Mary's II: Draw 4—4; St. Barts I v. Charing X I: Won 8—3; St. Barts I v. London II: Won 11—0.

(Those playing for the first team were: R. Jolly, P. Coburn, O. Shearer, C. Fenn, P. Weir, D. Davies, P. Durey, M. Weller.)

Second Team results:

St. Barts II v. Guys II: Won 6—2; St. Barts II v. London III: Won 8—0.

(Those playing for the second team were: C. Van Heyningen, D. Trussell, I. Weller, R. Harris-Jones, J. Tweedie, R. Hill and P. Quinn)

We hope to continue our successes in the U.L.U. K.O. competition, later this month, and in the U.L.U. Water Polo League next term.

Doug Shearer and Chris Fenn, who both play for the university, are to be congratulated on their performances this term.

PADDY WEIR (Secretary).

J. MACKINNON.

RUGBY CLUB TOUR, '68

The club got off to its usual rousing start and proceeding in a leisurely but exciting fashion we made our way to Falmouth where we inflicted ourselves on the local populace for four days, during which we managed to fit in two matches.

Match I: v. Cambourne, Sat. 2nd November
Barts—12, Cambourne—0

This was the first and best game of the tour, although the opposition was disappointing after what we had been led to expect. The forwards, although matched to begin with in the tight, soon got on top in the loose with the result that the backs were able to run in some good tries. The best was the first, when following a quick kick from the line, the backs put the winger, Griffiths, over for a try towards the corner flag.

Match II: v. Falmouth, Mon. 4th November
Barts—9, Falmouth—6

Playing under the Falmouth Floodlights is a handicap for any side and the hospital, although playing below its best, did well to be level at half-time. After the change-over, however, the side settled down and eventually the continual stretching of the Falmouth cover paid off and we gained our deserved try. From then on Falmouth never again proved a real threat. The two new half backs, Hill (S. Half) and Sowden (F. Half) both had good games, as did May who by virtue of his hard, straight running, had a very penetrating match.

After the annual trip to St. Mawes and the annual pilgrimage to the Chain Locker and the Hotel Bar a quieter team mounted the coach for the journey to Torquay. The new hotel, Oswald's Hotel, turned out to be by far the most comfortable hotel we have ever stayed in, and consequently the last two days provided a gentle and fitting finish to the tour with a better game against Newton Abbot than last year.

Match III: v.
Newton Abbot, Wed. 6th November
Barts—24, Newton Abbot—6

The high score flatters what was a very scrappy hospital side who seemed to be rather tired and hence disorganised, against a side which never looked as if it could win. However, it did round off a successful tour to make it the first time for 35 years that Barts have won all their matches on tour. This is a very commendable achievement for which all the members of the tour party deserve praise for the part that they all played in the making of it.

Finally, I think a word of praise must be extended to our driver, Bob, who though surrounded and distracted by flames and smoke, managed to convey us to the West Country and back in one piece.

Barts v. Kenilworth
Barts—25, Kenilworth—9

Here the team was still suffering from a reaction from the tour, and again the score

belied what was really a very scrappy game. We were given two tries from interceptions, but Mark Britton played a storming game, scoring three times and dominating the loose.

Barts v. O. Haberdashers

Barts—15, O. Haberdashers—6

The team now seemed to have recovered from the tour, but still lacked the necessary finish and penetration to make the best of the opportunities they made for themselves. Too often passing went astray or the backing up was in the wrong place. However, there were good individual performances from Lambert, Carroll, Else and some hard running by Mason at No. 8 and Fairhurst at prop.

Our Record to Date

Played 12, Won 10 and Lost 2. Points: For 186, Against 89.

SAILING CLUB REPORT

Major efforts have been made this month towards restoring our Fireflies to first-class racing condition. Our thanks are due to the College authorities, as they gave permission for us to use the Gym for painting the boats This has greatly facilitated our work, as the alternative was an hour's journey to the Harp everytime somebody wanted to work on the boat. We hope that no other user of the Gym has been inconvenienced by the presence of our boats.

MATCHES

Saturday 9th November v. St. Thomas's Hospital at the Welsh Harp.

Two teams sailed in this match:—

(a) Brendan O'Farrell, Mike Williams, Mike Madsen, Miss E. Elder, Miss J. Walsworth-Bell, Miss J. Scarborough.

(b) Mark Rowntree, Bruce Noble, Tom McEwer, Miss E. Elder, Miss S. Rowntree, Miss J. Heath.

This was a very cold afternoon, and due to restrictions imposed by the inefficiency of the starting box, a marked lack of wind and the shortness of the afternoon only one race could be sailed for each team.

Disaster rapidly overtook the 'A' team when, with all three Thomas's boats nicely situated on the starting line when the gun went, Mike Williams was the only Bart's boat within striking distance. He was obviously unable to cope with all three members of the opposition and as a result a strong St. Thomas's team sailed home 1st, 2nd and 3rd.

The 'B' team acquitted themselves rather better. It was unfortunate that the starting gun still found Tom McEwen emptying his boat of water, but despite a late start he had very nearly caught up by the end of the race. Bruce Noble and Mark Rowntree made use of some team racing tactics and both overtook the third Thomas's boat to finish 3rd and 4th.

Wednesday, 13th November—U.L. League Match v. Queen Mary College.

Team: Roger Chapman, Mike Williams, Miss H. Andrews, Miss J. Walsworth-Bell.

This was a very cold afternoon with a brisk breeze that made sailing conditions good, but standing around waiting became torture to the fingers and toes.

The first race started well, despite the fact that Roger Chapman inexplicably chose to start at the wrong end of the line; by the second mark Bart's were leading with 1st and 2nd positions from the two Queen Mary boats. Things did not proceed quite so smoothly on the second lap, Mike Williams first collided with one of the Queen Mary boats whilst duelling at rather close quarters, and then both Bart's boats inadvertantly went the wrong way round a mark, letting both Queen Mary boats through whilst Bart's unwound themselves and set off in vain pursuit.

Roger Chapman finished the race to come in third whilst Mike Williams retired after his collision.

Whilst awaiting the start of the second race a postponement was necessary whilst Roger Chapman carried out running repairs to a broken tiller extension, and then a main halliard broke on a Queen Mary's boat. By this time darkness was falling and so we postponed the second race, to be sailed at a later date.

Martin Best and Miss J. Almeyda kindly volunteered to do our duty in the starting box on this day, and fulfilled their tasks admirably.

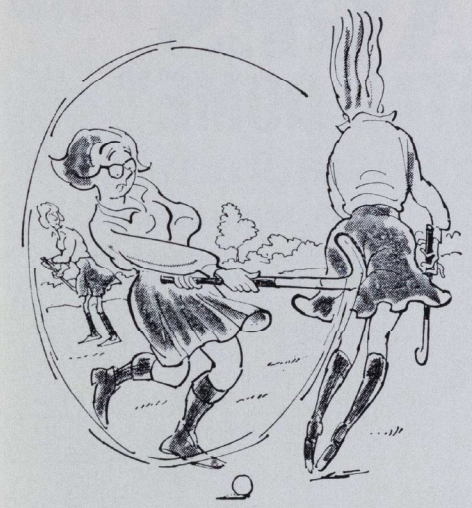
Wednesday, 20th November—U.L. League Match v. Birkbeck College.

Team: Roger Chapman, Mike Williams, Martin Best, Miss J. Walsworth-Bell.

This match provided us with an uneventful and easy win, Bart's filling 1st and 2nd positions in the first race and featuring in an arranged first place tie in the second. Some occasional intervention from the faster Birkbeck boat was soon dealt with by Mike Williams, but otherwise we enjoyed a very pleasant sail on the nicest afternoon for some time.

ROGER CHAPMAN.

SPORTING TYPES



retirement of Mr. and Mrs. L. W. White

Mr. and Mrs. Laurie White retire from the sports ground at Chislehurst in April, 1969 after years of devoted service in the interests of both the students and the Medical College.

The Students' Union is organising a Testimonial for Mr. and Mrs. White and we are hoping that past students who used the facilities at Chislehurst during Mr. White's groundsmanship will make a contribution to the Testimonial and that the response will be sufficient to present them with a substantial monetary sum, as well as a small gift.

Cheques should be made payable to "St. Bartholomew's Hospital Students' Union" and crossed "Testimonial Fund" and should be addressed to the Secretary, The Medical College of St. Bartholomew's Hospital, West Smithfield, London, E.C.1.

It would be appreciated if contributions could be sent as soon as possible and in any event not later than the end of February, 1969.

R.M.P.

LATE NEWS

INDEX

The Journal index for 1968 will (hopefully) appear in the February issue.

DEATH

We are sorry to announce the death of Dr. P. F. Lucas, M.D., F.R.C.P., on 28th Nov. 1968 aged 47 (Barts 41–50).

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DEFINITION OF DEATH

WHAT IS DEATH

by Dr. T. B. Boulton
Consultant Anaesthetist
St. Bartholomew's Hospital

The illustration depicts a ceremony in which the heart of the handsomest and bravest prisoner — The organ regarded as of greatest value — Was sacrificed by the Ancient Mexicans to their God, Tezcatlipoca.
By kind permission of the editor of "Medical News"

"John Brown's body lies a moulding in the grave
But his soul goes marching on."

The recent medical and lay literature on Death, of which the references at the end of this article are but a small sample, is internationally extensive.[1-45]

Current interest in the means of determining "the moment of death" has been provoked by two factors; these are, first, the introduction of artificial means of maintaining respiratory and cardiac function with mechanical devices such as the ventilators and pace-makers and, second, the need for speed in obtaining organs for transplantation before decomposition has started. The latter consideration provokes a natural concern that there may be a potential danger that the care of a prospective organ donor may be jeopardised or his death prematurely anticipated.[1-9]

Man, as a person, can be said to have three constituent parts—the body, the mind and the soul. To committed Christians, as also to the faithful of some other religions, the soul is immortal and indestructible; to them death is

but the end of human existence and the beginning of a new and fuller life. Fortunately for the author this article is concerned chiefly with the cessation of human existence as we know it and not with the complex religious and philosophical aspects of death.[10-14] These problems can be left to others who are better qualified to consider them.*

The present medical controversy, not unnaturally, avoids any consideration of the soul as such and centres round the question of whether a person can be regarded as alive or dead if an artificial circulation is maintained despite the fact that his brain—the somatic seat of the mind—is functionless due to irreversible damage and, further, if he *is* to be considered dead, how can the diagnosis of irreversible cerebral damage be confirmed with absolute certainty?[7,15]

What Kind of Death?

In the current (24th) edition of Dorlands Illustrated Medical Dictionary death is defined as "the *apparent* extinction of life as manifested by the absence of heart-beat and respiration".[16] It is significant that the word *apparent* has been included in the definition only in recent editions; only, in fact, since the development of modern cardiopulmonary resuscitative methods.

In most legal systems at the present time the above definition would be acceptable in law as the basis for an ultimate diagnosis of death even without the word "apparent".[17] It must now be accepted, however, that for some minutes after the cessation of the heart-beat and respiration the process may be reversible or, alternatively, that circulation and hence the body of the patient, including his brain and mind, may be kept alive by mechanical means.

The state of suspended animation where respiration and cardiac action have ceased but the cells are as yet undamaged has been termed *somatic* or *clinical* death.[15,18] It must be accepted that, where a practitioner confirms "death" in such circumstances, he is really only making a confident prediction that irreversible *cellular* or *cytological* death of all tissues will follow. The brain is the most sensitive of all organs to anoxia. It will be irretrievably damaged within four to six minutes of the cessation of the circulation of oxygenated blood through the cerebral vessels. The mind then ceases to be a functioning entity and when this occurs *cerebral death*, in the sense in which has been mentioned above, can be said to have occurred.[15,19,20]

It is not surprising that, from prehistoric times, the heart, that impressive, red, muscular, pulsating mass, has been regarded as the essential organ of life and that the arrest of the heart, *cardiac* death, as absolute evidence of death (figure 1).

The heart was formerly regarded not only as the centre of a system of distributory vessels but also as the seat of the soul and mind and of perception, intelligence and awareness. It is, however, significant that Hippocrates recognised the brain as the central organ of reason, thought, emotion, sensation, terrors and dreams.[17]

Even after the full significance of the brain was recognised the mutual interdependence of respiratory, cardiac and cerebral function meant that a definition of death based on the cessation of respiratory and cardiac function was still generally acceptable medically. The reason was that, until the advent of modern cardiopulmonary resuscitation, arrest of the heart inevitably led to rapid cerebral disintegration.[21] However, a long time prior to the full development of these techniques perceptive individuals had recognised the difficulties in precisely defining death on a cardiac basis.[17,22] Brouardel[23] considered the question comprehensively in the 1890s and referred to the rather grotesque problem of the French technique of judicial decapitation on the guillotine. Superficially it might seem that in this procedure the "moment of death" is more clearly defined than in most other form of sudden death but this is not the case. The heart may continue to beat for periods of up to an hour after execution. It is also recorded that certain "bold experimenters" have been able to obtain mouthed replies to simple questions immediately after the head has been severed from the body.[22] It must be accepted that, for a definitive period after decapitation, both the head and the trunk are very much alive. At the present time death can be confidently certified at the moment of decapitation because degeneration of the brain and then of other organs must inevitably follow but, if the existing methods of perfusion were only slightly improved technically, it would be possible to keep both the head and the trunk alive.

Death is a process not a moment of time as the law believes.[22]

* They might, for example, consider the proposition of the eminent Victorian Dean of King's College Cambridge, who startled his fundamentalist fellow dons from their customary Sunday morning reverie, by suddenly declaiming from the pulpit, "MAN HAS NO SOUL".
Fortunately for the peace of mind of his colleagues the Dean mercifully added, after a suitably dramatic pause, "MAN IS A SOUL".

A New Definition of Death?

The development of modern cardiopulmonary resuscitation means that "Cardiac death", "respiratory death" and "cerebral death" must now be accepted as separate entities. Unless actual physical destruction of the vital organs has occurred, "somatic death" no longer inevitably leads to "cerebral" or "cellular death" if the resuscitation is promptly applied.

Not only is it possible for cardiopulmonary function to be restored despite permanent cerebral damage but conversely cerebral function can be maintained for a period even if neither heart nor lungs are functioning, indeed, if they have been removed from the body.

One fact, however, remains certain—anatomical or pathological destruction of the brain means the destruction of the mind and hence of the individual as a human person having life as we know it." No machine can yet take over the function of the brain as the seat of the mind—heaven forbid that it should ever do so! As a corollary it is obvious that death should never be diagnosed so long as a patient has a mind manifested through a functioning cerebrum. Ever since the introduction of the "iron-lung" in the 'thirties we have become accustomed to paraplegics with viable hearts living productive lives despite being paralysed from the neck down. It needs but a small technological step for efficient mechanical hearts and oxygenators to be developed which are capable of maintaining cerebral circulation in an undamaged brain for years rather than hours as at present.

Because of the mutual interdependence of the brain and the mind there is much pressure to redefine "inevitable" death in terms of "cerebral" death though it must be remembered that "total death" can not be said to have occurred until every last cell in every organ has ceased to possess life.

Halley and Harvey[19] have suggested the definition that, "death is the *irreversible cessation* of *all* of the following:—

1. total *cerebral function*;
2. *spontaneous function* of the *respiratory system*;
3. *spontaneous function* of the *circulatory system.*"

In this definition the words *all* and *irreversible cessation* are important. A patient undergoing open cardiac surgery under profound hypothermia has an arrested heart, arrested respiration, a functionless brain (as manifested by a "flat" electroencephalogram (EEG) and no circulation and yet he is not dead because heart, lungs and brain can be restored to normal after he has been mechanicaly rewarmed.[24]

The qualification *spontaneous* applied to the respiratory and circulatory systems is essential. The inclusion of this word means that, if cerebral function can be shown to have ceased irreversibly, then mechanical support or substitution for the respiratory and circulatory functions can properly be withdrawn.

Simpson[3,4] has pointed out the curious accuracy of the time-honoured Oxford English Dictionary definition of death as "the final cessation of the vital functions."[25] The crucial question is "Can the *final cessation* of all the vital function of an organ or cell be clearly defined as a point in time," and, in particular, "can the irreversible cessation of cerebral function be so defined?"

The Diagnosis of Death

Short and long term mechanical ventilation is now so readily available and so satisfactory that, if a physician, to whom the facility was available, failed to make use of it to preserve the life of a patient, who had respiratory failure without cardiac or cerebral failure and who was not suffering from a fatal disease such as inoperable cancer, he could be said to be guilty of negligence. Respiratory arrest alone is certainly not a sufficient basis for diagnosing inevitable death.

The position is still very different in the case of irreversible cardiac arrest. In the present state of development cardiac by-pass machines are technically not capable of maintaining the circulation for more than a few hours and cardiac transplantation is a rare operation for selected patients. It follows that a patient suffering from irreversible cardiac arrest must, at present, be regarded as irreversibly dead since *inevitable* cerebral death will follow within a few minutes of irreversible cardiac arrest.

In August 1968 the World Medical Assembly issued a statement on death which is now usually called the "Declaration of Sydney".[5,9] This document wisely starts by stating:—

"The determination of the time of death is in most countries the legal responsibility of the physician and should remain so. Usually he will be able without special assistance to decide that a person is dead, employing the classical criteria known to all physicians."

It is important that this point should be emphasised. In the vast majority of cases the

irreversibly arrested heart is clear evidence of easily diagnosed inevitable death and provides a satisfactory if arbitrary "moment of death" for legal purposes. It is only when the physician is faced with possible irreversible cerebral death in the presence of spontaneous or mechanically maintained cardiac and respiratory action that doubts in diagnosis and the complex ethical problems discussed later in this paper arise. It is then that special investigations may prove of value.

Electroencephalography

The "Declaration of Sydney"[6,9] refers briefly to the problem of the diagnosis of death. It states:—

"Clinical interest lies not in the state of preservation of isolated cells but in the fate of the person. Here the point of death of different cells and organs is not so important as the certainty that the process has become irreversible whatever the techniques of resuscitation that may be employed.

This determination will be based on clinical judgement supplemented if necessary by a number of diagnostic aids of which the electroencephalograph is currently most helpful."

It may be concluded from the arguments already expressed that, in doubtful cases, such as the patient who has had cardiac arrest successfully reversed but remains unconscious on mechanical ventilation, that in the future, evidence of "cerebral death" is likely to be the factor on which the diagnosis of "inevitable death" will depend. It might almost amount to malpractice in this present age to rely on continued unresponsive unconsciousness as evidence of irreversible cerebral damage—every physician of experience has his story of the patient, who was given up for lost and for whom all treatment was abandoned, who ultimately revived after many days and left hospital.

It would be equally wrong to believe that lack of electrical activity in the brain (the flat EEG) was necessarily evidence of irrecoverable brain damage. There are a sufficient number of patients known in which flat EEGs have been recorded for long periods but who have ultimately recovered; these include cases of hypothermia, barbiturate poisoning, encephalitis and head injury.[7, 17, 24-28] Poole[29] has emphasised that the duration of the electrical inactivity is of great importance but it is clear that the EEG by itself is not yet an infallible test and must be taken in conjunction with all other available evidence.[7, 15, 30]

Neurophysiologists throughout the world are intensifying their search for more accurate criteria for predicting the outcome of cerebral anoxia and injury. Some experts have already achieved a remarkable accuracy in their predictions both as to the likelihood and ultimate quality of survival.[31-35]

It would, therefore, be dangerously naive for any medical practitioner to believe that "when the waves flatten out, we will know they are dead"[36].

If there be any further doubt we should consider the criteria of cerebral death imposed by the neurophysiologists themselves as defined by Rosoff and Schwab[36, 37]. (1) No hypothermia or anaesthetic drug levels, (2) No reflexes, spontaneous breathing or muscle activity, (3) A flat EEG at gains of 10μV/mm (standard gain) to 5μV through a minimum of 30 minutes or recording (4) No clinical EEG response to noise or pinch (5) repeat 1, 2, 3 and 4 conditions 24 to 72 hours later.

Like all special investigations the EEG can only be considered in relation to the clinical history and the physical signs.

Histological or histobiochemical diagnosis

The quest for a certain diagnosis of death has led to research in the fields of electron microscopy, histochemistry and analytical tissue biochemistry in a search for the fundamental changes of inevitable death.[20, 22, 38]

The Germans use the term "agonochemistry", a science midway between "biochemistry" (the chemistry of the lung) and "thanato chemistry" (the chemistry of death), which studies the changes in the state of "agony"—the stage of inevitable death which precedes total cellular disintegration. Amongst chemical levels studied are catecholamines and histamines.[22]

These studies may reveal important results in the future; at present they must be regarded as purely exploratory.

LEGAL AND ETHICAL PROBLEMS

In the field of Medicine that which is legal may fall short of that which is ethical and that which is ethical and morally justifiable may, on occasions, not be strictly legal.

We have already seen that the law at present lags behind scientific knowledge[14, 17, 19, 20]. The lawyer seeks for a tidy definition of the "moment of death" the physician *knows* that no such sharply defined moment exists. Despite this the cessation of cardiac contraction is usually a satisfactory compromise especially if cardiac death is irreversible. In the present state of the law it is probable that a doctor could not be held to be negligent if he did not

apply cardiac massage in any case of arrest however potentially reversible, yet, on a scientific basis, he is morally bound to massage the heart if he believes that recovery of co-ordinated rhythm without cerebral damage is a possibility and that the patient is otherwise in reasonable health. On the other hand, although it has never been tested in the courts, it is doubtful if any charge could be brought against a practitioner who inflicted damage to a patient (ruptured liver, fractured ribs, etc), by misplaced cardiac massage since legally the individual would be already dead because the heart had stopped.

Premature Certification of Inevitable Death

People often fear the macabre possibility of being buried or entombed alive[3]. The author's grandfather, in company with many of his generation, left ten guineas in his will for "a surgeon to dissect and open a femoral artery" before certification of death as an assurance against being buried alive.

Premature certification with subsequent recovery and survival after the supposed corpse has been placed on the mortuary slab is not unknown even in recent times[3].

If the practitioner examines the body after death he has a legal and moral duty to make absolutely certain that the heart has ceased to beat. It is therefore strange that our legal code does not compel the doctor to see the corpse if he has attended during the 14 days prior to death[39].

Acts of Omission

Since the time of Christ Judaeo-Christian law has taught that it is the duty of the physician to prolong life at all costs[14]. Society has, however, tacitly, if not openly, allowed the physician to exercise some discretion in "allowing a patient who is incurably ill to die" by mercifully withholding maximum possible treatment such as antibiotics or intravenous feeding. Many factors come into such a personal decision on the part of a doctor—age, unconsciousness, pain, the family situation and (in countries other than our own where prolonged hospitalisation for an incurable illness may literally ruin a family) the economic circumstances.[11, 14] It is, however, a sobering thought that in a recent case in Sweden—a country well-known for liberalism—a doctor was found guilty by the Medical Board of omitting treatment by withdrawing intravenous therapy in the case of an unconscious old lady of 80, who was suffering from cerebral haemorrhage; he was, however, subsequently acquitted by a Civil Court.[3, 21, 40]

On the other hand what of the therapy of leukaemia? The decision has often to be faced as to whether it is right to give palliative drugs knowing that, despite remission, the inevitable outcome is death in the present state of knowledge; surely in such cases therapy is nearly always justified for the cure may be discovered during the period of remission[41].

The Special Problems of Resuscitation and Transplantation

Should we ever label a patient "N.T.B.R." ("Not to be resuscitated")? Surely the incurably ill should be allowed to die in peace. Those who doubt this should read the harrowing case reported in a recent letter to the British Medical Journal headed "Not allowed to die" and the subsequent correspondence.[42, 43]

It is, however, unwise to write a formal note such as "N.T.B.R." on the patient's record. Not long ago a conscientious physician, whose only "mistake", if "mistake" it could be called, was to try to codify in writing, for the benefit of his juniors, which patients should, and which patients should not, be resuscitated, was taken to task by certain sections of the lay press[1]. Unfortunately he found himself unsupported by the denials and platitudes of some Health Service Officials and others who should have known better.

The case of the patient, who has suffered apparent cerebral death but has a beating heart and is maintained mechanically on the ventilator, is now the classic example of the modern "doctor's dilemma".[1, 3, 14, 36] From the arguments which have been developed above it can be deduced that the real difficulty is not the issue of turning off the ventilator but the problem of proving that the brain is indeed irrecoverably damaged. If all the criteria which we have described are present, including the consistently "flat" EEG, after a long period the doctor in charge of the case, in consultation with his colleagues, may feel justified in withdrawing treatment with the ventilator. This view had the official backing of Pope Pius XII who declared that a doctor is required to use *"ordinary"* but *"not extraordinary"* means to prolong life[1]. It is important, however, that colleagues should respect the views of the doctor responsible for the case however optimistic they may appear to be. It is on such occasions that the physician in charge of a patient in an Intensive Care Unit may well regard his surgical colleagues, anxious for viable transplantable organs, as "vultures"[44] especially in present circumstances when the problems of tissue rejection are by no means satisfactorily solved[45] and, consequently, the whole problem of the value

and ethics of transplantation of vital organs is being called in question[46]. The more vital the organ—kidney, liver, heart—the greater the urgency and the greater the danger of a mistaken diagnosis of death.

It will be clear by now that the author is satisfied that *cerebral* death is truly *total* death in the sense of the cessation of the mortal existence of the individual as a person, or conversely, as Simpson has suggested, "there is still life so long as a circulation of oxygenated blood is being maintained to live vital (i.e. brain stem) centres"[3]. It follows that if the brain suffered irreparable physical mutilation or if the cessation of cerebral function can be satisfactorily demonstrated it would not be an unethical or illogical act to remove living organs from a decerebrate body in which an oxygenated circulation was being maintained by mechanical aids. The legal position is, however, by no means certain. In the now well-known Newcastle case a kidney was removed from such a patient, and the ventilator subsequently turned off. The case was complicated by the fact that a murder charge was pending against the patient's attacker but, since this was reduced to common assault, no satisfactory legal decision was obtained[3]. In Sweden, in a less complicated case, it was the opinion of the Royal Board that death had actually not occurred until the heart had ceased to beat[21].

Acts of Commission

It may be considered by some but a small step from withholding treatment or turning off the ventilator to "mercy killing" or to what is usually understood as "euthanasia"; and from this again but another small step to selective involuntary euthanasia for people with chronic mental illness or on ethnic grounds, as was the case in Nazi Germany.

The concept of euthanasia, voluntary or otherwise, as a legalised act is obnoxious to the author and many other people. It is, however, the duty of the physician to comfort and ease the passing of the patient facing inevitable death and this may include the liberal use of narcotics to alleviate intractable pain. Wasserman[11] has pointed out that the literal meaning of "euthanasia" is "death without suffering". Surely this is a laudable objective.

Testamentary Problems

The definition of an exact 'moment of death" may be of great legal importance. Most if not all legal systems continue to recognise the irreversible cessation of cardiac action rather than the instant of cerebral death even if this is clearly defined as in brain injury in a motor accident.[3, 19]

CONCLUSION AND SUMMARY

This paper has been confined to the concept of death as the inevitable end of human existence. The theological aspects with particular reference to the immortal soul have not, therefore, been considered.

It is true at present that, in most cases, the irreversible cessation of cardiac action is still a reasonable moment at which to declare life extinct for legal purposes but, in view of modern methods of resuscitation, a concept such as, "Death is defined as the disappearance of every sign of life" (United Nations Vital Statistics), is no longer really acceptable[47] and a new definition based on "cerebral death" is desirable.

The present difficulties in diagnosing cerebral death have been discussed and special reference has been made to the ethical and legal problems arising from transplant surgery. Dare the author hope that the development of mechanical organs, (particularly mechanical hearts), and of cross transplantation from animals, will reduce the need for transplants from humans in the future and thus obviate many of the problems involved?

Birth and death have much in common. Both are inevitable and essential to life as we know it; both may be sudden and premature and both may be tranquil and painless or distressing and painful. The good physician must attend at both with humility and assist his patients with compassion in every way that lies in his power[11].

"Doctor, Doctor, will I die?"
"Yes my child and so will I!"

Acknowledgements

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THE ELECTROENCEPHALOGRAPHIC PREDICTION OF DEATH

by Dr. Binnie
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The development of techniques for maintaining life after vital organs have failed has drawn attention to the difficulties which have always attended the pronouncement of death. Once dissolution of tissues is manifest it is clear that life has irreversibly ceased; until this stage is reached, however, the so-called diagnosis of death can be no more than a confident prediction that cellular death and putrefaction will shortly occur. The signs on which such a prediction may be based are clearly set out in textbooks of forensic medicine. They depend upon the apparent cessation of cardio-respiratory function for a standard period of time and

have rightly been considered extremely reliable. However, where facilities are available for artificially maintaining perfusion of the body with oxygenated blood, the traditional criteria cease to apply. The cessation of cardiac action no longer leads to the inescapable conclusion that cellular death must follow, but the possibility now arises, all too readily, of keeping alive the greater part of the body's tissues without restoring any signs of consciousness. A definition of death which causes an artificially supported decerebrate preparation to be classified as living, presents intolerable ethical and administrative problems to a profession committed to the preservation of life. The concept of 'cerebral death' offers a possible solution which, although open to legal and to theological objections, appears ethically acceptable to most of those concerned with cardio-respiratory resuscitation. It is assumed that mental life is dependent upon the cerebrum and that, if cerebral destruction can be established, the individual personality has ceased to exist.

It could be argued that the only reliable methods of demonstrating cerebral death would be by brain biopsy or possibly by neuroradiology. However, such measures are not generally employed, as it is believed that destruction of the brain can be confidently inferred if evidence of cerebral function is absent for an adequate period. Neurological examination of patients in terminal coma is unhelpful, and electroencephalography has proved to be the most sensitive means of assessing cerebral activity during profound unconsciousness.

It has been shown, not surprisingly perhaps, that following death as traditionally defined no EEG can be recorded. Some workers have inserted electrodes into the brain and have demonstrated that not only the cortex but also the deep structures are electrically silent. Similarly, it has been shown that during temporary circulatory arrest the EEG disappears within about 15 seconds of cessation of cerebral perfusion and remains absent for a period determined by the duration of cerebral anoxia. However, no answer is yet available to the crucial question, 'What is the probability of cerebral death after the EEG has been unrecordable for any given period?' Our ignorance of this matter may appear incredible but there are considerable obstacles to performing the relevant research. Before artificial aids to survival were devised, the opportunity rarely arose to study the EEG following acute cerebral anoxia of more than a few seconds duration, as cardiac arrest was usually fatal. None the less, once facilities for resuscitation became available there was a legitimate clinical demand for EEG evidence, even of uncertain value, concerning the state of the brain. The EEG information, once obtained, cannot properly be withheld and must inevitably influence to greater or lesser degree the management of any comatose patient who is being kept alive by artificial means. A statement that the EEG has been unrecordable for a considerable period can hardly fail to influence the decision to withdraw supportive treatment, even if the considerations leading to this action are mainly clinical. Although there is an extensive literature concerning the EEG after cardio-respiratory resuscitation, this writer knows of no substantial series in which all but the simplest treatment was not usually abandoned within a few days of the EEG becoming flat. Thus in many centres the electroencephalographic prediction of death has become self-validating, for once a patient's EEG has been unrecordable for 20 minutes he is not uncommonly denied the means to possible survival.

There is no doubt that prolonged absence of the EEG is an extremely adverse sign, and the longer electrical activity is absent the more likely is cerebral death to occur. However, the reliability of such criteria as the much-quoted 20 minutes electrical silence is unknown. It is not established whether a patient whose EEG has been absent for such a time faces almost certain cerebral death, or has, for instance, a five per cent. chance of survival. The fact that such arbitrary and untested criteria have been widely publicized as reliable may be considered deplorable, for not only are they unproven but there are already some grounds for supposing that they are not entirely trustworthy. Under certain circumstances prolonged absence of the EEG is compatible with survival of the brain, at least in part. Spontaneous respiration and cardio-vascular reflexes may persist for days, or indeed for months, while the patient remains inert and the EEG unrecordable. In such instances, the assumption that the cerebral hemispheres have been totally destroyed appears to be unwarranted in the present state of knowledge, and in any event there is no means of proving that the subjective experience of consciousness (as distinct from its outward manifestations) depends upon the cerebrum. Disappearance of the EEG for a considerable period may also be reversible when associated with profound hypothermia or massive intoxication, particularly with barbiturates. It is on record that one patient whose EEG was undetectable for 22 hours following a drug overdose subsequently displayed an intelligence quotient of 122.

Despite the uncertainties surrounding the use of electroencephalography for the pronouncement of death, greater progress has been made towards the solution of a related problem, namely predicting the outcome of cardio-respiratory resuscitation while the signs of life are still present and there is yet hope of survival. Schwab, Hockaday and their co-workers in Boston proposed a classification of the EEG following cardiac or respiratory arrest into five grades. A record classified as Grade I or Grade II implied a chance of about 60 per cent. of survival; if the tracing was placed in Grade V there was a very high probability of death. This system has been improved and refined by Prior and Volavka at the London Hospital and, more recently, Pampiglione at Great Ormond Street has shown that a somewhat similar classification can be applied to children.

Such preliminary work was essential and has yielded valuable information about an urgent clinical problem, but falls far short of providing an adequate solution. There are inevitably some uncertainties about the validity of the results, on account of the possible influence of the EEG findings on treatment, and because it is often difficult to establish whether death was caused by brain damage or by extra-cerebral factors, for instance by the extension of a myocardial infarct. The matter which most concerns the clinician is that the level of reliability so far demonstrated is simply not acceptable. Resuscitation can clearly not be abandoned on the basis of predictions which may be incorrect one time out of five. There is a further difficulty for the electroencephalographer that, to judge by the material seen at St. Bartholomew's Hospital, between 20 and 50 per cent. of records are unclassifiable by the various sets of criteria which have been published.

It may be that predictions about the quality of survival will eventually be considered as important as those concerning death. Meanwhile, however, those who are asked to provide EEG information, by someone who has to decide whether or not to turn off a respirator or to allow a presumptively dead body to provide material for transplant surgery, know full well that their opinions may play a large part in his decision. It must indeed be admitted that EEG evidence should play a large part because the other available criteria are no less fallible. At present the most useful contribution of the electroencephalographer may be to encourage those responsible for intensive care to continue their efforts whenever the EEG suggests a more favourable prognosis than do other clinical signs. Such action may occasionally be life-saving.

Granted that EEG information of unknown value is already being used, those who provide it are forced to consider the ethics of their own position. Two conclusions seem to follow. Firstly, it must be ensured that no person is denied the means of survival because of any misunderstanding about the reliability of the EEG predictions. Secondly, research must be urgently undertaken to establish EEG criteria of high and known reliability.

The Department of Clinical Neurophysiology at Bart's, in collaboration with Prior and her co-workers at the London Hospital, have therefore begun a preliminary investigation of the EEG following cardiac arrest. It seemed advisable to ignore the earlier classifications which appear to include only a small, rather arbitrarily selected part of the available EEG information. An attempt has been made, therefore, to make a fairly detailed and comprehensive morphological description of each tracing, the results being in a form suitable for processing in a computer. The data are now being subjected to a statistical analysis, which is not yet complete, but which has already indicated methods of classifying the EEGs in such a way as to make greater use of the available EEG information and to discriminate between death and survival of the brain with a reliability of the order of 95 per cent. Work is now being carried out on a computer program to state the statistical probability of death in any given patient. If successful, this may help to increase the objectivity of the decision whether or not to continue supportive therapy. Whether it will lighten the burden of those whose responsibility it is to make such decisions is debatable, for the knowledge that the chances of survival are, for instance, 1 in 1,000 renders it no easier to deny a patient that small chance.

It should be emphasized that this work is no more than a pilot study, intended to explore a possible route for future advance. Predictions of acceptable reliability are unlikely to be possible until a detailed formal research project has been conducted, involving a large number of patients who have required resuscitation for a variety of reasons. Meticulous clinical studies will be necessary so that all observations which might influence the interpretation of the EEGs can be recorded, and in order to document fully the mode of death in those that succumb and

the quality of survival in those who live. Neuropathological investigation will be essential to determine the extent of brain damage and to distinguish cerebral and non-cerebral causes of death.

The ethical demands created by cardio-respiratory resuscitation are numerous. One such is the obligation upon those who work in this field to ensure that somewhere the necessary research be carried out to provide a reliable basis for predicting outcome and for recognizing cerebral death when it has occurred.

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who killed cock robin

by Dr. David M. Paul. M.R.C.S. L.R.C.P., D.R.B.O.G., D.A., D.M.J. (Clin).

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Death has been defined as the *FINAL cessation of vital functions*, and this definition must be held to be correct when one refers to Somatic Death. This indicates the death of the individual; Clinical Death associated with the extinction of the personality.

It is obviously difficult to relate this same definition to Molecular or Cellular Death which occurs at some time after Somatic Death, and at a time interval which varies from tissue to tissue.

The fear of being buried alive has always been present in the mind of Homo Sapiens. It is possible that the embalming rites of the ancient civilisations were introduced partly as an insurance against such a fate, for the very extensive preparation for embalming made it quite impossible for the individual to remain alive up to the moment of burial. This fear persists to the present day, and in my clinical practice I have had several elderly patients who have included in their wills the instruction that the attending physician must open a vein in their bodies after he has certified the fact of death.

Allied to the patients fear of being buried alive, is the twin fear which besets every newly qualified medical practitioner; that he will certify as dead some unfortunate who has not yet quit this world. I feel sure that there are very few of us who have not crept back to the bedside sometime after giving our opinion, to put our own minds at rest by having another quick listen to the absent heart sounds. There are indeed several recorded cases of "dead" patients coming to life on the cold slabs of Public Mortuaries, such a manifestation often causing a very dangerous degree of collapse in the Mortuary attendant or Police Officer present.

When I qualified, not all that many years ago, we were taught that if careful auscultation of the chest revealed absent breath and heart sounds over a period of ten minutes or so, the patient was dead. The extra careful could use an opthalmoscope and observe the cessation of movement of cells in the retinal vessels or even the formation of rouleaux in the vessels, which would confirm the diagnosis of death. Even more sophisticated was the use of a three lead electrocardiogram, when the absence of a tracing confirmed the fact of cessation of circulation and therefore the fact of death.

Unfortunately, from the point of view of such simplicity, modern anaesthetic and surgical techniques, using hypothermia and drugs to slow down metabolism, now enable the heart to be stopped, and all respiration to cease, for time intervals well in excess of ten mniutes. These processes are reversible so that at the end of a surgical procedure the heart and respiration can be restarted by electrical stimulation, the patient's body temperature be gradually raised to normal, and lo! the Dead live Again. Thus the cessation of heartbeat and respiration cannot be taken as the final evidence of the fact of Death.

Because the presence or absence of heartbeat could no longer be held to be in final diagnostic criterion of death, attention was directed to the Electroencephalograph as an indication of brain activity, and it was held that complete absence of brain activity as revealed by this machine must indicate the fact of death, even if there was heartbeat present, and that in these circumstances, whether the heart was beating spontaneously or in response to artificial stimulation, the patient's body was behaving only as a Physiological preparation. This would have been a most valuable diagnostic aid in ascertaining the moment of death, but unfortunately, there have now been some cases reported from America where spontaneous recovery has followed long periods of complete absence of brain activity as shown by a flat Electroencephalograph tracing.

Despite their complications, the average doctor in Clinical practice will still have to certify the fact of death by the clinical signs he observes: namely the absence of heart and breath sounds, the cessation of circulation in the retinal vessels with the formation of rouleaux, and careful observance of these diagnostic signs will be sufficient.

The Medico-Legal problems that now arise out of the recognition of death, are caused

directly by the major advances in the techniques of maintaining adequate circulation and oxygenation of tissues by artificial means. It is this series of problems that brings me back to the title of this article.

"Who killed Cock Robin?
I said the sparrow, with my bow and arrow,
I killed Cock Robin.
Who killed Cock Robin?
Who saw him die?
I said the fly, with my little eye,
I saw him die."

The advances in the artificial means of maintaining adequate circulation, mean that the medical profession can now postpone almost indefinitely the "FINAL cessation of vital functions" that has been accepted as the definition of Somatic Death. This postponement has opened up the field of human organ transplants to include the possible use of such organs as the heart, heart-lung preparations, and the liver. These organs were not possible subjects for transplatation before, as the rate of Molecular damage and death following the cessation of the circulation was such that the organs would have suffered too much damage to have been of any use to a recipient.

This was not the case in kidneys, which could be removed some appreciable time after cessation of circulation, and by perfusion techniques could be kept viable until connected to the recipient circulation. Corneas also presented no great difficulty as they too remained viable for a considerable time after death.

To allow the maximum chances of success in heart, heart-lung, and liver transplants, the donor organs must be removed whilst an adequate circulation is still being maintained until the very moment of removal from the donor body. Add to this the fact that survival is possible if one kidney is removed from a living subject, but there are no reported cases of prolonged survival following the removal of heart or liver, and the details of the Medico-legal problem becomes clear.

If one accepts the definition of death as already quoted, then it becomes apparent that the patient is "Alive" at the time of the removal of his heart, in so much as the heart is still contracting up until that moment.

In actual practice in these cases the diagnosis of Somatic Death is made by an independant clinician, independent that is of the transplant team, on the grounds of very severe brain damage associated with absence of brain activity, and the inability to maintain spontaneously cardiac and respiratory activity. Thus if the artificial means of maintaining the circulation and oxygenation are turned off and the patient cannot maintain the vital functions, the fact of death can be certified. Once this certificate has been given, the artificial aids to circulation and respiration can be started again, and the patient preserved as a Physiological Preparation, moved in that state from one Hospital to another if need be, and maintained in that state until the recipient is on the table and ready to receive his or her "spare part."

In fact, to accept this situation, the definition of Somatic Death has to be interpreted as "the FINAL cessation of SPONTANEOUS vital functions". As we all know from clinical experience this state occurs in many conditions from which ultimate recovery is possible with the aid of artificial means of maintaining these functions for some considerable time, therefore, this alteration of the definition does not really give a foolproof answer. This sort of situation is found in many cases of electrocution, of drug overdose, of cardiac arrest following coronary artery occlusion, or following anaesthetic mishap, and if the modified definition is accepted, then patients with these conditions are dead; should be so certified as such, and no attempt should be made to resuscitate them.

At what stage, and under what circumstances is it right for a Physician to decide that his patients future is without hope?

A further complication is that patients with very severe head injuries must always be the victims of trauma, and their subsequent death falls within the jurisdiction of the Coroner in whose area the death was certified. This Law Officer has to investigate the circumstances surrounding the death, and his investigation is often the starting point of further criminal or civil actions. The road casualty may well have received his injuries as the result of a dangerous piece of driving by another; The bricklayer may well have fallen from the top floor of St. Bartholomew's Hospital because of the gross negligence of the firm who employs him. These facts cannot be known for some time after the injuries have occurred, often several weeks of investigation may be needed, with special tests for metal fatigue, etc. In the subsequent legal proceedings it could well be argued that whilst the injuries may have been due to negligent or illegal behaviour, the subsequent death was caused by a Novus Actus Interveniens between the injury and the death; This Novus Actus being the removal of the heart/liver which were uninjured in the original accident, and the switching off of the artificial aids that were supporting vital functions.

In Newcastle in 1963 a young man sustained serious injuries in a criminal assault. Approval was sought of his Wife and of the Coroner, and with this approval a kidney was removed for transplantation. The man had been kept alive on a respirator for twenty-four hours, and after the removal of the kidney this machine was stopped. A subsequent charge of manslaughter against the assailant was successfully defended on the grounds that the irretrievable death had only occurred when the respirator was switched off after the removal of the kidney and that it was this act and not the original assault that was responsible for the death.

This legal argument will I am quite sure be heard more often in the near future if transplant surgery is going to continue without an agreed and new definition of death, and such argument would be very difficult to counter. It may even be that some surgeon or anaesthetist will be charged upon a Coroner's Warrant of Committal with the crime of Murder as the result of such a case.

The question still remains

"Who did kill Cock Robin?
The Sparrow or the Fly."

the value of death

by Rev. R. A. Arnold
Chaplain
St. Bartholomew's Hospital

A situation to which in medical practice very little attention appears to be paid is the interior condition of a patient within a few weeks or even days of death. The attitude of the whole personality of the patient towards death is liable to be ignored.

A few years ago an eminent Physician stated that it was desirable to distinguish between curing the patient and prolonging the act of dying: he might have added that, when recovery short of a miracle is out of the question, the patient should be helped towards his re-birth in the next world. It is up to the priest and doctor to "deliver" the patient to God in as healthy a condition of soul as possible in the circumstances. The obstetrics of death have been perhaps less well practised in the Church of England than they have been in the Church of Rome. The attitude of the average patient towards death is either that of fear or of indifference mixed with fatalism; interest in a new experience; and even more, joy at the anticipation of a wider and deeper life are conspicuous by their absence. The result is that those attending the patient fear to say that death is approaching on account of the ensuing shock, anxiety and depression. Instead a conspiracy of silence is kept up, and the patient is "led up the garden" of probable recovery.

There are two major values to be preserved:—

The value of life and of the physician as the servant of life.

The value of death and of the propriety of every person's desiring to consumate his life on this earth in what the old prayer called "a perfect end".

I wish to stress the value of death for in a culture in which Christianity has played so formative a part we should not neglect this dimension.

One of the benefactors of the University of Cambridge endowed an annual sermon, instructing the preacher to "exhort his hearers to the daily preparation of death and not to fear death otherwise than scripture doth allow". This sermon is still delivered but is it intended to be taken seriously today? Can any intelligent person nowadays seriously be expected to make a deliberate daily act of preparation for death. Is such a thing right or indeed *possible*, in any other than the most general sense of preparing for death by leading a good life? Does even the Church believe otherwise, and if so, how many clergymen nowadays teach their flocks what until not so very long ago was a recognised ingredient of established Christian piety?

Death's terrors no more seem to appal us, not, however, for most of us because Jesus lives and has overcome them, but because somehow the conditions of modern life have hardened us to them and induced a widespread casualness or cynicism about death, which is probably more apparent than real. If you study the Book of Common Prayer or read the 17th Century divines, such writers as Jeremy Taylor and John Donne, you realise that for them death was an art, the greatest of all arts, with rules and exercises, one might almost say a technique to be acquired through a lifetime of diligent study and practice, so that by the time the practitioner was ready to depart this life, he had acquired a facility in his part as a dying man and would perform in the death bed scene or on the scaffold with a good grace and cheerful assignation. To speak of it in these terms is to suggest that it was not wholly devoid of an element, or at least a risk of som degree of self consciousness and artificiality, but it was a noble idea and found some noble exemplars.

I would, therefore, plead for a restoration of the natural dignity which surrounds death—there is a point where a person should be allowed to die in peace. Writing in the *New Scientist* in January 1967 Sir George Pickering, Reguis Professor of Medicine at Oxford said "when my time has come to die by natural causes I hope I shall be allowed to do so".

Some three years ago the Anglican Church through the Church Assembly Board for Social Responsibility set up a small committee of philosophers, physicians and theologians to discuss the ethical problems raised by new medical techniques for resuscitation and for keeping people alive. Their report is called "Decisions about life and Death—A problem in Modern Medicine" where the issues are defined clearly; perhaps I may quote the first paragraph:—

"Vex not his ghost: O, let him pass; he hates him
That would upon the rack of this tough world
Stretch him out longer.
King Lear, v. iii

"We do not respect life the less for recognising the boon of death. There comes a moment, life being what it is, when it is good to die: and therefore good also to allow the other to go unvexed to death. But when is that moment? How is it recognised when it comes? Lear knew, with all the certainty of madness:—

"I know when one is dead and when one lives;
She's dead as earth—Lend me a looking glass;
If that her breath will mist or stain the stone,
But Cordelia was dead"

The remainder of this paper is a summary of the report.

The question is a particular application of a general *ethical question* on the right use of knowledge and its concommitant gift of power. The doctor and nurse are dedicated primarily to the health of the body and preservation of life—with the resources that modern science and technology give them for attaining these ends—how far are they bound to go in the use of these resources? At what moment, if any, may they give up and strive no further? At what point may the patient be allowed to die, at what point, in fact, can he be pronounced dead?

What are the ingredients of decision? Some derive obviously from the condition of the patient, age and general condition, nature of disease, availability of cure or relief, his own *wishes* and *belief* (if these are known). Some derive from consideration of his immediate family—from the just interest of society, certain beliefs about or attitude towards the value of life. Some derive from code of ethics which governs professional life of doctors and nurses; this is often the co-ordinating factor—a professional code does guide the practitioner in assessing conflicting claims and making his decision. But the problem here is that the code does not clearly prescribe specific action to be taken. The main assumption underlyin medical ethicts is that *life is good*. Universally it is: even the most wretched cling to it and do not want to die. The will to live is instinctive.

Christian insight is built on to the instinctive basis, the belief that life is also a gift of God to be received thankfully, and so to be held on trust until taken away. Suicide in this tradition, is held to be a violation of that trust, but where Christian insight is deepest, death itself, when it comes, has an element in it of a voluntary surrender. Jesus himself "yielded up the Ghost". "Father into thy hands I commend my spirit". There may come a point at which a patient, possessing this insight or carried within this tradition, would count it wrong if the general prescription that the physician is the servant of life, obliged his own physician to strive by every means to keep him alive. It might, therefore, have to be granted that some patients' trust in their doctors might be strengthened, not diminished, by the belief that their life would not be gratuitously prolonged in circumstances where it would be better for them and for everyone else that they should be allowed to die. I remember a gracious old lady of 92, educated and lucid, whom pain and exhaustion had wearied, saying to me "Why doesn't God let me die?" on each occasion I visited her. With medical assistance she recovered from a heart attack. A number of patients in similar circumstances have said the same thing. The doctor cannot be bound to keep every patient alive, either when the patient in the maturity of his judgement would declare that it was good for him to die, or in those rare cases where to be kept alive might, in fact, be a great wrong, i.e. incurably unconscious patients.

Of course, there are many different arguments beginning from different pre-suppositions. Each method has its own critics yet in practice they are found to lead to similar conclusions, to an agreement, that in a given case medical treatment should extend so far and no further. There is the utilitarian argument and the more

traditional argument. The basis of medical practice for the Christian seems to be that since God loves us he wishes us to promote the good one of another. It may be that promoting good of one harms the interest of another. In some cases survival is judged by the over riding interest but in some survival is not the over-riding interest of the patient. Other interests of a patient (relief from pain and suffering) or of other parties concerned, may, in sum, weigh more than in the interests of the patient surviving. So in principle there is no objection to letting the patient die. If God be the moral being we believe him to be he would in certain cases wish it. The problem is to decide which cases in which it is permissible to let the patient die. It is not sufficient to say "consider the individual case after weighing the interests of the parties concerned and decide what is for the best". Most relatives and families of a patient weight the scales in their own favour. The traditional Christian approach to the problem would be on these lines: look at the commands of God and to the moral wisdom which the Church, as the body of Christ, interpreting these commandments in the light of long experience, has accumulated. The command "Thou shall do no murder" though of different character and needing to be approached in a different way, has the same authority as "thou shalt love thy neighbour as thyself"; but "thou shalt do no murder" does not entail "thou shalt always preserve life". It is sometimes justifiable to risk life in pursuit of restoration to normal function. On the other hand in cases where remedial means have been abandoned because there is no hope of restoring even minimal function, it is, at least, open to question whether there is an obligation actively to pursue the mere preservation of life. Compassion suggests that in some cases it is better to let the patient die without delay. The use of mechanical means of artificial restoration is presumably to win time for restoration measures to take effect. If after a fair trial it is evident that the patient can never be restored to functioning "under his own steam" it has surely failed in its purpose. The patient is being kept in a condition of artificial arrested death rather than life. In principle, therefore, it is permissible to withdraw the apparatus. Some would say that withdrawal would never be proper unless keeping the patient alive would involve intolerable burdens, either on the patient himself or others.

There are many questions involved. e.g. it is easier to ask than answer the question, is the patient alive or dead?

There are an increasing number of borderline cases in which neither word can carry either precision or clarity.

Is this life any longer a human life? Is he in human relationship with others? The distinguished contributors to this report suggest that the central affirmation of the Christian faith is that Jesus died and is alive for ever more. The Christian places an absolute value on life, though not on life in this world. He values death, therefore, as a necessary gateway through which men must pass into life; must move on towards the fulfillment of God's purpose for them in the vision and fruition of himself. They must, therefore, be prepared for death. Disce mori—teach us to die—that is one of the functions of the Priest in Hospital

In its attempt to preach a relevant gospel, the Church has perhaps neglected this other worldly element in its teaching and in its pastoral care of people. Death is relevant to all men and as relevant to life as life is to death.

diagnostic quiz

by Ronald Knight

answers on Page 71

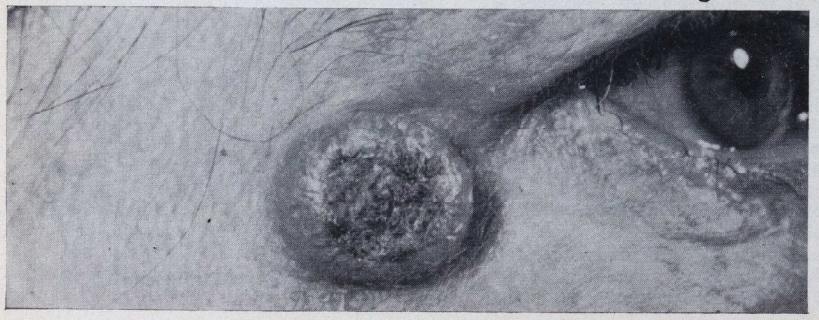

Fig. 1

Fig. 2

Fig. 3

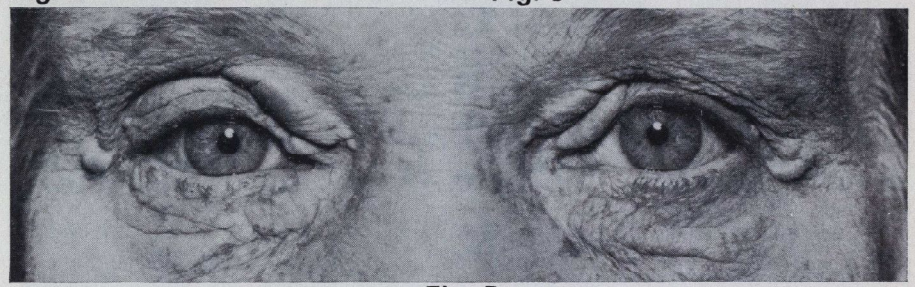

Fig. 5

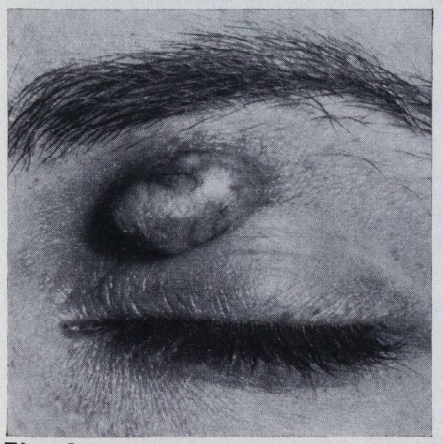

Fig. 4

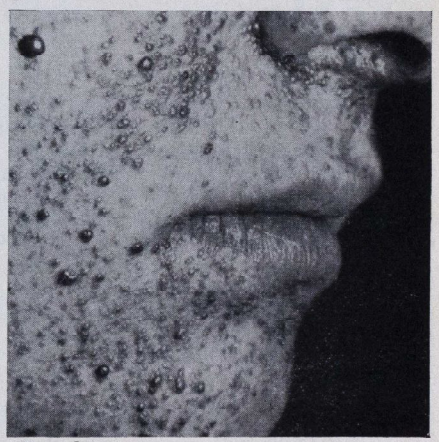

Fig. 6

HOUSE APPOINTMENTS 1969

Consultant Staff	House Officers	Wards	
		Male	*Female*
Sir Ronald Bodley Scott	Mr. D. E. Macfarlane		
Dr. W. E. Gibb	Mr. J. A. Russell	Harvey	Luke
Dr. G. W. Hayward	Miss J. A. W. Webb		
Dr. H. Wykeham Balme	Mr. C. L. Gauci	Smithfield	Mary
Dr. K. O. Black	Mr. G. D. Bell		
Dr. A. M. Dawson	Mr. P. E. Belchetz	Rahere	Colston
Dr. N. C. Oswald	Mr. G. M. Danovitch		
Dr. G. Hamilton Fairley	Mr. M. O. Savage	Dalziel	Annie Zunz
Professor E. F. Scowen	Mr. J. Gawler		
Dr. A. G. Spencer	Mr. D. Jefferson	Stanmore	Garrod
Mr. A. H. Hunt	Mr. T. P. Dudeney		
Mr. Ian P. Todd	Mr. B. G. H. Lamberty	Fleet Street	Harmsworth
Mr. E. G. Tuckwell	Mr. J. D. Barber		
Mr. M. A. Birnstingl	Mr. J. Bostock	Ress Mogg	Paget
Mr. D. F. Ellison Nash	Mr. F. P. Buckley		
Mr. J. D. Griffiths	Mr. R. D. Winter	Waring	Abernethy
Mr. J. O. Robinson	Mr. D. J. Wright		
Mr. H. B. Ross	Mr. I. B. M. Stephen	Bowlby	Heath Harrison
Professor G. W. Taylor	Mr. C. S. Garrard		
Mr. I. McColl	Mr. J. P. D. Reckless	Percivall Pott	Lawrence
Dr. K. O. Black	Mr. S. A. Rousseau	Casualty House Physician	
Mr. James O. Robinson	Mr. D. A. O'Kane	Casualty House Surgeon	
Department of Child Health			
Dr. A. W. Franklin	Miss A. M. W. Greig		Lucas
Dr. P. J. N. Cox	Mrs. J. F. Frears		Kenton
Ear, Nose and Throat Department			
Mr. J. W. Cope	Mr. P. A. Ashby		Henry Butlin
Mr. R. F. McNab Jones	Mr. J. G. D. Baker		
Mr. A. P. Fuller			
Mr. L. N. Dowie			
Eye Department			
Mr. J. H. Dobree	Mr. A. A. Brown		Radcliffe
Mr. M. A. Bedford	Mr. M. Spira		
Department of Obstetrics and Gynaecology			
Mr. D. B. Fraser	Mr. J. E. B. Foulkes		(O) Martha
Mr. J. Howkins	Mr. J. S. Pembrey		(O) Elizabeth
Mr. Gordon L. Bourne	Miss E. M. Webb		(G) Sandhurst
Mr. David Williams	Mr. T. Wheeler		(G) Pitcairn
			(G) Harley
Dental Department			
Mr. J. D. Cambrook	Mr. H. R. Read	Fleet Street	Harmsworth
Mr. T. T. Schofield			
Mr. F. R. Coffin			
Mr. B. D. Markwell			
Orthopaedic Department			
Mr. J. N. Aston	Mr. G. J. Benke	James Gibbs	Hogarth
Mr. C. W. S. F. Manning	Mr. M. J. Simmons		Henry
Mr. A. W. F. Lettin	Mr. R. H. Soper		

Department of Thoracic Surgery			
Mr. O. S. Tubbs	Mr. V. K. Mathur		Vicary
Mr. I. M. Hill	Mr. J. Pemberton		
Department of Neurological Surgery			
Mr. J. E. A. O'Connell	Mr. G. H. Mumford		W. G. Grace
Mr. R. Campbell Connolly	Miss B. Ashworth		
Skin Department and Special Treatment Centre			
Dr. P. F. Borrie	Mr. R. Miller	Smithfield	Mary
Dr. D. D. Munro			
Dr. C. S. Nicol		Rahere	Colston
Departments of Neurology and Psychological Medicine			
Dr. J. W. Aldren Turner	Mr. W. H. Goss	Stanmore	Garrod
		Harvey	Luke
			Radcliffe
Professor W. L. Linford Rees		Dalziel	Annie Zunz
Dr. C. M. B. Pare			
Department of Urology			
Mr. J. E. A. Wickham	Mr. D. L. P. Rees	Bowlby	Heath Harrison
Mr. C. A. C. Charlton		Waring	Abernethy

ANNOUNCEMENTS

Engagement

Bateman—Woods—The engagement is announced between Dr. Anthony Malcolm Bateman and Dr. Patricia Jane Woods.

Napier—Bowen—The engagement is announced between Mr. Richard Malcolm Napier and Dr. Janet Elizabeth Bowen.

Births

Edmundson—On November 15, to Sarah (neé Craig), wife of Dr. William Edmundson, a son (Guy Lawrie Stuart).

Haeri—On December 10, at Bart's, to Rosalind (neé Bridgens) and Tony Haeri, a daughter (Amanda Imogen), sister for Philippa and Sarah.

Knox—On October 5, to Susan (neé Williams) and Andrew Knox, a daughter, Clare Elizabeth Joan), sister for Sally.

Deaths

Hayes—On November 13, Dr. Donald Samuel Hayes, M.R.C.S., L.R.C.P., aged 65. Qualified 1932.

Howat—On November 25, Dr. Ian Howat, M.B., B.S, in a plane crash, aged 33. Qualified 1964.

Kynaston—On October 3, Dr. A. H. Kynaston, M.R.C.S., L.R.C.P., D.P.H., aged 76, Qualified 1924.

Lucas—On November 28, Dr. Peter Ferrers Lucas, M.D., F.R.C.P., M., M.R.C.S., aged 47, Qualified 1944.

Protheroe—On November 22, Dr. Benjamin Arthur Protheroe, LL.B., M.R.C.S., L.R.C.P., aged 52, Qualified 1946.

Richardson—On November 3, Dr. Oswald Richardson, M.R.C.S., L.R.C.P., aged 75, Qualified 1926.

Rose On August 18, Dr. D. J. Rose, M.R.C.S., L.C.R.P., aged 71. Qualified 1923.

Stone—On November 12, Dr. Gerald William Stone, M.R.C.S., L.R.C.P., aged 94. Qualified 1902.

von Braun—On November 29, Carl Rudolf Baltzar von Braun, M.R.C.S. L.R.C.P., aged 86. Qualified 1912.

Awards

Royal College of Surgeons of England

At the meeting of Council held on October 10, 1968, Diplomas of Fellowship in the Faculty of Anaesthetists were granted to the following Bart's men:—

DIAMOND, John Gerard

PADFIELD, Adrian.

PERRISS, Brian William.

The HALLETT PRIZE was awarded to J. W. Wilkinson of St. Bartholomew's Hospital Medical College.

Appointments

University of Leeds

Dr. Peter Kunkler, M.D., M.R.C.P., F.F.R., has been appointed to the newly created chair of radiotherapy.

East Anglican Regional Board

D. W. Bethune, M.B., F.F.A.R.C.S., has been appointed consultant anaesthetist to the Papworth and Huntingdon County Hospitals.

Royal National Orthopaedic Hospital

Dr. F. J. C. Millard has been appointed consultant physician at the country branch of the Royal National Orthopaedic Hospital, Stanmore.

University of Oxford

The degree of D.M. has been conferred on Dr. J. T. Silverstone.

Change of Address

The new address of Dr. and Mrs. Kenneth Hartley is "Hayes Meadow", Sarsens Close, Cobham, Gravesend, Kent.

Dr. and Mrs. Ronald Knight's new address is "Winchmore", 53 Worthing Road, Horsham. Telephone Horsham 62423.

Barbara and Derrick Morgan now live at Kintore, 20 Longfield Drive, Amersham, Bucks.

Notice of Retirement Mr. and Mrs. L. W. White

Mr. and Mrs. Laurie White retire from the sports ground at Chislehurst in April, 1969 after years of devoted service in the interests of both the students and the Medical College.

The Students' Union is organising a Testimonial for Mr. and Mrs. White and we are hoping that past students who used the facilities at Chislehurst during Mr. White's groundsmanship will make a contribution to the Testimonial and that the response will be sufficient to present them with a substantial monetary sum, as well as a small gift.

Cheques should be made payable to "St. Bartholomew's Hospital Students' Union" and crossed "Testimonial Fund" and should be addressed to the Secretary, The Medical College of St. Bartholomew's Hospital, West Smithfield, London, E.C.1.

It would be appreciated if contributions could be sent as soon as possible and in any event not later than the end of February, 1969.

R.M.P.

pancreatitis- a complicated case with fatal outcome

by R. C. N. Williamson

The mortality of acute pancreatitis varies between 10-30% in most series. Death is usually due to profound shock during the acute stage of the disease; less commonly it occurs at a later stage as a result of complications, such as cyst or abscess formation, and their sequelae. The following case of pancreatitis, which exhibits most of the complications of the disease proceeded inexorably towards the death of the patient five months after the onset of the acute attack.

CASE REPORT

FIRST ADMISSION

History: W.L., a 57-year-old chauffeur, was admitted to Bart's on 2nd October 1967 complaining of severe abdominal pain which had begun six hours previously. The pain was epigastric, radiating into the back, and aggravated by movement. There had been a transient attack of similar but less severe pain the previous day. The pain was of rapid onset and the patient had vomited once. He had had two normal bowel actions before the pain began. There was a 6-year history of indigestion, which occurred half an hour after meals and was relieved by alkalis; a barium meal in 1965 had shown no abnormality. There was a past history of shrapnel wounds to the abdomen in 1945 which had necessitated a transverse colostomy for 9 months. The patient had been investigated for "colitis" in 1953. There was no history of diabetes mellitus.

Examination: The patient was overweight and in severe pain. His temperature was 96°F, pulse 64 regular and strong, and blood pressure 130/80. There was no trace of cyanosis nor icterus, and the mucosae were a normal colour. The tongue was dry and slightly furred. There was marked tenderness and guarding in the epigastrium, with minimal rebound tenderness. There was a large incisional hernia through the colostomy scar. Bowel sounds were absent. Rectal examination was normal.

Investigations: Haemoglobin was normal (97%); there was a neutrophil leucocytosis (W.B.C. 15,000; neutrophils 93%); blood urea was 49mg.% and the electrolytes were normal. No methaemalbumin was detected in the serum. Other investigations (Fig 1) showed a grossly elevated serum amylase, raised bilirubin and transaminase (SGOT), and hypocalcaemia. Plain abdominal X-rays showed no evidence of intraperitoneal gas or fluid, nor of intestinal obstruction.

Course and Treatment: A diagnosis was made of acute pancreatitis. Nasogastric aspiration was started and intravenous fluids given, with a total of 150,000 units of Trasylol per 24 hours, plus calcium gluconate supplements from the beginning. Pethidine and propantheline were given by injection, and the patient was started on penicillin and streptomycin.

On the morning after admission he required catheterisation for acute urinary retention.

	2ND OCT	5TH OCT	9TH OCT	24TH OCT	6TH NOV	17TH NOV	28TH DEC	16TH JAN
SERUM AMYLASE (Somogyi Units)	2,700	630	100	104	240	186	262	210
SERUM BILIRUBIN (Mg/100ml.)	1·8	2·6	2·1	0·7	0·6	0·8	4·3	1·4
S.G.O.T	148	102	17	54	128	93	108	20
SERUM. ALK. PHOSPHATASE (King Armstrong Units)	10	7	10	29	49	56	44	17
SERUM CALCIUM (Mg/100ml.)	8·3	7·2	7·6	9·0	9·2	9·7	9·2	-

Fig. 1 : Table showing biochemical investigations.

Fig. 2

Cullen's sign of the "umbilical black eye". The umbilicus is displaced to the left by the incisional hernia.

Glycosuria and ketonuria were noted, and the blood sugar level found to be 508mg.%. Insulin was given according to a sliding scale but the glycosuria proved difficult to control. The patient had been pyrexial since the evening of admission and on 4th October he developed pleuritic pain over the left lower rib cage. Chest X-ray showed an effusion at the left base and a little patchy shadowing of the underlying lung. Some twitching of the facial muscles and slight icterus were observed. The serum calcium level fell to 7.2mg.% while the bilirubin rose to 3.4mg.%.

During the next ten days the patient remained very ill with persistent pyrexia, and diabetes which was brittle and difficult to control. He developed peri-umbilical bruising (Cullen's sign Fig. 2) and discolouration in both flanks (Grey Turner's sign Fig. 3). Haemoglobin fell to 65%, requiring blood transfusion. The urine became infected as a result of the indwelling catheter, and he was given courses of ampicillin and nitrofurantoin. By 14th October however he was much improved and had started eating. The blood chemistry gradually returned towards normal (Fig. 1).

On 17th October a mass was palpated in the region of the head of the pancreas for the first time. It was firm, irregular and slightly tender. Barium meal showed some widening of the duodenal loop, consistent with a localised enlargement of the head of the pancreas. The mass grew slowly bigger and was thought to be a pancreatic pseudocyst. The serum amylase and transaminase levels became elevated once more, and for the first time a raised alkaline phosphatase was found (Fig. 1).

The patient was referred to Dr. A. M. Dawson for investigation of pancreatic function. 3- and 5-day collections of faeces for fat analysis showed mild steatorrhoea (total daily fat contents of 6.5 and 7.5 grams respectively). A Lundh test produced 400 ml. of duodenal juice with the following trypsin content:

Resting juice : 3 mcg./ml./min.

Stimulated juice : 1 mcg./ml./min.

"These values are well below normal and indicate exocrine impairment."

By 17th November the patient was well enough to be discharged for a period of convalescence. His diabetic state had become more stable with a daily insulin requirement of 32 units. He was discharged on a low fat (100 grams) and low carbohydrate (150 grams) diet, with calcium supplements.

RE-ADMISSION

History: The patient was re-admitted on 28th December, 1967. He had felt unwell for the previous four weeks. His symptoms were anorexia, severe flatulence after meals, and a weight loss of nearly two stone since discharge. His stools were pale but did not float, and his urine was of a normal colour. For the previous five days he had had constant pain localised to the epigastrium, with vomiting twice a day. He had noticed a swelling in the left loin one week previously which had since become larger and more tender.

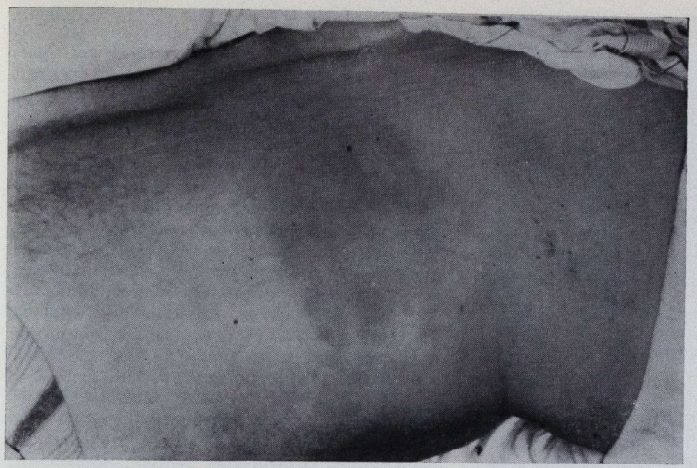

Fig. 3

Grey Turner's sign: discolouration in the left loin. Note the insulin injection sites

Examination: He had lost weight and was moderately jaundiced. There was marked foetor, but the tongue was clean and moist. The liver edge was just palpable. There was a large epigastric mass 3″ x 4″ in diameter, hard, nodular and tender; it was clearly palpable through the incisional hernia. In addition a large (4″ x 5″) tender cystic swelling could be felt in the left loin.

Investigations: Haemoglobin and white cell count were normal. The serum amylase and bilirubin levels were higher than at the time of discharge, but the levels of serum calcium, transaminase and alkaline phosphatase were comparable (Fig. 1). Cholecystography showed a non-functioning gall-bladder with several calcified opacities in this area. A barium meal showed further widening of the duodenal loop (Fig. 4), and intravenous pyelography suggested compression of the left pelvi-calyceal system from without. There was a small right-sided pleural effusion on chest X-ray.

Course and Treatment: A diagnosis was made of relapsing pancreatitis with pseudocyst formation and underlying cholelithiasis. The further possibility of a carcinoma of the head of pancreas was considered. The mild obstructive jaundice was attributed to the mass, whether cystic or neoplastic, lying in the head of the pancreas.

Laparotomy was performed on 5th January, 1968. It revealed a shrunken gall-bladder, chronically inflamed, and containing several small stones. An operative cholangiogram displayed a normal biliary tree. A large cystic mass could be felt in the region of the head and body of the pancreas, and it appeared to extend into the left loin. A transgastric approach was made to the cyst, and a large quantity of chalky fluid and pancreatic débris removed from its cavity. Cyst-gastrostomy was performed to allow permanent internal drainage. The abdomen was closed with obliteration of the incisional hernia. Staphylococcus aureus was subsequently cultured from the contents of the cyst.

The postoperative course was stormy. The patient required transfusion for prolonged hypotension and his diabetic control was particularly difficult. He developed a chest infection and 'after a week' tenderness and fluctuation in the left loin which were consistent with the formation of a pancreatic abscess. An abscess was exposed and drained through an incision in the loin on 20th January. The initial improvement in his condition thereafter was interrupted by two episodes of severe secondary haemorrhage from the wound in the loin. The wound was explored and packed on the first occasion, but the bleeding was arrested by firm pressure alone the second time. Energetic blood transfusion was required on both occasions. Cloxacillin and subsequently chloramphenicol were

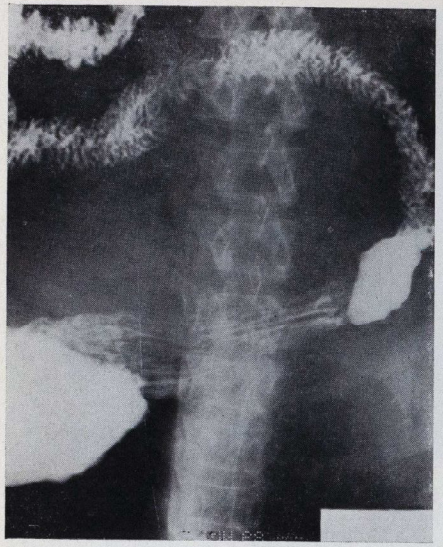

Fig. 4

Barium meal (8rd. Jan., 1968) showing widening of the duodenal loop due to the enlargement of the head of the pancreas.

given in view of the persistent high pyrexia, and Trasylol was recommenced.

On 5th February the patient developed a fistula from the stomach, via the cavity of the pseudocyst, to the wound in the left loin. Oral feeding now being impossible, Aminosol, Intralipid and 30 per cent. sorbitol were started by intravenous infusion, together with blood, hypertonic saline, calcium and vitamin supplements to correct the various deficiencies. On 13th February a feeding-tube was inserted into the jejunum under local anaesthesia. "The following day he developed acute peritonitis, and after 4 days suffered a third catastrophic haemorrhage from the wound in the loin, also vomiting bright blood." At emergency laparotomy erosion of the splenic artery was found. Splenectomy was performed, the feeding-tube removed and the jejunostomy brought out onto the surface of the abdomen.

Postoperatively the patient deteriorated slowly. His temperature remained hectic in spite of further antibiotics. Intravenous feeding was maintained through a superior vena caval catheter. He developed pulmonary infarction six days after splenectomy, and subsequently phlegmasia caerulea dolens of the left leg. Hypoproteinaemia, together with salt and water overload, contributed to generalised oedema (anasarca). He died on 9th March; permission for autopsy was withheld.

DISCUSSION

PATHOGENESIS: The pathogenesis of acute pancreatitis is uncertain. Its characteristic features can be explained by diffusion of activated pancreatic enzymes—trypsin, lipase, kallikrein —into the interstitial tissues of the gland, causing vascular damage with resultant oedema, haemorrhage and acinar necrosis. An important feature in the pathogenesis was thought to be obstruction to the main duct in the presence of an actively-secreting gland. Ligation of the duct however in experimental animals has been shown to produce atrophy, not haemorrhagic pancreatitis (Howard & Jordan, 1960). The mechanism by which pancreatic enzymes become activated has long been a source of controversy. Opie (1901) established the theory of biliary reflux along the pancreatic duct, as with the impaction of a gallstone at the ampulla of Vater; but bile does not activate pancreatic enzymes (Haverback *et al.*, 1960). Duodenal secretions on the other hand, containing enterokinase, will bring about enzyme activation. McCutcheon (1968) therefore postulates that duodenal reflux along the pancreatic duct is the essential mechanism in the pathogenesis of the disease, and also that it may be the common aetiological factor to explain the association between biliary disease and pancreatitis. Trapnell & Anderson (1967) found gallstones in 56 per cent. of cases of pancreatitis, and the case reported here falls within this group. Indeed it is probable that the "indigestion" of the previous six years had been due to cholelithiasis, especially in view of the negative barium meal.

THE ACUTE ATTACK: This patient presented classically with severe upper abdominal pain of rapid onset radiating into the back, together with vomiting. Other typical features were the subnormal temperature, marked epigastric tendernes and guarding (often actual rigidity), and the absence of bowel sounds from an early stage. Cyanosis and abdominal distension were not found. The severe shock (with a raised haematocrit) which frequently accompanies the acute attack, and which is due to the outpouring of fluid into the pancreas and surrounding tissues, was lessened in this case by prompt intravenous therapy.

A mild leucocytosis is a common finding, and a serum amylase level of more than 1000 Somogyi units virtually diagnostic; in this case the amylase level was 2700 units on admission, dropping to 630 units by the 4th day. High serum levels of methamalbumin, a breakdown product of hamoglobin, have been reported in many cases of haemorrhagic pancreatitis, and Winstone (1965) has found the mortality of the disease related to the concentration of this compound. In this case however no haemalbumin was detected in the serum.

COMPLICATIONS: Chest infection and pleural effusion, following elevation and splinting of the diaphragm, are commonly found at an early stage of the acute attack. This patient developed a left basal effusion with underlying consolidation on the third day, in spite of prophylactic antibiotics.

There appears to be an increased haemorrhagic tendency in acute pancreatitis. Blood-stained peritoneal fluid is a well-known finding, and gastro-intestinal haemorrhage may occur, though not in this case. Cullen's sign of the "umbilical black eye" (Fig. 2) may accompany severe intraperitoneal bleeding from any cause, and was found to be present in this case. Haemorrhagic extravasation along fascial planes gives rise to the obvious discolouration in the flanks (Fig. 3) which is said to indicate a poor prognosis, and was first described by Grey Turner in 1919:—

"I now noticed two large discoloured areas in the loins. They were about the size of the palm of the hand, slightly raised above the surface, and of a dirty greenish colour. There was a little oedema, with pitting on pressure, but there was no pain or tenderness. The urine was found to be full of sugar. A diagnosis of acute pancreatitis was made; and this was confirmed by an immediate operation." Grey Turner's patient died five weeks postoperatively; post-mortem examination revealed a sloughing pancreas with much fat necrosis.

Mild jaundice complicates 10-20 per cent. of cases and is due to oedema of the head of the pancreas causing temporary obstruction to the common bile duct. It usually occurs on the second or third day, and rapidly fades. This patient developed slight jaundice on the third day with a maximal bilirubin level of 3.4mg.%. At the time of his first discharge the serum bilirubin was still slightly elevated (0.8mg.%) while the alkaline phosphatase, normal on admission, had risen to 56 K.A. units, probably due to the development of the pseudocyst.

Hypocalcaemia is quite common in acute pancreatitis although actual tetany is said to be rare and of grave import. It is thought that calcium ions become fixed by fatty acids in areas of fat necrosis. The lowest serum calcium found in this patient was 7.2mg.%; this occurred on the fourth day, in spite of calcium gluconate supplements from the start. The significance of his facial twitching was uncertain.

Transient hyperglycaemia and mild glycosuria are commonly encountered during the acute attack. It is rare however for the diabetes either to persist or to require active treatment in patients not previously known to be diabetic (Louw *et al.*, 1967). In this case ketosis developed within 24 hours of the onset of pain, with 2% glycosuria and a blood sugar of 508mg.%. This clearly indicated extensive damage to the endocrine tissue of the pancreas, damage that was permanent in view of the persistence of the diabetes. The patient's insulin requirements, variable during the initial phase of pancreatic destruction, had settled to 32 units (soluble) daily by the time of his first discharge. During the subsequent attacks of relapsing pancreatitis the diabetic state became once again difficult to control.

Some impairment of exocrine function, as indicated by the abnormal Lundh test and the raised values for faecal fat, accompanied the islet cell damage in this patient. There was no clinical steatorrhoea but he was kept on a low-fat diet and pancreatic supplements were started soon after his first discharge

Pancreatic cysts occur in 10-20 per cent. of cases, usually the classical pseudocyst—a collection of fluid in the lesser sac—but sometimes true pancreatic cysts arising within the substance of the gland (usually the head). The exact nature of the cyst in this case was never definitely established, but it seems probable that there was a large pseudocyst and possibly one or more true cysts in addition. Pancreatic cysts may give rise to symptoms either by obstruction to the common bile duct or duodenum (ys to some extent in this case), or by rupturing with

or without haemorrhage. Others appear to resolve completely.

A pancreatic abscess is the most dreaded complication. It arises from bacterial invasion of the extravasated haemorrhagic fluid, and once formed requires immediate drainage. It may discharge pus, necrotic clot and pancreatic 'sequestra'. It has been written of these patients that they "tend to suffer a prolonged and distressing illness with suppuration and toxaemia which may culminate in secondary haemorrhage and death". (Louw *et al.*). These words are peculiarly relevant to the case described here.

TREATMENT: The acute attack was treated along standard lines. Spasm of the sphincter of Oddi was lessened by propantheline and by the use of pethidine for analgesia. Nasogastric aspiration was instituted to inhibit pancreatic secretion and intravenous fluids given to mantain nutrition. Blood transfusion was not required initially but was given to correct anaemia arising after about ten days. Antibiotics and calcium supplements were given from the start, and soluble insulin was used to control the acute diabetes mellitus.

Trasylol (asprotinin) acts as an inhibitor of trypsin and kallikrein. Its value in acute pancreatitis is extremely uncertain (Trapnell, 1968). In this case it was given in large doses both for the acute and the relapsing attacks of the disease.

The rôle of surgery in pancreatitis remains a subject of controversy. Laparotomy may be necessary to settle any diagnostic doubts, for the differential diagnosis includes perforated peptic ulcer and acute cholecystitis. According to Smith (1962) gall-stones encountered during diagnostic laparotomy should be left well alone, but recent surgical trends have been more daring and both Trapnell and Louw *et al.* advocate cholecystostomy.

Surgery may be required in the treatment of complications. Internal drainage, as performed in this patient, is the treatment of choice for pancreatic cysts which give rise to symptoms. Urgent drainage is required for pancreatic abscesses, although there is a marked tendency for secondary haemorrhage to occur after the insertion of drainage tubes. This disaster occurred three times in this patient; on the last occasion the splenic artery was eroded and the haemorrhage was nearly fatal. In cases of fulminating pancreatitis which do not respond to treatment Watts' (1963) has advocated total pancreatectomy to prevent the release of kallikrein from the damaged gland. This heroic measure was considered here but rejected in view of the patient's general condition.

After the development of the fistula between the stomach and the left loin an unsuccessful attempt was made to establish a feeding jejunostomy. When this failed it was necessary to maintain the patient for more than five weeks by intravenous feeding. Of the many antibiotics exhibited only chloramphenicol succeeded in rendering the patient apyrexial. The combination of peritonitis and pancreatic digestion, with fistula formation and secondary haemorrhage, made th eeventual outcome inevitable.

SUMMARY

A classical case of acute pancreatitis is described, exhibiting most of the complications of the disease. The pathogenesis and treatment of the disease are considered. The relapsing nature of the disease, together with the profusion of serious complications, was responsible for a fatal outcome.

Acknowledgements: I am indebted to Mr. Martin Birnstingl for his permission to publish this case, and to him and Mr. J. C. Neely for their help in its preparation; also to the Department of Medical Illustration for the photographs.

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APOLOGY

The obituary of Sir Charles Lovatt Evans was published in the December 1968 number of the *St. Bartholomew's Hospital Journal* in a different form to that submitted by Professor M. de Burgh Daly. The Editors regret that the amended version was not sent to Professor Daly for his approval before publication.

SPORTS NEWS

HOCKEY CLUB REPORT

Prospects at the beginning of the season seemed hopeful with a record turn-out at the Fresher's Trial; some optimists even suggested starting a 3rd XI!

Despite both the Captain and Secretary being unable to play this term, their absence from the team has gone unnoticed (almost!) due to the arrival of talented Freshers, three of whom—Van Zwanenberg, Reid, and Young—have held regular places in the 1st XI. The potential of the 2nd XI has been greatly improved. (if not yet fulfilled) by the influx of new players, and naturally, this has led to keen competition for places in both teams.

CAMBRIDGE TOUR

The annual tour to Cambridge, at the end of October, was particularly valuable this year because we were able to take six Freshers in the party of thirteen, thus speeding the operation of moulding a new side.

The first match, against Fitzwilliam College, was won 2—0, due in no small part to some clever umpiring! Jesus College surprised us this year, for, following a goalless first-half and a brilliant solo goal from Hunt soon after the interval, they rallied to make it 3—1 in their favour by the final whistle. Morale was lifted the following day by a comfortable 6—1 win against Selwyn College in which Young collected a hat-trick. On the last day of the tour we were joined by those old campaigners,—Messrs. Thompson, Goss and Barclay Sen., but despite their able presence, went down 0—1 to Pembroke College

All agreed that the tour was a success, even down to the annual cabaret on the Jesus pillar-box, kindly provided this year by one of our senior members!

U.H. CUP COMPETITION

The first match of the term was against the London Hospital, in the first round of the Junior Cup. There was no score in the first-half, but once Bart's had opened the scoring with a goal early in the second-half, they never looked like losing, and added another to make it 2—0 at the end.

In the Senior Cup, we had a bye into the second round, where we met the London Hospital, victors over Charing Cross Hospital. This was a very ding-dong affair. The London scored first, but come half-time it was 1-1, following a goal scored by Robinson. Five minutes into the second-half the London scored again, but almost immediately Andy Barclay equalised from a short corner. Yet again the London went ahead to make it 3—2, but inevitably, as it seemed, Bart's drew level again, this time with a goal by Van Zwanenberg. Two minutes later Robinson made it 4—3 in Bart's favour, and that was the score at the end.

U.L. CUP COMPETITION

In the first round, we were drawn against West Ham College. This was a fast and hard fought game in which the Bart's forwards showed more aggression throughout, than their counterparts. However, it was only after a succession of unlucky shots at goal, one of which hit the upright, that Hunt scored the winning goal. The Bart's defence, particularly Jordan in goal, deserve mention for a very tidy display, in the making of this 1-0 win.

PLAYING RECORD

	Played	Won	Lost	Drawn	For	Against
1st XI	14	6	6	2	31	23
2nd XI	6	2	1	3	13	24

February Fixtures

1st Sat. Indian Gymkhana 1st XI home, 2nd XI away.
2nd Sun. East Grinstead 1st XI away.
8th Sat. Harpenden 1st XI away, 2nd XI home.
12th Wed. Charing Cross Hosp. 1st XI away.
15th Sat. Orpington 1st XI home, 2nd XI away.
22nd Sat. Smith's of England 1st XI away, 2nd XI home.
26th Wed. Marjons 1st XI home, 2nd XI away.

N.B.H.

RIFLE CLUB

The annual general meeting was held earlier in November with the election of officers and

SPORTING TYPES

re-election of president and vice-president. Few freshers came into the club this year but of these the standard was very high.

Seven teams were entered into the Postal League. Of these after the last match Postal A, Novices A, and Postal B were each first in their league with Pistol A and B and Ladies' Postal B second in their respective leagues. The staff match was held in December with the students winning by a narrow margin. It was a change to see Simon Crocker shooting for the staff for whom he scored the highest of the match. For the students the best score was recorded by Antony Knight. The evening was much added to by Mr. Gordon Bourne's generosity in the White Hart after the match.

In the near future we hope to arrange several away matches including one with Leicester University. On the 4th of February we have our dinner which we hope will be held at the Cock Tavern, Fleet Street.

P. J. Ciclitira.

pot pourri - 1968

by Clive Froggatt

Reviewing the Pot Pourri is quite unlike reviewing any other production because it is not saying what it was like for people to know whether or not to go, rather, it is a comment on the 1968 show just for the record.

Being such, it seems a trifle unfair that the opinion of one person should damn those criticized for prosperity—so that won't be done! It is possible, however, to dish out compliments and honours with relative impunity.

The show started with Mike Barnham. He has already established himself as a very accomplished guitarist and his performances at the Pot Pourri did more than confirm his reputation.

The Psychi show followed with a good selection of sketches which, though sometimes rather protracted, were, on the whole, well done. Chris Jarvis takes the biscuit for his Vicar sketch—I always said he should have gone into the Church.

Honours in the Clerks Show go to Andrew Boon for his excellent impression of the present Prime Minister (H. Wilson) the material was very good rubbish, most appropriate.

The Dressers did two sketches, both worthy of a mention. The first, the Dr. Livingstone sketch, was well done and this was followed by the second sketch which without doubt ended with the crudest punch-line of the evening, Charlie Davies and Steve Leech weren't very convincing—which is just as well, for them at any rate.

The Midder and Gynae Show was quite the most consistently good show with excellent sketches and first class songs. Distinguishing themselves were John Salt who drew attention to himself by his now familiar antics, Mike Elliot by his bit in the same songs, and Steve Copeland who has definitely got the knack of saying 'Knickers'.

In the first half of the show the sketches were interspersed by very professional performances by Tim MacElwain, Gavin Haig and Graham Chapman, Vintage 1948.

Highlights of the second half were Bonita Wylie and Paul Swain's Tango, the telephone ringing, Mary Rees telling Marcus Setchell to take care and Robin 'Dr. Death' Williamson 'singing' Urea. This is to say nothing of the thorough washing the House took at the Finale.

The lighting was by Sue Raven and Justin Blake-James, the show was produced by Graham Chapman and directed by Chris Hunt. John Coltart was the production manager.

The evening didn't end there though, many adjourned from the Cripplegate to the Pot Pourri party and further entertainment was provided by the Theatre Belts.

This was really excellent and with 'Standing by the Fountain' and the 'Twelve Days of Christmas' the Nurses brought the House down?

Bert Cambridge

Bert Cambridge has been the backbone of the Pot Pourri ever since it started in 1937. As many of the medical staff and students who have organized the Pot Pourri know the performances would never have run smoothly without Bert.

One could easily get the impression from the porters that he just sells tickets. In fact to any ignorant new Financial secretary faced with the organization of the Pot Pourri, Bert is the guiding light. He retires during the next year and is now handing over to the girls in the library, where from now on the tickets will be sold.

I am sure that all those who have had anything to do with the Pot Pourri over the years will wish him a happy retirement and thank him for all that hard work he has done.

ward shows - christmas 1968 survey

by Ronald Knight

Ward shows—Christmas 1968 Survey

The ward shows have been performed for many years at Bart's but none has asked the patients what they think about them. It was because of this, and recent criticism of the shows, that I decided, on the suggestion of John Coltart, to conduct this small survey. Forms were distributed to all Medical and Surgical wards, the Gynaecological and Obstetrics block and Vicary ward.

Results of survey

Question: The ward shows are:

	Men		Women	
	Yes	No	Yes	No
1. Enjoyed more by the performers than the patients	6	53	17	40
2. Enjoyed more by the nurses than the patients	6	41	20	40
3. Enjoyed more by the patients than anyone	33	17	28	32
4. Enjoyed by everyone	63	4	80	4
5. A waste of time	0	62	1	63
6. A nuisance to the running of the ward	2	52	2	62
7. In bad taste	3	54	3	52
8. An essential part of Christmas in hospital	64	4	79	3

Total number of forms completed—163

A space on the question form was left for any additional comments from the patients. These include: "Carry on with the good work and God bless them all," "crude comments about the senior members of the staff are not only childish but distinctly unsporting," "my grateful thanks to Sister and all nurses and everyone who worked so hard to make us happy," "The hard work put in by the Hospital Staff was something to remember always," "words were so vulgar and often revolting," "best tonic I had in 5 weeks treatment," "helped me to forget my pains and worries," "very good," "I hope stout hearts will always be present to carry them on," "made our Christmas," "enjoyed by all including visitors," "a great success."

Suggestions for alterations were few and were limited to: "too many medical terms"—a criticism shared by several patients; "a little more music," "more songs that everyone can join in," and "more seats so that patients can see better."

One gentleman commented, "under rehearsed and badly produced" and went on to offer his services as producer for forthcoming ward shows.

A patient who had once worked at Bart's in the past said that the shows "compare favourably with those of the early 30's."

On reflection the first three questions were badly worded and some patients did not answer these, many writing that they thought the shows were equally enjoyed by everyone.

The most significant result is that 143 people thought the shows an essential part of Christmas *in hospital* with only 7 in disagreement.

From reading the comments on the forms I reached the conclusion that:

(a) The shows are enjoyed by most of the patients *and their visitors.*
(b) They are not in bad taste (surprisingly the ladies agreed with the men on this one).
(c) They are not a waste of time and cheer many patients up, helping them to forget their troubles for a while.
(d) This is a hearty vote of thanks to the ward shows and their performers and back stage staff and the sincere hope that they will always continue.

Thanks must go to all the Ward Sisters for their co-operation and enthusiasm.

answers to diagnostic quiz on page 56

1. *Molluscum sebaceum syn. keratoacanthoma.* This is a firm papule with a central plug of keratin. It occurs on exposed areas of skin, most commonly the skin, in the fifth and sixth decades. The presenting macule enlarges for up to two months when it has the classical appearance shown in the photograph. It then remains quiescent for a similar period before spontaneously regressing over a further two months to leave a puckered scar. The lesion is usually asymptomatic. Scrapes of a keratoacanthoma yield cells indistinguishable in isolation from squamous cell carcinoma and thus it is the overall appearance of that is important in making the diagnosis. Excision permits histology and produces a better cosmetic result than doing nothing.

2. *Basal cell epithelioma syn. rodent ulcer.* These present as pearly papules with a raised edge often giving the appearance of a "string of pearls". They eventually ulcerate and form a scab. Occurring mainly in the sixth and seventh decades they affect the sexes in the ratio 2 male: 1 female. Rodent ulcers probably arise from the basal cells of the hair follicles and consist of sheets of darkly staining cells invading the dermis. Mitotic figures and melanin are often seen but cell nests, prickle cells and keratin are usually absent. Spread is by local erosion of cartilage, bone etc., distant metastases being very rare. Aetiological factors include sunlight, heat, trauma and arsenic. Most occur on the face and are treated by excision and flap repair or by radiotherapy.

3. *Epithelioma of eyelid syn. squamous cell carcinoma.* This may develop in previously normal skin but is particularly liable to develop in skin that has been subjected to chronic irritation. Two main types are described: a. the papillary type, a wart or nodule on a broad base. This tends to ulcerate forming dry crusts beneath which lies the pink, indurated tumour. b. the ulcerating type causing an irregular break in the continuity of the skin. The edge of the ulcer is firm and indurated with a hard granular base extending a variable depth into the subcutaneous tissues. Sites mainly involved include face, lower lip, pinna and dorsum of the hands. Microscopically it is composed of masses of cells in solid clumps or the cells may surround keratin producing the characteristic cell nests. Cell nests indicate a low grade of malignancy. The cancer spreads locally by direct invasion and sooner or later to local lymph nodes. Visceral metastases are uncommon. Treatment is surgical excision or radiotherapy.

4. *Dermoid cyst.* These rare tumours occur in the midline of the body and at the outer end of the eye-brow. The later position is the commonest and the cysts are skin coloured like sebaceous cysts but are not dimpled. By pressure atrophy the area of bone on which it lies often becomes depressed and those that have a deeper part lying on the orbital plate of the frontal bone may erode this to become adherent to the dura. The cyst is lined by keratin-producing cells with simple sweat and sebaceous glands. There are layers of keratin on the wall of the cyst which may contain sebaceous material, hair, teeth, cartilage and bone. Treatment is surgical excision.

5. *Xanthelasma.* This condition occurs mainly as an isolated lesion in middle-aged women. Less commonly it may be the manifestation of a hypercholesterolaemic condition such as diabetes, myxoedema, or nephrosis. The lesions consist of elevated yellowish plaques which, under the microscope, are seen to consist of large "foam" cells containing cholesterol and phospholipids with a fibrous stroma. Treatment is destruction with the cautery or excision of the skin involved. Any underlying condition must be treated. Idiopathic hypercholesterolaemia may be treated with a compound such as Atromid in the hope that as the skin lesions decrease in size the vascular ones do likewise.

6. *Adenoma sebaceum.* This is a developmental anomaly in which clumps of sebaceous glands produce the characteristic yellowish brown or purple lesions in a typical "butterfly" distribution over the face. The condition is associated with tuberose sclerosis (epiloia) with a "walnut" brain (large and small gyri) containing tuberous sclerotic areas, epilepsy, mental deficiency, rhabdomyomata of the heart and adenomata of the kidneys. This condition is one of the phakomatoses (e.g. von Recklinghausen's disease or neurofibromatosis) and small tumours called phakomata may be seen in the retina. No treatment is necessary.

CORRESPONDENCE

cancer of the scrotum

Sir,—I would like to congratulate Mr. Froggatt on his excellent report on cancer of the scrotum (St. BHJ LXX 11.12.486.).

On one important aspect of the treatment of his case, I must disagree strongly with him and Mr. Tuckwell and that is the inclusion of bilateral orchidectomy in the treatment.

In Lancashire, we get many carcinomatous ulcers of the scrotum larger than the one he described and have never seen one adherent to the testes, let alone invading it, except in very old neglected cases.

Cancer of the scrotum is a true epithelioma with its lymphatic drainage passing entirely in the fascia to the inguinal glands and *never* to the scrotal contents. Testicular drainage is, of course, up the spermatic cord to the para-aortic glands.

Carcinoma of the penis requiring subtotal or total amputation is another matter. In those cases, the testes should be removed to avoid unrelieved libido in the future, but in scrotal cancer never.

My reason for writing is to prevent others, after reading Mr. Froggatt's paper, from unnecessarily making men sterile and impotent in the treatment of this condition. Indeed, I hope that the man concerned has been adequately treated with Testosterone for he was only 49.

As an Industrial Disease, notifiable to the Factory Inspectors when discovered, it has been closely watched in the Cotton Spinning Industry for many years and in that industry has become relatively rare. The carcinogens in the lubricating oils used on the machines were discovered in the forties and since then regulations have permitted only non-irritant oils to be used on the machines.

Mule Spinners still work in a moist temperature of 80°F. to prevent their fine yarns breaking during the spinning process. They still have to wear thin clothes and oil still soaks through onto their genitals, but the bland oils used today no longer cause cancer. The only case I have seen personally in 1968 stopped working as a Mule Spinner forty years ago, in 1928.

On the other hand, Home Office statistics show that scrotal cancer is still appearing in scatered cases throughout the country in Engineering workshops. Because an engineering shop is cooler than the Mule Room more clothes are worn and less oil reaches the scrotum, so there are fewer cases, but if the numbers continue to increase it might be necessary in the future for the same regulations with regard to lubricating oil to be applied to other industries besides that of cotton.

Yours faithfully,
A. M. McMASTER,
Consultant Surgeon, Rochdale.

abortion

Sir,—Having read the wide and interesting coverage of the problem of abortion in your December issue, and finding myself in disagreement with the principle that underlies it all, I feel I must say something.

When even the distinguished cleric of your choosing, dismisses such a term as "soul" as semantic, I find it hard to take up an argument. But perhaps I might appeal to the more widespread humanistic tendencies of your readers, by suggesting that the long term effects of this disregard of human life will be disastrous. I appreciate the awful problems that doctors have to face when meeting these distressing situations, but can see no justification for the short cut therapy used. It has taken all these years for a law to be passed which breaks the principle, leaving open the possibility now of terminating the lives of abnormal babies at birth, thus avoiding the "occasional unnecessary operation"; it is a natural progression. Similarly, we could apply this lack of principle to the unforseen effects on the mother's other children. These are wild suggestions, but how wild would this present law have seemed to doctors not so many years ago?

Yours sincerely,
STEPHEN BRENNAN.
College Hall, Charterhouse Square.

book reviews

Lecture Notes on Ophthalmology, by Patrick D. Trevor-Roper.

The aim of this book is to present in a clear and concise form ophthalmology for the final year student, and in this it succeeds. The text is easy to read and to understand, in spite of the abbreviated form. The excellent practice from the students' point of view of discussing eye disease under the presenting symptoms has been continued. There are many photographs which are of a high technical quality and well illustrate the salient features of many ocular diseases.

It remains good value at less than £1.

Enid Taylor, F.R.C.S., D.O.
Senior Registrar, Ophthalmic Department.

Ophthalmic Nursing 5th Edition, by P. Garland, S.R.N., S.C.M., Ophthalmic Nursing Certificate. Published by Faber and Faber. Price 25s.

The preface to the first edition of this well-known book states that it is intended for the general trained and student nurse rather than those in ophthalmic hospitals, and the fifth edition has been enlarged to give a fuller description of some of the many recent advances in methods of examination and treatment of eye conditions. The earlier chapters have been rearranged and a useful section on outpatient and casualty work added, together with several new photographs. Alterations have been made to the notes on eye drops in common use, although unfortunately cocaine remains the most frequently mentioned local anaesthetic. The chapter on surgical nursing has been extended to include a fuller explanation of glaucoma and the treatment of retinal detachment. It seems a pity that several paragraphs are retained on the application of leeches, but no mention is made of the cryothermy or indirect ophthalmoscopy. The addition of a description of the rarely used Maklakov tonometer, and only passing mention of the applanation tonometer seems out of proportion, but the notes on the preparation of various individual dressing packs to be supplied by a central sterile supply service are helpful. In ophthalmology the accent is now on the earlier mobilization of patients and there is excellent emphasis on the details of nursing care and the requirements for planning and equipping an eye ward to meet these needs.

This book, whilst beyond the pocket of the student nurse, will continue to find a place in eye wards and departments where the rapid changes of nursing staff today allow little chance for comprehensive clinical teaching.

Jennifer Clair,
Sister,
Eye Department.

A Synopsis of Anaesthesia, by J. Alfred Lee and R. S. Atkinson. John Wright and Sons Ltd. Bristol, pp. 876 plus vi, 53 figures. Price 50s.

Established anaesthetists and anaesthetists in training alike will hail the arrival of the sixth edition of this classic work on their book shelves with relief and pleasure. There can be few books which are held with such respect and affection 'by the members of a single specialty. Time and again, having failed to find a solution to a particular problem in larger or more specialised text books, a reader will discover the proper answer between the pages of "Alfred Lee". It gives particular pleasure to record that Dr. Alfred Lee, (a London Hospital graduate), has been joined by Dr. R. S. Atkinson, (a Bart's man), in the production of the last two editions; perhaps this augurs well for the smooth working of certain of the proposals of the Todd report!

The sixth edition has just over one hundred more pages than its predecessor. It reflects faithfully the rapid expansion in the scope of the specialty in the last four years with new chapters on the 'growing points" and particular "matters of controversy" which are the concern of anaesthetists at the present time. These include accounts of anaesthesia for dentistry and in abnormal environments, of resuscitative procedures and intensive care as well as of the treatment of intractable pain.

In response, no doubt, to many requests the number of references has been increased and this greatly enhances the value of the book to the teacher and research worker. A "Key" reference can now be found on most topics.

There can be few criticisms but perhaps the authors could consider a more orderly arrange-

ment into "Parts" as well as "Chapters" in the seventh edition. This reviewer would also welcome the substitution of some new photographs for those used at present which, although clearly reproduced, now have something of the "classical" look; the technological revolution of equipment into disposable plastic items seems to have passed almost unnoticed.

The book is stoutly bound and well produced and, considering the amount of material it contains, it is inexpensive.

All medical authors will appreciate the time which must be spent in the production of a volume such as this. The authors are wise to attempt to make domestic peace by dedicating the book to their wives!

T.B.B.

Drugs in Anaesthetic Practice, 3rd edition, 547 pp. F. G. Wood-Smith, H. C. Stewart, M. D. Vickers. Butterworths. 84s.

The speed of change in pharmacology is so great that this book, first published in 1962, is now in its third edition. The authors have covered many new drugs and increased the scope of the pharmacological notes.

The arrangement of contents follows the previous editions. The first chapter is general, including a section on drug interaction and design of pharmacological trials. In subsequent chapters each topic and group of drugs is discussed followed by detailed monographs on individual drugs. The tables which compare the pharmacology of similar drugs are very useful.

References are given to classical articles and to recent review articles. From a study of this book it is obvious that anaesthetists are interested in any drugs which their patients may have received, with the exception of the cathartics!

It was surprising to find no mention of the anti-arrhythmic properties of lignocaine and phenytoin. A table of drugs used in the treatment of cardiac arrest would be valuable. The doses of papaveretum and pethidine recommended for premedication in children, though standard in some centres, are higher than those used by other paediatric anaesthetists.

The new edition is clearly presented and nicely bound. It is essential reading for the primary F.F.A., R.C.S., and is useful for easy reference. It can be also recommended to all students faced with pharmacology examinations.

D.W.B.

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journal staff

Medical Politics and the Medical Student

by

Dr. Francis Pigott, M.B., B.S., F.F.A.R.C.S., Acting Chairman J.H.D.A., Chairman Hospital Junior Staffs Group Council.

Dr. Pigott is Acting Chairman of the Junior Hospital Doctors Association; recently the Union joined this organisation, what has it to offer, what is it going to do for the Student of today, who like it or not is on the continuum between student and doctor? How much say can he have in his future if he doesn't know what is going on now?

One thousand nine hundred and sixty-eight was the year of the student, in virtually every major city of the free world students demonstrated their contempt for the present order. Universities were occupied, dons and professors mobbed, cars burnt and streets torn up in the pursuit of a new order. The L.S.E. students, in addition to occupying the attention of a large number of Metropolitan Police, succeeded in occupying the front pages of every national newspaper. Medical students did not rate a single line until they commended themselves to the peace loving majority by helping to remove the militants from the University of London Students' Union headquarters in Malet Street. There seems to be something strange about this, for the majority of people their student days are a period of idealism often associated with political activity. Equally the time from graduation to the middle or late forties is a period of preoccupation with career, domestic and economic interests. The medical student appears to stand alone as the ultimate unpolitical animal.

1950s

Loking back to my own student days in the early 1950s I find that I was no exception. Rowing, beer and women were my most absorbing interests, in roughly that order. Attendance at the hospital was compulsory to satisfy regulations relating to finals. Finals were a remote hurdle until about three months beforehand, at which point study became a full time obsession. I believe the majority of my contempories were of a similar disposition, although some, including the refounders of the Vicarage Club, were actively canvassing jobs at Barts and I believe about half a dozen were preparing for higher qualifications; but none looked further. Indeed I cannot even remember having heard of the B.M.S.A. let alone taking an interest in any of its activities. This indifference to medical politics lasted for 10 years after qualification and would have gone on indefinitely, if I had not returned to the hospital service after 7 years in the R.A.F. and in General Practice. I went as an anaesthetic registrar to a hospital in the area where I had been in practice as a G.P. I had belonged to the local medical society and done numerous

sessions as a locum consultant anaethetist, in my contacts with the local consultants I had been treated as a normal human being and as a colleague. As a registrar the whole scene altered subtly but decisively, indeed some of my erstwhile consultant colleagues found it difficult to remain even normally courteous. It was at this moment that I realised how sick the medical profession had become, it was a determination to remedy this that caused me to drift into politics a year later and which has sustained me since.

medicine

"Medicine should be taken out of politics" is a cry which is often heard and is about as unrealistic a wish as there can be. Health and welfare are two spheres in which every government in the world has interfered to a greater or lesser extent. It is a characteristic of all nations of the western civilisation, none of whom can contemplate with indifference the phenomena of disease, starvation, poverty or ignorance. Great Britain is not the only country in which the political aim of providing access to medical care for all without economic distinction has been adopted by every political party. Whether the medical profession likes it or not this state of affairs is likely to continue for the foreseeable future. Medical care is a very expensive commodity accounting for more than 5% of the Gross National Product, also it involves a labour force of over 500,000 people. As the range and complexity of medical care increases so the cost goes up, even at 5% of G.N.P. there is widespread agreement that the service is grossly underfinanced. In a pluralistic democracy each interest and section of the community has to fight for its share, and does so to a greater or lesser extent by exerting political pressure and receiving public recognition and sympathy for its needs. The profession has been to dignified to descend into the political arena and fight effectively for the money required to support the medical services. Instead we have sat back in baffled and hurt surprise that the public should be so indifferent to their own good. If the practice of medicine and the medical profession are to flourish, and neither can flourish without the other, the profession has got to develop a much greater political ability, and produce more competent politicians. These politicians can only be produced from the professions own political machinery.

political machine

The greatest single political machine is the B.M.A. which has the majority of practising doctors in its ranks. This ponderous, and in functional terms over democratic, machine attempts to produce a coherent policy from the internecine wars which are waged by various parts of the profession through their B.M.A. committees. Second most important are the Royal Colleges, rich in tradition, influence and vested interest. Until recently these splendid anachronisms were as near to living replicas of mediaeval guilds as could be found anywhere. Their success in defending the traditional pattern of professional life in hospitals, in the face of enormous and rapid changes in the financing, organisation and functions of hospital medicine, resulted indirectly in considerable hardship for most junior doctors and many peripheral consultants as well as deepening the rift between the hospitals and general practice.

Medical politics since 1948 has been a series of campaigns waged by the various parts of the profession, sometimes with success, more often ending in failure, but even the successes have been costly to other parts of the profession. During the last two years it has become increasingly obvious that major changes in the financing and organisation of the N.H.S. are necessary, and yet the profession has failed lamentably in its attempts to formulate comprehensive and workable policies for reform. I am doubtful, given the present machinery and the rather narrow political interests of the majority of the present leaders, that it is possible to formulate such policies.

Since 1957 manpower, career structure and training have been topics for discussion. The Platt report was the first major document, notable for its introduction of the medical assistant grade. Attempts were made to implement it but the rate of expansion of the consultant grade was less than half that thought to be required. One of the major

reasons was the shortage of trained senior registrars, this being a result of the enormous reduction in the number of senior registrars from 1951 onwards. Nothing much was done to remedy this, but vigorous attempts were made to build up the Medical Assistant Grade until the profession rejected this grade overwhelmingly at the B.M.A.'s Annual Representative Meeting in 1968. At the same time the Todd Commission delivered its report on Medical Education, involving the concept of specialist registration. Since July numerous committees in the B.M.A., Colleges and elsewhere, have been trying to devise a new training and career structure. Their reports are almost finished and in February representatives of the profession and the Ministry will begin discussion on the introduction of a new career structure. Whatever the outcome may be this structure will be very different and will have a profound effect on every student and every practising doctor. The framework is a five year undergraduate course followed by a preregistration year, this differs only in detail from the present arrangements. This is to be followed by a period of general professional training of three years in hospital posts, with the exception of G.P.s who will spend one year of this time in general practice. After this hospital doctors will spend another 2—4 years in junior appointments completing their specialist training. This looks very fine for those who are committed full-time doctors who have made up their minds as to what specialty they intend to practice and who can look forward to becoming specialists at 30 odd; but what of the others trying to find their niche in an increasingly complex and rigid system. Particularly relevant is the plight of women most of whom marry long before they are 30. How are they going to achieve specialist registration so that they can be G.P.s or hold responsible appointments in hospitals? If any such system is going to work, it will require detailed planning and wide co-ordination, at this moment we do not have sufficient data nor do we know how to get hold of it, and yet the leaders talk glibly of phasing the new structure in from 1971 onwards. A data seeking and planning exercise for one specialty which has been worked out in detail could not start until early 1970 and would take three years to complete. One way of dealing with this is to have a surplus of junior staff, this can be achieved by adding the three year general professional training period making the equivalent of a 4-year preregistration period.

junior staff

Anthother inevitable result of the new structure will be a reduction in the number of junior staff in relation to the number of consultants. This will cause a major change in the working habits of consultants, particularly in the peripheral hospitals. In these hospitals the consultants will have very few junior staff and will have to do the majority of the routine work, including that occuring at night and at weekends. This increased work will have to be done for the same salary and with the same small chance of getting a merit award, and in many areas with no chance of augmenting their incomes in private practice. Already there are several hundred consultant jobs which cannot be filled, most of them in peripheral hospitals in northern and central England. In future it is possible if not probable, that most newly registered specialists will attempt to get jobs in relatively well staffed and merit award blessed, teaching-type hospitals. If they fail to get such jobs they are going to be as likely to emigrate as to look for jobs in the less favoured hospitals of this country. The radical changes which are being planned with high ideals and inadequate information may result in unforeseen and unfortunate consequences for patients and doctors alike. The present students will be much affected by these changes, and yet there has been no evidence of real and active interest amongst students.

good reasons

There are good reasons for this state of affairs, some of which were mentioned earlier. In addition it is possible that students, like junior hospital doctors, are fearful of damaging their careers if they express radical views too strongly or pursue policies different from those for whom they work and whom they depend for professional advancement. It is possible that individuals feel that they can do nothing to alter the course of events. It is possible that the educational background of many students is too narrow for them to comprehend the complex issues involved These and many other

reasons can be advanced as reasons for doing nothing, but none of them singly nor all of them collectively are a justification for doing nothing. The history of the Junior Hospital Doctors' Association is a proof that a small number of individuals can have a decisive influence on events.

J.H.D.A.

The J.H.D.A. was formed in the autumn of 1966 by a group of doctors most of whom worked in and around London. The reason for its creation was a widespread dissatisfaction with the B.M.A. fanned by the resentment caused by the pay freeze. Its objects were and still are simple, namely: to obtain for all junior hospital staff proper representation on local and national committees; to obtain a better training and career structure for hospital doctors and to reform the pay and contract structure for hospital doctors and to reform the pay and contact structure as well as obtaining better term and conditions of service. The first major battle was for representation, the B.M.A. treating junior hospital staff as a minority group although they outnumber the consultants and are only slightly less numerous than the G.P.'s. An argument against change in the present system is that junior hospital doctors are too young and inexperienced to have their own committee, an indefensible argument in a country determined to enfranchise teenagers of any intelligence or education. The battle is far from over, the J.H.D.A. has taken over the largest part of the B.M.A.'s woefully inadequate machinery for representing the junior hospital doctor, but there will be no final solution until the junior staff are treated on the same basis as all other doctors. The second major battle on career structure and training has gone better so far. all proposals for reform contain the majority of the major principles for which the J.H.D.A. has campaigned. it remains to be seen how much will be lost in the crucial negotiations with the Ministry. The fact that the proposals are so much better than anything that has gone before is due mostly to the shattering victory over the medical assistant grade, a victory won by the J.H.D.A. The J.H.D.A. is completing the preparation of a policy for the radical reform of contracts and the pay stucture in the hospital service, the first complete and fundamental reform to be suggested since 1948.

relevance

What relevance has this to students and their political involvement? Firstly it shows that political significance can be achieved if a number of people are prepared to work hard. There has been nothing strange about the J.H.D.A.'s success which has been the result of careful planning to achieve defined objects. Also it shows that the established structures are not omnipotent and can be infiltrated with comparative ease, and it has been shown that you can be a radical politician and still survive professionally. The J.H.D.A. has offered to all medical students an opportunity to become associate members by each medical school joining en bloc. The idea is to provide students with an independent national forum in which to evolve their political ideas in conjunction with the junior doctors. and also to provide them with the means of publicising their viewpoints in a meaningful way. It is true to say that the J.H.D.A. has succeeded because of its press and parliamentary lobbies, these would be available to the students.

politicians

I have been impressed by the number of interested and competent politicians amongst the students and yet how few of them continue their activities after qualification. This is a great pity and I would hope that a J.H.D.A. student link-up would provide a basis for recruiting much needed politically active junior hospital doctors. Unless this is done the momentum which has been built up will be lost at a critical moment. Perhaps 1969 will mark the beginning of a new era in student politics in the same way as 1966 saw the beginning of a new era for junior hospital staff. For those of you who find the whole subject irrelevant may I commend for consideration Sir Francis Walsh's remark "Medicine is not a field in which sheep may safely graze.

Todd To-day

by

A. J. Newman-Taylor

Chairman of Teaching Committee

The publication of the Todd Report last year was followed by the proliferation of numerous committees, and a flurry of activity among existing ones to consider its proposals and their possible consequences. Discussion in the public press has been limited to keeping the public fully aware of the implications of the proposed medical school amalgamations. Opinion at Bart's is divided: some fear that if Todd's recommendations are implemented the identity of Bart's will be lost; the report has been written off by others as the expression of the misguided beliefs of one of the Hospital's consultant surgeons! Generally those who read it agree: those who have not disagree.

The real issues involved, however, seem to have received scant attention. Why was Todd asked to consider medical education? What are his beliefs underlying the report? To what extent can it be implemented? In other words: Was it worth it? Does it make sense? Is it practical?

The Royal Commission was appointed in June, 1965, to review the medical needs of the country in the last quarter of this century, and in the light of their findings to suggest the principles on which future medical education—both undergraduate and post-graduate—should be based. Their report covered 404 pages, which included 19 appendices, but underlying it certain very important assumptions can be seen. Great changes are envisaged in the pattern of medical services and care in the future: doctors will work in bigger organisations with better facilities than those that are familiar to most doctors today; a steady movement towards integration of hospitals, general practice and local authority services; and strong pressures towards interdependance and co-operation among doctors within each of these broad fields is envisaged. Furthermore the future is seen not as merely different from the present situation but as a time where change is constant and normal.

The implications of these assumptions for medical education are enormous. But of greatest importance is the change of emphasis in medical training from being primarily vocational, (as it is at present—scientific discipline being pursued little further than is directly required for future clinical work), to being primarily educational, "so as to produce graduates equipped to cope with a professional life characterised by continual change, and to leave strictly vocational training to the post-graduate stage where it properly belongs". In other words the medical graduate should not be equipped with a broad spectrum of ill-digested factual material on which he has to base most of his future practice, but with an understanding of his subject that will allow him to cope with the need to keep abreast of the continually changing pattern of medicine, which Todd envisages as the norm in the future.

To effect these suggestions a completely modified medical curriculum has been recommended. A three year preclinical course is suggested, of far wider scope than at present, leading to a degree in medical science. The course structure is based on a modular system. Some modules are compulsory, these include Anatomy, Physiology, Cell Biology, Behavioural Sciences, General Pathology, and introduction to Clinical Method, etc.) Others contain groups of limited alternatives, (these include further Biochemistry, Physiology, Anatomy, Psychology or Sociology, Experimental Pathology or Biology, and Genetics or Statistics). Finally an optional group which would range from computer science to a modern language and would include Clinical Science.

A course on as broad a basis as outlined here would obviously require a teaching staff with considerably wider abilities than are at present found, at least in the majority of London teaching hospitals. It was this consideration that has lead to Todd's most publicised recommendation—Twinning each of the medical schools to become the medical faculty of some college of the University, (in Bart's case, it is proposed that we twin with the London to become the medical faculty of Queen Mary's College).

There seem to be two main objections to this. A move to Q.M.C. could only be undertaken providing facilities there were at least equally as good as in Charterhouse, and financially it would seem totally impractical to erect buildings at Q.M.C. and empty the recently built medical college at Charterhouse. Furthermore the five minutes' walk between Charterhouse and the Hospital already presents considerable barriers to communication, which would become insurmountable were the medical college transported a further 2-3 miles from the hospital.

The immediate question is, therefore, can Todd's aims be effected at Charterhouse? A clinical course of two years is envisaged in the report, which would be based on collaborative methods of teaching, in which all the different aspects of a clinical problem would be discussed by specialists in each of the separate fields—both at the level of Ward teaching and in the Lecture Theatre. This would appear to be the most satisfactory way of teaching. But would the cost in man hours be justifiable? Full benefit from teaching at this level can surely only be obtained by basing it on a sufficient level of knowledge previously obtained, for which the report's recommendations do not cater. Some measure of didactic teaching will always be necessary to lay the foundations on which future discussion can be based.

In the field of postgraduate education the Commission sees the eventual integration of postgraduate centres with the undergraduate training centres. This will allow for the continuing education of qualified doctors within a strictly ordered framework leading to specialisation in any desired field.

But what for to-day? The proposals in the report will be a considerable financial burden to a country whose present economic difficulties are only too well known. The possibility that the major changes envisaged in medical school structure (particularly in the field of pre-clinical education) will be implemented in the next decade is remote. Thus what would seem to be of immediate importance is to examine the basic propositions of the report and see how best they can be applied to the present structure.

Few would dispute the Todd Committee's arguments for changes in the medical curriculum towards a more broadly based training. Considerable argument, as has been indicated, has developed over what is considered as a necessary accompaniment—the uprooting of the Medical College from Charterhouse to Queen Mary's College. At present a course along the lines suggested by Todd is under review for students at Barts'. This would consist of a three year Preclinical Course which, by incorporating 1st M.B. subjects and other courses in basic sciences, would enable students to study a wider range of subjects at "A" level as well as providing courses of sufficient depth to satisfy the needs of the Commissions recommendations. Simultaneously a two year Clinical Course is also under consideration. If adopted this would require the College to assume greater responsibility for pre-registration training.

The most urgent need at the moment, however, is a total revision of clinical teaching. At present nearly 150 students are entering the hospital each year. The number of beds in the hospital is about 820, which is far below the Goodenough Committee's recommendation made in the 1940's that there should be 1,000 acute non-selective beds per 100 student input per year. Furthermore, Barts' as a specialist centre deals primarily with conditions requiring specialised knowledge and technique. If Barts' is to teach satisfactorily, changes are needed: closer associations with more peripheral hospitals; regular compulsory visits to G.P.s; and casualty appointments in hospitals serving a large catchment area.

Re-organisation of Ward teaching is also needed. The Teaching Committee has suggested that instead of firm teaching—which is at present primarily dependant upon the conditions of patients who are currently in the wards, and will therefore only allow consideration of a narrow area of knowledge—a Department of Teaching should be created. All teaching would come under the auspices of the Department which would ensure a well balanced and integrated course both on the Wards and in the Lecture Theatres. This could be affected by amalgamating firms into units (for teaching purposes) and ensuring that every unit, in addition to traditional Ward Teaching, would have a set series of topics to be covered. Rotation of students through each of these units would go some way towards an integrated and well proportioned course structure.

Politics

What is happening on the political front? "The Journal" prints extracts from speeches made by Mr. David Ennals, M.P., Minister of State (Health). Todd, the Green Paper. Seebohm, these are all being debated, what happens will affect peoples futures.

"The Government is at present involved in a major review of the structure of the National Health Service—the first since the Health Service came into being over 20 years ago. Our aim is to formulate a unified administration of the medical and related services instead of the multiplicity of authorities which exist today.

"The starting point of this review was the Green Paper presented by Kenneth Robinson last July, when he was Minister of Health. This document has stimulated an extremely lively debate, not only among those who are themselves directly involved in the running of various aspects of the service—the doctors, the dentists, the nurses, the hospital staffs, the administrators, and those involved in local health and welfare departments—but also among the general public, or to put it another way, the potential patients. It is right that this should be so for the test of any system of administration must be the extent to which it meets efficiently and humanely, the varying needs of the patient.

"The Secretary of State for Health and Social Security (Mr. Richard Crossman) and I are now at the beginning of a series of meetings with representatives of the many interests involved. No decision will be taken until we have heard all points of view. Nor could we reach any clear decision in advance of the publication of the Report of the Royal Commission on Local Government. Equally we must consider the future of the health service in the light of the recommendations of the Seebohm Committee and the Royal Commission on Medical Education. But there are some assurances that I can give right now.

"First, the Green Paper does not represent any decision by the Government. Kenneth Robinson called the document 'tentative proposals' as a basis for discussion. That is just what they are. It would, I think, be surprising if the current review were not to lead to changes in some of the proposals put forward for consideration. The proposals were put forward in no 'take it or leave it' spirit. We are involved in general consultation.

"Second, both Richard Crossman and I strongly hold the view that the management of health services must not only be efficient but must be responsive to public and local interests. We must constantly relate the hospitals and the supportive services to the community they serve. Whatever authorities are set up must be linked to the community and in touch with local feelings. This means that we must retain a substantial element of voluntary participation in the management of health and related services.

"Third, we are anxious to find even more effective ways of dealing fairly and impartially with any complaints which may be made by the public about their health services. The idea of a health commissioner to enquire into complaints seems to have been well received.

"Fourthly, we must not do anything to break the essential personal relationship between the patient and his family doctor, dentist or optician.

"A number of important bodies are themselves, in the next few weeks, considering proposals for improvements in health service administration. No doubt there will be criticisms of some of the proposals in the Green Paper. Where this is the case I hope there will also be constructive alternative proposals.

"In the meantime, and while the review continues, we shall take every opportunity to promote effective co-operation between all those involved in the health and welfare of the people. One positive step is to press on with the establishment of new local health centres. Up to the end of 1964 only 21 health centres had been built: hardly more than one a year since the start of the National Health Service! Since the beginning of 1965, 62 new health centres have been built; 38 of them were opened last year; 70 more are under construction; and 170 are in the planning stage."

Mr. David Ennals, M.P., Minister of State, Department of Health and Social Security, speaking to a meeting of Reigate Labour Party at St. Peter's Hall, Limpfield, at 8 p.m. on Friday, 24th January, 1969.

Report on the B.M.S.A. Conference

by George Lodge

Seven delegates and one member of the academic staff from Barts, were among students and staff from as far afield as Bristol and Aberdeen at the BMSA conference on Medical education at Wellcome House on the 1st February.

Opinion

If there is one thing this conference achieved, it can be said to have brought to light the multiplicity of opinion amongst students and teachers throughout the country. Discussion was held on the implications of the Todd report but it soon became evident that several of the proposals contained within the report had already been implemented by some of the more progressive medical schools.

The two-tier system and five year course

Two factions were apparent from the start, whose diametrically opposed opinion on medical education were perhaps due to their failure to agree on the future pattern of medical care, which unfortunately was never remedied. Professor Warren of London Hospital gave blanket support to the Todd proposals, perhaps not supprisingly as the Dean of this school sat on the Royal Commission. A delegate from Aberdeen exemplified the opposition to the Todd report in her proposal that both preclinical and clinical courses should be radically shortened, so that training would be purely professional. A compromise solution was proposed in that two types of medical school should exist side by side which was accepted by the conference. However the Barts delegation felt that the setting up of a two tiered educational structure would lead to the dangerous situation of a dual standard of medical care.

The module system

Except for some isolated reaction a resolution was carried supporting the introduction of the module system as recommended in the report.

Integration

It was generally felt that integration was essential in providing a balanced view of medicine, and the various teachers should do their utmost to overcome their differences in order to implement this method of teaching. (Newcastle and Aberdeen, by the way, are already following an integrated medical course).

Examinations

A lot of discussion was provoked on the subject of continuous assessment, no conclusion being drawn except on the inadequacy of both this and the present examination systems.

Pre-registration

A resolution was passed accepting the need for extended pre-registration vocational training on conditions that adequate time for study, supervision, pay and marriage quarters were provided for junior hospital doctors.

It was felt that implementation of the necessary changes should be very much the responsibility of students themselves and that they should sit on curriculum committees with the staff.

As a point of information, St. Thomas's Hospital already have student representation on curriculum committees.

B.M.S.A.

by D. A. Stringer

This is the first of a series of monthly articles to show you what the British Medical Students Association can do, and is doing, for you. The first part of this article is to give you an insight into the foundation and basic aims of the B.M.S.A. The second part is the more important part as it tells you what B.M.S.A. is doing at the moment and the services which it supplies to you its members.

The Foundation of B.M.S.A.

Up until May 1940, medical students were represented by the National Union of Students. This was unsatisfactory as medical students were a minority. Therefore the views put forward by N.U.S. tended to overlook the fact that the courses followed by medical students were different from those of the majority of students belonging to the N.U.S. So in May 1940, the B.M.S.A. was founded. In the beginning the organisation was a Faculty Sub-Committee of the N.U.S., but early in 1942, the present autonomous B.M.S.A. was established.

The Basic Aims of the Association

These are indicated in the Constitution:—

(a) To provide the means whereby medical students in Britain can meet and participate in matters of common interest.
(b) To represent the interests of medical students in Britain for all purposes and to present their views on any matters of special or general interests to medical students.
(c) To provide the means whereby a liaison, co-operation and exchange of views between medical students in Britain and the medical profession in Britain may be established and facilitated.
(d) To provide the means whereby a liaison, co-operation and exchange of views between medical students in Britain and those abroad may be established and facilitated.

The Activities and Services of the Association

Education

In the past it was in this field, perhaps more than in any other, that the Association gained recognition both amongst University teaching staffs and members of the profession.

For the purpose of discussing the recent Todd report, a Symposium was held on February 1st. The results of this are published in this edition of the "Journal". The symposium was organised by Miss A. Hill, the London Region Chairman of B.M.S.A. She obtained advice from Dr. Sturzaker, a past President of the B.M.S.A., who produced an excellent report on medical education a few years ago. This symposium was held in order to obtain opinions from a wide source to help B.M.S.A. form a policy concerning the Todd report. This policy will be formulated at the B.M.S.A. A.G.M. in March, so please give the Representatives your opinions.

Films

The Association encourages the demonstration of medical films. If anyone is interested will they please get in contact with one of the Bart's representatives suggesting the type of film they would like to see and we will do what we can to comply with these requests.

Grants and Welfare

For this I will reproduce an extract from a recent circular:—

"The B.M.S.A. presented evidence to the Brown Committee in a document entitled 'Report on Grants for Medical Students', which was prepared in 1967. This document contained the findings of surveys on medical students' cost of living and also estimated minimum costs of books and instruments".

"Expressed as final figures these findings were:

1. Average cost of living—
   in London £592 p.a.,
   in provinces £477 p.a.
2. Books for the whole medical course
   minimum cost £66.
3. Instruments and equipment in the pre-clinical years—
   Minimum cost £16 15s. 0d.

"The document concluded with some modest and not unreasonable suggestions as to the method of payment of medical students' grants. The most important of these was a request that grants should be paid as '£X per week for Y weeks, as compared with 30 weeks at one rate and the rest at another'."

The Brown Committee's recommendations compared favourably with the B.M.S.A. figure. However the last suggestion given above was ignored. This put medical students at a disadvantage because the "extra attendance or vacational study" which is said to operate after the end of 30 weeks is compulsory. The grant given for this "extra attendance" is significantly below that given for the other 30 weeks. This causes the weekly grant to drop dramatically when considered over the whole year. Added to this is the fact that clinical students cannot augment their income by holiday work.

This is why B.M.S.A. is pressing for medical student grants to be reviewed in May 1969, and why B.M.S.A. is requesting that the two component system of grant payment is abandoned.

You can help in this by lobbying your M.P. I have duplicated letters available on request which you have only got to sign, address and send to your M.P. Some of the replies that we have received have been sympathetic if nothing else. Therefore the more lobbying the better, as this, we hope, will cause them to support our claim.

Travel Facilities

B.M.S.A. is a founder member of the International Federation of Medical Student Associations and takes a very active and important role in the federation.

B.M.S.A. is able to organise clerkships abroad for its members and clerkships in Britain for foreign students. B.M.S.A. also organises study tours, medico-social visits etc., abroad for its members.

Small grants are available to help you out over travel expenses. Application forms are available from the representatives. The closing date for these is 15th March so act *now*. A number of application forms have already been distributed following the advertisements on your notice boards.

Fund for Czechoslovakian Medical Students in This Country

The fund was organised after the Russian invasion of Czechoslovakia to aid any medical student refugee who wished to continue his studies in this country. Therefore it now helps any such student in immediate financial difficulty, and assists in the supply of the expensive books and instruments which their studies require.

The response to the appeal has been very generous and money has been distributed to some very grateful students. Any further advice on how to raise money for this fund or any other aspect of the fund will be gratefully received.

B.M.S.A. and J.H.D.A.

Clinical students at Barts are now members of the Junior Hospital Doctors Association. Is this right? Should the B.M.S.A. join en bloc? There has been a lot of discussion about how we as students can benefit from joining J.H.D.A., and how much they can benefit from our joining. But this misses the most important point which is that we just cannot afford not to be intimately connected with the J.H.D.A. They are deciding what our future is going to be. This to them is naturally of secondary importance when they are considering what their own future is going to be. Therefore we must have a close link to be able to give them our views, and to give them strongly.

The Green Paper

This, fundamentally, is concerned with the de-centralisation of the N.H.S. In London it might work, but it definitely would not work in the provinces. An example of this is that all major surgery on patients in the Lake District would have to be done in Newcastle. This is excellent for the administrators but terrible for everyone else. Imagine the journey for someone who is ill, and the difficulties for their relatives to visit them. To some this may be a blessing, but to most, support in time of stress goes a long way to maintaining morale.

Faults of the B.M.S.A.

There is one major fault in B.M.S.A. This is the lack of co-operation between you, the represented, and us the representatives. The fault is on both sides, so I will ask you to read the B.M.S.A. notices, and to voice your opinions, queries, and complaints to your representative. By doing this, you will enable us to use our considerable political power to promote your views. We do have a considerable political power which, unfortunately, is not used to its full extent because we do not know what opinions you want voiced—with the one notable exception of grants.

These are just some of the B.M.S.A. activities. A meeting to discuss all these subjects and others will be held, with luck before the end of the pre-clinical term. Please come to it. Your views are important as this is what we are trying to represent.

SO PLEASE EXPRESS THEM

Teaching Committee

The Teaching Committee produced a report which was published in November. The purpose of this report was to show how some of the aims set out by the Royal Commission on Medical Education (Todd report) might be implemented at Barts. Some of the proposals concern the "coalescence" of institutions. The Teaching Committee did not concern itself with these but with what could be done at Barts with the facilities that already exist. The report was made available to staff and students in December.

The Teaching Committee met the Sub-Dean at the end of November. Mr. Hill explained some of the plans at present being considered by the medical college. Changes in the pre-clinical course are being considered which may lead to a three year course in Charterhouse. It is hard to see how the total length of the medical course could be increased. Such changes in the pre-clinical course would inevitably lead to changes in the clinical part of the course.

Mr. Bourne invited the committee to meet him at the end of last term. He explained developments being made in the department of Obstetrics and Gynaecology. New methods of teaching are soon to be used This has become more urgent because of increasing demands in clinical care and research. Since the staff of the department is limited, greater efficiency is needed to maintain standards. Mr. Bourne said that the effectiveness of teaching in the department was under review. Multiple choice examinations have been in use over the last year. These are marked on a computer. The use of a computer allows additional factors to be analysed. Among these are the variations in answers from students who have been taught at different centres as part of their course. By the use of these examinations a base line has been established. Changes in teaching can be assessed against this.

One change has been the introduction of tutorials. Following this there has been a consistent and sustained rise in the standard of examination results achieved by those who attend. 80% of those who attend were found to be in the top third of the merit order. Another interesting finding is that three quarters of what is learned by a student is learned in the first two months of the course.

Teaching machines are being introduced into the department of Obstetricts and Gynaecology. Mr. Bourne explained that this would allow students to acquire the theoretical background to the subjects and free the traditional ward round for clinical discussion around the problems of individual patients. In this way the limited time available for teaching would be used most effectively and the problems of each patient could be discussed in greater depth.

The Teaching Committee was shown a programme on prolapse of the uterus prepared for a teaching machine within the department. This type of presentation consists of coloured diagrams linked with a commentary. The programme is placed in the machine in a pre-loaded cassette, the machine automatically plays the tape and projects the diagrams on to the screen. The machine can be stopped at several points in the programme.

The combination of coloured diagrams and linked commentary easily hold the attention. Each point is carefully established and reinforced as the programme proceeds. Those points especially difficult to grasp are given special emphasis.

In comparison with the old-world lecture the teaching machine programme of this type has many advantages. It is easier to learn from and probably communicates more in the same time than the lecture. Moreover it allows the student to learn at his own pace, and to repeat the programme. Freedom to choose the time of day at which the programme is seen would probably add to its effectiveness.

Very specialised skills and techniques have to be acquired for the production of programmes for teaching machines. A mixture of television expertise and a thorough understanding of the theory of teaching is needed. The single programme seen by the Teaching Committee had taken six months to prepare and in addition required the services of a skilled medical artist.

Mr. Bourne said that he hoped to introduce soon a series of teaching machine programmes which would supplement and largely replace the existing course of lectures. About 80 programmes would be required for a complete course. He hoped that students could be encouraged to take part in the production of programmes.

The Teaching Committee wishes to thank the following members of the teaching and consultant staff, whom it has recently seen, for their interest and encouragement:
Dr. A. W. Franklin, Physician in charge of the department of Child Health, Dr. H. W. Balme, consultant physician, Dr. J. S. Malpas, senior lecturer in medicine, Professor J. P. Quilliam, professor of pharmacology, and Professor M. de B. Daly, professor of Physiology.

J. F. Burman, Secretary of the Teaching Committee.

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teaching committee report

Last December, copies of the Teaching Committee's interpretation of the Todd report were made available to all consultant staff and students, and students were invited to reply with their comments and suggestions for the teaching at Barts. 85% of those who replied were in general agreement with the Committee's report. Only 5% rejected it. In addition to the proposals in the committee's report the following suggestions were received:

Fewer pre-clinical practicals
Lists of daily teaching
More teaching machines
More work with GPs
Special casualty appointments

A large number of students commented on the high standard of the teaching in the department of Obstetrics and Gynaecology and recommended other departments to take note of this.

The Teaching Committee has taken note of the above recommendations and is passing them on to the staff of the college. It is considered that in view of the large measure of agreement with the Teaching Committee's report, this should remain the centre of the discussions that the committee is at present having with members of the staff

Many other suggestions were made by a small number of students; obviously only those made by a large number can be printed here, but all are being considered for their usefulness.

Paul Dieppe (Retiring Secretary).

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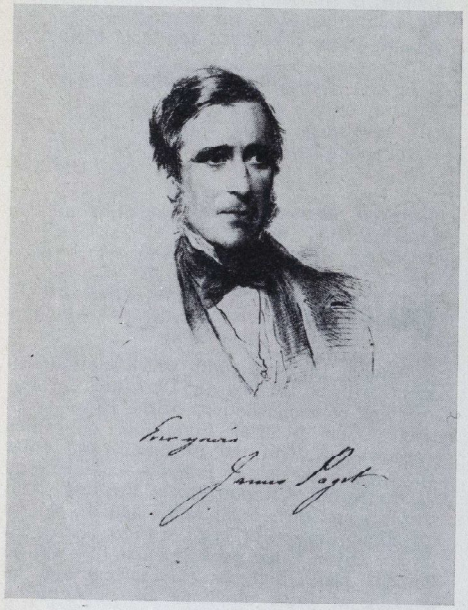
politics

"Among the issues with which the Government will be dealing in 1969 are the far-reaching recommendations of the Royal Commission on Medical Education, on which consultations with the profession and other interested bodies are in progress. Consideration of the Seebohm Report on the personal social services and their organisation and the review of administration of helth services stimulated by the Green Paper published last July will be priority tasks, and the Government will be looking at these alongside the forthcoming report of the Royal Commission on Local Government. In further preparation for future planning a major study of the home help services by the Government Social Survey is to be published during 1969, and an even bigger study of the chronic sick and handicapped is under way."

Mr. David Ennals, M.I., Minister of State (Health), Department of Health and Social Security, speaking at the Guildhall, Sandwich, Kent, at 7.15 p.m. on Friday, January 10, 1969.

Sir James Paget



Courtesy Dept. of Medical illustration

by

Dr. A. Batty Shaw

SIR JAMES PAGET (1814-1899) was the son of Samuel Paget a brewer and ship owner of Great Yarmouth who in 1812 built for his growing family a handsome house in South Quay, a quay of which Daniel Defoe wrote that it was the finest in Europe. It was in this house, No. 59 South Quay that Sir James Paget was born on January 11th 1814. In the late nineteenth century the house was sold by the Paget family to the Corporation of Great Yarmouth who used the building for a School of Science and Art. In 1902 at the suggestion of, and due to the personal generosity of, the then mayor of Great Yarmouth, Colonel W. Diver a plaque was built into the front wall of the house to record that it was Sir James Paget's birthplace. Photographs of both the house and commemorative plaque were published in the *Eastern Daily Press* of January 8th 1914, when the pages of this local newspaper carried an account of the celebrations that took place in Great Yarmouth in honour of the centenary of Paget's birth. No. 59 South Quay remained in use as a School of Science until its complete destruction together with many other buildings in the vicinity during an air raid in 1941. No trace of Sir James Paget's place of birth survived and from enquiries that I made early in 1968 the commemorative plaque was thought to have disappeared also.

Royal College of Surgeons

During 1968 I was engaged in preparing for the Annual Meeting of Fellows and Members of the Royal College of Surgeons, that was held in Norwich in September 1968, an exhibition of some Norfolk medical men. Sir James Paget, one of the original three hundred Fellows of the College, was one of these and my enquiries into his life had lead me to find out about his birthplace. They also lead me to a search for a copy of the book which he wrote with his brother Charles, *"A Sketch of the Natural History of Great Yarmouth"* (1834), so that this could be displayed in the exhibition. I was fortunate to be loaned a copy of this work which bore on its title-page the signature of Martha Paget, one of Sir James' sisters, to whom it had originally belonged and which contained in its end-papers a series of press-cuttings and letters about Sir James Paget which a later owner of the book had inserted. One of these press-cuttings was from the issue of the *Eastern Daily Press* of 1914 referred to, and next to the photograph of the commemorative plaque was a pencilled comment that this was in store at

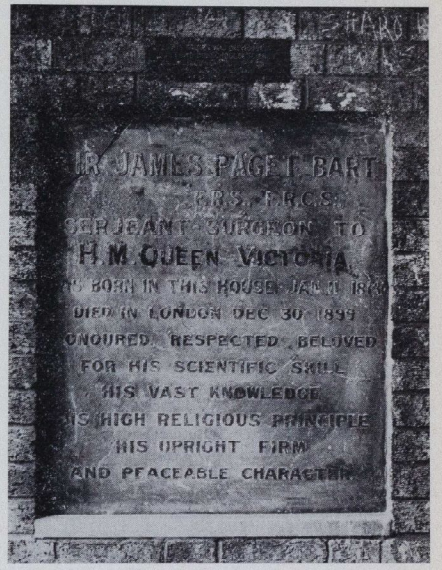
Great Yarmouth in 1953. This information was contrary to that which I had previously been given that the plaque had been destroyed with No. 59 South Quay in 1941. An intensive search was therefore made with the help of many people in Great Yarmouth to try and find the plaque. Many store places and other sites were searched but with negative results. After a number of months the search had all but been abandoned when the plaque was found where one would expect to find it, that is near the site of Sir James Paget's birthplace.

rebuilding

To replace the destruction of a large area of houses near the south end of South Quay during the war, the Corporation of Great Yarmouth launched an extensive rebuilding scheme in the post-war years. As part of this re-development a block of flats was erected on the site of No. 59 South Quay in 1953 and into a wall of these flats the Paget commemorative plaque was incorporated. It is placed in a passageway between flats No. 97-101 South Quay and though it can readily be seen in the photograph in Figure 1, which has been especially taken to display it, a person could walk along the pavement in the foreground of the photograph without noticing the plaque. That this plaque is to be found today so near to the site where Paget was born is due not only to the memory and inspiration of the person who recalled that the tablet was in store after the Second World War, and could appropriately be re-erected in the building of the flats, but also to the unknown hands who rescued it from the rubble which covered the area after the devastation of the bombing in 1941.

christened

After his birth at No. 59 South Quay Sir James Paget was christened in the parish church of St. Nicholas where he erected during his life-time memorials to his parents. Both the church and the memorials were destroyed with his birthplace, during the bombing raids on Great Yarmouth in 1941. But both the church and the memorial have been renewed. St. Nicholas', the largest parish church in England, was rebuilt in 1961 and at this time a tablet was placed in the north aisle next to the Lady Chapel with the following inscription, "This tablet set up in 1961 by their descendants replaces the former memorials whereby Sir James Paget First Baronet 1814-1899 Sergeant Surgeon to Queen Victoria commemorated his parents Samuel Paget (1774-1859) merchant and one time Mayor of Great Yarmouth and Sarah



The Paget memorial plaque which was erected in 1920 on No. 59 South Quay and in 1953 was re-erected on the north wall of the passage way shown in Figure 1. "Sir James Paget Bart, F.R.S., F.R.C.S., Sergeant Surgeon to H.M. Queen Victoria, was born in this house January 11th, 1814. Died in London December 30th, 1899. Honoured, respected, beloved for his scientific skill, his vast knowledge, his high religious principle, his upright firm and peaceable character".

The smaller inscription above the plaque records that "This tablet was previously built into the School of Science which stood near this spot until its destruction in an air raid in 1941".

Elizabeth (1778-1843) who with several of their children rest in or near this church". As another record of their association with the church, the arms of the Paget family hang on the wall of St. Nicholas' not far from those of the Cooper family. The Cooper arms are those of a second Norfolk family to produce an eminent surgeon of the nineteenth century, Sir Astley Cooper. Sir Astley Cooper's father who died in 1800 was vicar of St. Nicholas' during the life-time of Sir

James Paget's parents, and the paths of these two great surgeons of Norfolk birth were to cross again in 1836 when Sir Astley Cooper examined Paget for the Membership of the Royal College of Surgeons, and asked Paget to breakfast with him on the following morning. St. Nicholas' was the scene in January 1914 of a service to commemorate the birth of Sir James Paget in Great Yarmouth a hundred years previously and the sermon was preached by one of his sons the Right Reverend Henry Luke Paget, then Bishop of Stepney and later Bishop of Chester. To mark the occasion another son Stephen Paget, surgeon, biographer and essayist, presented some of his father's table silver to the Corporation of Great Yarmouth. This silver remains in the possession of the Corporation together with the ceremonial key which Sir James Paget used to open new buildings at Great Yarmouth Hospital (now Great Yarmouth and Gorleston Hospital) on September 20th 1888. A ward of the Hospital is named Paget Ward in his memory and his portrait hung in the Hospital's board-room until it disappeared during the Second World War. There is another portrait of Paget in Great Yarmouth which is a copy of the original by Sir John Millais at St. Bartholomew's Hospital. It was presented to the Corporation of Great Yarmouth by some of his friends "in remembrance of his eminent public activities and his estimable character". It used to hang in the Town Hall but is now in the entrance hall of No. 4 South Quay. This is a fine Elizabethan house with some outstanding timber and plaster work, owned by the National Trust and leased to the Corporation of Great Yarmouth. It seems appropriate that Paget's portrait should hang in this house at the northern end of South Quay where he was born.

birthplace

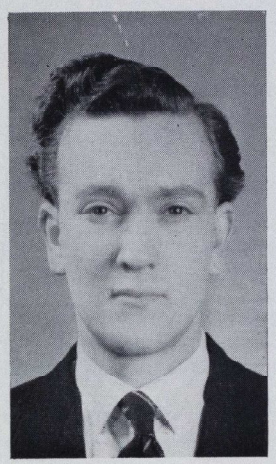
Those who seek the birthplace of Sir James Paget at Great Yarmouth may well encounter difficulty in tracing its site. It is therefore felt that an account should be available in the journal of his own Hospital as to where this may be found and to record that the historic spot is marked by a commemorative plaque.

acknowledgement

Mr. A. E. Ellis, the eminent Norfolk naturalist, lent me the copy of *"A Sketch of the Natural History of Great Yarmouth"* which has been owned originally by Martha Paget and which had been given to him by the late P. E. Rumbelow, a Great Yarmouth naturalist and antiquarian. It was from a pencilled note by P. E. Rumbelow in the end-papers of the book that I learnt that the Paget plaque had survived the Second World War and I am grateful to his son, P. A. Rumelow, for pointing out to me where it was re-erected. I am deeply indebted to E. A. Ellis and both father and son, Rumbelow, for providing the basic information on which this study rests and to P. Rutledge, Archivist to the County Borough of Great Yarmouth, for the great assistance he has given me. The photograph was taken by E. Fisher Ltd., of Great Yarmouth.

Courtesy of Dept. of Medical illustration

OBITUARY



Dr. Ian Howat

*

Dr. Ian Howat, M.B.B.S., M.R.C.S., L.R.C.P.—Doctor Ian Howat, aged 33, and his pilot, former Zambian Air Force flying officer Eddie Holden, were found dead in the Maluti mountains, Lesotho, following a 'plane crash which occurred on the 25th November, 1968.

Ian Howat was born on June 8th, 1935, and was educated at Eltham College from 1946 to 1953. During the years 1953 to 1956 he served in the R.A.F. with a view to training to become a pilot.

In 1957 he, however, decided to study medicine and came to Bart's in October, 1959, having gained exemption from the 1st M.B. course. During his Preclinical and Clinical years he became an established Bart's personality, and will long be remembered for his succession of exotic sports cars.

He took a keen interest in Cardiology and held locums for Dr. Hayward and Dr. Dawson after qualifying M.R.C.S., L.R.C.P. Conjoint Diploma in July, 1964, and M.B.B.S. a year later.

Pre-registration appointments included a House Physician post at St. Andrew's, Dollis Hill, and House Surgeon to the E.N.T. department at Bart's in January, 1965.

Following this work at home he decided to work for a year as a Physician to the University College Hospital, Kingston, Jamaica. It was whilst working there that he became keenly interested in the entomology of Jamaica, particularly the *papilionidae lepidoptera* — Swallowtail butterflies. This interest, and a very real sense of adventure, led him to the Amazon Basin. Alone in a dugout canoe he explored the Amazon River deep into the jungle, meeting up with several Indian tribes with whom he established friendly contact. During six weeks in the jungle he collected many rare, and indeed some unrecorded, butterflies which he presented to the British Museum, (Natural History).

Returning to the United Kingdom he worked as a Senior House Officer at the Osler Hospital, Oxford, for six months before taking up locum work in Lewisham and attending lectures at the Brook Hospital.

He was offered, in October, 1968, the chance of working as locum to the "Oxfam" Fying Doctor Service in Lesotho. He was due back in early December and was planning to join the Royal Society expedition to Central Brazil in the New Year to undertake futher medical research and entomological work.

Ian was unmarried; we extend our deepest sympathy to his relatives.

G.H.

SAINT BARTHOLOMEW'S HOSPITAL

JUNIOR REGISTRARS IN SURGERY

APPLICATIONS ARE INVITED for five appointments of JUNIOR REGISTRAR IN SURGERY, as under:—

3 posts: six months General Surgery/six months Special Department**
1 post: six months Emergency and Accident/six months General Surgery.
1 post: six months Neurological Surgery/six months General Surgery.

Applicants should state for which post they wish to apply and give a second choice.

The posts are tenable from June 1st, 1969, and the Salary Scales are those of A Senior House Officer in the National Health Service.

Applications, with the names of two referees, should reach the undersigned by Monday, March 17th, 1969. (Application forms are available from the Medical Staff Office).

Further information may be obtained from the Professor of Surgery or from Miss Turner in the Medical Staff Office.

**Urology
Orthopaedics
Thoracic Surgery

SENIOR HOUSE OFFICER
EMERGENCY AND ACCIDENT DEPARTMENT

APPLICATIONS ARE ALSO INVITED for the post of SENIOR HOUSE OFFICER in the EMERGENCY AND ACCIDENT DEPARTMENT. The post is for six months only and dates from June 1st, 1969.

Applications should also reach the Clerk to the Governors by Monday, March 17th, 1969, and forms are available from the Medical Staff Office.

J. W. GOODDY,
Clerk to the Governors.

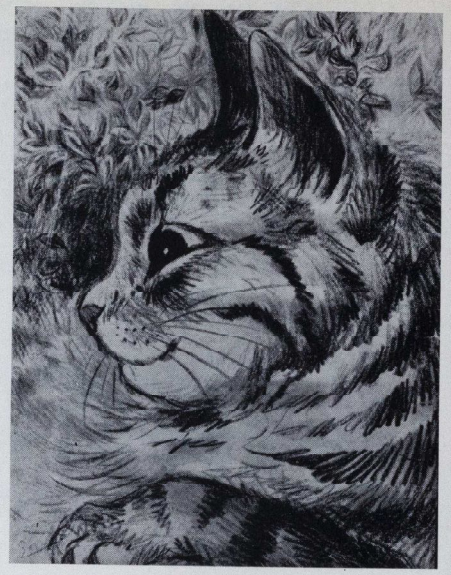
A Grand Dance

To be held under the auspices of the Journal, The Judo Club and the Fencing Club on Saturday, 29th March. Time 8 p.m. till 11.30 p.m. at college Hall. Music by the Golden Earthquake. Admission: Ladies – 3/6 Gentlemen – 4/6. The Bar will be open throughout the evening.

A paper written to answer the question:

Discuss the role of Constitutional and Enviromental factors in the Genesis of Schizophrenia

by Paul Dieppe



illustrating the article is a series of cat paintings showing the progression of a schizophrenic illness

Illustrations by courtesy of the Guttman-Maclay collection. Iinstitute of Psychiatry.

1. INTRODUCTION

The aetiology of schizophrenia is unknown. Every causative factor known to the medical profession has been implicated at some stage in the development of this subject, but the answer, if there is one, remains obscure. It is not the purpose of this essay to discuss all the theories in detail, although many will be mentioned in an attempt to assess the relative merits of the various approaches. The emphasis in this essay will be on the following four considerations:

a general principals of aetiology
b the validity of the various approaches
c the degree of mutual exclusion of the different theories of schizophrenia
d comparison with other physical and mental disease

By concentrating on these factors, I hope to convince the reader that much can be concluded about the aetiology of schizophrenia, and that it is not fundamentally in any way different from other diseases.

My thesis is:

"Schizophrenia is a sympton complex covering a wide range of disease entities; in some cases hereditary factors are the most important, in others the environment is predominant in causation. This does not preclude one underlying pathological process. In this way schizophrenia is no different from bronchitis or depression."

2. THREE IMPORTANT PROBLEMS

1. Definition of Schizophrenia:

All workers in the field of mental disease seem to have found a definition of schizophrenia impossible, this makes the comparison of different studies difficult.

The term schizophrenia covers a wide range of symptom complexes, with a total population incidence of about 0.85%, many workers split them into two groups:

a a hard core of patients with features of withdrawal, disintegration of thinking, feeling and behaviour and a tendency to morbid projections and hallucinations; all would diagnose these patients as being schizoprenic:

b a peripheral group of unusual symptom complexes, and stress related schizophrenic reactions.

2. Prejudiced approaches:

No one who studies the aetiology of schizophrenia is un-prejudiced. When Kraepilin first described the condition, he called it dementia praecox and thus implied an organic dementing process; a little later Mayer renamed it the schizophrenic reactions, and thus implied a quite different aetiology.

Approaches include the following:

"It must be genetic"
"Its a moral failure"
"Biochemistry will tell all"
"Freud alone was right"
"It reflects a sick society"

Consider the following quotations:

"It may now be regarded as established that heredity factors play a predominant role in the causation of schizophrenia" (Mayer-Gross textbook psychiatry 1960)

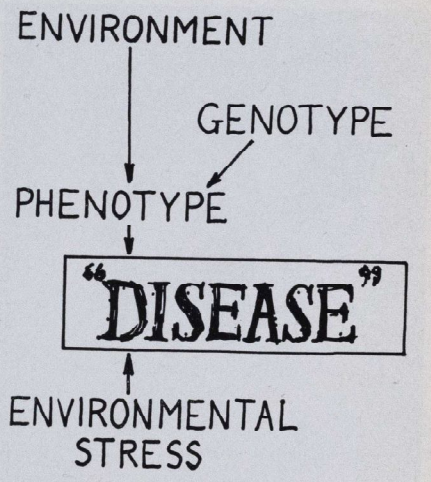
"Schizophrenia . . . is one of the potential fates to which man is subject in his efforts to find a way of life as an independent person" (Lidz et al 1965)

"The multiplicity of final results must at some stage be related to a multiplicity in the chain of causation" (Hamilton 1962)

I agree with the last quotation and will endeavour to show that the opposing views in the first two are not mutually exclusive.

3. Environment or Heredity:

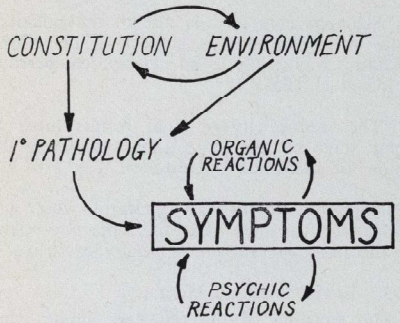
The wording of the question implies that constitutional and environmental factors are distinct from each other, this is not so as shown below:



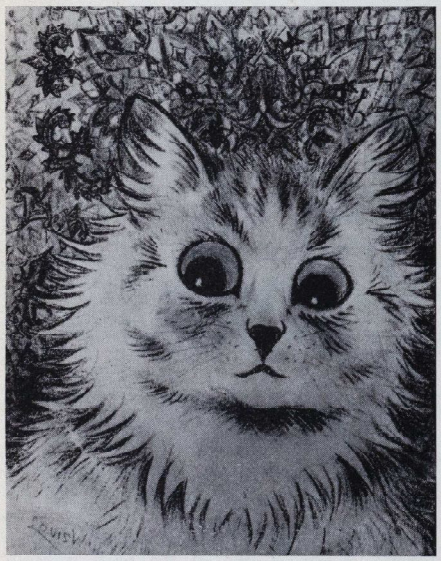
To distinguish betwen environmental and genetic factors is one of the most difficult problems in the aetiology of all psychiatric disorders.

3. PRINCIPLES OF AETIOLOGY

Assuming psychic determinism, the genesis of any psychiatric disorder may be represented as below:



The interrelations and the complexity of the subject are quite apparent from this diagram.



The following points should be borne in mind:

a understanding the development of symptoms does not explain the cause of the disease;

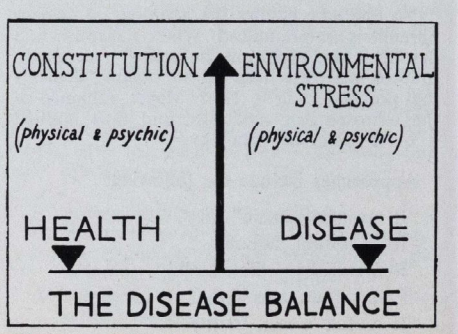
b discovery of organic or psychic pathology does not explain the cause either.

i.e. it is very important to distinguish between the three possible approaches of a study of any psychiatric disorder: the aetiology, pathology and symptomatology.

The above diagram also illustrates the fact that the genesis of any disease must be a dynamic process, and can only be understood in terms of the dynamic relationship between the phenotype and the present environment of the individual. There are those (see for example the work of Jaspers) who even believe that it is foolish to look for a cause of a psychiatric disorder, and that the only valid approach is to understand the processes of the mind and thus slowly approach the genesis in terms of the dynamics of the mind.

Constitution and Environment: the question distinguishes between the constitution and the environment, and thus implies that they are separable, it has already been pointed out that this is not so. In this essay the term constitution will be taken to mean the phenotype of the individual and it will thus include the environmental factors that interact to form the phenotype as far as is possible; environmental factors will include immediate precipitating stress and special stressfull environments that it is thought might be particularly likely to produce schizophrenic psychosis. It is often useful to approach the actiology of mental disorder in terms of stress versus phenotype.

Thus a balance can be drawn up, stress versus the constitution as shown below; although the proviso about the interaction of the two factors must always be borne in mind.



Organic or Psychogenic?

It is also important to realise that psychological and physical stress can have the same result in terms of the basic pathological change. It must for the moment be presumed that the pathology of schizophrenia is to be found in the metabolic and synaptic activity of the neurones of the brain; it is already known that neuronal activity can be permanently changed by the sensory input to the brain (Hubbel and Wiesel 1967), and it is thus likely that psychic stress can likewise cause a pathological change in activity of the brain; it is thus my belief, that the idea that physical and psychogenic theories of the actiology of schizophrenia are mutually exclusive, as some authors seem to have thought, is wrong.

The other main reason for physical and psychogenic theories being kept apart is the belief that the physchoses like schizophrenia are so incomprehensible to the normal mind that they must have an organic basis, this idea has been exploded by the work of Laing and others who have given plausible interpretations of the symptoms of the disease.

Questions to ask:

a does this work study the symptoms the pathology or the true genesis of the disease?

b does this study indicate precipitating factors or does it get to the root of the disease process?

c can heredity and environment be divided?

d does this paper indicate whether psychic or organic factors predominate in the genesis of the disease?

The second part of this paper will be printed next month, and will answer the questions posed; with it, will be printed the remainder of the cat illustrations, showing the progression of the disease state.

It has been called the Student Revolution—a misnomer, the revolution has yet to take place. It has been played down by some and played up by others. It has been expedient to do both. The "incidents" have been fragmented and treated in isolation. There are now activists, moderates, extremists: dissatisfaction, frustration and unrest are extreme.

The situation is explosive; but it is a position where the Establishment can much more easily defend than they can be attacked, any intelligent body in a position to do so, will make the rules to suit its own needs.

The platitude that it is easy to kick against the Establishment is unfortunately true; that it is easy is no reason why it should not be kicked; the corollary that by so doing, you will knock it down, is equally untrue.

The problem is how and by whom, is it to be knocked down. There have been attempts in the past and again more recently. Sometimes with full-scale riots, sometimes with isolated outbreaks of violence, sometimes through committees and negotiations. In the last year:— at the Sorbonne, University closed; at Nanterre, University closed; in Berlin, the Free University closed; rioting, Rome, Paris, Los Angeles; Madrid, University closed; Brussels, a cavalry charge against demonstrators; Amsterdam, more riots; Prague—students burn, country invaded, a state of Martial Law declared.

Some will say this is the work of a minority, some still say the Earth is flat.

At home, Hornsea, school closed; Guildford, school closed, many suspensions; disturbances at Essex and Brighton: and more recently at L.S.E.

On the tearing down of the iron grilles, Mr. Short, the Minister directly involved, told Parliament that it was the work of a minority: in particular, he cited four Americans, whose aim according to him was to disrupt the British University system; a loaded statement to a confused and worried public. What more ideal than it should be Americans who are made the scapegoats, Americans intervene too much in British affairs these days.

Taken at face value, that four Americans could indeed disrupt the whole of the British University system, says little for the system. Is the implied bathos as ludicrous as it seems?

In France, the wave of unrest of Spring '68 became the cause of the economic crisis later in the year. Danny the Red was described by a prominent French Minister as "this German Jew", was another witch-hunt reminiscent of the days of Robespierre, about to begin. It was possible that the Government might fall; in the end the popular cartoon showing a giant De Gaulle holding his hand over a student's mouth, with the slogan "tais-toi et sois jeune" proved to be only too true.This illustrates the basic problem faced by any student groups acting against an "authority", that of organised and successful communication between themselves and to the outside world.

That this is difficult, is in some ways by design and in others mere accident. To set up a permanent organisation which must draw its support from a changing population, in which people last three years, is obviously difficult: some people need three years to be aware of what is involved, let alone how to tackle it. Mass media are controlled by groups alien to student interest and cannot express their ideas. Karl Marx might well have been able to write in the *Times* but would find few converts to his cause.

By design, students' lack of organisation and communication is exploited, which is fair enough if you want to win. The public become confused on the issues involved, students are represented as having no coherent policies and nothing to say; anger and indignation are soon aroused by the mention of grants. To have bought a pound of flesh, not be able to eat it, and then watch it go bad, is an unhappy position to be led into. Soon the cries of "let's be reasonable" are heard.

Each side has its reasons, neither is ignorant of the others. To be reasonable is to take a bit of each: if so choice that disturbing entity, becomes unnecessary; for as well as paying for grants, the public pay for University teachers and in the end for the Government.

If the cry "let's be reasonable" is heard often enough, the choice that is made will be an irrational one and therefore become the logical thing to do.

Editorial

reproduction from Death of a Dream by courtesy of Michael Gassman Publications Ltd.
(Colour to Black and white by Dept. of Medical Illustration)

ANNOUNCEMENTS

Engagement

GREENWOOD—MCLAUGHLIN—The engagement is announced between Dr. Neil Greenwood and Miss A. J. McLaughlin.

Deaths

CROSS—On January 16, Group Captain Brian William Cross, R.A.F., M.R.C.S., L.R.C.P. Qualified 1924.

OLDERSHAW—On December 30, Herbert Leslie Oldershaw, M.D., M.B.B.S., M.R.C.S., L.R.C.P., D.P.H., aged 68. Qualified 1923.

NEW YEAR HONOURS

C.B. (Military)

Major-General Reginald Joseph Gordon Morrison, C.B.E., M.D., F.R.C.P., M., M.R.C.S.

C.M.G.

Robert Greenhill Cochrane, M.D., F.R.C.P., M., M.R.C.S., D.T.M. & H.

M.V.O.

Surgeon Commander Christopher William James Ussher, M.R.C.S., L.R.C.P.

O.B.E. (Civil)

Basil Martin Tracey, F.R.C.S., M.B.B.S., L.R.C.P.

APPOINTMENTS

Haile Selassie I University

Prof. Douglas Hubble, Dean of Medicine in the University of Birmingham, has been appointed Dean of the Faculty of Medicine at Haile Sellassie I University, Ethiopia.

Harveian Society of London

Dr. V. C. Medvei has been elected President-Elect.

Academy of Forensic Sciences

Dr. Michael Glanvill, already a Barrister and holder of the D.M.J., has been admitted to the Academy of Forensic Sciences.

Dr. Richard Langton Hewer has been appointed consultant neurologist to the United Bristol Hospitals, and the South Western Regional Hospital Board.

Acknowledgement

The Journal wishes to thank A. Cornelius for the use of his photograph on the cover of the Christmas issue.

Change of Address

Dr. B. Broadbent, to "Moonrakers", Wimbourne Road, Ferndown, Dorset. Telephone Ferndown 5543.

Lady Kennaway, to Flat 20, 5 Elm Park Gardens, Chelsea, London, S.W.10.

Dr. and Mrs. R. W. Collett, to R.A.F. Support Unit, R.A.A.F. Edinburgh, Salisbury, South Australia, B.F.P.O. 151.

Department of Anaesthesia

The next meeting will be held on Thursday March 27 at 6.15 p.m. in the Clinical Lecture Theatre.

Professor J. Landon, M.D., of the Department of Chemical Pathology, will speak on "Hyponatraemia in the Post-operative Period". Chairman: Mr. George Ellis.

THE 11th DECENNIAL CLUB

The next Dinner will be held again at St. Bartholomew's Hospital in the Great Hall, on Friday, June 6th, 1969. At this time of the year the Square is at its best and we had a very pleasant meeting there last year at which 50 members were present.

This year, the Chair will be taken by Dr. George H. Day of Mundesley Sanatorium. The cards with details will be sent out before the end of March. Secretary: Mr. F. C. W. Capps, F.R.C.S., 108 Harley Street, W.1.

Grand New Cover Design Competition

The Journal is offering a prize of £10 for a new cover design.

Conditions of entry:—none, no limit to the number of designs submitted.

Requirements of design:—to incorporate the words,

SAINT BARTHOLOMEW'S HOSPITAL JOURNAL

the design to be monochrome, i.e., one colour printed on white.

the size to be for a block 18,5cm. x 21,5cm.

Closing date for entry:—March 28th, 1969.

Entries to be submitted to the **Art Editor,** St. Bartholomew's Hospital Journal, St. Bartholomew's Hospital, West Smithfield, London, E.C.1., and to be accompained by the entrants name and address.

All entries will remain the property of St. Bartholomew's Hospital Journal and may be subsequently used at the discretion of the editors.

All entries will be acknowledged and the result published in the May issue of the Journal.

Editor's decision final.

Staff Vacancies

The Journal has vacancies in the following posts:—

Social sub-editor.
Assistant Clinical sub-editor.
Art sub-editor.
Charterhouse correspondent.
Managerial assistant

These posts are especially suited to first year pre-clinical students and to those students who are doing their first clinical year. Applications are particularly sought from people who would like to get an idea how the *Journal* is run with a view to taking over more senior posts in the future.

Applications in writing should be made to the Editor, The Journal, before March 25th.

Classified Advertisements

A new service open to Journal readers. These will be printed at a cost of 6d. a word. Ads. must be received by the end of the third week in the month for publication on the first Monday of the next month and must be prepaid for inclusion. Advertising copy to be addressed to the Advertising Manager, Bart's Journal, and cheques, postal orders made payable to St. Bartholomew's Hospital Journal, Journal Accounts.

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C. A. R. E.

by

Paul M. R. Milliard, B.Sc.

and

Stephen Whiting

(preclinical students)

The charitable organisation, Cottage and Rural Enterprises Limited (C.A.R.E.), is concerned with a new approach to the problem of:—

(a) integrating mental patients into a community, and

(b) educating patients such that each may perform a useful job of work within this community.

Re (a) A village farm, eventually to consist of small groups of "villagers" living in cottages, provides the "community" (under guidance of staff).

Re (b) The staff exert strong disciplinary and shock (verbal treatment to selected villagers on arrival at the village, in such a way as to re-orientate them towards work and overcome "resistance", albeit a resistance due to the inability to communicate.

The authors spent a period of six weeks working within the community, some of their observations are recorded in this paper. Owing to the limited experience of the authors the paper cannot be written using the yardsticks of technical jargon; however, the authors feel that recognition of the individuality of each "villager" by observing their daily traits is important.

The "discussion" is concerned with the possibility of educating the villagers sufficiently to enable them to perform work which will utilise the potentials in each "villager" and tend to render the community financially independent.

OBSERVATIONS

Two autistics, Peter (24) and Jenny (18), were observed to be of very different character.

PETER is a compulsive worker, can play the piano and 'cello and enjoys listening to classical music; he is compulsive concerning his personal cleanliness. He is very technically minded, and is quite capable of performing everyday carpentry work, etc. to the extent of designing and building such things as dovecôtes. On being shown a copy of plans for alterations to the farm buildings, Peter kept the copy and added his own refinements, such as meticulously Tudorising the windows.

Peter learns very much by experience and many of his questions begin "What would happen if. . . ?" As much as possible he is allowed to pursue his thoughts experimentally. He does not forget the result.

These sound very "normal" observations, however Peter is obsessed by, for example, ducks, and has tape-recorded duck sounds and constructed a system of speakers in a C.A.R.E. van, so that he can listen to duck sounds whilst travelling.

Lack of communication is the mill-stone of autistics. Peter will never talk in terms of "I" or "you", indeed his communication is almost entirely technical—describing or enquiring about a Fillery Floor-Polisher, Sanitary Incinerators or gears of cars. A rather disturbing preoccupation with vehicles going down-hill in neutral gear, so that they would crash, always follows this pattern:—

"What would happen if a maternity-coach went down-hill in neutral gear?"

"It would crash."

"Into a pool of acid at the bottom."

"And. . . ?"

"All the babies and the coach would be dissolved."

His personal contact is solely with a mongol (Alan). Several times a week Peter will expect to receive a friendly pat on the bottom from Alan, at which moment he will put an arm round Alan and confide that either "There's an F.L.U. Polisher in the van", or that "There's a hairdresser in the van!"

JENNY, another autistic, is very different in that she is incapable of performing more than the simplest job, such as sorting socks from laundry. Whereas Peter is compulsive in his cleanliness, Jenny is of debased habits. It is well known that autistics may hoard faeces or nose-pickings as a recognition of their own identity, but Jenny began eating her faeces. Naturally this meant that she had to be kept under constant supervision until the habit was forcibly broken. Jenny also had temper tantrums, these being manifested in tearing her clothes—the strength needed to tear some clothes being remarkable. Constant supervision cured both tantrums and the debased habits, but she now has an enormous appetite which is probably a form of substitute or self-compensation for the cure of her habits.

Physically, she is a large girl and could be attractive; she menstruates regularly. She has womanly interests which sometimes cause embarrassment since female visitors may have their skirts lifted by Jenny—as an attempt at communication or possibly as an interest in underwear fashions!

ANNIE (21) is a cretin. Her hair is grey and her skin puffy, symptoms of her hypothyroid condition. She spends a lot of time incessantly chattering about herself and her clothes. Male visitors interest her, but their attraction is small compared with that of the Director whom she calls "My Hero", and o whom she gives almost undivided attention. Annie enjoys any attention paid to her and will bubble with pleasure, energetically rubbing her small, podgy hands together with excitement. Even when the Director is warning her about her behaviour or punishing her, she will seem to derive some satisfaction from the attention. She shows a certain masochistic streak, in that she is disappointed if the Director does not physically punish her. If she feels ignored, she will begin a series of large sneezes in an attempt to restore herself as the focus of attention.

She helps in the kitchen by wiping-up and bringing in the food at mealtimes. Concepts of numbers and time have little meaning for her. She has a watch which is worn as an ornament and a status symbol, but is unable to derive any intrinsic usefulness from it.

Two mongol patients, David (high grade) and Alan (low grade) vary considerably. By high grade it is inferred that David can both read and write equivalent to the standard of a ten-year-old child. His level of apparent understanding of situations is much higher than that of Alan's, but Alan is far more emotionally responsive—almost to the point of being emotionally extrovert.

DAVID is extremely punctual, polite and compulsively tidy. Every article in his room has an allotted space that is not to be disturbed. He works in the kitchen where he carries out the menial tasks of cleaning, washing-up and tea-making, enjoying the routine that housewives are apt to call drudgery. David is most disappointed if there is no washing-up before breakfast, as it is these familiar events that give him a bearing for the day. Each entry in his diary starts "I got up today. The sun was shining. I went down to the kitchen.". This seems to suggest that each day is a new experience and not merely a repetition of the previous day.

David has a feminine tendency in interests and conversation. Male members of the staff or visitors, though none of the male inmates, can become objects of worship and are bombarded with attentions—love letters,

presents and extra privileges such as having biscuits with their tea. These men, together with television characters, become intermingled in his imagination, and his fantasies are acted out in vivid dreams.

David keeps aloof from the activities of the other male inmates. His only masculine hobby appears to be a meticulous interest in the timetable of London Underground trains. The latter is a source of pride to David; while on his "holiday" he spends hours travelling from A to B on tubes, taking great pride in reaching every B!

ALAN (21) became integrated only after considerable disciplinary stress. Initially he would demonstrate against performing "his" job by, for instance, stripping off all his clothes —this was counteracted by waiting until he was naked and then spanking his bottom hard. He also received punishment for potentially dangerous "offences", such as removing casings from light switches. In an attempt to save face during punishment Alan would swear at the Director, this too invited more punishment.

This basic pattern of discipline was finally rewarded when Alan cried, i.e. he either felt guilty or was becoming emotionally responsive. Since that time his mental attitude has been one of attentiveness and generally obedience.

Unfortunately, Alan's early misdemeanours made him unpopular with the other "villagers", accentuated by the fact that Alan would throw stones at any "villager" who was working properly, thus no one would communicate with him for fear of personal reprisal. However, after the crying episode, Alan wishes to communicate and learnt to do this by (a) learning to play the piano, and (b) imitating various animals.

His capacity for imitation and the response which it evoked in his "audience" became the basis of Alan's now apparently extrovert behaviour. Alan will quote, quite correctly, long passages from a film such as "Camelot"; imitation now being his security for communication he insists that he is to be called King Arthur, Ringo or Sir Lancelot, and will go through elaborate processes of knighting favoured friends.

Alan's work performance is, at present, restricted to jobs which are repetitive, such as pulling up shallots or creosoting walls, jobs he performs with methodical care. However, jobs such as hoeing, necessitating a variety of movements and a decision as to where the hoe should be placed and as to which plant should be removed, require permanent concentration, which is beyond him at the present time.

Alan can still be difficult at times; if he starts the day throwing stones at chickens it is likely that he intends to be unco-operative in his work.

Alan seems to be more emotionally attached to his parents than any of the other "villagers". He refers to his mother as his husband and/or his wife! At the end of a holiday he appears genuinely unhappy when leaving his parents.

ALASTAIR (24) is an epileptic, a spastic and has brain damage. His sight is very bad and he is very weak and gangly; (his testes have not descended). He is drugged for his epilepsy, but still has paralytic fits which last for about 15 seconds when he is highly excited.

Alastair arrived at Blackerton unable to perform the simplest task, probably due to a collection of reasons such as:—

(i) his parents had given up trying to make him work at all, consequently he did not know how to approach a job of work
(ii) being drugged, his awareness, and consequently memory of what job he had to do, was lacking
(iii) his spasticity.

The Staff began a course of severe disipline which has been continuing for several months (now lessening). The discipline was originally so severe that to an outsider it appeared almost callous, but before describing examples it should be stated that the end result is amazingly successful.

Alastair would be told, for example, to sweep the stairs, within a minute or so he would have forgotten what job he was doing and would just wander around. He would then be pounced upon and led back to his job amid verbal abuse. Soon after he might have forgotten which side he had cleaned, or which end of the stairs he had done, so more abuse followed. By meal time he would be asked "Have you finished your job"? "Yes". On inspection he probably had hardly begun, so as a punishment he would be made to stand in a corner during lunch (this thoughly upset Alastair) and then given his lunch later in the kitchen.

Gradually Alastair learnt to do a simple job but equally quickly he learnt how to avoid a job even to the extent of trying to find a new job to get out of the first one. Discipline is still maintained often to the extent of finding something that he has done badly, and then ticking him off. Gradually the discipline has made him both aware of himself, his work and the "Ogre" or Staff. To counteract the "Ogre" the female staff act as mother figures, such that Alastair can "cry on their shoulders."

The discipline has proved successful in an unexpected way, while he is in an epiliptic fit, if he is told firmly "Stop that, Alastair", he will immediately come out of his fit. The authors can recall no previous mention of psychological control of epilepsy in this context.

Alastair is reminiscent of a boy aged 11, and is interested in cars and models. His communication is general and genuine and his understanding of situations around him is indicated by a developing sense of humour.

MICHAEL AND ROGER (twins aged 25). Both contracted menengitis at the age of five; their mental age has not changed since.

Both are physically normal and strong, but mentally they are absolutely "scattered". They appear to possess very little reasoning power and will answer questions by saying the first associated fact that comes to mind, or by repeating the last part of the question:—

"Am I Paul or *Stephen*?"
"Stephen". Immediately followed by,
"Am I Stephen or *Paul*?"
"Paul."

Both are mentally lazy and may know the answer but not think to give it:—

"What colour is your jumper?""
"Blue". (He is wearing yellow).
"No. Now *think*—what colour is it?"
"Yellow."

Due to lack of concentration, their working jobs must usually be supervised, otherwise they will just stand and watch passing traffic, literally for hours. Michael is mentally more capable than Roger, who will try to wheel a wheel-barrow over an obstacle rather than round it. A significant event for Michael was when he asked for a tractor and trailer to be brought to a wood pile so that he would not have to carry the wood, i.e. a positive thought. This may sound overstated, but if a positive thought can be made, then the possibility of inducing more by suitable teaching is evident.

Amongst other people the twins will talk nonsense—rather like budgerigars which probably reflects their thought processes. But they also have strong security conversation which is limited to several stock subjects, including football, cricket, hunting and military music. But in that it is security conversation, should they say "When is the cricket on T.V.? I want the cricket", and if one were to put on a cricket broadcast, they would still repeat, whilst watching it, "When is the cricket on?"

Other communication was made by laughing at or deriding anything which was said around them. They were the only two to share a room, but within the room they never talked. This is probably due to a lack of reasoning—they can only respond and not initiate.

They must both be told how to dress and, for example, lavatorial habits need strong discipline to try and instil habitual cleanliness.

Observing their emotions is difficult; signs of distress may be as obscure as, for instance, Roger putting his wrist to his ear to listen to an imaginary watch. In that Michael was the more intelligent, it would be expected that he would also be the more emotionally responsive, but Michael rarely shows any positive feeling (although he may respond to praise). The fixation Michael formed towards marriage led to "I'm getting married next Saturday." This would be recounted during the week until "I'm getting married today." When he found that he was not married at the end of the day he would simply change back to "I'm getting married **next** Saturday," with no sign of disappointment whatsoever!

DISCUSSION

Cottage and Rural Enterprises Limited (C.A.R.E.) consists of a farmhouse, outbuildings and about fifty-five acres of land typical of that found on the edge of Exmoor. In future years the farm is to be the focal point of a number of surrounding living units. Under the direction of a trained Staff it is intended that the "villagers" should help to exploit this environment in order to become semi self-sufficient. It is planned that the present "villagers" will form the nucleus of a community. The addition of new inmates throughout the lifetime of the present group will eventually lead to a village community of about a hundred and fifty people. The majority of the "villagers" will need attention for the rest of their lives, however, the addition of younger handicapped persons will give vitality and direction to the enterprise. The latter will also

prevent the scheme from becoming a geriatric unit in later years.

Within their own community, the "villagers" achieve a degree of "normality", in that their individuality and potential is acknowledged by the Staff. The "villagers'" achievement of a degree of self-confidence is usually coincidental with discovering that they are useful.

Alastair, Alan and the twins show far more potential than is evident on first sight. Their potential had been stunted whilst they lived at home, since parents are inclined to protect their children because of their disabilities. This is a natural reaction as the handicapped find difficulties in doing the smallest things for themselves; also it saves the need for constant repetitive explanations. Alastair, in particular, had difficulties in working, because of his poor physical state. Consequently it was a considerable shock for him when he arrived at Blackerton to find that he was to be regarded as a useful person and not as an invalid. His first reaction was to do his work badly in the hope that he would be relieved of it as an incompetent. This ploy was not accepted and he was made to repeat his task again and again until it was reasonably well done. When observed at this stage, shortly after his arrival, he was miserable. However, three months later, Alastair was beginning to accept the fact that he was capable of working and was much happier.

Peter, being compulsive in his work, and David to a lesser extent, had to be told that they had done enough work and made to stop. Giving Peter encouragement with his schemes and allowing him to find out through practise their practicality, was obviously valuable. The excitement generated in Peter through his being taught to drive a pick-up meant that he became a little more communicative. Work gives the autistic, such as Jenny or Peter, a shared experience with the Staff, and it is on this foundation that they form a basis for communication.

It was possible, as shown previously, to harness the energy Alan had used in an anti-social manner in a constructive way. He is now proud of himself since the community regards him as useful.

The extent to which the "villagers" may perform a job of work has been discussed broadly, but a realistic problem would be to what extent can the "villagers" themselves make the community economically viable.

At present the "villagers" perform rather vague jobs on the farm, such as stacking wood, spreading muck or pulling up shallots; or in the house simply washing-up, brushing stairs or laying tables. These jobs are very good for low grade defectives or newcomers to the community; the newcomers would soon gain confidence in learning how to tackle these simple jobs. (Michael and Roger might not progress beyond this stage.)

Economically, the "villagers" are making little, if any, significant contribution to the community. The Staff feel that proceeds from the farm are sufficient, however, the authors feel that such jobs as candle-making, lathe work (e.g. making lamp stands), constructing interwoven fencing, wrought-iron work, simple embroidery and running a small bakery, could be easily organized by the increasing number of Staff. The work resulting could well be of high enough standard to be sold on its own merit, rather than "as a sale for charity". Judging by the progress that each "villager" makes at Blackerton, the authors feel that once taught, the "villagers" could cope easily. Someone like Peter would have little difficulty with lathe work, likewise Alan and David with candle-making. Annie, Jenny and Alastair could all be taught how to bake enough bread not only for the community, but also for many local households.

The above ideas sound very simple in theory and given time could be put into practice. But why then have these ideas not been put into practice, except at a few similar "villagers" such as Camp Hill in Yorkshire? In some cases the reason is that varying organisations attempt to break through to the children mentally rather than through disciplined physical pressure. However, it is only through discipline that "villagers" will learn to work, and acknowledge themselves as being useful—mental progress then follows significantly quickly from that point.

Numerous institutions still maintain the ideas of "lock and key" under new guise and are not progressive enough to facilitate the potentials, mental or physical, of defectives. Development at Blackerton has proved progressive and effective; similar teaching by discipline centred on physical achievement must warrant investigation by other organisations in the light of:—

(i) the self-confidence and happiness of the "villagers";

(ii) increased communication of "villagers" with the Staff;

(iii) realisation of the potential economic viability of the community.

The third point is of importance since it means that contributions to C.A.R.E. lead to the teaching of "villagers" to **work** for themselves.

Love on the Dole

by our staff reporter

Students are usually confronted at some time in their early days at university with the problem of national insurance To most it seems an insurmountable iceberg, and for this reason they forget about it until the time comes when someone else does the thinking and they pay automatically. This seems to be the best policy and I propose to discuss it no further. However, among the vast catacombs of legislation, there is one corridor with which the student is often unfamiliar. This is the supplementary benefits scheme.

The supplementary benefits scheme provides supplementary pensions for the elderly and supplementary allowances for people over 16 who have left school and who are not in full-time work. Title to benefit does not depend on contributions but on whether the person's income would otherwise fail to match up to his needs (on the scales laid down).

The current standards for supplementary allowance are as follows:—

	£	s.	d.
Single householder	4	10	0
Married couple	7	9	0
Member of a household aged 21 or over	3	13	0
Member of a household aged 18-20	3	0	0
Member of a household aged 16-17	2	14	0
Addition for a child aged 11-15	2	0	0
Addition for a child aged 5-10	1	13	0
Addition for a child under 5 ...	1	8	0

If the claimant is a householder his rent and rates are added to his requirements as shown in the above table. If the rent is unreasonably high a smaller amount may be added. If a claimant or his wife own the house they live in, then the rent addition consists of rates and an allowance for repairs and insurance together with any mortgage interest they pay, but not repayments of capital. The supplementary benefit is calculated according to the requirements, including rent, but any capital or income may alter the final amount received. Part time earnings are ignored up to £1 a week. The capital value of a house the claimant owns is also ignored, but the value of other property and savings is treated as follows. If a claimant and his wife have less than £325 capital, it is ignored together with any income it produces. When the capital is £325 or more, both it and the income it produces is ignored but an assumed weekly income of 1s. for each £25 between £300 and £800, and of 2s. 6d. for each 25 above that is calculated instead. The assumed income is aggregated with any other income and the first £1 of the total is ignored. So capital up to £800 does not affect an allowance if there is no other unearned income.

The amount of a supplementary allowance calculated under these rules may be specially increased for exceptional expenses, such as a special diet in illness, and, in certain circumstances, a lump sum may be paid to buy necessary articles such as bedding.

This is just a brief rundown of the scheme, but the essential point I think is that these benefits do not depend on contributions under the national insurance scheme, and therefore any student who is not getting enough money to live on, and who hasn't paid any National Insurance contributions is entitled to apply for a supplementary allowance. The most likely group to which this may apply is the married student with children. Somtimes married students, "save up for a baby". They needn't, because this scheme will provide for their wife and any children. As already explained, up to £800 capital and any income it may produce is ignored. So if you are thinking of getting married and you would like to have some children but cannot afford it, don't worry, write to the Nation Union of Students and ask for their booklet "Social Security for Students", price 1s., and most of your problems will be solved.

SPORT

SAILING CLUB REPORT

Wednesday, November 27
League Match v. University College
Team: M. J. Williams, Miss J. Walworth-Bell, R. G. Chapman, M. Best.

This last league match of the Winter Term was sailed at the Welsh Harp in only the gentlest of breezes. In the first race the faster U.C. boat made a superb start and sailed over the course to win the race. Mike Williams was also in first-class form and by some excellent team racing and delaying tactics, held back the other opposition boat so that Roger Chapman could catch up from an undistinguished start and a bad first leg of the course. However Chapman left his recovery a fraction too late and although all three boats finished neck and neck with some exciting duelling up the last reach, the U.C. boat managed to retain 3rd position.

The second race was similar in that Mike Williams gave us a superb demonstration of how team racing should be done. This time all four boats battled their way up the last leg in a dying breeze. Chapman managed to sail past the other three boats to leeward whilst Williams first came up and then sailed one of the U.C. boats right on past the mark. Although Bart's came in 1st and 3rd in this race, by the time we had sorted out two collisions which had occurred earlier, it became apparent that the U.C. would have the match and so we conceded without resort to protest.

United Hospitals Team Racing Trophy:

This event took place at Burnham-on-Crouch over the week-end of November 30th and December 1st. A strong Bart's team was entered and the members excelled themselves in winning the Trophy—The Harvey Wright Gold Bowl.

The team was:—
John Shaw and Brendan O'Farrell
Hugh Tubbs and Diana Robinson
Mike Williams and Angy Williams.

Six teams were entered for the competition, from the London, U.C.H. (two teams), St. Thomas's and a combined Guy's and Mary's team. The sailing throughout was of a very high standard and the success of our team very creditable.

The competition was organised by dividing the teams into two leagues. Each member of a league sailed against the other members and the two best teams from each league met for the semi-finals and finals.

Due to some diabolical organisation, the Bart's team did not sail at all on the Saturday and although it was a miserable wet and windless day and not at all ideal for sailing, several people had a wasted journey to Burnham.

Sunday dawned extremely cold, but there was a Force 2-3 breeze which made sailing conditions good, if a little chilly for the onlookers.

All the races were sailed in Enterprise dinghies, and the lack of time and the large number of races to be sailed, necessitated a fairly short course, however, with 2 beats and a dead run stemming the Burnham tide for most of the day, ample opportunity was available for good racing.

Bart's in their league easily beat the London Hospital, but just lost to a strong U.C.H. team; however on points we qualified for the final rounds.

In the semi-final we met the combined Guy's and Mary's team. Both races were notable for copy-book starts made by Hugh Tubbs and he won both races. Despite the fact that in the second race Mike Williams collapsed and he was left disconsolately clinging to a moored Burnham dinghy, our points lead on the first race was sufficient to give us the match without a re-sail being necessary.

The outcome of two hotly argued protests was that we had to sail against the U.C.H. team in the final, and this time defeated them roundly. Bart's came 2nd, 3rd and 5th in the first race, putting them ahead. In the second race we were helped by the fastest U.C.H. boat colliding with one of the buoys and retiring and we finished 1st, 2nd and 3rd.

The trophy was presented that evening at the Royal Burnham Yacht Club.

UNIVERSITY LEAGUE SPRING TERM

Two league matches were scheduled for January:

January 15 v. St. Thomas's Hospital. Mike Williams, Miss Jo Walsworth-Bell, Chris Waite, Miss Sue Morgan.

This team lost to a strong St. Thomas's team; the opposition coming 1st and 2nd in both races.

January 22nd v. Chelsea.

The Chelsea team failed to turn up, and so we were awarded a walk-over for this match.

REGATTA 1969

The Sailing Club Regatta this year will be held on Sunday, May 4th at the Welsh Harp.

A series of 3 races will be held for the Commodore's Cup, the best two to count; and races will also be held for the Single handed and Ladies Cups.

An entry fee will be charged to cover costs, of 5s. for the Commodore's Cup and 2/6d. for the Single Handed and Ladies Cups.

Anybody interested in sailing is encouraged to come, and give their entries to me as soon as possible. Boats will be provided; and we hope to obtain the use of a bar at the Welsh Harp.

Roger Chapman.

CRICKET CLUB REPORT

The annual general meeting was held in the Abernethian room, on Tuesday, January 14th. After 10 years as president, Dr. N. C. Oswald resigned, and Mr. H. Ross was invited to replace him. This he accepted. Mr. A. H. Hunt and Dr. G. B. Gillet were elected Vice-Presidents, a post in which Dr. Oswald will continue to serve the club.

D. Berstock was elected captain for the coming season, J. Shepherd, secretary; D. Edmondson, treasurer; and L. Reddington, social secretary.

Colours were awarded to D. Berstock, D. Edmondson, E. Lloyd and J. Shepherd.

Following last season's success in reaching the Hospitals' Cup Final, it is hoped that any freshers, as well as older members, interested in playing, will attend the nets organised on Wednesdays, at Alf Gover's cricket school, in the pre-season weeks.

J. H. Shepherd.

THE JUDO CLUB

The Judo Club began the first quarter of this year with good promise. Several new graded and ungraded joined the club from the freshers' ranks, and numerous nurses took an interest in our activities.

The team put on a good display during a visitation to a nearby non-university judo club, although we realised when we were narrowly beaten by both Cambridge University and Imperial College London, that more contest practice was necessary. This triangular match was held in Cambridge on 16th November. We failed to win against the Royal Vet's team in a contest held at Bart's early in December, and unfortunately, matches against Chelsea College and King's College had to be postponed until this term.

This term we will be busy with contests in preparation for the Interhospital's Cup, and a return contest against Cambridge and Imperial College, London, when we hope to reverse the results.

H.G.D.

SOCCER CLUB REPORT

BART'S v. St. MARY'S HOSPITAL

Due to the unavailability of players the defence was somewhat reorganised for this match with Barrison playing in goal. After 5 minutes Harrison, playing a striking role, crossed hard and low and the ball was parried by the goal-keeper to Skanderowicz who placed the ball in the net. Bart's attacked for 20 minutes before Mary's hit back with Barrison making two good saves on the line until they equalised. This took the fight out of Bart's for the rest of the first half. After the interval with the score 1-1 Mary's had more of the play at first. Soon, however, Bart's began to attack in strength but left themselves open at the back for a long ball to reach the Mary's left-winger who ran through to score. Bart's began to struggle now but in the last 15 minutes recovered very well. This was started by Dave Leech who, from the left, beat four players and cut inside to finish with a right-foot drive into the net. Zest reappeared in Bart's play and they continued attacking until the end. A pass from the hard-working Peter Bowen-Roberts found Richard Harrison who forced the ball home. Skanderowicz then ran through from the half-way line and, seeing the goalie out of position, shot the ball hard and low to score well. The referee, in his wisdom, decided to disallow this effort as a Bart's man was off-side; the facts that no pass was made and that the player concerned was not interfering with play did not deter him.

v. INSTITUTE OF EDUCATION U.L. CUP

After an easy win against the Royal College of Music (6-3) we looked forward to a harder task against the Institute of Education who knocked Westfield College out of the Cup in the first round.

Playing at Chislehurst in soft conditions Bart's seldom got going in attack. The defence was safe for most of the match but a mix up between Knight and Ellis allowed a simple goal. A fine pass from Wall led to a typical goal from Andy Weir who took the ball in his stride and, drawing the goal-keeper, scored with a well placed shot. A simple goal again allowed the Institute to lead 2-1 for most of the second half until a corner led to a goal following a strong challenge on the goal-keeper by Mike

Murphy to make the final score 2-2. As the opposition had arrived late there was no time for extra-time to be played and so a replay was arranged.

v. INSTITUTE OF EDUCATION U.L. CUP REPLAY

For this match we decided on a change in formation and played 4-2-4 moving Richard Harrison from left-back to striker. Apart from a few uncomfortable moments as the side settled in the first half Bart's never allowed the Institute to come into the game. The back four of Turner, Knight, Weller, and Wall proved to be a solid wall against which attacks soon faltered. In particular Ian Weller and Tony Wall had fine games—Weller cutting out everything down the middle and Wall tackling strongly on the wing.

We came closest in this half when Ian Weller brought the ball through and, seeing a gap as the defence parted expecting a cross, went on to shoot from 30 yards and was unlucky to see his shot fly just over the bar with the goal-keeper in no position to complain.

We turned round to play up the slope with the score 0-0. Continued worrying of the Institute's players in mid-field enabled us to establish a dominance in the second half. After 25 minutes an indirect free-kick was awarded to Bart's some 35 yards out. Turner curled the ball over the wall of defenders to the near post where Mike Murphy trapped the ball on his thigh and shot the ball past the goal-keeper to open the score. This forced the Institute to come at us even more and allowed greater domination of the match by Bart's. The ball was now moving crisply from defence to attack and clever passes from the indefatigable Murphy produced good attacks.

Solid tackling by Bart's men, notably Murphy, Weller and Knight, throughout the match began to take their toll and the pace of the Institute's game dropped accordingly. In this last 20 minutes Bart's played some of the best football they have produced this season. When a defender breaks up an attack a quick ball to his forwards often brings a good attack for at that moment the opposition are still committed to attack and with one half-back in attack one inside forward may be free. This was fully exploited 10 minutes from the end by Ian Weller who broke up an attack on the half-way line and pushed a perfect pass to Richard Harrison who shrugged off the attentions of the full-back and powered into the penalty area to shoot hard and low into the left-hand corner of the net. A similar move a few moments later almost brought a goal but Harrison shot wide of the post. Good covering by Dave Leech allowed Bart's to attack until the end with a final score of 2-0.

Team: Ellis; Wall, Weller, Knight, Turner; Leech, Murphy; Skanderowicz, Weir, Harrison, Barrison.

v. WESTMINSTER HOSPITAL U.H. LEAGUE

A reorganised Bart's XI faced a fit Westminster team who had the solidly-built U.H. centre-forward playing for them. Bart's were under pressure for the first 10 minutes until the defence settled and then, as Bart's were coming into the game, a speculative shot by a Westminster forward dipped to hit the under-side of the bar and the ball came down sharply to bounce off a defender for a lucky goal.

The speed and trickery of the Westminster's centre-forward was a constant menace and led to the second goal after about 20 minutes. A push in the back sent Knight heavily to the ground and the fractured shoulder sustained prevented very active participation in defence for the rest of the first-half. Bart's repulsed a number of attacks with Allan House at left-back responsible for some "Dave Webb" style clearances and a notable one of these from the line prevented a firm shot reaching the goal.

A further goal from Westminster made the half-time score 3-0. Bart's turned round with a different formation—Barrison falling back to centre-half, Skanderowicz moving inside and Knight out to pasture on the wing. Surprisingly Bart's had some good moves this half and Westminster were contained well. A pass to Knight allowed him to beat his defender and in the process he was pulled down heavily. A penalty-kick was awarded and Murphy calmly placed it into the goal with the goal-keeper going the wrong way.

After this Westminster made greater efforts and Chris Ellis in goal made two excellent saves. At the other end a fine pass gave Knight a chance but he mis-timed his shot and the ball went weakly past the far post. This was followed by two equally good chances for Skanderowicz which also were not converted into goals. In the last few minutes the Westminster centre-forward appeared on the edge of the box and with the Bart's defence preventing further progress he unleashed a tremendous shot into the top corner of the net to score the best goal of the match.

Ron Knight

PRECLINICAL TEACHING COMMITTEE

Following the discovery that no official pre-clinical teaching committee functioned for nearly two years the pre-clinical students union representatives decided to delve into "student opinion", find out constructive view points and then put forward these views through an elected pre-clinical committee.

Two hundred sheets entitled "Suggestions for the Pre-clinical Teaching Committee" were circulated: within two days 123 had been returned (61% response).

Some of the most important suggestions were on the lines of:—

1. An increased number of clinical demonstrations.
2. Greater co-ordination between the main departments.
3. Treating important topics systematically, e.g., Neuro-anatomy and Neuro-physiology lectures should overlap.
4. A syllabus of "important headings" should be available at the beginning of any new lectured topic.
5. Students should have individual tutors (for academic and non-academic consultations).
6. Justification of a "clinic" such that during the final term, prior to 2nd M.B., there would be a lecturer from each department available (at a set time and place) twice a week, to discuss problems *as and when they arise.*
7. Inclusion of a lecture series on "The History and Philosophy of Medicine."
8. There should be changes in the practical work of every department, e.g. Biochemistry (little benefit for the time involved).
   Anatomy i More tutorials.
   ii. visits to the hospital to observe operations on the region being dissected.
9. Certain Demonstrators and Tutors should be made aware of their duties.
10. Psychology lectures should be augmented . . . or scrapped.
11. Continuous assessment should constitute 50% of 2nd M B marks; the normal 2nd M.B. exams likewise 50%.
12. 2nd year students should be encouraged to ask questions and discuss relevant points at the end of each lecture.
13. There should be a video-tape library (concerning important topics).
14. There was general support of a three-year pre-clinical course leading to a B. Med.Sc. degree; why should this not be possible at Bart's within the next three years?
15. Where is the Dean?

P. Millard

RECENT PAPERS BY BART'S MEN

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WATTS, R. W. E., see DEAN, Betty M.,

——, *see also* CHALMERS, R. A., and others.

WESTWICK, Wendy J., *see* DEAN, Betty M., and others.

* Reprints received and herewith gratefully acknowledged. Please address this material to the Librarian.

The Film Society

In recent years the Film Society has been showing a somewhat restricted selection of films. This year an attempt is being made to rectify this in the hope that more people will be interested in coming to see the films that we have chosen.

Up till now we have been hiring our films almost exclusively from the Rank Orgainsation who have a large number available, but whose selection is limited to the films that have been shown on the circuits in the last few years. They do give favourable hiring rates for booking six or more of their films in any one year, but their range of films gives one little scope. However in an attempt to break away from this rather cosy arrangement we are going to show some films which were not made in Hollywood or Elstree.

This change in policy has been made possible by the film society's joining the British Film Institute as a corporate member. This allows us to book films from their huge library, and it allows our members to join the National Film Theatre for nothing and to purchase the B.F.I. publications at reduced rates.

By joining the B.F.I. the films available are almost unlimited, and therefore the programme we book can be more balanced and interesting. We hope this change of policy will meet with your approval and continued support. We depend on your support for our very existence, as we are not in receipt of a grant from the Students' Union. We have to pay for the films and the projectionist out of the money we get from our audience. Most of the films cost in the region of £7 10s and the projectionist costs £2 so we are always precariously poised for financial disaster, as we often lose money on a film.

Suggestions for film titles are always most welcome, and if anybody is interested in helping to run the society would they please contact J. Mackinnon.

PROGRAMME OF FILMS UNTIL JUNE

TOKYO OLYMPIAD by Kon Ichikawa, Buster Keaton's THE GENERAL and RAILRODDER have already been shown.

March 4th—FOUR IN THE MORNING. Starring Judy Dench.

March 18th—THRONE OF BLOOD. A Japanese film of Macbeth.

April 1st—PHAEDRA. Anthony Perkins and Melina Mercouri in the modern version.

April 15th—MONSIEUR HULOOT'S HOLIDAY. Hilarious French film by Jaques Tati.

April 29th—REPULSION. Roman Polanski's film starring Catherine Deneuve.

May 13th—EYES WITHOUT A FACE. Eerie horror film. Film about the Tour de France.

May 27th—AN EVENING OF SHORT FILMS. Including Charlie Chaplin's "THE CURE".

June 10th—THE PAWNBROKER. Starring Rod Steiger.

Communication

Barts and its social scene? Secret societies and locked doors? Is this the real picture?

There are some who would say it was.

For too long now there has been a popular feeling that the social scene is badly publicised, if at all. At countless meetings of the A.G.M. of the Students Union over the last years there has been a cry for an all embracing system to announce meetings, dinners, hops, society productions, etc. in advance. Nothing has been done, the pragmatists who have argued that if people are really interested in something they will go and look on the notice boards, have won the day.

This is a ridiculous argument. With the present system, anything that appears on a notice board will be seen quite by chance, for to expect something, it is necessary to know about it in advance.

The *Journal* will now publish a monthly guide to the scene, it appears on the first Monday in the month and, it will then be possible to see what is happening throughout the next four weeks.

Six months ago, a notice to this effect was published in the *Journal*, there was no response, although most club secretaries had been circularised independently to this effect. What can this mean? Do clubs not want publicity? It requires little effort to send a note of coming events down to the *Journal* tray in the cloakroom or via the internal post. These will have to be delivered by the end of the third week in the month for publication on the first of the next month, i.e. just over a week in advance.

Things are changing, the Students Union have undertaken to publicise the dates of their general and special meetings, furthermore to announce **IN ADVANCE** details of elections. It is also to be hoped and it is widely rumoured that it is feasible that the place of such meetings will also be publicised. At an Extraordinary Special Meeting of the Union some weeks ago, the date was announced adequately beforehand but not the scene where the meeting was to take place. This was disclosed shortly before the meeting took place and one was left to speculate why. Since the meeting place was none other than the Hospital Abernethian Room, I can imagine no reason why this erstwhile sinister disclosure could not have been made earlier. In fairness there had been some whispers of activist and revisionist groups who were believed to be operating inside E.C.1.

Now that the Union has come in from the cold, perhaps other clubs will follow suit and it will no longer be necessary to carry a sheaf of fixtures cards to see what's on. Even such well subscribed societies as the Rugby club might find supporters watching the games if people on the whole knew what was on.

It only remains for the secretaries to act, the list below is as far as is known current but there are doubtless some anomalies. If you know of something coming up and its not in the *Journal* ask your man why; maybe a friend of yours would have liked to know about it too.

If their are any innacuracies in this list or addition to make the *Journal* would be pleased to hear of them.

Students' Union.....M. Britton
B.M.S.A.....D. A. Stringer, M. Knowland
Wine Committee.....C. Wood
Abernethian Society.....D. Baugh
Alpine Club.....R. Hale
Athletic Club.....A. Breeson
Boat Club .....P. Featherstone
Conoe Club.....P. Pumphrey
Christian Union.....Miss P. Benison
Cricket Club.....J. H. Shepherd
Cross-Country Club.....R. Hale
Drama Society.....P. Swain
Fencing Club.....C. Ashby
Golf Club.....C. Booth
Harvey Society.....Miss K. Walker
Men's Hockey.....M. J. Rymer, C. Yates*
Bridge Club.....P. J. Furness
Judo Club.....H. G. Dunkley
Motor Club.....P. Wood
Music Society.....M. Gillett
Photographic Society.....P. R. F. Smyth
Rifle Club.....P. Ciclitira
Film Society.....J. Mackinnon
Rugby Club.....T. R. Fenton
Soccer.....R. Knight, P. Bowen-Roberts*
Sailing.....R. G. Chapman
Men's Squash.....A. M. Burke
Ladies Squash.....Miss S. Pearsall
Swimming .....P. Weir
Ladies Tennis.....Mrs. A. Miller (Captain)
Men's Tennis.....C. Higgins, R. Chesney*

* denotes Social Secretary.

On the newspaper billboards the story was advertised as "RUGBY MEN THROW OUT L.S.E. OCCUPIERS", other people were more expressive in their views. Mr. Short, M.P., described the action leading up to this as "SQUALID NONSENSE", the people involved were labelled "the thugs of the academic world, who were not even respectable anarchists", in the opinion of the Minister "it is high time some of these thugs were out on their necks."

This is what Parliament heard, who are the moderates, who disagree with the action at L.S.E.?

the malcolm fletcher column

January saw the first evidence of the tip of the iceberg, which is the sense of frustration engendered in the "student in the street," when he is associated with the ultra left wing militant minority, who have been stealing the headlines, ostensibly on his behalf with their increasing number of strikes, sit-ins and demonstrations aimed indiscriminately at any available authoritarian group or figure.

On January 27th, members of the London School of Economics together with their supporters from other universities and the trade unions occupied the main building of the London University Union, claimed to have liberated it and demanded the use of this building as a headquarters until the authorities at the L.S.E. reopened the school. They stated that this action was supported by the other colleges at the university and pleaded that the Union become the centre for militant student activity at the university. Their call was answered the following day, when large numbers of moderate students entered the union building, democratically voted that the occupation should cease forthwith and then proceeded to eject anyone who did not agree with and refused to abide by, this decision.

This action, I believe constituted the first, weak expression of a very strongly held, majority point of view. The fact is that most of us are not Communists or Fascists, we are in broad terms, satisfied with the state of our society and are very much opposed to any revolutionary changes in it. Further more we do not believe ourselves to be a "special" section of the community but are merely grateful for the privilege of education, which has been given to us. We would like to be regarded as normal citizens, worthy of a place in the society which was preserved at so great a cost by the generation before us.

Britain is at the moment teetering on a political precipice, poised for the plunge into extremism, either to the extreme left with the aid of professional communist agitators or to the extreme right on a tidal wave of reaction.

We must be instrumental in neither move; for extremism inevitably leads to totalitarianism, and dictatorships of every colour seem to be indistinguishable from one another.

The Gestapo, the NKVD, the Vopos, the Anti American Activities Committee are all evidence of the fact that extremists will not tolerate their opposition, and the right to opposition is one of the more fundamental facets of the freedom of the individual, a freedom which is our major source of National pride. Although the system we have at present, produces bad governments from time to time and lays us open to the fluctuations of fortune, I suggest that any major, extreme political change can only lead to lean times and the disintegration of our national integrity.

I contend that the dangerous position we find ourselves in, is the direct result of actions sparked off by hard core, student communist agitators, who represent an infinitesimal number of the actual student body. These persons have no clear cut motive, save the disruption of society and with the exception of the odd misguided idealist, no motive save a grudge against society. These people should not be tolerated and since they have clearly associated themselves with the student body it is up to the students, not the public to take action against them.

matron's ball

Ever since the Christmas decorations had been removed one of the main topics of conversation in the hospital was the Matron's Ball. The question—"Who are you taking to the Ball?"—received many interesting and some revealing answers, but what better, it was suggested, than a personal visit. So after making the necessary arrangements, preparations began for the annual visit to the Grosvenor.

Having visited nearby bars and weathered the storms, little time remained before dinner was served and between popping of corks and posing for photographs an enjoyable meal was eaten. At the magic signal the plates were cleared and the business of the evening was begun. From the floor enthusiastic movement ensued in time with the old and new numbers of the dance orchestra and the always popular steel band. Dress at formal functions is continually becoming more varied and this was no exception, with costumes ranging from tails and tulle to the less conventional attire of round necked shirts and cat suits. All too soon however the lights were dimmed and the tempo slowed and as arms were linked to the familiar strains of Old Langs Syne the evening drew to a conclusion.

Finally, rumours that have been circulating to the effect that this annual event is likely to cease, appear to be without foundation. Such an occasion is a most important part of the social life of the hospital and does much to promote good personal relationships, even if on the other hand it increases the risk of marriages amongst the nursing staff. In conclusion may this opportunity be taken on behalf of all those who were able to attend, to thank Matron and the Board of Governors and to say how much the Ball is appreciated.

Roger Lambert.

off with the uniform

Yet another stupendous social event was missed by the majority of Bart's at the end of last year . . . ! We even chose the title "Off With the Uniform" with great deliberation in the hope of attracting a wide audience. However the film that night proved to have a greater pull. Despite the inauspicious response the show proved a somewhat amusing experience.

For the sake of those not present, this was a fashion show and not as the title may suggest—a more erotic experience. Five nurses from the enterprising May '67 set (!) displayed for our future edification, samples of the outfits they wear when not ministering to the needs of the sick and suffering. Various events from the nurses' training were depicted and each nurse interpretated the situations in her own way. These ranged through the interview with Matron, the first date, holidays, Matron's Ball—up to the culmination in a shot-gun wedding. It can be said that initiative and a sense of humour were shown in the choice of outfits.

Thanks must be given to Mary-Helen Pickler, who was the chief organiser and designed and made part of the "wedding" clothes. Also to Pam Straker-Nesbit who compéred splendidly and to those who modelled and were forced to put up with all the comments from the audience—Mary-Helen Pickler, Penny Land, Lindsay Young, Pat Bailey and Bobby Bodiless.

Proceeds went towards *The Journal* whose funds need it be said are depressingly low.

Margaret Lightfoot.

book reviews

Appointment Systems in General Practice, by J. M. Bevan and G. J. Draper. Published by the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1967. 12s. 6d.

For many years only a few practices in this country had an appointment system, and they took it for granted. Even by 1962, only a small proportion of those in the National Health Service used one; now it is about 45 per cent. Dr. William Pickles spent a large part of his working life in a Yorkshire dale, without even a consulting room. Thirty to 50 years ago there was little public transport in those parts; he owned a car so that nearly all his patients were treated in their homes.

The modern trend is towards less home visiting and more use of the doctor's surgery; with better public transport this is possible. A general practitioner in Britain now spends on average, about six minutes with each patient and the visit: consultation ratio is normally 1:3 to 1:6. Most appointment systems are based on five to 10 minute sessions. Doctors vary in their rate of work; patients vary in the amount they want to talk; some medical situations require much more time than do others.

This excellent book is based on large-scale, systematic investigations into the advantages and disadvantages of appointment systems in Britain. It describes experimental studies, postal surveys and personal interviews of doctors and patients. It is full of quantitative information about doctors' work-loads and patients' waiting times. It discusses the types of practice which are best suited to appointment systems and the best ways of running them. There is a useful chapter on papers already published (with references), and an appendix on methodology.

Advantages of an Appointment System to the Doctor

When a successful appointment system has been introduced into a practice 85-90 per cent. of patients are found to use it; only a few fail to keep their appointments, and the doctor is more often late than are his patients. Most doctors are pleased with such a system because it spreads their work-load and evens it out; there is less unregulated queueing, overcrowding and "wait-your-turn" chaos in the waiting room. It gives doctors much more control and reduces hurry, strain and uncertainty as to how much work lies immediately ahead. The quality of their work and the doctor-patient relationship may improve. Smaller waiting rooms are needed than before, because seldom does any doctor have more than five patients waiting at a time (although relatives may come with them). The demand for home visits may be reduced.

Special sessions can be arranged for certain groups of patients. Selective bookings may be made for new cases, ante-natal work, vaccinations and inoculations, infectious patients, ear syringing, cervical cytology, minor surgery, health education, marriage guidance, etc., and a clinic may be held once a week for any special interest which the doctor may have developed.

Disadvantages of an Appointment System to the Doctor

A general practitioner's work is often unpredictable, especially for new patients or for fresh illness, and it is not always easy to foresee how much time he will have to spend with each patient. Emergencies and those who turn up without an appointment must always be fitted in. Small block-bookings with adequate spacing, or keeping one appointment free in every six, will usually cover these difficulties. A full-time extra receptionist is often needed to run an efficient appointment system. Two or more telephones may have to be installed if the "engaged tone" is not to keep many patients waiting unduly before they can get through. Early in the day the appointment phones of a busy practice may be ringing almost continuously, and one secretary may be overwhelmed if she has other work to do as well.

A special loose-leaf appointment book, as devised by Lloyd-Hamol Ltd., and distributed free to doctors for many years, may be a great help. As patients who attend their doctor regularly become accustomed to an appointment system they tend to make future appointments as they leave the surgery, which avoids much telephoning. A signalling system to call patients into the doctor's consulting room may save time. The salary of the receptionist and the maintenance of this extra equipment is now met by the Ministry of Health under practice expenses.

Advantages of an Appointment System to the Patient

Most patients like an appointment system when they are accustomed to it. This applies particularly to mothers with young children. It cuts down their waiting time, which need seldom be more than 15 to 30 minutes; it reduces overcrowding, and the chance of cross-infection. Working men and women appreciate not having to wait long to see their doctor before they set out in the morning or go home at night.

Disadvantages of an Appointment System to the Patient

Elderly or ill-educated patients may find difficulty in using a telephone, the deaf may not be able to manage it at all, and the poor sometimes cannot afford it. Many people live far from a public telephone. Without a good bus service, or other form of public transport, patients may not easily be able to reach their doctor's surgery on time.

Recommendations

The authors of this book stress that determination is needed to start an appointment system in a practice, and that much depends on the skill and personality of the receptionist. Few practices which have adopted one have abandoned it, and many doctors now wonder how they ever managed to practise without such a system before.

The rate at which patients arrive at the surgery must approximate roughly to the rate at which the doctor works. This may vary from doctor to doctor depending on his work-load (which itself may vary at different times of the year, with epidemics, etc.), and also on the amount of ancillary, medical and social-services' help he can get, both in his surgery and in his patients' homes. A balance must be maintained. If the doctor is ahead of time he can usually fill it in by telephoning or writing his notes or letters; if he is behind time and the patients are piling up, he may have to adjust the service he gives to each on that particular occasion.

A full appointment system is always better than a partial or optional one. Patients must be told that they cannot always be seen "on the dot" at the times for which their appointments have been arranged, although every effort will be made not to keep them waiting. They should be encouraged to telephone for appointments at convenient times of day, if possible not to the doctor's home or at lunch-time when the receptionist may be off duty.

This excellent book presents, in a readable form, sufficient data to allow all practices which are considering the introduction of an appointment system to make an informed decision on this.

The authors, Drs. J. M. Bevan and G. J. Draper are to be congratulated on a most useful contribution to this subject; and so are all those who have helped them, especially Dr. Bruce Cardew, Dr. J. A. Strathers of the Ministry of Health, the Scottish Home and Health Department, Lloyd-Hamol Ltd., the Nuffield Provincial Hospitals Trust and the Nuffield Foundation.

JOHN H. HUNT.

"Lecture Notes on Ophthalmology" by P. D. Trevor-Roper is published by Blackwell Scientific Publications. Price 18s. 6d.

"Basic Techniques in Human Metabolism and Respiration" G. J. R. McHardy, D. Shirling and R. Passmore. pp. 64 13 figs. Blackwell Scientific Publications, Oxford and Edinburgh. 7s. 6d.

This small paperback was written for those working in the respiratory physiology laboratories in Edinburgh, namely undergraduates, postgraduates and laboratory technicians. There is a useful introduction to the terminology of respiratory physiology. The basic instruments used and the techniques involved in the measurement of lung volumes, ventilatory capacities and blood gases are well described with the aid of simple diagrams.

On the whole, however, the subject is not dealt with in sufficient theoretical depth for postgraduate students. The book is certainly not sufficiently advanced for those studying for the primary F.F.A., and there is insufficient technical detail for laboratory technicians. It is therefore most useful for the preclinical student but most of the information is readily available in the standard textbooks of physiology which it is hoped the student will already possess. I cannot recommend its purchase.

J. T. Mulvein, Department of Anaesthetics.

Haematology in Diagnosis and Treatment, by M. Maizels, T. A. J. Prankerd and J. D. M. Richards (London: Baillière, Tindall and Cassell, 1968, pp. 319 plus vii illus.) Price 70s.

The authors of this book are a professor of clinical haematology, a professor emeritus of clinical pathology and a clinical pathologist. Their intention is that it should be "of value to the student and to the postgraduate who has not specialised in this field". They are concerned with the gulf between ward and laboratory which sometimes occurs in the practice of haematology, and with integrating these two aspects. This functional approach has been particularly successful in the first 10 chapters which contain excellent accounts of the red cell and anaemias, and the use of isotopes in haematology. Biochemical aspects of haemolytic anaemias are, as would be expected from these authors, particularly well described.

There is a great deal of information in concise form about haematology and blood transfusion. Later chapters, which include white cell disorders of various kinds, blood coagulation and haemorrhagic diseases, are not as good as the earlier accounts of anaemia and red cell function. They are, however, certainly adequate in content for final M.B. purposes.

It may be argued that there is some inbalance, and particularly that haemolytic anaemias are given more space than their frequency of occurrence warrants. This possibly reflects the authors' interests, and the scope which this subject gives for development of a physiological approach. Students will probably find this a useful and interesting book, and the first two-thirds are particularly recommended.

Peter Story.
Department of Haematology.

An Outline of Human Embryology. By H. Wang, Ph.D. Published by W. Heinemann. Price 45s.

Several concise embryological textbooks have appeared on the market in recent years and Dr. Wang's book is a further contribution in this field. In fact, the present book owes much to its predecessors: many of the figures, which are all in line, are redrawn (with acknowledgements) from such sources.

Part I (92 pages) deals with general embryology and includes some basic human genetics and a short account of chromosomal abnormalities; it is unfortunate that the only reference to the Denver system of chromosomal nomenclature should be misspelled "Danver".

Part II (organogeny) is covered in the final 161 pages. This section relies rather heavily on the use of tables summarizing the development origin of various structures. Regrettably, discussion of the development process producing these end results is often inadequate or obscure. In some instances descriptions are grossly inaccurate, and this unfortunately includes several of those regions where embryology can make a really worthwhile contribution to the understanding of adult structure, normal and abnormal.

This book can scarcely be recommended as a "best buy" in its field. It certainly does not fulfill the author's hope that it will also serve as a reference book: no references (other than a short list of student textbooks) are given.

O.J.L.

Lecture Notes on Bacteriology. R. R. Gillies M.D., D.P.H., M.C.PATH. Blackwell Scientific Publications, Oxford and Edinburgh. Price 20s.

This book, which deals with one aspect of microbiology, bacteriology, covers most aspects of that subject that will be needed by students of medicine. The earlier chapters deal with general aspects of bacteriology and there are chapters on serology, immunization and methods of spread of infection. The remainder of the book is devoted to the bacteria that are of medical importance with descriptions of their properties, the methods of isolation and their epidemiology. There are final chapters on the collection, delivery and processing of specimens, antimicrobical sensitivity tests and sterilization techniques. The book is attractively produced, compact, good value and will undoubtedly be useful to many students. However, even for a book of this size too little space is devoted to the clinical aspects of the subject and students who use this book and who do not supplement their reading may fail to appreciate fully the application of bacteriology to the rest of their work.

E. Mary Cooke, M.D.

"A Companion to Medical Studies", Volume 1: Anatomy, Biochemistry, Phsiology and Related Subjects. Edited by R. Passmore and J. S. Robson, 1968, Blackwell. 95s.

This is the first of a series of 3 volumes in which it is proposed to encompass the whole medical curriculum. The second volume will be published in August, 1969, and will cover "General Pathology and Pharmacology" and in the third volume, which is not due until 1970, it is intended to deal with "Medicine, Surgery, Obstetrics, Therapeutics and Social Medicine" Chapter titles for the second and third volumes are included in the first volume. The first volume covers the 2nd M.B. course, and comprises 47 chapters, each written by specialist authors, nearly all of whom teach in Scotland, and most in Edinburgh.

The primary objectives of the authors of the book have been, firstly, to break down conventional subject borders and present basic medical education as an integrated whole and, secondly, to include additional subjects such as statistics, human genetics, behavioural sciences and sex education, which are not normally part of the 2nd M.B. course. The recent report of the Royal Commission on Medical Education recommended the inclusion of these topics and the authors are justly proud of the coincidence of opinions in this matter.

After an elementary chapter on "Man and his environment" the student is introduced to "Control theory and systems" and "Biological Variation"—or an introduction to Statistics. Both chapters incorporate much mathematics, and this fact, together with a preconceived idea that all medical students are quite familiar with second order differential equations, would make these chapters awesome for some. Then follows two Sections: "Food and Energy" and "The Structure and Function of Cells" which include 10 chapters and embrace most conventional 2nd M. B. Biochemistry. The standard achieved is adequate, but clearly a composite book of this size cannot be expected to contain as much material as a specialised textbook devoted to one subject. The multitude of different authors integrate quite well but occasionally the same material is reproduced twice, e.g. the electron transport chain appears on pps. 8.10 and 9.16, and furthermore, in slightly different forms! Small discrepancies of this nature may give rise to confusion. One criticism is that much of the material is presented with great authority and finality, and only in a very few places were there indications that further research could give rise to important and fundamental changes of concept. A critical viewpoint is surely essential for all University students.

"The Structure and Function of Tissues" comprising four chapters on Tissues: "Conducting", "Contracting", "Supporting", "Lining" and "Secretory" in which a careful attempt is made to integrate conventional Histology with mechanism of action at the biochemical level. Traditional anatomy, including embryology, is dealt with in six chapters only (293 pps., and in the Preface the authors admit that "the account of anatomy is much shorter than in former days". A colleague in the Anatomy Department was favourably impressed and commented: "The outstanding feature of the Anatomy sections of this book is the intelligent use of line drawings, which will undoubtedly be of enormous help to the Preclinical student: they are clear, memorable and easy to reproduce. The text in general is lucid, with good sections on elementary points of surface anatomy and dates of ossification at the end of each "limb" chapter. The histology section and the introduction to topographical anatomy are brief but well written.

In general, I would recommend this book as a valuable aid to the Preclinical student". He was, however, hesitant to recommend it as a complete replacement for Gray.

"The Structure and Function of Systems", 15 Chapters, appealed to me as the most useful part of the manual. Although most of the material of this section is that covered in a conventional Physiology course, the close association of the physiology with the anatomy of the system under consideration and with its biochemistry, both structural and metabolic, made each chapter extremely valuable and presented a viewpoint rarely available to the student.

The final section of chapters is devoted to a discussion of "Man and his environment" and includes such chapters as "Life in hot and cold climates", "Being lost in mountains, deserts and at sea", "Exercise" and "On living in Society."

The whole approach to the preclinical subject matter is new and refreshing and I feel that the authors' claim that "the student will find in it more than sufficient to enable him to pass examinations" is probably justified. Although the London 2nd M.B. course may not, for some time be taught according to the pattern of the book, there is no doubt that all preclinical students will find a great many chapters invaluable for integrating their ideas and inter-relating the viewpoints now presented by the separate Departments. One defect is the limp, "paperback" style binding of the large volume which may not withstand indefinitely the extensive use the book is sure to have. However, subsequent volumes are planned with stiff covers at some extra cost.

E. D. Wills

Saint Bartholomew's Hospital

JOURNAL

contents

Vol. LXXIII No. 4 1st April 1969

journal staff

ANNOUNCEMENTS

Engagements

GERRARD — MURRAY — The engagement is announced between Dr. Christopher Garrard and Miss Margaret Murray.

LAWRENCE — STEWART — The engagement is announced between Mr. David Lawrence and Miss Morag Stewart.

MILLS—DAVIS—The engagement is announced between Dr. Peter John Mills and Miss Pamela Jane Davis.

Birth

HUNTER—On December 19, to Janet (née Throughgood) and Dr. David Hunter, twins (Andrew David and Rebecca Dorothy).

Deaths

COOPER—On February 15, Dr. Arthur Basil Cooper, M.B.B.S., M.R.C.S., L.R.C.P. Qualified 1923.

SPARROW — On February 6, Dr. Geoffrey Sparrow, M.C., I.D., M.A., M.B.B.Chir., F.R.C.S., L.R.C.P., aged 81 years. Qualified 1912.

NEW MEMBERS

Royal College of Physicians of London

The following have been admitted members:

LIPSEDGE, Dr. M.
NICHOLSON, Dr. R. G.
NICHOLSON, Dr. Wendy.
PHILLIPS, Dr. Eileen.
RUDGE, Dr. P.

Royal College of Surgeons of England

At the extraordinary meeting of council held on January 8, Diplomas of Fellowship were granted to the following Bart's men:—

BROWN, James Kinnear.
JENNINGS, Melvin Calverley.
ORR, Mark Munro.
WATERWORTH, Martyn Wilson.

University of London

The degree of Ph.D. has been conferred on Dr. D. Crowther.

APPOINTMENTS

Mr. E. G. Tuckwell has been appointed a Surgeon to the Queen.

Mr. T. A. Boxall, M.S.Lond., F.R.C.S., D.Obst. has been appointed consultant general surgeon to Orpington Hospital.

Erratum

In the February issue of the JOURNAL Fig. 4, p. 64, the X-ray of the duodenal loop was printed upside down.

This month we print the second part of a paper written to answer the question:

Discuss the role of Constitutional and Enviromental factors in the Genesis of Schizophrenia

by Paul Dieppe

The illustrations showing the progression of a schizophrenic illness are reproduced by courtesy of the Institute of Psychiatry from the Guttman-Maclay collection. The collection and works by George Percy will be an exibit at Kings College Hospital from April 14th. With a film on Victorian Flower Paintings.

4. CONSTITUTIONAL FACTORS

Constitution is being taken to mean the phenotype; this may be assessed by study of the following:

a Gene studies: twin studies, proband studies
b Body morphology:
c Personality
d Physiology: hormonal balance, automatic nervous system, central nervous system, biochemistry

Nearly all these studies suffer from the difficulty of distinguishing environmental and heredity factors, careful analysis of monozygotic and dizygotic twins is the only way round this; other studies do not separate these two things.

a.1. Twin Studies:

The importance of careful comparison of the two types of twin has already been mentioned; it is thus rather frustrating to find that in the literature there is a great disparity of results from this work:

Authc.	MZ	DZ
Kallman '53	82.6	15
Slater '53	76	14
Tienari '63	0	0
Kringlen '64	25	5-15
Gotterman '67	42	—

Percentage incidence of schiz in pairs of twins, with one schizophrenic.

There are two reasons for the discrepancies; the difficulty of defining schizophrenia and the difficulty of finding adequate criteria of monozygotic twins. From the above we can be fairly certain that the incidence in dizygotic twins is about 15%, this could be entirely due to their similar upbringing; however, most of the workers find an increased incidence in the monozygotic twins, suggesting the importance of inherited factors. We can conclude that there seems to be some aetiological significance in the inherited genotype, but that this is less than suspected a few years ago, cannot be quantified, and cannot be understood from the above work alone.

a.2. Proband Studies:

The above work suggests importance of inherited factors, to understand the mode of this inheritance we must look to the work of proband studies.

There are three possible modes of genetic inheritance of either a predisposition to, or a specific schizophrenic factor:

chromosomal abnormality
specific gene abnormality: dominant, recessive
polygenic

The proband studies of Alschuler and Kallman throw some light on which of these operates in the case of schizophrenia:

general population	0.85
half siblings	7—8
full siblings	5—15
parents	5—10
children of 1 schiz	8—16
children of 2 schiz	53—86

Incidence of schizophrenia (%) in relatives of schizophrenics

Kallman, who did the original work of this sort, thought that this indicated a recessive gene. However, as Slater pointed out, the higher incidence in children than in sibs is indicative of a dominant gene with incomplete penetrance. Slater feels that a single dominant gene, incidence 4%, with 25% penetrance exists, heterozygous individuals being schizoid personalities but not schizophrenic. An alternative theory is that the high correlation in families is due to environmental factors, and that the twin studies merely indicate some predisposition, probably polygenic in origin, which is inherited.

Conclusions from genetic studies: heredity plays some part in the genesis of schizophrenia, although probably less than was thought a few years ago. Experimental work is conflicting, but results are consistent with two theories, one that there is a dominant gene with 25% penetrance which causes schizophrenia, another that there is only an inherited predisposition to the condition, and that this is probably polygenic. For reasons given below, the author favours the second of these alternatives, although admits that it is not possible to split them from the genetic work alone.

b. Body Morphology:

The popular belief that body build is related to personality and mental illness was first investigated by Kretschmer in 1925. He stated that schizophrenia had a high incidence in those of a thinner physique:

two-thirds schizophrenics leptosomatic
one-tenth dysplastic

His work was rather subjective and much investigation has been done to prove his hypothesis. It is generally agreed that there is a high incidence in those of narrower physique (Ress and Eysenck).

The work of Parnell is particularly interest-

ing in this context. He found that there was an increased incidence of schizophrenia in a group of people with great linearity (× 2 the normal incidence); but he also found that this type of physique was particularly related to work, these people having a high incidence of sedentary work. It is often assumed that the relation of the body morphology to the disease indicates the operation of genetic factors, the work of Parnell indicates that the environmental factors may also be important.

Conclusions from study of body morphology: there is an interesting relationship between physique and the incidence of schizophrenia. This indicated that genetic factors may be important, but the operation of environmental factors, via the personality, cannot be ruled out. These studies add nothing to the direct genetic studies except interest.

c Physiology:

The problem here is "cause of effect?" It is often difficult to know if a change that is found in the functioning of the body is the primary cause of the disease, or the result of it.

c.1. Endocrines:

Kretschmer found that one tenth of the patients with schizophrenia had a dysplastic build that he thought was due to hormonal abnormalities. Schizophrenia is rare before puberty, has incidence peaks at childbirth and the menopause. For these reasons hormonal changes have been implicated in the aetiology. Bleuler has undertaken a large scale study, the abnormalities found are:

a often poor sexual development
b poor response to thyroxine
c poor diurnal rhythm of cortisol

However, as there is no specific link with endocrine abnormalities, and as no hormone therapy does much good, it is now thought likely that these are effects and not causes of schizophrenia.

c.2. Autonomic nervous system:

There is evidence of a generalised decrease in the activity of the a.n.s. in schizophrenia. The blood pressure, circulation time and oxygen saturation are all decreased. Correcting these changes has no effect on the disease, and it is likely that they are effects of the disease. It is interesting to note that the physiological withdrawal has been compared to the psychological one.

psychological one.

c.3. Central nervous system:

No specific pathological changes in the brain have been found. The E.E.G shows

non-specific abnormalities in about 20% of cases. However, we must believe that there is a biochemico-physiological explanation of schizophrenia, and thus theories have been advanced, based on the symptomatology rather than on any found changes in the C.N.S. One such theory is that of Fish, who claims that the symptoms, as described by the Gestalt school, are compatible with a defect existing in the reticular activating system, leading to a breakup of the cortical function via input changes. However, in general it would appear to be too early for hypotheses of this sort, which work from the symptoms, and do not distinguish between the pathology and the aetiology; in general study of the C.N.S. has not been helpful in the search for the causes of schizophrenia.

c.4. Metabolic Studies:

This has been a most active and disappointing area of research; the theory of a specific gene abnormality led to the search for a specific metabolic defect. There have been many "red herrings", notably the "Pink-Spot" discovery of Friedhoff and Von Winkle in 1962.

Important findings include the following:

a in periodic catatonia (2% of all schizo-

phrenias) Gjessing found that the onset of symptoms can be correlated with a build up of nitrogenous products in the body, and that the condition can be prevented by a low protein diet and thyroxine administration

b exchange transfusion brings transient relief to schizophrenics; the plasma of schizophrenics produces transient schiz-like disorders in normal subjects

c pharmacological agents such as the hallucinogens produce symptoms not unlike those of schizophrenia.

There is thus good reason to go on hoping for an advance in this field. Abnormal metabolites, perhaps with an indole nucleus, are probably to be found in the blood of the schizophrenic, and it may be very helpful to isolate them, although the problem of cause and effect will remain.

It is important to remember that the term schizophrenia may well include a number of different conditions, and that a single defect in the metabolism of all schizophrenics is unlikely. Workers should look for a defect that is common to one patient and his family, rather than to all schizophrenics.

Conclusions from physiological studies: All the changes in function of the neuroendocrine system that have been found so far are probably effects and not causes of schizophrenia. There is some evidence for the existence of abnormal metabolites in the blood of schizophrenics, this is to be expected, but indentification may help aetiological study.

d Personality:

Personality is a multifactorially determined thing. However, many workers feel that the schizophrenic shows a definite type of personality form early in life and well before the onset of the illness; they suggest that this inherited personality tendency is predisposing to schizophrenia, and is the heredity factor that the direct genetic studies suggest exists.

The schizoid personality is shy, introverted, serious, eccentric, quiet, suspicious. According to Kallman the incidence of this sort of a personality is as follows:

Group	Schizophrenia	Schizoid personality
general pop.	0.85	3
parents	10	35
schizophrenics	100	50
half sibs	7	15
full sibs	15	30
child of 1	10	35
child of 2	53	30

Incidence of schizoid personality in relatives of schizophrenics (after Kallman)

This strongly indicates that the schizoid personality is linked with schizophrenia and predisposes to it. It is very difficult to say if this is due to the environment of the home, or to inherited predispositions; most of the work on this has been retrospective. This work also indicates that schizophrenia is a disease process, stress moving the schizoid personality towards the disease.

Conclusions from personality studies: there is an interesting relationship between the incidence of the schizoid personality and the disease schizophrenia; it is likely that the personality predisposes to the disease. It is not possible to say if this is environmental or heredity. Prospective studies would be interesting.

5 ENVIRONMENTAL FACTORS

We have seen that the study of the constitutional factors is inconclusive and unsatisfactory in explaining the aetiology of schizophrenia. There are still some who believe that it can be explained in terms of a specific gene abnormality which will be expressed in terms of a specific biochemical abnormality in the brain, and this cannot yet be disproved. However, as explained, there is good reason to believe that schizophrenia is a process developing throughout life, and the present author believes that the constitutional study is so inconclusive, and the environmental work outlined below so important, that we must think of the constitutional factors in terms of an inherited predisposition, which will develop into the disease only in certain conditions. Moreover it seems likely that this predisposition is a polygenic multifactorial thing which may be inherited in degrees, so that the balance of life situation and inherited disposition is the one that decides the onset of schizophrenia.

There are two approaches to finding the crucial environmental factors in the genesis of schizophrenia:

a look for those things that precipitate the onset of symptoms;

b look for the common factors in the life situation of different schizophrenics.

a Precipitating Factors:

Schizophrenia is often fairly sudden in onset, and the symptoms are often bizarre, thus many people believe that it is a physical disease of the brain brought on by organic stress applied to a predisposed individual. Others feel that the disease is an understandable one for all its bizarre exterior, and that it is due to environmental stress that builds up to such a point as to produce a breakdown in the vulnerable person. As the data outlined below shows, the onset of schizophrenia may well be related, in certain cases, to both physical and psychic stress; the two theories must not be considered to be mutually exclusive.

1 *Physical stress*: schizophrenia is sometimes precipitated by the following organic conditions:

fevers
operations
head injury
alcoholism
childbirth

In addition a number of physical diseases are associated with transient attacks of symptoms indistinguishable from those of chronic schizophrenia:

Huntington's chorea
chronic general paresis
cerebral syphilis
chronic encephalitis lethargica
temporal lobe epilepsy

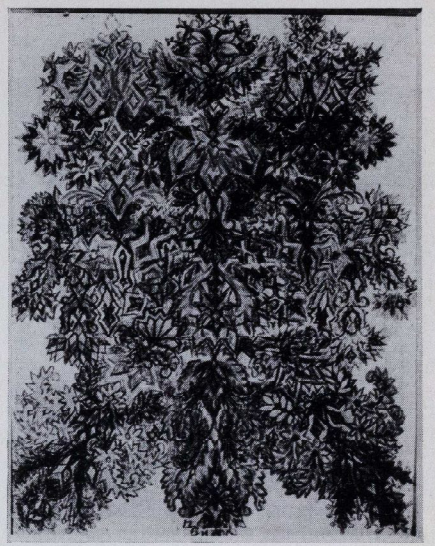
Some regard the attacks associated with the later lot of conditions as true schizophrenia, others as the schizophreniform-reactions. Either way it is apparent that in certain circumstances onset of schizophrenia can be associated with physical stress. It is not apparent whether these physical changes produce the disease, or whether they merely precipitate the onset in someone who would get it anyway; nor is it known whether the physical stress operates via the emotional effects, i.e. psychic factors, but this is very unlikely.

2 *Psychic stress*: again, the onset of schizophrenia is sometimes related to severe psychic stress, e.g.:

imprisonment
impending execution
sexual stress
conscription
change of environment

There is no general pattern and in many cases there is no such history. Again the only conclusion that can be made is that in certain circumstances the onset of the disease is directly related to psychic stress

3 *Experimental induction*: Guessing showed that attacks of periodic catatonia could be induced in the susceptible person, by the build up of nitrogenous products in the blood. Symptom pictures like those seem in schizophrenia can be induced by the hallucinogenic agents such as LSD.



Very interesting is the work on the effect on isolation. It appears that the normal subject, when subjected to an environment which is lacking in sensory input, can develop paranoid feelings, thought disorder and hallucinations as seen in schizophrenia. It is thus possible that in the right environment we would all develop the disease, but that some are more susceptible than others and thus get it in more normal circumstances.

Conclusions: occasionally the onset of the disease is directly related to great physical or psychological stress. In very abnormal environments all normal subjects produce symptoms not unlike the picture of schizophrenia. It is thus likely that the appearance of the disease is a product of our personality predisposition versus the environmental stress; this stress may be psychological or physical, for as explained it is reasonable to believe that these two forms of stress can have the same end result.

b Schizophrenogenic environments:

There are many who find it impossible to accept that psychogenic factors might be important in the genesis of schizophrenia. I think it worth demolishing this point of view as I feel that it is based solely on prejudice.

The main arguments against psychogenic factors seem to be the following:

a the bizarre form of the illness
b lack of a relationship with psychological stress
c the power of the constitutional evidence
d analysis can understand but not explain
e the disease is similar in all societies

These arguments are answerable in the following way:

a many workers have related the symptoms of schizophrenia to "normal mental functions" (see under psychopathology), some psychotherapists claim understanding and successful treatment;

b it is now apparent that if you look for the right sort of stress in the life of the schizophrenic then you will not be unrewarded (see under family relationships);

c as explained above the constitutional factors have lost ground recently; now one can only conclude that there seems to be some inherited predisposition, further interpretation of the constitutional evidence is mere speculation;

d as already mentioned, the work of Hubbel and Wiesel has shown that our experience of our environment can produce a lasting change in the physiology and biochemistry of the brain; it is thus not unreasonable to believe that psychic factors can induce a disease which is characterised by organic change in the brain;

e many of the psychogenic theories of schizophrenia are involved with the relationships of the vulnerable personality in his early life; a number of unsatisfactory relationships might be expected to occur in all societies.

Having thus shown that the search for schizophrenogenic environments is not unreasonable, we must look at the ways in which we can study this problem. First it is essential to distinguish between psychogenesis ("exogenous mental influences important in the aetiology of a disease") and the psychopathology (i.e. mental processes responsible for the content of the symptoms).

1 *Psychopathology*: There are many theories of schizophrenia. Freudians describe the defence mechanisms against anxiety, they claim that the neuroses are a defence against psychotic breakdown, and that schizophrenic psychosis is the regression of the personality to the narcissistic level. Jungians stress the similarity of the disease to the dream state; Ey describes the disease as "surrender to the unconscious mind". The existentialists look at schizophrenia in terms of loss of self realisation and the production of a false-self system. With a step of faith all theories are plausible; they explain the content of schizophrenic's symptoms, as yet they have shed little light on the aetiology of the disease.

2 *Psychogenesis*: The personality develops most in the early years of life in the home environment; it is thus reasonable to look there for the causes of schizophrenia. The most devastating psychological stress known to man is isolation; it is reasonable to look at the effect of this.

The most important work in this huge subject will be summarised under the following headings:

the family relationships
frequencey of psychic trauma
parental personality
socio-cultural factors and isolation

a Family Relationships:

A lot of ink has been used on this subject. At first the emphasis was on the aggressive dominating mother; then on the mother who gives conflicting orders; and more recently on the whole family.

The most complete studies have been those of Lidz and Schullman Lidz, in a very big study found that ALL schizophrenics came from badly integrated families, although the abnormality was rather non-specific. Other workers have found similar abnormalities. Schullman describes four types of child that are the products of unusual family relationships, and are vulnerable to schizophrenia:

the special child
the inadequate child
the bossy child
the child satisfying parental needs

Tietze (1949) described a particularly devastating relationship between the child and its mother when domination and control were hidden under a cloak of self-sacrifice.

There are many theories to explain these findings. Some use the existentialist attitude (see Laing) and describe the loss of the self. Others use terms such as the difficulty of ego formation; they all seem to be saying much the same thing but wrapping it up in different jargon!

The impressive thing is that ALL workers find that ALL of the patients had unusual family backgrounds. Experimental error and prejudice can hardly explain that away.

b Frequency of Trauma:

The results of this sort of work have been rather disappointing. Kind, in a recent review, states that the literature leaves one with the general impression that childhood trauma is frequent in schizophrenics, but nothing very specific has been found, and the work of Granville-Grossman has ruled out a number of things, including parental age, birth order and trauma and parental bereavement. This is a promising approach to the problem.

c Parental Personality:

The concept of the "schizophrenogenic mother" was introduced by Frieda-Fromm-Reichman. The people who have followed her work up report that in 50% to 60% of cases the personality of the mother is markedly "abnormal". Recently it has been suggested that the personality of the mother is all important in the development of a psychosis in boys, and that of the father for girls; this remains in the realms of a "clinical impression"!

These studies are disappointingly vague, as is so much in this field; also it is based on retrospective questionnaire studies and is thus open to the criticism that it is effect and not cause. However, it does seem to reinforce the impression that the schizophrenic usually has an unusual family background.

d Socio-cultural and Isolation studies:

There is an increased frequency of schizophrenia in social class V (see for example the work of Hollingshead and Redich, 1958, who found a x 11 increase). This is now considered by most people to be due to the slide in standards of the patient i.e. the effect and not the cause.

In N.E. London it has been found that the prognosis is worse if the patient is isolated when he leaves a hospital after treatment for a schizophrenic illness. Late paraphrenia, a form of schizophrenia, has been correlated with the social isolation of the elderly. There thus seems to be some reason for implicating isolation as an aetiological factor (see also under experimental precipitation).

Conclusions from Environmental studies: Most of the work in this field is vague, and much is based on clinical impression. However, it is impossible to escape the conclusion that the home life of the schizophrenic is markedly abnormal. As yet is has not been possible to isolate the crucial abnormalities. It would seem to be highly likely that the home environment is important in allowing the schizophrenic process to develop in the vulnerable personality. Relationships with parents in the young, and social isolation in the old are the factors implicated so far. Various hypotheses have been put forward to explain how these might operate to induce the disease; these hypotheses have little evidence to back them up, but they emphasise the oft repeated point that psychogenic factors in all probability can produce psychosis.

6 CONCLUSIONS

So far I have tried to be fairly unprejudiced, this has lead to no conclusions! I will now attempt to come to some conclusions about the aetiology of schizophrenia.

From the above it is clear that all the following factors can be related with the disease schizophrenia:

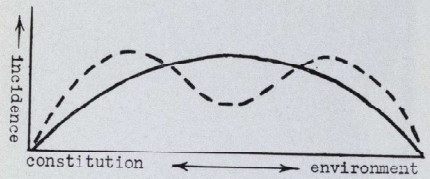
genetic predisposition,
unusual childhood environment,
unusual pre-disease personality,
physical precipitation,
psychic stress precipitation.

From this it is in my view reasonable to make two conclusions:

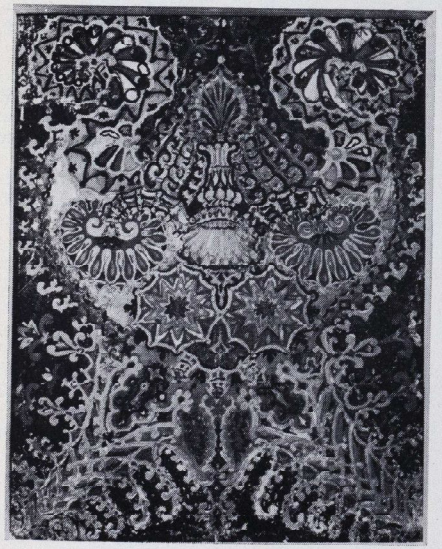
1. Schizophrenia is a disease process that starts with a genetic loading that slowly develops into the disease in the correct sort of environment.

"Inborn predisposition and environmental influences can only be approached by their interactions. A purely psychogenic theory of schizophrenia is, accordingly, just as untenable as a purely genetic one" (Kind 1967).

2. The term schizophrenia includes a number of different conditions with the same end result in terms of the gross pathology and symptamatology; although the different symptamatological forms may be due to minor differences in pathology. In some forms of the disease it is the environmental factors that are the most important, in others it is the genetic predisposition that is crucial:



Two possibilities are represented. In the solid line we see a peak incidence in cases where the environment and the constitution contribute about equally to the onset of the disease; this is analagous to a number of organic diseases such as bronchitis, there is a predisposition in the form of poor lung function, this is worsened by the environment and attacks of the disease come on with air polution. In the dotted line we see an alternative sort of distribution in which most cases of the disease are either predominantly endogenous or reactive; this is analagous to the situation with the depressive psychoses. There are a number of interesting similarities between depression and schizophrenia: the relation to a previous personality, to physique, the increased incidence in certain families etc.; the endogenous and reactive forms can be distinguished by some of the clinical features such as the sleep pattern nad the diurnal rhythm, it may be that if we could hit on the right symptoms we would find a similar situation with the schizophrenias.



I thus return to the original thesis:

"Schizophrenia is a symptom complex covering a wide range of disease entities; in some cases heredity factors are the most important, in others the environment is the predominant factor in causation. This does not preclude one underlying pathological process. In this way schizophrenia is no different from bronchitis or depression."

However, there is one other possibility:

THE OUTSIDER SYNDROME:

The writings of Kierkegaard saw the rise of existentialism in philosophical thought. Since the popular works of the French existentialists like Satre, the discipline has invaded the world of psychiatry. The following brief account of my approach to an existentialist interpretation of schizophrenia differs markedly from the scientific approach used above; but while the aetiology of the disease remains unknown, what follows will remain as valid and as important as what has already been said.

Life on this earth has an arbitrary quality. We observe around us a number of individuals slavishly following different forms of activity that bring neither satisfaction nor truth. The more we observe, the more we find this silly and depressing, and we begin to realise that the only problem is the existence of man . . . being and nothingness (Satre). Such an analysis of our position, if it is extended, can lead to a rejection of the false standards that other men live by, to a healthy disrespect for the sort of motives that have produced this lengthy essay: it is then that the individual begins to "opt out" of the society, he becomes the "outsider", and thus, perhaps, the schizophrenic.

Perhaps the schizophrenic is the only sane man among us.

Scene Barts

Drama Society

report: James Griffiths

Why should it be that only a handful of people (about 250) went to see the main production this year? Again the overall standard of acting and presentation was high, never falling as low as might be expected from a small society, and some moments of the play were spell-binding. Although the actors and stage management immensely enjoy a performance regardless of the size of the audience, anyone who has acted will know that a full house is as immeasurably enjoyable as any similar transitory love-affair. Alas, both we and you (the potential audience) deserve more of this pleasure.

Surely the finest thing we saw in "Poor Bitos" was Jolyon Oxley's performance of Bitos. This is a part which demanded immense emotional stamina and refinement, a part which lasts some two hours, all but two minutes of which are spent on stage, and which thus bears almost the entire weight of the play. Jolyon Oxley executed this part with precision, moments of excellent timing, and exhibited an interpretative creativity which assured us that he is an actor of talent and experience.

Nick Whyte and Andrew Boon deserve special praise for most convincing performances. The character of Maxime was delinated with both subtlety and panache, but I feel the performance would have been enhanced had the Iago-like qualities in Maxime's character been further emphasised. I especially enjoyed Mirabeau's scene with Bitos, and the snuff episode, and I felt that Andrew Boon's characterisation was better developed in this scene than any other. Jeff Tobias played a superb butler, and much to his credit, very kindly did not upstage the rest of the action of the play. Other successful performances were given by Janet Dinwiddie, Jila Pezeshgi, George Lodge and Ian Young. Victoire's big scenes were beautifully delivered though I felt that she did not quite accept the full responsibility of a small part of considerable importance. I enjoyed what I could catch of Ian Young's breakneck pace performance, and I would have played Bitos to Janet's Amanda any day!

Although we were presented with two and a half hours of fine acting, the scenes seemed to follow one another chronologically rather than by any thematic progression. The organisation did not really do justice to the acting; however, credit should go to everyone involved in the very worthy production.

For the future I think the society has enough talent to produce genuinely great things, given sufficient direction, money, enthusiasm, and a break from the ubiquitous influenza, to which dress rehearsals seem so prone.

The Cast

Maxime, who plays Saint Just.....Nick Whyte
Philippe, who plays the Master...George Lodge
Charles .....Jeff Tobias
Lila, who plays Marie Antoinette
Jennie Glanville
Amanda, who plays Mme. Tallien
Janet Dinwiddie
Julien, who plays Danton.....Ian Young
Vulturne, who plays Mirabeau...Andrew Boon
Brassac, who plays Tallien.....Chris Wood
Deschamps, who plays Camille Desmoulins
Chris Bridgett
Victoire, who plays Lucille Desmoulins
Jila Pezeshgi
Bitos, who plays Robespierre.....Jolyon Oxley
Delanoue.....Steve Warrington
Joseph .....Frank Martin
Child Robespierre.....Max Irving

Production

Direction .....Frank Martin
Stage Mangement.....Justin Blake-James
Lighting.....Steve Warrington
Wardrobe .....Cathy Sadler
Properties.....Joanna Walsworth-Bell
Wigs .....“BERT”
Make-Up .....Mr. Parrott

3. Boat Club Ball

Decorations at this years Ball were of a varied nature: a macabre atmosphere outside the small bar, complete with ghost and coffin, was quite a contrast to an excellently decorated recreation room on a tropical theme, reminiscent of the hot houses at Kew Gardens. Artistic use was made of the lighting and the ultra volet rays had their usual revealing effect.

Individual food baskets were a new idea, but a good one, not only doing away with the need for long hungry queues but also making the meal more interesting, as each rummage produced a new and unexpected treasure. Contents were good and ample and many people found difficulty in completing the course: some praise is due, I think, to the young lady who spent some 16 hours preparing them.

Music was provided by a trad jazz band, and a steel band who looked very much at home among the colourful tropical surroundings. The provision of two discotheques instead of another form of live music, was for my money rather like a continuation of what can be heard all day long at the turn of a switch: a good live group would have filled this gap or perhaps even a more conventional form of music?

A. J. Anderson

The main event of the evening was the cabaret act by the comedian John Clees: he spent an amusing thirty minutes in front of a receptive audience making fun of various topics including, of course, the Government, and although some of his sketches were not new, they were equally good a second time.

Other notables were the silent films which made an enjoyable break from the dance floor, and the street fruit seller from Soho who, installed in the foyer selling hot roasted chestnuts, had his warmest winter evening for years.

Lastly, thanks to the members of the Boat Club for putting on such a pleasant evening.

Roger Lambert

SMOKER 1969

The fact that much of the material was not new did not detract at all from my enjoyment of the 6th Annual Smoker—“We Must Stop Meeting like This” Here was a smooth polished revue, notable for the talent and teamwork of its cast and enhanced considerably by the sophisticated lighting effects produced by Paddy Smythe.

Delicious as ever, Kate Walker's songs “Little Man”, “Stripper” and “Wizards Song” were a joy, and her (almost) monologue and “Cookery Club” with Tim van Zwanenberg were very well done.

Mime is notoriously difficult to put over well, but Brian Briggs with “Puff” and “Shot Put” excelled. I also enjoyed very much his “Schoolmaster” sketch: here he demonstrated the art of timing extremely well.

I very much liked the double entendre of Nick Whyte's “Invested Interest” and his “Two Homes” with Kate Walker was good. Nick Whyte with Chris Jarvis in their Frankenstein theme was fairly sick, but amusing enough if you're in that sort of mood.

The talented van Zwanenbergs were very amusing with their “Cambridge” sketch, and Will's guest appearance as the Fairie's Dustman was one of the high spots of the evening.

This was certainly the most polished, if not the most original Smoker for some years.

P.S. The Punch did!

G. H.

Transcendental Meditation

by Clive Richardson

Maharishi Yogi

Generation after Generation man is born anew. Each generation is giving rise to new quests for fulfilment, new aspirations in life and new standards of thought and action.

Each man needs sound physical and mental health, greater ability to perform his actions and a greater capacity for clear thinking, increased efficiency in his work, more loving and rewarding relationships with other people.

There should be a solid foundation established for all mankind of each generation to gain fulfilment of life at all levels. Life should not be a struggle—men are born to enjoy and through the practice of transcendental meditation every one of us can find a fuller and deeper meaning to life without ever having to break from our normal way of behaviour or tradition and without any rigorous discipline, thanks to His Holiness Maharishi Mahesh Yogi.

Maharishi is a teacher from the Himalayas who ten years ago came out from seclusion into the world to teach his simple system of transcendental meditation to all who wish to learn. Each year he has toured the world giving lectures and instructing people from all races to teach the meditation to others, and today there are centres of the Spiritual Regeneration Movement established in over fifty countries.

Throughout the world, East and West, Maharishi has left behind him trained teachers who are continually instructing people from all walks of life to unfold their latent faculties and gain the ability to realize more complete happiness.

Now! This message, that a great storehouse of peace, happiness, creativity and wisdom lies in the heart of every man, is nothing new. We have been hearing for many centuries that man has hidden potentialities. It is not difficult to bring out the full mental potential within us, all we need to know is the key with which to open the doors and find it. Our brains are equipped with the ability to experience absolute bliss, absolute happiness, absolute peace, creativity and wisdom. This absolute field of life can be experienced and lived constantly by man. We have the ability to establish ourselves in the absolute and at the same time continue behaving in the relative field.

The only thing to be done is to experience it. To experience it we only have to add a few minutes of transcendental meditation to our daily routine, both in the morning and the evening.

In the West, meditation is understood to be a superficial thing, it is assumed that we take a thought or an object or a sentence and think about it. This is really just remaining on the ordinary thinking level and is rather like exploring the surface of a pond, in the hope that this will lead to discovery of the details of the entire pond. We may discover all the different aspects of the pond in each corner of the surface but everything should be explored —much greater depth is there under the waters. We have to dive and return to the surface with the experiences of our explorations. Transcendental meditation is then this technique that brings our minds from the surface of life to the depth of our being.

If we dive into a pool of still water, the deeper levels of the pool become activated, as a result of these deeper waters being activated the waves on the surface become more powerful. Likewise when we sit in meditation the conscious mind takes a dive into the deeper levels of consciousness thus activating the deeper levels, and automatically the surface level of the mind becomes more powerful. When the thought force of the individual becomes powerful the whole life becomes powerful. With a strong mind we can achieve more and accomplishments become greater, we become less tense and begin to enjoy. With a weak mind, we become tired and tense, tragedies are greater and we never seem to achieve much, so it is only right that we must gain the ability to strengthen our minds so that we can cope with the diversity of this ever-changing technological age we live in.

By now, some of us must be wondering just what is the principle behind this meditation. It is this. Each mind has a natural tendency to travel to a field of greater happiness. If a radio is playing in one room and a better melody is coming from another source, then we find ourselves attending to that other thing quite automatically. There has been no training, no time has been lost no strenuous practice is involved. It happens quite naturally and automatically. Now, if this is the natural tendency of our mind, to catch on to something that offers more happiness, that is all that is sufficient to lead the mind from the outer glories of life to the inner bliss and happiness that is our essential nature. This is the basis of meditation. With a few minutes simple instruction a whole new sphere can be added to our life.

Maharishi comes from the ancient tradition of masters who are the custodians of certain secret sounds or vibrations, physical science tells us that the whole of creation is made up of bundles of vibrations and that is the interplay between these vibrations that uphold the whole of creation as we know it. Academically, Maharishi is a physics graduate of Allhabad University, who upon graduating spent fourteen years of study with His master, Swami Brahmananda Saraswati Shankaracharya of Jyotir Math in the Himalayas, Maharishi and his master rediscovered that by introducing specific sounds or thoughts into the lives of ordinary people that these thought waves had specific effects on their lives.

At the time when we come for instruction in meditation, a suitable and specific thought is given, the effects of this thought are known. It is specially selected to suit the way of life of the aspirant and is known to have ALL GOOD EFFECTS. In the way that a doctor's prescription is given, so this thought is given and as a doctor has been trained, so has the person who gives this meditation been trained in the knowledge of relating the objects of meditation to individual people, so that they are entirely suitable to them. Once having been given this thought we begin to repeat it mentally during the sitting in meditation and because it is the natural tendency of the mind to travel to a field of greater happiness we find increasing charm on our inward march. During the inward dive we begin to experience our selected thought at a subtler and subtler level until we reach the sublest level, which is the source of all thought. At this point we transcend even this level and bring into the range of our conscious mind the field of Being or pure consciousness. There is an old saying that states that in order to think, first we have to Be, it is in this state of transcendental consciousness that we can begin to realise the importance of that statement, for we have experienced a reversal of the normal thinking process and there is no longer anything to experience . . . just self awareness, amness, Being.

Perhaps this all sounds rather complicated and difficult, and it is important to note that we are only discussing the principals of transcendental meditation in this article. In actual practice all of these things happen quite naturally and spontaneously once the technique has been given. We may ask at this point just what is the purpose of leading the mind to this state of transcendental consciousness and how it is going to help us in our lives. Well, let us compare meditation with a man who has never seen a bow and arrow being used. He says "if you want that arrow to go forward, why are you pulling it back in the opposite direction?" It is clear to us who know about bows and arrrows that to make the arrow travel far and fast, it is first essential to pull it back on the bow string in order to make full use of the potenial energy of the bow. If the bow string is only pulled back a little way the forward flight of the arrow will be weak and the shot will be inaccurate, it will have little effect. So in order that our actions are effective and powerful it is first necessary to allow our minds to be led through all the levels of consciousness until the state of Being is reached: this is rather like the bow string being pulled back to its full stretch. It is quite still and at the same time it is at the state when the source of all the potential energy of the bow is ready to be manifested. By meditating we allow our mind to be brought systematically to the state of pure consciouness within ourselves and when we enter into our daily activities our every thought and action that has sprung from this source has the power and effectiveness much the same as the bow and arrow that is used according to its design.

A life based on Being becomes beyond the changes that are continually taking place around us, we find that our life becomes eternally secure and content, our judgement becomes free from the limited personal point, we become free from anxiety, and we find ourselves becoming warm and compassionate.

Our intelligence and wit become increasingly sharpened and it is found that our desires become less selfish, mental tensions are relieved and generally the mind becomes more contented in itself. By meditating morning and evening we not only benefit as individuals, but we play a major role in contributing toward a happier and contented world by our very thoughts words and actions.

Lectures on transcendental meditation are held regularly at the centre of the SPIRITUAL REGENERATION MOVEMENT FOUNDATION OF GREAT BRITAIN, Suite 5, Iddesleigh House, Caxton Street, S.W.1. If you have a desire to enquire further into the subject, we welcome your applications. It is hoped that a lecture will be arranged by the medical students of St. Bartholomew's Hospital in the near future. Lecturers on Meditation are available and half the lecture is devoted to questions and answers. Courses on this subject are now being introduced into the programme at a number of universities in the U.S.A. It is hoped by Maharishi and all his followers that a similar programme can be introduced to the student population of Great Britain.

Rent and the Law

a staff report

Trouble with landlords and flats is a constant problem among students and this short article is intended to give a few ideas to those who may be dismayed at rises in rent, the delivery of notices to quit, or plain harrassment by the landlord.

The Rent Tribunal is a body which exists in every Borough and its function is to fix a reasonable rent in respect of houses, flats or rooms with a rateable value in London of not more than £400. The Tribunal has jurisdiction over accommodation:—

(a) Let at a rent which includes payment for the use of furniture, whether or not services are provided;

(b) Let unfurnished at a rent which includes payment for services;

(c) Let under a contract whereby the tenant has exclusive occupation of any accommodation and, in addition, the use in common with the landlord of other living accommodation, such as a kitchen, even though no furniture or services are provided. This provision applies also to a sub-tenant sharing with a tenant.

The Tribunal may approve the rent payable or reduce it to a sum they think is reasonable. They cannot increase a rent.

The Tribunal also has the right to grant security of tenure to a tenant on whom a notice to quit has been served. A tenant may ask the Tribunal for such security, in which case the notice to quit cannot take effect until a decision has been reached by them. They have the power to grant security for a period of six months, or to refuse the application in which case the notice takes effect seven days from the decision.

It is a criminal offence for anyone to evict a tenant without a court order, or to drive him out by threats, violence or any other interference. Complaints can be made to the police or to the local council. This covers all tenants . . . tenants of private landlords, local councils and people occupying a house which goes with their job.

Some people may be in a desperate situation in which proper legal advice may be necessary. Going to see a solicitor always sounds as if it is going to cost a lot of money, but in fact the most one need pay is £1.

Legal advice means oral advice about the applicant's rights or obligations. It will be given in the office of a solicitor in ordinary practice whose name appears on The Legal Advice Panel, maintained by The Law Society. All you have to do is to fill in a form obtainable at the local Citizens' Advice Bureau, Court Office, or from one of The Law Society's Legal Aid Offices or from a solicitor whose name is on the Panel. You should complete it and take it to the office of one of the solicitors on the panel and ask for an interview. You will be able to obtain advice for half an hour for a maximum charge of £1. If your income is particularly low you may be able to get it for nothing.

If you are in any doubt—take advice.

B.M.S.A.

by D. A. Stringer

The report this month is not very long. This is because the issues that I discused in the last edition of the *Jornal* will come up at the A.G.M. Policies will be decided at this A.G.M. about which I will tell you later.

I would like to rectify a typing mistake in my last article. In the first sentence under "The Green Paper" the word de-centralisation should have read centralisation.

I have devoted this article to try to show you the Summer Schools and Conference which are available to those of you who are interested.

Pre-clinical Summer School in Denmark

The 19th pre-clinical summer school is going to Aarhus from August 4 until August 25.

The course is open to 40 pre-clinical students and will be conducted in English. You will be accommodated in student's hostels and board at university cafeterias.

A series of lectures will be held in the mornings of present-day problems in physiology, biochemistry and anatomy. The lectures will pay special attention to those parts of the pre-clinical sciences which are most likely to be of value in your subsequent clinical work.

A Diploma will be awarded at the end of the course provided that the lectures have been attended.

Application forms are available from your B.M.S.A. representatives and must be sent in by April 21. So if interested, please act now.

Clinical Summer School in Scandinavia

The purpose of this course is to promote international understanding among members of the medical profession throughout the world.

It is to be a "travelling" summer course for clinical students with one week's stay at three universities — Oslo, Gothenburg and Copenhapen. It can be combined with a clinical clerkship in one of the Scandinavian countries close by.

The cost is about £60 covering board and lodging, lectures, excursions and fares from city to city during the course. Application forms for this can be obtained from your B.M.S.A. representatives and must be submitted by April 21

International Student Conference on Tropical Health

This is the fourth of its type to be held. This year it is to be held in the Lebanon between July 2 and July 22, at the University of Beirut which has one of the better medical centres of the Middle East. The seminars and lectures during this conference will be supplemented with field trips to areas of Lebanon where diseases are prevalent and on the spot discussion with authorities and people faced with these problems.

There will be ample time for social gatherings and trips to historical and other interesting sites of the country; e.g. Daalbeek, Sidom, Tyre and Byblos. The private beach of the American University will be at the disposal of the participants. A trip to Damascus will be organised, provided that enough people are prepared to go.

Your B.M.S.A. representatives have the necesary application forms which must be sent off by April 20.

I believe that these "courses" would give a refreshing insight into the practice of medicine outside of this country, and I hope that some of you might be interested enough to go. You might find a way to incorporate them into your holidays.

If you are interested or have any questions or points to raise about B.M.S.A. will you please contact one of the representatives at Bart's.

CLINICAL: David Stringer (vice-president)
Dai Davies
Mike Elliott.

PRE-CLINICAL: Barbara Appleby (B.Sc. course)
Paul Millard.
David A. S. Stringer.

Editorial

Students in their last two clinical years spend varying periods away from Barts. when they are in residence at other hospitals. These hospitals are both on the Barts circuit and an increasing number abroad.

It is highly desirable that students should get away from Barts for a time; after spending three years in a relatively closed environment stimulation of ideas must follow from a stay elsewhere. In particular, since not all medicine follows the course of that taught at Barts. it enables a perspective to be gained of the deficiencies and the virtues of the system here. Quite what that perspective is will depend on where the resident period is spent.

To a large extent this is a matter of free choice. In the making of this choice difficulties arise because of the lack of available information on the courses and hospitals involved. What is needed is a consumer guide to residence. details of standard of teaching, adequacy or not of the living accommodation, hours it is necessary to be at the hospital, etc.; this sort of assessment should be kept continuously under review. Obviously it is possible to seek out people who have been there before and ask them, but this is time consuming to say the least and it is not easy to plan out arrangements in advance by such a method. This choice then becomes haphazard, just as is the initial choice of medical school; this is a great pity, since a residence either in this country or abroad is about the only way that an objective assessment of that initial choice can be made.

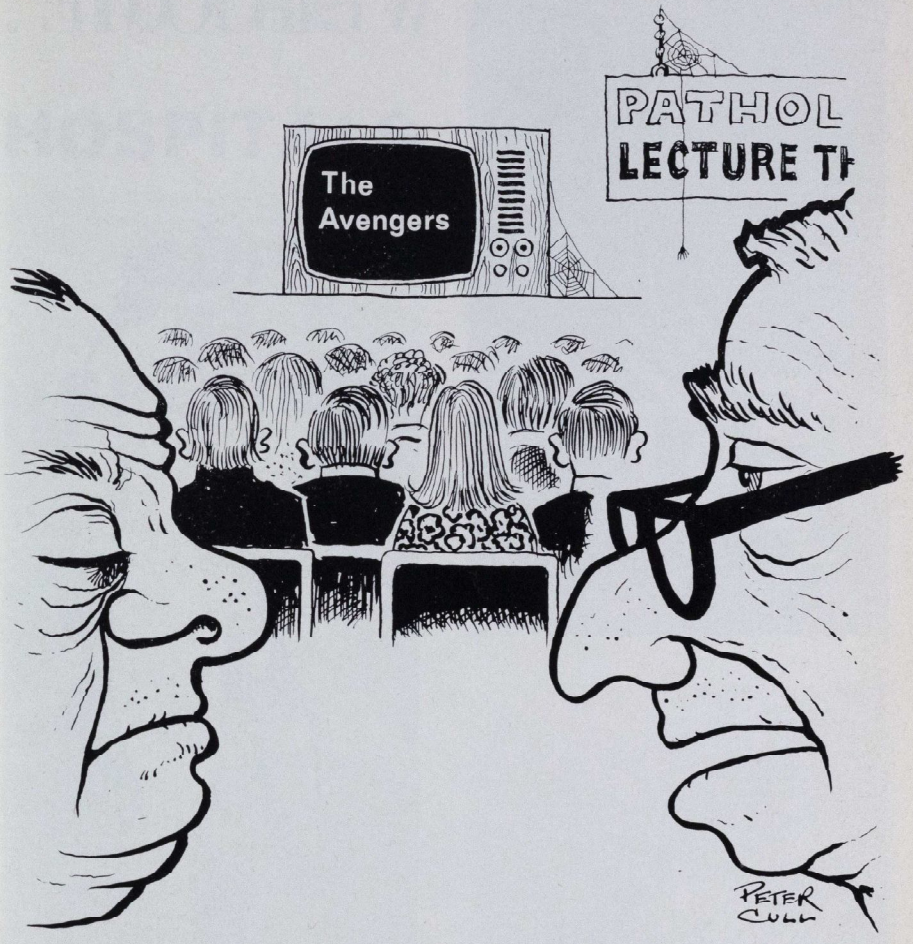
The I.M.C.C. produce a booklet with details of the courses offered abroad, this can be obtained from the B.M.S.A. office, apart from giving you the basic requirements and languages necessary for individual countries it is not a great deal of help: it is still very much a question of going on spec.

Residence provides another opportunity to the impecunious, that of saving money, since accommodation and meals are as a rule provided and also the possibilities, especially abroad, of earning money in the hospitals.

Free accommodation is pointless from this respect if a flat has to be kept up anyway; this is where the organisation is required and of necessity it must be organisation well in advance. Three months away and it is possible to sublet, but short periods of a fortnight followed a month later by a period of a month makes things rather more difficult, this is money wasted and a more flexible system of choice would be of benefit to all.

Opportunities for earning money abroad are high. In the United States it is possible to do a very highly paid externship. In Scandinavia, the system of work organisation, such that it is rare to have any work after 2 o'clock and more often things are finished by 11, allowing further paid work to be done in other hospitals. Wages are high, over 30 shillings an hour and the work gives a different sort of experience from that gained as an unpaid student, since it is paid it appears more valuable in every sense.

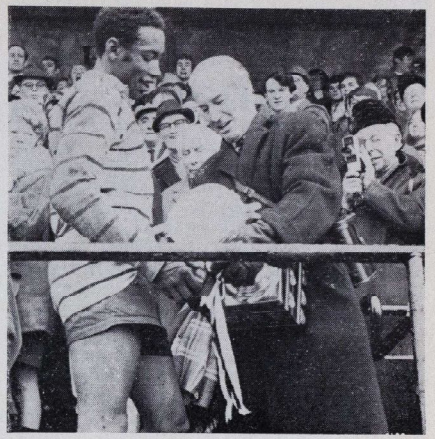
It seems a great pity that so much of this unique and rewarding opportunity should be left to a haphazard choice; better organisation and more information are needed for every one to gain the most from a stay away from Barts.



"IT'S THE ONLY WAY WE CAN GET THE BEGGERS TO COME AT ALL—WE HAVE TO SLIP THE BITS ABOUT THE INFLAMMATION IN AT THE COMMERCIAL BREAKS".

WELCOME !

TO THE HOSPITALS CUP SPECIAL



Keith McIntyre recieves the Cup.

Photographs by
Alan Anderson

The Semi-final

Won 11-5

The semi-final was played at Richmond Athletic Ground.

The unfortunate accident when Simon Smith damaged his knee, meant that Duncan Jefferson was called on to play. Such a disturbance immediately before the game both to the team and Duncan, could have been serious, but as expected, despite his lunchtime beers, he played very well.

The pack was perhaps more on top of Mary's than the bigger Tommies pack, but at times missed their possession. Most notable was the wheeling of the scrum so that Mansell Heslip at scrum half was forced to take the ball from the feet of his opposite number, instead of the pack clearing up their own rubbish.

The three-quarters line, although sound in defence, were slow to get going and only later and from the loose did they show their ability and enterprise.

Mike May kicked two long penalty goals in the first half and a somewhat complacent dosy team played adequately for the rest of the game. Mary's constructive play came mainly from the centre where T. Fletcher was trying to take a tackle and feed the full back running through. For any but the fastest full backs with slow three's, this means the three-quarters slowing for the full back to come in. By this time they were tackled and smothered by our back row.

Their centres were fast and much more dangerous when running straight and it was a determined break by their left centre, with good backing up, which led to Mary's fine try near the posts, reducing our lead to 6—5.

Fast cover by our back row led to our final try. Mary's full back was in the line but again slowly. Their three's were each caught as they received the ball, and Bart's broke through when Keith MacIntyre caught the full back, and Robin Lambert intercepted his attempted pass to score under the posts. Mick May converted.

The score did perhaps reflect the difference between the two sides. While the penalties were due to good loose pack play forcing errors on Mary's, they were not constructive scores. The try was better, our back row forcing the situation for the extra man to snap up the loose pass. We will probably not be able to wait for Guy's to err in the final, but construct scores from extra men in the line, with the three-quarters making sure of their support plus cover from the pack. The back row could perhaps attack from the base of the scrum, a move which proved very successful earlier in the season.

"O.K. Guys we're gonna get yer."

And so to the final . . .

Who won the cup? Bart's: that's what they were all saying or rather shouting afterwards, down at Richmond. This was the first time in 38 years that the cup has come to Bart's and with the crowd erupting at the final whistle it was a popular victory.

Right from the kick-off, it looked like anyones match but Barts were making the most of their opportunities and putting the pressure on Guy's in their half, although Guy's were getting most of the possession from scrum and line.

After missing a difficult penalty chance from out on the 10-yard line with a heavy ball, Bart's produced a fine three-quarter movement which was finally halted deep in the Guy's half but leaving Mike May prostrate on the ground.

There were cries of "off" from the Guy's flour-boys and girls, who with vastly superior numbers had failed to show a decisive victory over a lightly-armed Bart's flanking movement earlier in the day. Mike May wasn't having any and insisted on staying there, mainly on his left leg, for the rest of the match. Bart's were now fourteen men and May at half speed, despite which he managed to put in some brilliant kicks and was with the ball when he needed to be.

Guy's then gained possession from a set scrum and kicked forward to set Bart's moving only for John Ross, the Guy's Irish winger, to intercept and with enough speed to take him just clear of Nick Packer, score in the corner.

With a greasy ball Guy's kicker didn't have the distance for the kick.

So, it was 3—0 to Guy's in the 17th minute; then, three minutes later Guy's conceded a penalty from a loose ruck for Barry Cassidy to put it over from 35 yards.

With the score even, Guy's were still getting most of the possession from the scrum and were playing well at the end of the line, Keith McIntyre often withdrew to cover the gap left by Mike May's loss of speed. Graham Hopkins was now on the right wing to cover Ross. Despite their possession, Guy's didn't seem to be able to use it. Bart's foraging was better and good tackling stopped most movements before they started. Just before half-time, Cassidy tried another 50-yard penalty shot at goal, it was hooked away.

At the restart, Guy's almost went ahead, when David Elliot, their fly-half, tried a drop from 25 yards which curled away to the left of the posts. Immediately, Bart's created a fine upfield movement, after a scrum, then a kick. they were three yards from the Guy's line. With the crowd shouting for them, they were

set to go over and Guy's did well to hold off the pressure. Line outs at 10 yards, then a Guy's mark at six yards from the line, only for them to find they had to mark again, this time at three yards. Desperate stuff, but they held out.

Now Bart's were really putting on the pressure and looked set to win, with the wet greasy conditions making it difficult to be sure of the bouncing ball, Bart's kicked into the gap and raced up on the uncertain defence. Dribbling the ball from the loose brought Bart's chances and it was an unlucky bounce for a knock-on that stopped a runaway try. Both three's were still moving, first Guy's with a fluent attack, then Bart's with Hopkins kicking ahead brilliantly, when he ran out of space, to bring Bart's right back into the Guy's half to the appreciation of the spectators, not to say the delight and unconcealed relief of some. Then again, Hopkins had a chance, taking a difficult shoulder high catch from a Guy's cross-kick but being tackled by Ross before he regained his balance.

Then, a Guy's attack really put Bart's under pressure, Guy's were 10 yards from the line, after just getting the touch down to a ball that was kicked over; the dropout failed to materialise and we were back on the line. Then a brilliant kick from Nick Packer and we were at Guy's 10-yard line; what followed was the best bit of line work of the match, Bart's getting the ball down and around it, Heslip waiting ready for it and the line stretched out ready to go. Out came the ball with Heslip taking it and going inside to make the overlap only to be brought down by a brilliant Guy's tackle. Guy's followed this by going over for what looked like a try only for Bart's to get a penalty.

From a scrum down on the half-way line, Guy's tried to wheel, only to have the ball taken away from them on the dribble, picked up by the forwards who set the three's going in a combined effort from Duncan Jefferson to go through and over under the posts.

The crowd went mad, now it looked like it was there.

Barry Cassidy knocked it over to make it 8—3 after 70 minutes of play. Then with another penalty, again from a movement which started with a controlled forward dribble, Barry Cassidy chopped it over from the 25 line, just outside the line of the posts, to make it 11—3. This was it, now everything that Bart's did was better than what they'd done before. Guy's fought back dangerously to the end, Ross nearly got away once but was just held by a last ditch tackle from Hopkins, long enough for the cover to get across.

But as far as Bart's were concerned, they were ahead and that's the way it was going to stay until the final whistle.

When it came, the spectators erupted, with everyone pouring onto the pitch to congratulate the team. Bart's had won the Cup again and they had played the better game to do it. It was left to Keith McIntyre, to be cheered through the team he had led so well to victory, to go up and collect the Cup, bringing it back to Bart's for the sixth time, since its instigation.

Its early christening with beer was short lived and it was not long before the champagne was being toasted around the dressing room with Mr. Cope and Mr. Morris removing corks with great dexterity.

Then the Bar, there weren't enough hands to meet the demand, nor could a beer tap left on fill the jugs quickly enough: Bart's had won the Cup and they were making sure that everyone should know.

The Teams

Bart's:—N. Packer, M. May, R. Lambert, D. Jefferson, G. Hopkins, B. Cassidy, P. Heslip, N. Fairhurst, E. Lloyd, B. Rees, J. Carroll, M. Britten, K. McIntyre, M. Stewart, O. Else.
Guy's:—W. W. Davies, J. Shutes, D. Smith, J. Price, J. R. M. Ross, D. R. Elliott, D. Merrett, J. E. Davies, G. B. Hey, S. J. Challacombe, M. J. Cockburn, J. Stoneham, R. Blackwood, C. E. Neville, P. C. Williams.
Referee: Mr. R. F. Johnson.

RIFLE CLUB REPORT

In January the club held its annual dinner, for the second year running, at the Cock Tavern in Fleet Street. This was an enjoyable evening helped by the presence of several lady members. We were also pleased to receive the presence of our President and Vice-president.

Only a few days later the club held a hop at Charterhouse. Fortunately this year we were able to supply sufficient people to serve behind the bar. Takings were down on last year but everybody appeared to enjoy themselves.

Full-bore shooting has commenced, practices being held in conjunction with United Hospitals. Our congratulations must go to Ian Franklin on being awarded a full purple for his full-bore shooting.

P. J. Ciclitira.

Drug Dependence:

The nature and size of the problem

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The word "drug" used in the phrase "drug addiction" is usually thought of as being synonymous with heroin and to a lesser extent with morphine and cocaine. A more general meaning would be any chemical preparation used in medicine but in this paper it will be used in a sense wider than the first and narrower than the second to mean a chemical substance which acts on the central nervous system altering the individual's relationship with reality. The drugs commonly involved in problems of dependance are those that alter this relationship so that the individual derives pleasure from taking the drug.

The history of drug taking for pleasure, either for the simple pleasure of the effects of the drug or to relieve the stresses of life, dates back through recorded history, Cannabis is mentioned in a Chinese pharmacopoeia written in 2737 B.C., and has been widely used in the Middle East for thousands of years. The Hashashin—from which the word "assassin" comes—were users of cannabis in the form of hashish although they were given the drug as a reward for their acts rather than as formerly believed, as a stimulant to enable them to perform them. Other drugs with a long history of use and abuse are the opiates, cocaine and at a more everyday level alcohol, tobacco and caffeine (mostly in tea and coffee). Society generally does not concern itself with the simple consumption of such drugs but with the extent to which they are abused. The point at which abuse is considered to begin is defined by both medical and sociological factors; firstly the degree to which the use of a drug tends to lead to its increased use in an individual (i.e.) how readily physiological and psychological dependence develops and secondly on how tolerant a society is of the use of a particular drug.

The terms "addiction" and "habituation" have been widely used when talking of drug abuse. The W.H.O. (1950) described addiction as a state of periodic or chronic intoxication, detrimental to the individual or society, produced by the repeated consumption of a drug (natural or synthetic). There was an overwhelming desire or need to continue to take the drug, to obtain it by any means, a tendency to increase the dose, and a psychological and sometimes a physiological dependence on the drug. In 1956 (W.H.O. 1956) a distinction was made between addiction and habituation. Habituation differed from addiction in there being a less strong desire to continue to take the drug, little or no tendency to increase the dose and psychological but no physiological dependence. There is clearly no sharp dividing line between habituation and addiction and so in 1964 (W.H.O. 1964) it was recommended that the term "drug dependence" replace habituation and addiction. All drugs liable to produce dependence are capable of creating psychological dependence leading an individual to continue to take the drug, abuse occurring when the results of taking the drug harm the individual or society. These general features apart it was agreed that different dependency producing groups of drugs would show different dependency syndromes, and each drug should be described by its particular type of dependence, e.g., "drug dependence of amphetamine type".

There are certain characteristics of a drug which will make it more likely than others to produce dependence. These are firstly that the predominant effect of taking the drug should be pleasurable (either by raising normal mood or by relieving symptoms of stress). Secondly the effect should be rapid (dependence on amphetamines, which produce an effect within minutes of administration, is common but is uncommon with the tricyclic or monoamine oxidase inhibitor anti-depressants as these only raise mood over a period of 1-3 weeks). Thirdly, and to a less extent, after the pleasurable effect there should be unpleasant sequelae (a "let down") which are relieved by another dose of the drug.

In the current interest in the problems of heroin and cocaine dependence it is easy to overlook the fact that these are only a small though important fraction of the drugs liable to abuse. These may be classified as follows:

A. Stimulants
   1. Amphetamine group
   2. Cocaine
B. Depressants
   1. Alcohol
   2. Barbiturates
   3. Bromide
   4. Opium and derivatives
   5. Synthetic narcotics
C. Other
   "Hallucinogens"
   Cannabis

Alcoholism

In terms of numbers of people affected alcohol dependence probably presents the largest problem. Estimates of the number of alcoholics in the country have varied between 30,000 and 350,000; some of this discrepancy may be due to varying definition of what exactly constitutes alcoholism, whether anybody with a drinking problem is included or only those showing social or medical deterioration. Williams has estimated 300,000 but of these less than a quarter will show the social or physical deterioration which are associated with the "typical" alcoholic, the remainder being people with drinking problems causing some disruption to their lives.

Barbiturates

Barbiturates, discovered in the late nineteenth century, became popular in the early 1900's and are now very widely used, over 17 million prescriptions being issued in England and Wales in 1965. Glatt (1962) suggests that they are the most commonly abused group of drugs apart from alcohol. A possible reason for this may lie in the frequency with which barbiturates are prescribed for insomnia which is likely to be of brief duration and for which a less powerful hypnotic might be appropriate if any is needed at all, e.g. during hospital admissions, or short-lived periods of stress. Work by Oswald and Priest (1965) has shown that after habituation to barbiturates it can take up to 5 weeks for the sleep pattern as determined by the proportions of REM to non REM sleep to revert to normal which may explain why patients find it so difficult to give up barbiturates once they have become used to them. Barbiturates produce physical dependence with a potentially severe abstinence syndrome which may include epileptic fits and even death. Withdrawal therefore should always be done slowly and under close medical supervision.

Amphetamines

Amphetamines, developed during the late 1920's, are also widely abused and their position in the pharmacopoeia is currently under review. Kiloh and Brandon (1962) found that about 2 people per 1,000 of the population of a northern city were dependent on amphetamines. Considerably more may misuse drugs of this group (dexedrine, Drinamyl, Durophet) which are widely used by teenagers to enable them to keep awake during week-end parties. There is no accurate estimate of the number of people who take drugs in this way though Scott and Willcox (1965) have found that 18% of juveniles admitted to a remand home showed traces of amphetamine in their urine. Methyl amphetamine (Methedrine) until the recent ban on its prescription except for resuscitation and research purposes presented a problem of management as serious as that of heroin and cocaine. Being stimulants, amphetamines taken in excessive amounts produce seriously disturbed behaviour with overactivity, sleeplessness, aggressive outbursts, and the development of illnesses very similar to paranoid schizophrenia. Physical dependence does not develop and the abstinence syndrome is confined to drowsiness, irritability and a craving for the drug.

Cannabis

Although cannabis has been used medicinally or for pleasure for centuries there is remarkably little reliable information about either its pharmacology or its clinical and socialogical effects. Cannabis is the generic name of Indian hemp (Cannabis Sativa). The drugs are obtained from the unfertilised flower head and the leaves of the plant, the dried leaves being known as marihuana, or dagga and the resin from the flower head as hashish, or charras. The active principles are tetrahydrocannabinols (THC) and animal experiments suggest that a possible site of action may be on adaptive lysosomal enzyme systems. The prevalence of use varies greatly from country to country; one estimate for Morocco suggested that 50 per cent. of the population were regular users. An estimate from convictions for possession or use of the drug in the United Kingdom (Bewley 1966) gives a prevalence of 30 regular users per 100,000 of population, and a sample of London University students showed 4 per cent. as steady users and 10 per cent. as occasional users.

The clinical effects of cannabis have recently been reviewed by Lewis (1968). Reports of the effects of cannabis smoking vary. In general small doses are said to produce a pleasant feeling of relaxation and euphoria with increased intensity of perception but there is considerable individual variation and severe

mental disturbances may occur. The clinical picture then is of an acute organic reaction (delirium) with confusion, disorientation, terror or anger, paranoid delusions and subsequent amnesia for the period of intoxication. The result of persistent use of the drug in heavy doses is also variably reported but it seems probable that a chronic excessive user becomes irritable and impulsive or inert and dreamy, showing neglect of self and family.

"Hallucinogens"

D-lysergic acid diethylamide (LSD), a synthetic drug produced in 1943 has been classed as a "hallucinogen" along with other naturally occurring drugs such as mescalin, itself a derivative of peyotl. Whether they are true hallucinogens is not certain as it is possible that their main action is to distort perception to the degree of production of illusions. These drugs are not widely used. Regular users are few, probably less than 1 per 100,000 of poulation (Bewley 1966) though many more may have experimented with the drug. There can be serious complications to its use, suicide, prolonged and severe mental illness and a variety of forms of anti-social behaviour have all been reported.

Heroin and cocaine

Most attention recently has been centred on the increasing problem of the so-called "hard" drugs heroin and cocaine. For many years addiction to drugs of the opiate group presented little problem in this country and our method of control with any doctor who was willing to look after an addict being free to prescribe for him was regarded as an ideal by some other countries with larger problems of heroin dependence. There was no official registration and the great majority of patients were "therapeutic addicts" — people who had become dependent during medical treatment with narcotics. These combined with a group of patients from the medical and allied professions who had obtained their drugs through easy professional access gave a picture of the number of known heroin and morphine dependents falling from about 700 in 1935 to below 400 in 1955. After this the numbers began to grow at first slowly and then very much more rapidly until in 1966 there were approximately 1,300 known narcotic addicts. The causes of this sudden rise are not fully understood but certain factors have undoubtedly contributed. Because of the greater ease with which narcotics were available in this country a number of established addicts came here from America. For unknown reasons, probably at first from inexperience in treating this different type of addict who overstated their needs doctors prescribed more heroin than the addict needed and sometimes also added cocaine in an attempt to counteract the sedative effects of the heroin. The result was that there became available a surplus of heroin which could be sold on the "grey" market. The "grey" market is the illegal distribution of legally supplied drugs as opposed to the "black" market, the illegal supplying of drugs.) This selling occurred at first mainly in the jazz and other clubs in the Soho area and led to an increase in the number of addicts who started their addiction other than as a result of medical treatment (non-therapeutic addicts).

It seems likely that apart from over prescribing to established addicts other less easily defined social factors also played a part in the rise in addiction. Drug taking at least in the initial stages is very much part of a group activity among adolescents. As already discussed there is a high incidence of amphetamine taking among some groups of 14-15 year olds and at a slightly later age of cannabis smoking. Undoubtedly most of those who misuse these drugs do not go on to use heroin and cocaine but an unknown proportion do. What distinguishes those who go on to heroin from those who do not is unknown.

There is no clear casual link between cannabis taking and heroin dependence. Certainly the availability of heroin in the same circles as amphetamines and cannabis plays a part, but individual factors may also apply. A person who has become acustomed to getting "high" on "soft" drugs may after a time cease to find the effect satisfying and seek a greater effect from stronger drugs. Also, faced with group pressure the fear of being thought to have "chickened out" may cause some adolescents to experiment with drugs which they would not have taken under other circumstances. There is also motivation on the part of an established addict to involve others. There is a financial motive—an addict may sell part of his drug supply in order to get money for food and lodgings or to buy a different drug that has not been prescribed for him, and an addict may wish a friend to become addicted so that he or she may become a closer member of the addict subculture.

Typically the addict having progressed through amphetamines and cannabis becomes a week-end user of heroin and will often start by injecting intravenously ("mainlining") whereas older addicts commonly started by sniffing, smoking or injecting subcutaneosuly ("skin-popping"). The first doses of heroin to the potential addict will provide positive pleasure (a "buzz" or "thrill") said to be similar to an organism. Within a few weeks similar to an orgasm. Within a few weeks he will start "using" during the week also and in 1-3 months will be a daily user. The positive pleasure diminishes and within 3-9 months the addict is no longer taking heroin for the positive pleasure but to avoid withdrawal symptoms. The dose used increases but whether this is solely because of physiological tolerance or because of a psychological need to try and recapture the initial pleasant experience is not clear. Because of the unpleasant sedative action a stimulant such as cocaine may be added, which also appears to prolong the effect of the heroin.

Through whatever causes the number of addicts has risen very sharply, and this rise has been due entirely to the rise in non therapeutic addicts. In 1958 21 per cent. of addicts were non therapeutic but in 1966 the proportion was 74 per cent. These new addicts also differ from the old in other features. Many of the original addicts were in their late 20's or 30's. The average age of new male addicts in 1960 was 26.7 years and in 1964 23.5 year (Bewley 1965). No addicts under the age of 20 were known in 1959, by 1966, 317 had been notified. The social class distribution has also altered; a high proportion of the addicts in the 1930's were from the professional classes, now a much wider range of social class is affected. Whereas in the U.S.A. narcotic addiction is mainly associated with poor minority groups such as Negroes and Puerto Ricans as well as a smaller beatnik group, in this country immigrants are little involved except in cannabis smoking. Although no definite figures are available the addicts in this country appear to fall into three main groups:

1. the longstanding addicts both indigenous and from America who are usually on high dosage (up to 1,000 mg./day of heroin and may be fairly well stabilised in society and working;
2. the beatnik group who correspond in appearance and behaviour to the everyday idea of how an addict should appear and behave. These are usually on moderately high dosage (about 300 mg./day) and although stable within their own subculture; may frequently fall foul of society because of their generally unacceptable appearance and behaviour;
3. the adolescent group—the largest of the three—who are on small doses and have only been addicted a short time.

The treatment of these separate groups presents different problems which are discussed in a separate paper.

Detection of early addiction

The signs of early addiction are very difficult to detect (Rathod et al 1967) but parents and others often notice lack of concentration, falling off in work performance, a desire to be left alone, irritability and self neglect, unexpected absences from home. A difficulty is that behaviour like this may be typical of normal adolescence and more definite signs such as blood-staining of clothing or the finding of syringes or needles only occur considerably later on, often after the addict has already come to attention through other channels.

Morbidity and mortality

The morbidity and mortality among heroin addicts is considerable. The morbidity is usually due to failure to observe sterile precautions when injecting ("fixing") leading to local abscesses, septicaemia, lung and liver abscesses, bacterial endocarditis and serum jaundice. Less frequently addicts need attention for accidental or deliberate overdosage. A recent study (Bewley et al 1968) has shown that in the U.K. non therapeutic addicts have a mortality rate of 27 per 1,000 which is about 20 times the expected age specific rate. Most died of the infective complications mentioned above but almost as many from apparently unintentional overdoses. Five out of thirty-five males who died definitely committed suicide and a further four probably did so, an age specific rate for suicide fifty times greater than that of non addicted persons.

Medico-legal aspects

A committee under Lord Brain, which had considered the prescribing situation, reported in 1961 without making any major recommendations for change. As a result of the rapid increase in cases of heroin addiction the committee was reconvened and a second report was published in 1965. The recommendations in this second report have been incorporated into amendments to the Dangerous Drugs Acts of 1965 and 1967, the Dangerous Drugs (Notification of Addicts) Regulations 1968 and Dangerous Drugs (Supply to Addicts) Regulations 1968. These now define the conditions under which addicts must be notified and may be supplied with drugs. Briefly the position is that any medical practitioner is required to notify any person who he knows or has cause

to believe to be addicted to a drug covered by the Act of 1965. Heroin and cocaine may only be supplied to an addict on account of his addiction by a specially licensed medical practitioner. Licenses are in general restricted to experienced psychiatrists working in National Health Service hospitals. By restricted the right to prescribe heroin and cocaine and by preventing the addict from having access to more than a day or two's supply of drugs at a time it is hoped to reduce the amount of excess heroin available for sale. That these measures may be meeting with some success is suggested by the fact that the grey market price of heroin has risen from £1/grain before the regulations to the present price of £3—£5./grain.

This restriction in the right to prescribe may at times cause difficulties to general practitioners and casualty officers who find themselves presented with an addict who claims to have lost his drugs and to be getting withdrawal symptoms. In such a case the treatment centre which the patient attends should be contacted for advice; if this proves impossible then any serious withdrawal effects can be prevented by the supply of methadone (10-20 mg.) preferably as a linctus or alternatively as an injection until the addict can re-attend his treatment centre. Any doctor is permitted to prescribe heroin to an addict who needs this for purely medical reasons such as the relief of severe pain, but only a licensed doctor may prescribe for the addiction itself. If, for example, an addict is admitted to hospital with septicaemia the heroin and cocaine he needs to prevent withdrawal symptoms can only be legally prescribed by a licensed doctor; nearly all larger hospitals have one on their staff. In general it is unwise to try to reduce the dosage or attempt withdrawal until the addict is recovered from the physical illness. To do otherwise adds the stress of of withdrawal symptons to the physical illness and risks the patient discharging himself before treatment is complete.

Conclusion

This article has attempted to give a general view of the extent and nature of the problem of drug abuse in this country. There are clearly many questions to be answered before we know the reasons why a problem of this size has developed. However, perhaps we should not be surprised that young people turn to drugs. They live in an age when we are all led to believe that the cure to any discomfort, however minor, be it physical or psychological, lies in some medicine that will ease our pains, settle our stomachs, unruffle our nerves and at the end of the day soothe us into a night's untroubled sleep.

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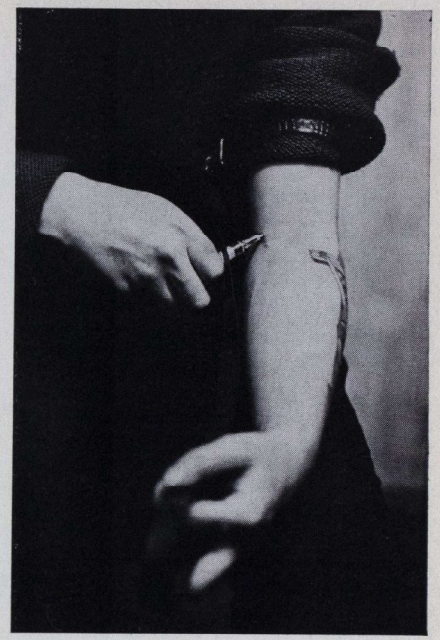
Drug Dependency Units

by John Mack

The rapid increase in the number of people addicted to heroin, and the apparent large numbers of young people abusing this and other drugs in the first years of this decade led to official action in 1968. In February medical practitioners were obliged to notify to the Home Office patients who were addicted to Schedule 1 narcotics, making it possible to compile statistics of the true extent of the problem. In April, the prescribing of heroin and cocaine for the purposes of addiction was limited to those practitioners who were specially licensed.

Coinciding with this latter regulation the Ministry of Health organised the foundation of Addiction or Drug Dependency Units where addicts could be treated. The majority of addicts were known to be in the London area and 16 units were initially established (there are now 14). These were in general attached to the psychiatric departments of teaching hospitals. In other parts of the country addicts could be treated in existing psychiatric units with certain exceptions. Birmingham, notably, had anticipated the problem and a successful unit had been in operation at All Saint's Hospital for some time.

Initially the addiction units were designed to work as out patient clinics, a few had in patients facilities, but it was intended to gradually provide these in accordance with the need.



Fixing

photographs by John Brooke for
The National Assoc. For Mental Health.

A number of recommendations were constructed by the Ministry of Health for the management of addicts at clinics. In order to regulate the amount of drugs available to an addict and to lessen the amount circulating in the community, prescriptions for heroin and cocaine were not to be handled by the patient. Each individual had to select a retail chemist convenient to him and who was agreeable to supply him. After an introduction, this chemist would issue drugs to this individual alone and on a daily basis. Prescriptions were to be posted weekly or fortnightly from the clinic and issued day by day. Failure to collect, leads to forfeiture of a particular day's supply. By agreement with the Pharmaceutical Society it is possible for heroin, cocaine and methadone to be prescribed and supplied in this way.

Apart from the general direction that dosages

should not be increased and that addicts should be encouraged to reduce their intake, the policies to be adopted in running clinics were left to the individuals working in them. Variations in policies have obviously arisen but in general the London clinics are broadly organised in the same way as they are at Hackney. It is experience at this clinic which is now described.

Patients were gathered in two ways. There was an initial large number of heroin addicts who came to us from general practitioners who had previously prescribed for them, and a secondary slow collection of addicts not previously legally supplied. Although the Home Office regulation refers to notification by the practitioner, it quickly became popular to refer to "registration", as only thereby could an addict be in legal possession of narcotics.

Experience was quickly gained in assessing the amounts of drugs likely to be taken daily by a particular patient. The extent of scarring over veins in his arms, his familiarity with the effects of drugs, the jargon of addiction, and the group with whom he associated all play a part in assessment.

We now have facilities for the detection of cocaine and morphine (a metabolite of heroin) in urine by chromotography, but we have no quantitative test. Unfortunately the presence of drugs alone does not constitute addiction.

It is of great importance to avoid prescribing narcotics for someone who is not addicted and to this end, a lengthy initial assessment is made. Full case histories are taken by either the nursing staff or social worker, and then by the Doctor.

The management of an addict, once he has been referred, accepted and an initial dosage established, is shared by the entire staff of the clinic. Weekly visits—upon which his future prescription depends, expose him to a varying mixture of social work, psychotherapy, general practice medicine, and above all to an atmosphere where he is neither judged nor rejected.

The long term addicts with whom it often seems we can do no more than issue a regular prescription, can gradually respond to what is nearer friendliness than psychotherapy, and very few of this group now bear the grudge against the "system" which may have been expected.

The wandering, often intelligent, beatnik type—the archetype of the Press—cries out for psychotherapy with his personality problems.

The largest group of addicts at Hackney are, however, youths in their late teens, often working and living with their parents and who are not obviously psychiatrically abnormal. For these addicts especially, the social workers are invaluable in approaching and involving families.

We have not attempted to make a division between drug withdrawal and rehabilitation. Perhaps making a virtue of necessity, we have employed out-patient withdrawal, with the addict continuing his life at work with his family and friends. The more rapid in-patient approach to withdrawal of drugs has been less successful in our limited experience.

It is usually left for the individual addict to decide the time and method of withdrawal—coercion usually leads to resentment and lack of co-operation. Once the addict is willing we have found it possible to gradually reduce the level of heroin intake with but little discomfort.

Frequently methadone is substituted to allay withdrawal effects of heroin in later stages, or to encourage an addict who refuses to accept that he will not suffer dire symptoms at the first reduction.

The greatest hurdle appears to be the transfer from injecting drugs to taking oral medication.

We have not employed the method of methadone blockade which has been used in North America, where methadone is given in high dosage in order to block any pleasurable effect of heroin. There would seem to be the possibility of creating long term methadone addicts by this method, this we would hope to avoid.

Rehabilitation commences at the addicts first visit to the clinic. By creating an atmosphere of trust, by offering direct help in finding work or somewhere to live; we hope to bring the addict nearer to the society which he feels has rejected him, and which so often, he is rejecting.

We hope to find reasons to settle conflicts and help solve the problems which have either started or perpetuated the addiction.

Those who eventually stop taking drugs, we attempt to follow up either by continued home visits, visits to the clinic or by letter. We have learned to accept readdiction and not to regard this as total failure.

Statistics collected from addiction units over the past six months show a gradual reduction in the total quantities of narcotics being prescribed and the number of new addicts being referred has declined. These facts can perhaps allow some optimism and indicate that the regulations and addiction units are succeeding in their purpose.

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* Reprints received and herewith gratefully acknowledged. Please address this material to the Librarian.

the malcolm fletcher column

I noted with interest, on reading the March edition of the JOURNAL, that the article I had written for it was accorded the status of a column. There was indeed an entire page devoted to it with the kind of banner headline normally reserved for national disasters and Royal births. This was brought to my attention, not by any member of the editorial staff but by a gentleman, whose name I was told but have since forgotten, who offered to buy me a drink on the strength of the article, thereby intending some rather obscure insult.

This chap, by his derogatory manner was proffering a general destructive criticism of the sort, which is so often directed against JOURNAL articles by those whose most serious attempts at mass communication have been in enjoining "College Hall" (and other establishments, where people sleep) to "wake up", in the small hours of the morning.

It is very sad that such a negative attitude exists towards the JOURNAL. The magazine needs moral support, it costs it readers, yourselves, a considerable amount of money and yet one by one its writers come up against this fashionable "Knock the JOURNAL" movement and one by one they decide, that if their efforts meet with derision rather than encouragement then it really isn't worth it.

Constructive criticism and ideas are always welcomed but what is needed most of all is an increase in the number of articles submitted by the readers so that the editors will have plenty of material to pick and choose from and won't have to fill space with large headlines.

It's your JOURNAL, write it.

Record Reviews

William McAlpine Sings Robert Burns (Music for Pleasure 1294 Stereo/Mono).

This is one of the latest records in this series of low-priced long-playing records. McAlpine has a fine tenor voice and has been heard at Sadler's Wells and Covent Garden as well as in Scottish opera and in many of the major operatic festivals of Europe.

Thirteen songs are featured. They range from the more tender love songs—"A Red, Red Rose", "A Fond Kiss" and "Bonnie Doon" —to the more light-hearted ones such as "My Love She's But A Lassie Yet" and "Duncan Gray". "Sweet Afton" and "Ca' The Yowes To The Knowes" are a pleasant contrast to the remaining songs which are rather more vivacious — "Green Grow The Rushes" for example.

The instrumental ensemble accompanies McAlpine unobtrusively.

The record is good value for money whichever side of the border you hail from!

B.F.

"Song of the Emerald Isle", Denis Martin, MFP 1305 (Stereo/Mono).

Denis Martin is an Irish tenor who came to England in 1944 and has appeared in many musicals (including the juvenile lead in "King's Rhapsody" with Ivor Novello) and on television. For a long time he has been associated with the Player's Theatre (underneath the arches at Charing Cross Station) where he is at present Director of Production.

There are twelve tracks to this record. At one end of the scale there are "Macnamara's Band" and "Phil the Fluter's Ball" whilst at the other there are more tender pieces such as "She Moved Thro' the Fair". Nearly all the songs are well known ones—"Minstrel Boy" (Thomas Moore) and "Down by the Sally Gardens' (W. B. Yeats) and "The Mountains of Mourne" for example. But the best loved three must surely be those where Martin sings of our homeland: its pastoral charm as exemplified by "The Lark in the Clear", our sadness on departing in "Danny Boy" and our longing to return one day as expressed in the beautiful "I'll Take You Home Again, Kathleen".

It is a fine record. I would have replaced one of the other songs with "Galway Bay"—but one cannot expect everything for 14s. 6d.!

book reviews

Mr. Martin Birnstingl reviews a study of the workings of hospital out-patient departments. Dr. Gilbert Pugh reviews a report on autistic children.
These reviews point to two areas of neglect in the Health Service. Neglect contributes to morbidity. It should figure in tables of causes.

Continually Under Review: A Study of the Management of Out-patient Departments.

Rosemary Stewart and Janet Sleeman. Occasional Paper on Social Administration No. 20. G. Bells & Sons Ltd., London. p.p. 56 15s. 0d.

Although many of the shortcomings of the National Health Service are the direct result of government parsimony, others are due to bad management. Britain's hospitals are the adopted children of a tottering marriage between those relics of Victorian paternalism, the hospital management committees and boards of governors, and a new, expanding, maternal bureaucracy, the hospital administrators. Although there are signs that the child is beginning to outgrow his parents Carlyle's "continental nuisance called Bureaucracy" has come to stay. It is for the patients who use the hospitals and the doctors who serve those patients to be watchful, lest the sleepy parents suffocate the starving child.

"Continuously Under Review" is a serious and professional study by two members of the Management Studies Research department of the London School of Economics, based upon a random sample of 30 hospital management committees in different parts of the country. Teaching hospitals are not specifically mentioned, but the findings seem universally relevant. Its purpose is not so much to analyse the inadequacies of out-patient departments, since these have been illuminated by previous studies such as the one by the Nuffield Trust. The intention was to find out how the local administrators were reacting to this information, as relayed to them in a Ministry of Health pink circular, and whether any changes had been made as a result. Much of the report makes depressing reading, but it ought to be read by all who organise, treat or attend out-patients.

"The main obstacle to good management of the out-patient department . . . is that in many of the hospital management committees visited it is not being managed." The conclusions then state some elementary principles of management, including the setting of goals and standards and continue: "many of the groups we visited had neither established standards by which to judge the working of the out-patient department, nor had they adopted any means for periodically reviewing whether these standards are being reached". In fact, when the administrators claimed that "they kept it continuously under review", they often meant nothing of the sort.

There is a famous Daumier drawing of a row of out-patients waiting in a Paris hospital a hundred years ago. It could have been made today in our own hospital. About a quarter of a million out-patients attend Bart's every year; what kind of a shop window do we provide for them? This report highlights alarming complacency in the administration of a public service. Our own shop window could become an Aunt Sally.

Martin Birnstingl.

"Forgotten Teenagers". A Report by the National Society for Autistic Children. Published, February, 1969. Price 2/6. Obtainable from the National Society for Austic Children. 1a Golders Green Road, N.W.11

What emerges most clearly from the Society's report is that the condition of Autism is diagnosed too seldom and often too late. Sadly though, when it is diagnosed, the facilities for special education and care of the young autistic child are scanty: negligently, those for the adoslescent and young adult are non-existent. Since improvement followed by regression is a characteristic of the condition, it is this group of autistics—the teenagers and young adults —that urgently need facilities and about whom the report is most concerned.

The report defines the condition and discusses the current theories of aetiology. It points out that there are 12,000 autistic adults in Britain, most of these in institutions. The prevalence appears to be three or four times higher in boys. Is there a class or regional distribution? This is hinted at by the report since 18 out of 21 units for younger children

are in the South East of England. But if the facilities for the young autistic child (up to 16) are poor, those for the adolescent and young adult are grossly inadequate. To quote from the report "a survey of the whereabouts of 42 autistic adolescents and young adults aged 17 and over showed that half of these were in mental hospitals of some sort, the great majority being in subnormality hospitals. The other 21 were being cared for by their parents at home, without any kind of further education or chance of development." Figures from the Maudsley hospital are equally disappointing; in a follow up of autistic children there, 53 per cent. of the children now 16 or over are in long stay mental hospitals.

Under the heading "Who are they?" the report discusses case histories, some "failures" and some "successes". Disappointing features of the failures included late or mistaken diagnoses (they are often labelled mentally defective) and good progress brought to nothing when regression occurred and a suitable adolescent unit was not available. In the "success" case histories that of David shows the widespread professional ignorance of this condition (and also the scope for common sense shown by David's father). David's parents were given the following advice:

Aged 2, family Doctor: "Not to worry, obviously intelligent."

Aged 5, Child Guidance clinic: "Ineducable —to cease formal schooling."

Aged 5, Child Psychologist: "Mentally defective—should be sent to a colony."

Later, Social Worker: "Don't teach David anything, he should learn to play first."

David's parents ignored all such advice and his father, undaunted, preceded to make him a jack-in-the-box out of which popped at first letters then words. At the end of twelve months, David could read simple story books. A second hand tape recorder demonstrated that David's later lack of communication was confined to human beings. Subsequently David achieved four "O" levels and "A" level mathematics and physics. The other "success" case history, that of Jay, demonstrates well some of the features of autism. He was a chubby baby who received much affection but seemed to care little. His response was inappropriate and he repeated meaningless words and phrases over and over again. He also showed an obsessive interest in fans (in itself not typical. Autistic children, however, often show obsessive interest in mechanical and other objects). Jay initially showed great promise as a musician but later found solace in the repair and handling of musical *objects* which he adored — a sad reminder that autism precludes human relationships of any depth. In another child, the first book that he chose from the library on his own was ironically, "Your marriage and your sex life". He would be incapable of managing either successfully.

The last part of the report is concerned with "facilities that would help". Dr. Lorna Wing here emphasises that the gap in the services is greatest at the time of adolescence. She also adds that "social, emotional and intellectual maturity in adolescents who look several years younger than their age, precludes any possibility of a normal progress through the Youth Employment Service." She then describes in some depth the basis for a series of units for autistic teenagers. This includes small residential units, with a homelike atmosphere, part time schooling and workshop facilities. The staff should include a warden, teachers, and a vocational training supervisor. Social habits such as shopping, use of public transport, good manners, etc., should be encouraged. Parents should take part in discussion groups and ties should be maintained with the home. Most important of all, provision should be made for those who do not progress sufficiently well to hold down an outside job. These should be allowed to work in a dignified way in more sheltered surroundings, if necessary to the end of their lives.

"Autism differs from mental defect in that true potentiality exists but it is masked". Dr. Hugh Jolly continues: "Islands of normal or even exceptional ability may remain to shine through the bizarre behavioural pattern". It is just such islands that the report and Dr. Lorna Wing are trying to develop. They must be persistently and relentlessly encouraged to shine, and not allowed to fizzle out unnoticed in a long stay mental hospital.

Gilbert Pugh.

"A Manual of English for the Overseas Doctor" by Joy E. Parkinson, published by E. and E. Livingstone Ltd., at 15s. 213 pp.

Miss Parkinson has produced a useful pocket book. It contains chapters on: The structure of the National Health Service, the organisation of a hospital, on letter writing, medical qualifications and conferring bodies, medical abbreviations. Chapters 6-10 are medical language and idiomatic English. Some of the examples of idiomatic English are amusing.

The last chapter is on the language of drug addiction.

As a compact source of reference this book will be useful to both the English and Overseas Doctor. The Overseas Doctor will find helpful guidance on applying for a post and the section of the book on medical and idiomatic English should make his work much easier.

John Burman.

Giles goat-boy, by John Barth, published by Penguin Books Ltd. at 8s. 6d. No. 2728.

This is probably the most interesting and, at the same time, the most puzzling book I have read. It is basically a satire, but the author takes time out to expound his own theories on our social characteristics. At scattered points he is hilarious, but for the most part the humour is derived from subtle hints or gestures by the anti-heroes of the story.

The world is divided into two student campuses, wescac and eascac, where everyone is a student, holding qualifications of degrees. Giles is the first programmed child-result of artificial insemination between the computer controlling wescac, and some unknown person, whose identity Giles tries to discover.

Leaving the goat-pen where he has been raised, and accompanied by a disgruntled professor, Giles sets out to the centre of the campus and having convinced himself he is the new grand tutor, the only person who can change wescacs policy, he encounters many individuals and the majority of the book is devoted to his conversation and adventures with them.

This is a mammoth work, 893 pages, and is definitely the kind of book to be read continuously, rather than picked up from time to time, as the story line, though strong for the most part, jumps about from one theme to another. I would recommend it to patient people who are looking for an intellectuarily stimulating book, as it requires a good deal of concentration to absorb it.

Doctor on toast, by Richard Gordon, published by Penguin Books Ltd. Price 4s. No. 2294.

There is no doubt of Mr. Gordon's literary talents. However, one feels that he sits at a typewriter and churns out novel after novel, knowing they will be eagerly gobbled up by a lay public who found his early work very amusing, as I did, and reckon on his more recent efforts being just as good.

This book is very disappointing, with only occassional patches of the humour we know he is capable of producing. One wonders if he is following in the footsteps of many authors who write a series of books, and have lost their initial enthusiasm and consequently their freshness.

One detects a certain amount of cynicism in his latest effort, and my advice to Mr. Gordon is—give it a rest.

The familiar faces reappear in this novel and he goes through his usual amorous entanglements, his usual suffering diligence to Sir Lancelot Spratt, and the usual happy ending, with Gaston emerging unscarred by the battle.

The Return of Hyman Kaplan, by Leo Rosten, published by Penguin Books Ltd. Price 4s. No. 2903.

Mr. Kaplan is an emigré Jew, who has been attending the American night school for adults —beginners-grade—for some years, making no progress, but aiding his own peculiar brand of implacable logic to the proceedings, he is joined by Latins, Russians, Orientals, Greeks and East Europeans.

The classes, designed to give an understanding of the English language, are conducted by Mr. Darkhill, who possesses an uncorruptible faith in man, and unshattering faith in his own perfectibility.

The book consists of a series of short stories concerning the classroom antics of Mr. Kaplan. Humour is derived from his interpretation of the language, and the effect this has on his classmates, e.g.:

fife opposits fromm Hyman Keplen, spic—span, tall—shrimp, naut caroline—sot caroline, op—don, nightmare—daymare.

This is an extremely funny book, and I thoroughly recommend it for relaxing reading.

LETTERS TO THE EDITOR

Sir,—Who started the story *St. B.H.J. Feb.* 1969, *p.* 69, that the Pot Pourri started in 1937?

We had them every year in the years 1930-1935—and before that for all I know.

Yours truly,

S. J. HADFIELD.

Sir,—**A Sign of Death**—for a G.P., the best sign has been "trucking" of the retinal vessels.

Is it true that by methods of resuscitation the vessels will return to normal? Has this phenomenon of "trucking" and then "de-trucking" been observed? Dr. Paul implies that this is so. Could we hear more about it please? It was such a splendid sign.

Yours faithfully,

R. E. FREARS.

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