The New Emigrés (II): British Doctors Head for U.S. in Large Numbers

London. One morning in mid-September some 530 doctors gathered in two examination halls in central London to take the examination of the Philadelphia-based Educational Council for Foreign Medical Graduates. Success in the examination is required of graduates of medical schools outside the United States who seek appointment to internship and residency-training programs in American hospitals. About two-thirds of the states also regard certification by the council as a requirement for admission of foreign-trained doctors to state licensure examinations.

The ECFMG examination, sponsored jointly by the big three of American medicine — the American Medical Association, the Association of American Medical Colleges, and the American Hospital Association— plus the Federation of State Medical Boards, was administered by the American Embassy, which commonly acts as overseas agent in such matters. The embassy handled the examination arrangements very discreetly, which was sound diplomacy since the emigration of doctors is viewed in some quarters in Britain rather as we once regarded the impressment of American seamen by the Royal Navy.

Any "brain-drain" story is news in Britain these days, and two of the London evening papers got wind of the examination and had stories with pictures out that afternoon. The ECFMG test, however, was only one event in a month when several things happened to maintain public awareness of the emigration of physicians from Britain. The grievances of the junior hospital doctors (*Science,* 21 October) have been steady fare in recent weeks in the letters-to-the-editors columns and on television news and discussion programs. During the week of the ECFMG examination, the Minister of Health, Kenneth Robinson, went to Birmingham to address a meeting of hospital doctors and made a speech which amounted to the fullest statement to date of the official position on the problem of the hospital service. Press reports stressed that the minister had some harsh words for the physician-emigrants. Earlier in the month, John Seale, a London specialist with an interest in medical manpower statistics, published an article in the *British Medical Journal* in which he said that 550 British doctors had emigrated last year, a number equal to about a third of the number of graduates each year from British medical schools.

Since the yearly emigration rate in recent years had averaged about 350, the increase to 550 was taken as cause for alarm. Trying to establish the number of departing doctors who represent a net loss is, of course, tricky, since a good many British doctors may go to other English-speaking countries temporarily for further education in a specialty or simply for a change. Another study, carried out at London University, has tended to confirm Seale's statistics and even suggests that his estimate of losses was on the conservative side.

When the brain drain is under discussion in Britain, the implicit assumption often seems to be that the United States is the principal destination of the emigrés. Seale's figures show that until now, at least, a large majority have gone to Commonwealth countries, particularly Canada and Australia. Of the 550 doctors from Great Britain who emigrated in 1965 (including some 80 from Ireland), an estimated 206 went to Canada, 121 to Australia, 31 to New Zealand, and 27 to South Africa. The number emigrating to the U.S. was put at 80.

The rate of flow to the United States is increasing, however, and a prediction that 200 or more will go to the States this year seems reasonable. Support for this estimate is to be found in the numbers of ECFMG examinees. The exam is given twice a year, usually in February and September. In Britain it is given at two locations, London and Edinburgh (well under 100 took it at Edinburgh last month). The total number who took it in 1965 was over 600, while this year the total apparently topped 1000. About a quarter of those taking the London exam were from Commonwealth countries. The pass rate is estimated at three quarters. (Once the individual has passed the ECFMG examination he keeps his eligibility, and many doctors, particularly young ones fresh from their studies, seem to take it as a kind of insurance.) If observers are right, about a third of those who take the examination have firm intentions of emigrating. This could mean the loss of 300 British-educated doctors to the United States sometime in the next year.

A majority of those sitting for the examination are doctors in the hospital service. Not only are these doctors restless now, but the transition is always less difficult for the emigrant taking up a hospital appointment than for one trying to qualify for outside practice.

Caution is in order in viewing the emigration of British doctors as an unprecedented exodus. In the days of Empire, doctors went abroad to make careers in the same way that professional soldiers, colonial administrators, and merchants did. Many a doctor with no hope of success as a Harley Street specialist and only a dull provincial practice in prospect chose to go abroad. But going to the colonies meant eventually coming back, or at least retaining a tie with Britain. Now the colonies are gone. A few doctors still leave to practice in the underdeveloped ex-colonial nations. But most now go to the Commonwealth countries or the United States, and this, in effect, means leaving for good.

The lure of the United States, as reflected in interviews with doctors and in the correspondence columns of the press, is the lure both of higher income and of the opportunity to practice medicine under more satisfactory conditions. The image of American medicine, as seen from Britain, is otherwise not a particularly flattering one, since medicine in the U.S. is regarded as a profit-making enterprise.

A reference in the *New Society*, a weekly which takes a social-sciences view of affairs and is not particularly anti-American, is representative.

> Apart from financial improvement, British doctors who go can count upon changes in their social status. Their social image will slowly change from a profes-

sional service. Medicine is a money-making career in America—that is, one might say more engagingly, medical skills are amply financially rewarding. The idealism, which still holds poetic sway over the medical profession in Britain and among their patients, is largely absent as a motivating force for their American counterparts. The medical profession in the U.S. is a major artery to social status and material ease, a guarantee to respectability for arrivals from whatever income bracket.

The emigration of doctors from Britain may, as some observers argue, threaten a shortage of doctors, but the real fragility of the hospital service arises from the fact that Britain, like the United States, already depends on foreign doctors for the working margin of hospital junior staff. Medical school graduates from the colonies and the Commonwealth have traditionally come to Britain for postgraduate training. Now more than 40 percent of junior staff in British hospitals are foreign-trained, and many hospitals, particularly those outside the major urban centers, literally depend on these immigrants to staff important services. The underdeveloped countries now are offering more opportunities for postgraduate training to more doctors, and finding ways to keep them.

There is little evidence that doctors —who are, after all, middle-class professionals—are alienated from the Welfare State. The concept of a National Health Service—medical care according to need—appears to be generally accepted by doctors, particularly by those who have entered the profession since World War II. The current protests of the junior staff might fairly be said to have arisen because things haven't changed enough. Under the old system the doctor worked very hard, deferred marriage and the enjoyment of family life until early middle age, but could then expect to achieve a status and income that repaid him for his efforts and patience. Now, it is argued, the arduous journeyman years haven't changed but the rewards have diminished. Because medical services are more fairly distributed, patient loads are heavier and facilities often are inadequate or overtaxed. Medicine has become less attractive relative to other pursuits. The scientist and university professor have forged ahead in status. The advertising man and business executive, with their expense accounts and perquisites, fare better in a system where taxes on regular income are extremely high.

At a time when a main topic of political discussion in Britain is the prospect of a statutory wage and income policy, it should be noted that doctors under the NHS have been living under something very much like an income policy since the establishment of the NHS after the war. The pay freeze, which triggered the junior hospital doctors' summer discontent, only serves to emphasize this.

One way a doctor can express himself, of course, is to emigrate. The loss of trained medical manpower is a serious matter for any country, particularly for a country like Britain where the state heavily subsidizes the education of doctors. The emigration of a doctor may not, in fact, in any serious scheme of social accounting, be a more serious national loss than the emigration of a nuclear physicist, a molecular biologist, an aircraft engineer, or an electronics technician, but the impact on the public is probably greater.

In dealing with the matter of emigration, Health Minister Robinson, in his speech at Birmingham, estimated that the total cost of training a doctor in Britain today is £10,000 ($28,000), of which the cost to the government is some £7500. In press reports of the speech, Robinson was portrayed as branding emigration by doctors a "cynical and selfish act." But, as this excerpt from the text shows, he trod quite carefully.

> Now I want to be careful here not to push my point too far. No one would argue that because a young man had received his schooling under the state educational system—also at the expense of the taxpayer and ratepayer—he was under a special obligation to stay and work permanently in Britain on that account. But primary and secondary education are available to all whereas medical education emphatically is not. It is limited in volume by the number and size of our medical

Medical School—Harvard Panel Seeks Changes

With a few exceptions—notably among new medical schools—innovation in medical education has been considerably more talked about than tried. Most established schools have conformed to a rigid pattern in which all students, whatever their previous training, have been forced to absorb an increasingly heavy amount of prescribed factual knowledge. In the usual pattern, basic science is taught during the first 2 years and clinical experience is acquired subsequently; deviations from the pattern, and elective courses, have generally been held to a minimum.

Recently a committee* of faculty members from Harvard Medical School called for a flexible curriculum that takes into account differences among students in both background and aspiration. Their report, now being debated by the medical faculty, seeks to change the nature of the medical school: they want to create "an atmosphere of a graduate school rather than of a trade school" by reducing the "amount of factual information and memorizing pressed on the students" and encouraging instead independent interests, thinking, and scholarship.

At the same time they hope to counter the tendency of research-oriented medical schools to produce researchers rather than physicians. A major purpose of the new program, in fact, would be to "maintain the motivation of most beginning students to help suffering humanity by introducing them early in their training to patients." The proposed curriculum includes a central required dose of biological, behavioral, and clinical sciences, but these subjects would be spread throughout the 4-year period and integrated in such a way as to become mutually reinforcing. Electives would play a far greater role, beginning in the first year and in some cases constituting an entire trimestral program. The concept of a free-wheeling medical education is in itself significant; its backers clearly hope that the uses of freedom—if the program or some variant of it is adopted—will be still more significant.—E.L.

* The Committee was headed by Alexander Leaf, chief of medicine services at the Massachusetts General Hospital. Other members were Adelbert Ames III, David G. Freiman, Howard W. Hiatt, Manfred L. Karnovsky, Samuel L. Katz, John C. Nemiah, and Victor W. Sidel. A limited number of copies of the report are available from the Office of the Dean, Harvard Medical School, 400 Washington Street, Boston, Massachusetts.

schools, which can train only about one out of every three well qualified candidates who would like to take up a medical career. Each student accepted means therefore that two other potential doctors must be rejected.

Again I do not want to press my argument to the point of saying that no doctor should ever emigrate. We have a duty for example to help develop medical services in under-developed countries and we go so far as to encourage young doctors to go overseas for a period and help such countries to get on their feet. I am not thinking of this kind of emigration, but of escape to countries where the doctor/population ratio is even higher than our own, and where the financial pickings sound more attractive and can be gathered in for less work. It is when I see self-appointed spokesmen actually calling for young doctors to demonstrate their frustration by emigrating to places like the United States, Canada, and New Zealand that I feel compelled to draw these considerations to your attention. I have already mentioned the steps we are taking to train more doctors. But Britain simply cannot afford to train doctors for the purpose of swelling the membership of the American Medical Association. This is emphatically not a burden the hard-pressed British taxpayer should be called upon to bear. Of course one wants to see a reasonable interchange of medical personnel across national frontiers, preferably on a temporary basis, and from such interchange our Health Service gains as well as loses. But to accept a fine medical education in Britain with the deliberate intention of selling it elsewhere where the price may be, or seem to be, higher, is in my view a cynical and selfish act. We need in our own health service every single doctor we train. Those who advocate emigration might spare a thought not only for their colleagues who will be left to shoulder an inevitably heavier workload, but also for those young men who might have become doctors in our own health service if they had not been squeezed out of medical school by those who were fortunate to gain places.

The dilemma for Britain is clearly implied in Robinson's remarks. An international market for scientifically and technically trained manpower has developed in the English-speaking countries. It is a buyer's market, and the United States is in the position of the major buyer. Emigration is an export in which there is little profit for the exporter. A new sort of emigré has emerged.

Britain, like many other countries, has adopted restrictive measures to control the export of capital. Britain, however, since World War II has not controlled the movement of her citizens in and out of the country by laws or by walls of a more substantial sort. There is talk now of discouraging emigration among doctors by requiring a specific period of NHS service of doctors, or by requiring repayment of the costs of education by those who emigrate. Others are arguing that emigration can only be held down by making the practice of medicine more attractive. Britain, which has had its own particular brand of social-democratic state since the war, is faced with solving the emigration problem in a way that is both socialist and democratic.—JOHN WALSH

Announcements

The **AAAS Committee on Council Affairs** will hold open hearings 27 December in Washington at the Association's annual meeting to review resolutions that members of the council or other members of AAAS wish to submit for council consideration. To facilitate orderly planning for these hearings the Committee on Council Affairs requests that copies of resolutions be sent to the Executive Officer, AAAS, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005, by 1 December.

Applications are being accepted for participation in next year's **White House Fellows** program. The project is designed to provide "gifted and highly motivated young Americans" with a year's experience in the federal government. Participants will be assigned to work as assistants to White House staff members, with the Vice President, Cabinet officers, or other government officials. In addition, they will take part in both formal and off-the-record meetings, discussions, and seminars.

Candidates may apply in their own behalf or they may be nominated. There are no restrictions as to sex or occupation. However, candidates must be U.S. citizens, graduates of an accredited 4-year school, and be between 23 and 35 years of age. Financial support for the program will come from the Carnegie Corporation, the Ford Foundation, and from a personal donation by David Rockefeller. Stipends for fellows have not yet been set but they are expected to approximate those awarded last year: $7500 to $12,000, based on age, plus dependent allowances of $1500 for spouse and $500 for each child.

Applications for the Fellows program will be accepted until 6 January 1967. Additional information is available from Thomas W. Carr, Director, Commission on White House Fellows, The White House, Washington, D.C. 20500.

Recent Deaths

Otto Braitsch, 45; director of the mineralogy institutes of the University of Freiburg; 25 July.

Oliver C. Carmichael, 74; consultant to the Fund for the Advancement of Education and former president of the University of Alabama; 25 September.

John D. Detwiler, 88; former head of the department of biology and zoology, University of Western Ontario; 30 August.

Richard L. Dolecek, 54; associate director of research for materials at the Naval Research Laboratory; 2 September.

Ross Gunn, 69; research professor of physics at American University; 15 October.

Llewellyn G. Hoxton, 88; professor emeritus and former head of the physics department at the University of Virginia; 8 June.

Paul D. Keener, professor of plant pathology and mycologist in the agricultural experiment station, University of Arizona; 6 August.

Yuri A. Orlov, 73; director of the Soviet Academy's paleontological institute; 2 October.

Marion W. Parker, 58; associate adminstrator of the Agricultural Research Service, USDA; 8 October.

Frank G. Perley, 80; retired professor of physics and electrical engineering at New York University; 11 October.

McGruder E. Sadler, 69; retired chancellor of Texas Christian University; 11 September.

Richard E. Shope, 64; pathologist and professor at Rockefeller University; 2 October.

Surain S. Sidhu, 64; senior physicist and group leader in the metallurgy division, Argonne National Laboratory; 7 October.

James W. Stephens, 46; head of the neurology division in the University of Colorado medical school; 20 September.

Erratum: In the review of *Treatise on Irreversible and Statistical Thermophysics* [153, 1630 (30 Sept. 1966)] the name of the first author of the book was misspelled. The authors are Wolfgang Yourgrau, Alwyn van der Merwe, and Gough Raw.