by our Washington Correspondent

There is one argument against the restriction on photocopying by libraries which may prove to be particularly telling, however. It was pointed out that it would prevent members of Congress and their staff from receiving photocopied material from the Library of Congress and the Congressional Research Service, unless they would be willing to pay the royalties.

**PHARMACEUTICALS** 

## Librium and Valium

by our Washington Correspondent It has been a bad year for the giant Swiss pharmaceutical firm, Hoffmann-La Roche, and its two biggest money spinners, Librium and Valium. Under fire from authorities in Britain for allegedly making vast profits by overcharging the National Health Service for the two tranquillizers, and under investigation in Brussels for charging widely differing prices for Librium and Valium in different European countries, the firm received a new setback from the US government recently. Drug Enforcement Administration, the new Federal agency concerned with drug abuse law enforcement, proposed that the two drugs should be placed under tighter control because of their potential for abuse.

The action ends a seven-year legal battle between the government and Hoffmann-La Roche over the need to regulate more tightly the prescribing and manufacture of the two tranquillizers. In short, Mr John Bartels, the Acting Administrator of the Drug Enforcement Administration, has urged that Librium and Valium be placed on Schedule IV of the Controlled Substances Act, a move whose chief effect will be to limit to five the number of times a prescription for either drug can be refilled; at present, doctors can write prescriptions for the drugs which can be refilled any number of times. The proposed regulations can hardly be described as burdensome, however, and their chief result is likely to be to make doctors more conservative in their prescribing habits and the public more cautious in taking the drugs. Some such education is clearly needed.

Even by American standards Librium and Valium are swallowed in staggering amounts in the United States. According to the Drug Enforcement Administration, 12 tons of Valium and 10 tons of Librium were prescribed last year, which is sufficient for about 20 capsules for every man, woman and child in the country. The two tranquillizers are reckoned, in fact, to be the most heavily prescribed drugs in the United States.

As for their abuse potential, however, officials in the DEA admit that the drugs do not pose as great a problem as barbi-

turates and amphetamines, for example, but the National Commission on Marihuana and Drug Abuse reported earlier this year that about 6% of US adults and 3% of youth have used minor tranquillizers for self-defined purposes. The drugs have also been reported to cause physical and/or psychological dependence, resulting in the withdrawal symptoms of insomnia, nausea, agitation, twitching, sweating and convulsions after prolonged use of high doses.

The proposal to bring Librium and Valium under the Controlled Substances Act is now being studied by the Food and Drug Administration, but no opposition is expected. Hoffmann-La Roche had fought the proposal in the courts, but has now agreed to withdraw its legal action.

**EDUCATION** 

## **Graduate Students Fewer**

by our Washington Correspondent

THE number of students taking graduate courses in science and engineering at US universities declined last year for the third year in succession. According to figures published by the National Science Foundation, keeper of the federal government's statistics on science and technology, first year enrolments in graduate science departments dropped by almost 3% from 1971 to 1972. Every branch of science except for the life sciences reflected the drop, with engineering showing the largest decline, 5%, and physics not far behind with a reduction of 4% in total enrolments. In contrast, the number of students enrolled in graduate courses in the life sciences remained almost static.

The decline can be explained chiefly by large cutbacks in federal support for graduate students; in particular, graduate support provided by the National Science Foundation and the National Institutes of Health has been chopped in the past few years. The figures show, for example, that the total number of students directly supported by the federal government dropped by 10% between 1971 and 1972, with the life sciences again showing the smallest decline, 6%, and mathematical sciences the most affected, declining by 20%.

But, while graduate student enrolments in the sciences have been decreasing, postdoctoral appointees have been on the upswing—their numbers increased by 8.6% from 1971 to 1972. That trend, the NSF suggests, is "an indication that the tightening of the job market for PhDs in industry, higher education and government resulted in the absorption of more postdoctorals into graduate science education programs than ever before". The NSF's figures are based on a survey carried out

in the autumn of 1972 of all US colleges and medical schools granting PhD degrees.

**IMMIGRATION** 

## **Brain Drain Slows**

EARLY in 1971, the federal government tightened up its immigration regulations, by stipulating that aliens could work in the United States only if they have a job offer for which domestic workers are not available and if their employment does not affect domestic wages and working conditions. The effect of the regulations on the brain drain has been significant. According to figures released last week by the National Science Foundation, the number of immigrant scientists and engineers admitted to the United States in fiscal year 1972 dropped by 14% compared with 1971. In absolute terms, 11,300 immigrant scientists and engineers were admitted to the United States in 1972, 13,100 in 1971, and 13,300 in 1970—the peak year. The most marked decline has been in the field of

engineering, and the figures also reveal

that 70% of all scientists and engineers

who entered the country last year were

born in Asia.

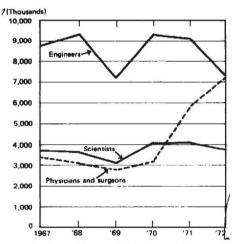


Fig. 1. Immigrant scientists, engineers, physicians, and surgeons, by broad occupational group, FY, 1967-72.\*

\*Source: National Science Foundation.

In contrast, the number of immigrant physicians and surgeons admitted to the US in 1972 jumped to 7,100, from 5,700 the previous year. In the past, no more than 3,300 physicians and surgeons entered the US in any one year. The reason for the rapid increase in numbers is that there is a shortage of personnel in the domestic medical profession, and so immigration restrictions are not so stringent. It goes without saying, however, that many of the physicians and surgeons who come to practice in the US leave countries where the shortage is even greater.