

attack by fragmentation bombs. If such use of so-called "non-lethal" CB weapons becomes widely practiced and generally accepted, the way is paved for a chemical and biological arms race and progressive escalation in this or future wars to the use of the entire spectrum of CB weapons.

In this connection we would like to quote the strategic analyst T. C. Schelling [Arms and Influence (Yale Univ. Press, New Haven, 1966), p. 131] on possible agreements for preventing the use of gas in warfare:

"Some gas" raises complicated questions of how much, where, under what circumstances; "no gas" is simple and unambiguous. Gas only on military personnel; gas used only by defending forces; gas only when carried by projectile; no gas without warning—a variety of limits is conceivable . . . But there is a simplicity to "no gas" that makes it almost uniquely a focus for agreement when each side can only conjecture at what alternative rules the other side would propose and when failure at coordination on the first try may spoil the chances for acquiescence in any limits at all.

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In Defense of Rachel Carson

Philip H. Marvin's complaint (Letters, 7 Apr.) that the "plague" of Rachel Carson's book continues to "infest" the minds of scientists demands comment. The Silent Spring has not only "infested" scientists, but also caused naturalists who look further than the results of a single crop to become acutely aware of the danger of pesticides. It is true that Carson's book contains overstatements, but it is also true that many forms of wildlife, particularly those at the end of a feeding hierarchy, such as hawks, terns, spoonbills, and many others, are unnecessarily decimated by the indiscriminate use of pesticides. In Holland several of these forms of wildlife are now at at the brink of extermination. The "plague" of pesticides forms a real danger, and the struggle to preserve nature, based both on Carson's warnings and on the newer investigations of the near extinction of wildlife, must continue.

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Patriotic Emigrants

Although the brain drain is a complex sociological problem, it is unfair to blame it on those who do not partake of it (Byrne, Letters, 17 Mar.). Having spent some years researching in one of the bigger institutes in the U.S. or Britain, the returned scientist can hardly expect the fatted calf from his stay-at-home colleagues, who have continued to work in much less glamorous surroundings, with second-rate equipment and poor funding, with lower salaries and larger teaching duties, but still have managed to keep the home institution going during their colleague's absence. That valuable research experience abroad should be recognized by the home institution is without question; it is equally true that a university or college owes its lifeblood to those who, perhaps shortsightedly, stay with it through difficult times. The fact that so many returned emigrants eventually leave their native shores again is as much their own failure to come to terms with their home environment as it is of the home institution to appreciate their value. If such institutions, "which have been unchanged since St. Patrick," are to be changed, then it will come about through the efforts of those who return-and stay. Whether the motive is patriotism or the desire to help an underprivileged nation to better itself-surely either is big enough to withstand some petty, but inevitable, professional jealousy.

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Byrne (Letters, 17 Mar.) would class me as a "returned Yank" and, indeed, for some time after I returned 12 years ago I shared some of his feelings toward Irish institutions. However, the change in attitude toward returning scientists which he calls for has been underway for some time.

In this University College, a majority of the senior teaching staff are "returned Yanks" or "Sassenachs," a development that is obviously being encouraged. The government-sponsored Commission on Higher Education recently recommended drastic changes in university administration, including replacing our archaic appointment system with one in which applicants for senior staff positions will