of the whites. Instead of standing in a thick mass around the yolk, consumers reported that the whites spread out thinly across the frying pan. Why? Simulating commercial practice with a test lot of 900 dozen eggs, the Section, in cooperation with the Production and Marketing Branch of Agriculture Canada, found that the problem lay with the grading stations themselves. The temperature of eggs after washing and grading was about 22°C. At this temperature the eggs were packed into cartons, and the cartons into corrugated cardboard cases, 15 dozen to a case. The cases were then stacked on pallets, 60 to a load. "The changes that occur in eggs at that temperature are quite rapid," explains Mr. Lentz, "they must be quickly cooled to 5°-10°C. We found that even with a sin-

gle exposed pallet load it took two weeks to reach this temperature." This is where the problem lay and the whites just went watery. Wire baskets through which air can circulate solved the problem.

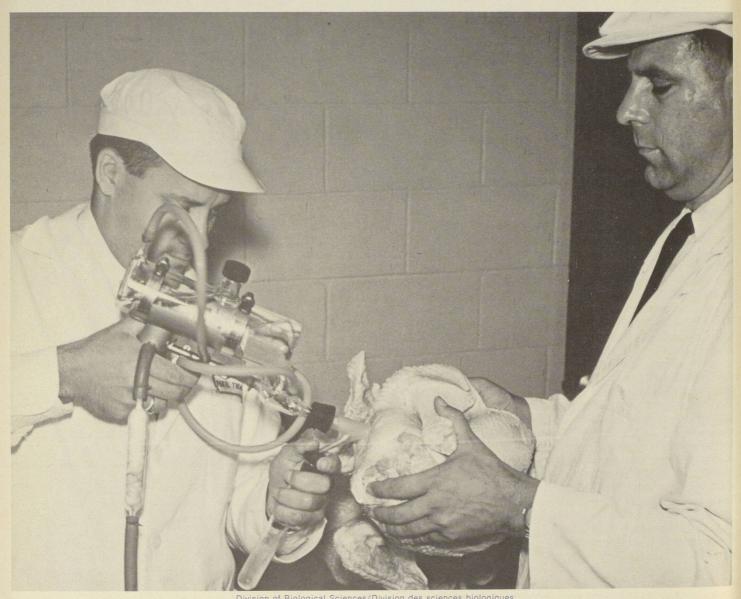
Work on the cooling, freezing, storage and handling of beef followed on naturally. The problem of "slimy beef" during transport lead to studies on the best mix of oxygen and carbon dioxide gases to minimize bacterial growth and maintain attractive color. The effects on tenderness of handling and processing procedures have been studied in cooperation with packers. A problem of particular interest to retailers, color deterioration of frozen beef exposed to light, is currently under study.

"Throughout the years, our main criteria in selecting projects and in deciding which way a project should go," says Mr. Lentz, "has been its usefulness. But the value of the work carried out in the Section has been much broader than its applications. We have provided the knowledge — and served as the evangelists — in an area of technology of international concern — food."

Joan Powers Rickerd

Dr. D. Clark, left (now Health and Welfare Canada) and Mr. J. A. A. LeVasseur (now Agriculture Canada), take surface bacterial samples on a chicken with an early version of the sampling gun developed in the Section.

Le Dr D. Clark, à gauche, (Santé et Bien-être social Canada) et M. J. A. A. LeVasseur (Agriculture Canada) prélèvent des échan-tillons superficiels de bactéries sur une volaille à l'aide d'un des premiers modèles de pistolets d'échantillonnage mis au point par la section.



Division of Biological Sciences/Division des sciences biologiques