

degree, or should he proceed through a shorter period of from three to four years to the Ph. D. in Bacteriology? If he is so advised and follows the first plan he will on graduation in medicine, and after a required interne service in medicine and surgery, have a general idea of human disease problems and the general relations of bacteriology to them; he will thereafter, however theoretical he may become, be able to stand unabashed in the presence of a patient and discuss symptoms with his clinical colleague, but he will be but little better as a bacteriologist than he was four years before, and, unfortunately for his first love, he will in all probability have long since ceased to wish to become one. As a successful Ph. D. on the other hand, our student will have demonstrated two years earlier his ability as an independent research worker in bacteriology, he will have made the first steps in a teaching career and he will have added something to the sum of human knowledge in his field. For better or worse the latter man is a recruit to the science he has chosen, but from the personal standpoint he is a recruit with a handicap in the eyes of his henceforth medical colleagues which he can live down only by superior ability. Such choices must after all remain for the individual to make and should and will be made in the light of what he insists on doing. At least it should be clear that a research career in the medical sciences is open both to medical and non-medical graduates.

#### OPPORTUNITIES FOR RESEARCH

The opportunities for these research careers in medical science are now present in many places, admixed with more or less responsibilities of a more defined or routine sort, as teaching, which is a stimulus to research, diagnosis, which by the clever mind in its most routine forms takes an investigative trend, and administrative duties. Research institutions exist for the pure investigation of any or of some particular medical problem. The universities, fortunately for their teaching, remain the fostering places of pure research while affording the constant human stimulus of contact with fresh young minds. Public health laboratories, municipal, state and federal, while largely administrative in function, always under

wise guidance, afford research opportunities and, indeed, present the latest, most urgent, and, frequently, most interesting problems. Even hospital laboratories with predominating routine duties are recognizing the need of including research possibilities in order to secure a really competent personnel.

Repetition of a procedure that has been mastered is the path of least resistance, and when followed by more and more flattering administrative responsibilities with opportunity for human contact, leads in the career of many to a languishing of research. Research is recognized as a stepping stone to preferment and is frequently utilized for this purpose alone; something is accomplished even in this way to the benefit of the individual and the science. The greatest investigators are probably seldom lost in spite of difficulties that are put in their way and the seductive paths that lure them, but the rank and file of minor contributors is essential. A determination to start a career which shall include research and opportunity for its accomplishment do not suffice. An encouraging and never-failing belief in the essential necessity for research, a scholarly atmosphere, should surround the majority of beginners. Such an atmosphere usually occurs in the universities and in research institutions and only occasionally elsewhere.

FREDERICK P. GAY,  
*Chairman*

DIVISION OF MEDICAL SCIENCES,  
NATIONAL RESEARCH COUNCIL

#### "THE FRIENDLY ARCTIC"

THERE appeared in *SCIENCE* for July 7, 1922, an article by Diamond Jenness, entitled "The Friendly Arctic." In this article Mr. Jenness is spokesman for those members of one of the subdivisions of my 1913-1918 expedition who caused the disturbance which in newspaper controversy has since come to be known as "the Collinson Point Mutiny" and which is described in Chapter XIII of my book, "The Friendly Arctic." I am informed that a reply to Mr. Jenness will be published in *SCIENCE* by two of the loyal members of the expedition, Burt M. McConnell, now one of the editors of the *Literary Digest*, and Harold Noice, who is now in New York work-

ing up the results of his six years in the polar regions, two years as member of my expedition and four years conducting his own expedition in Coronation Gulf.

I have heretofore refused to reply to any newspaper attacks, preferring to rest my case on the vote of thanks of the Canadian government, the preface to my book written by the prime minister of Canada, and on the action of the Explorers Club of New York, the American Geographical Society, the National Geographic Society and the Minister of Mines of Canada, to all of whom the charges made by Mr. Jenness have been submitted together with numerous other charges. The replies were as follows: After consideration of the charges, the Explorers Club elected me to its presidency; the American Geographical Society gave me their Daly Medal; the National Geographic Society awarded the Grant Squires prize to "The Friendly Arctic"; the prime minister of Canada moved a vote of thanks which was passed on January 21, 1921 (nearly seven years after the charges against me were first circulated at Ottawa); and the minister of mines (the head of the department in which Mr. Jenness is employed) declined to investigate written charges submitted by Mr. Jenness and four or five of the men who had been in the section of the expedition that disobeyed instructions.

Since these attacks continue in spite of official action by scientific bodies and by the Canadian government, I shall now take notice of them to the extent of publishing in the appendix to the next edition of "The Friendly Arctic" the charges submitted to the various scientific institutions and to the Canadian government together with the full text of the documents showing the action of these societies. I shall also publish the full text of the orders of the expedition from which Mr. Jenness has made the garbled quotations published in *SCIENCE* for July 7, 1922.

Mr. Jenness attacks Dr. Pearl on two general grounds—his incapacity to judge of a work on polar exploration, and his ignorance of government documents other than those published in "The Friendly Arctic." Dr. Pearl's standing as one of the leading scientific men of the United States is too well known to readers of *SCIENCE* to need comment here. As to famil-

ilarity with polar conditions, Dr. Pearl himself states his case so clearly in the review that further comment is superfluous. But as to his alleged unfamiliarity with the documents of the expedition, I can say something here that may enlighten Mr. Jenness and interest any one who wants to form an opinion on this case. It happened that Dr. Pearl spent the summer of 1920 within half a mile of the place where I was engaged upon the final revision of "The Friendly Arctic." During that summer and previously, I had an extensive correspondence with Sir Robert Borden, who had been prime minister of Canada during the entire course of my expedition. Although the correspondence was not intended for publication, it was not so private that it might not be shown to my intimate friends. Dr. Pearl, therefore, saw the parts of the manuscript dealing with the Collinson Point mutiny, which had been read by the prime minister himself, and he saw the prime minister's signed comments on this part and the signed text of the preface which the prime minister wrote for "The Friendly Arctic." Instead of being, as Mr. Jenness alleges, unaware of the disapproval of my work by the Canadian government, he was, as a matter of fact, aware of the approval of that work by the Canadian government—for surely the written approval of the prime minister who was in charge during the entire expedition is the approval of the government. If employes of the government, such as Mr. Jenness, dissent, they do so on personal or scientific grounds and without any right to speak for the government which employs them.

VILHJALMUR STEFANSSON

In *SCIENCE* for July 7, 1922, there appeared an article by Diamond Jenness under the title, "The Friendly Arctic." It was ostensibly an attack upon Dr. Raymond Pearl and his review of "The Friendly Arctic" (in *SCIENCE* for March 24, 1922), but really an attack upon the book of that title and upon its author, Vilhjalmur Stefansson, the commander of the Canadian Arctic Expedition of 1913-1918. To any one who has read the book carefully or who knows either Pearl or Stefansson the Jenness attack will seem to need no reply. So at least it seemed to the writers of this article. But it now appears that many readers of

SCIENCE are really accepting the Jenness attack as (1) fair, (2) truthful and (3) reflecting the attitude of the government at Ottawa. Accordingly we have decided to reply to it under those three heads.

First, the parties to the dispute should be introduced.

Diamond Jenness was attached to that subdivision of the Canadian Arctic Expedition which "mutinied" against Stefansson's command. This "mutiny" is fully, fairly and (we think) too leniently described in "The Friendly Arctic." Jenness was absent when the "Collinson Point Mutiny" actually took place and did not see Stefansson after that (March, 1914) at any time during the remaining four years of the expedition. He heard about the "mutiny," therefore, only from those who had opposed Stefansson—presumably a colored view.

Burt McConnell and Harold Noice both belong to the part of the expedition that was faithful to the commander and that helped him carry out the work which Jenness criticizes. Having been loyal to the expedition and faithful in our duties, we now defend Stefansson quite as logically as Jenness attacks him.

McConnell was Stefansson's secretary from the time the expedition assembled in 1913 until about a month after the "mutiny," and took part in the early stages of the 1914 ice journey (the one which the Dr. Anderson faction—now defended by Jenness—tried to prevent Stefansson's making; the one on which he was given up as dead for a year by the expedition and the world in general, except a few, including McConnell). The lady who is now Mrs. McConnell had been Stefansson's secretary during the organization of the expedition. McConnell is, in some respects, as well informed, therefore, as Stefansson himself on incidents which occurred in Victoria and Nome months before and which led indirectly to the "mutiny." He also knows what happened then at Collinson Point and just thereafter.

Harold Noice accompanied Stefansson on two of his longest ice journeys—those of 1915 and 1916. He is therefore qualified to say whether Stefansson describes correctly in "The Friendly Arctic" his method of "living off the country" and whether it is Jenness (in

SCIENCE for July 7, 1922) or Pearl (in SCIENCE for March 24, 1922) who misunderstands and misrepresents Stefansson's deeds and views.

Of the three issues raised by Jenness we shall consider first whether he expresses or represents the position taken by the Canadian government. Jenness seeks to have the reader make that inference by heading his article with "Published by permission of the Deputy Minister of Mines." Those familiar with government routine will know, however, that this does not signify that the Deputy Minister is for or against Stefansson, or has taken sides at all. It merely shows he gave Jenness (an employee of his department) such permission to publish as Stefansson himself, Storkerson and other members of the expedition frequently sought and received from their respective superiors while they were in government service.

That the Canadian government has permitted Storkerson (who is for Stefansson) and Jenness (who is against Stefansson) both to publish shows nothing but a liberal attitude in permitting free speech. But the government has other ways of recording its position and has done so very decisively.

Canada had two prime ministers during Stefansson's service. Sir Robert Borden was premier while the expedition was in the field, and Mr. Arthur Meighen when "The Friendly Arctic" was published. Sir Robert read the entire manuscript of "The Friendly Arctic" before it went to press, and the part dealing with the "mutiny" he read over again in galley proof before he wrote the preface. He knew what the rumors being circulated by the "mutineers" were. If the reader will turn to Sir Robert's preface he will find that those rumors are answered by the premier, though he does not mention them. It is apparent that no endorsement by a government could be stronger than that which the (at that time) premier of Canada gave to Stefansson in his preface to "The Friendly Arctic."

But the rumors against Stefansson continued being industriously circulated at Ottawa, where Dr. Anderson, Mr. Jenness and other members of the expedition reside. It was perhaps as much to set them at rest as to show the government's gratitude for important work well done that the next premier of Canada, Mr.

Meighen, moved a vote of thanks of the Canadian nation on January 21, 1921. At the end of a long and laudatory summary of Stefansson's work, the document closes:

The committee, on the recommendation of the Right Honourable the Prime Minister, and in view of these considerations, advise that in recognition and appreciation of his distinguished services the thanks of the government of Canada be formally extended to Mr. Stefansson.

Sir Robert Borden's endorsement of Stefansson is available in any library as the preface to "The Friendly Arctic"; a copy of the vote of thanks can probably be secured free by any one who writes to the Undersecretary of State at Ottawa asking for Privy Council Document No. 2887 for January 21, 1921; an article by Jenness implying that Stefansson disobeyed government instructions, mismanaged the expedition, and is not endorsed by the government of Canada is available in the files of SCIENCE under date of July 7, 1922. It might be interesting to read and compare the three documents and then decide whether Jenness speaks for the government or whether its two premiers do.

Under the heading of whether Jenness is fair in his SCIENCE article we might ask the reader to check up on his quotations from Stefansson's writings and decide whether he does not in many cases select them so as to convey the opposite meaning of that intended by Stefansson. Take, for instance, the insinuation that Stefansson claims to have originated the method of living off the country and Jenness' citation of Rae as having done so long before. But in his "My life with the Eskimo" (pp. 304-305), published in 1913, Stefansson says clearly that Rae lived by hunting, and praises him as a pioneer. Jenness, therefore, merely corroborates what Stefansson had said nine years earlier, although the general tenor of his article would lead the uninformed to believe he is disproving something Stefansson has asserted.

The most fundamental unfairness of the Jenness article to Pearl and Stefansson is that he very cleverly confuses one exploring method borrowed and improved upon with another which Stefansson originated, and tries to show he originated nothing by giving one name to two very different things. Stefansson's agree-

ment with certain authorities on the one hand and his disagreement with all authorities on the other is so clearly stated in Chapter XIII of "The Friendly Arctic" that no one can misunderstand. Stefansson had used for four years, with success, Rae's method and that of the Eskimos of hunting on or near land. But neither Eskimos, arctic whaling captains, explorers, nor geographers believed he would find sufficient animal life hundreds of miles from land in the Beaufort Sea to use there a similar method. This was the central issue upon which the "Collinson Point Mutiny" against Stefansson was based, and the chief reason why Stefansson was later given up for dead. When the insubordinate members of the expedition had failed to prevent his starting out on the sea ice with a plan of living a year by hunting, the story of his death arose because he did not return inside three months, for it did not seem to any but a small minority of his friends that there was any chance of his having found game to live on.

Jenness tries to confuse the reader with thinking there was and is a dispute as to who originated the method of living by hunting *on or near land*. That was invented by northern aborigines in prehistoric times. But few things called new are really more new than Stefansson's triumphantly established theory that sufficient game could be found under and on the ice *far from land*.

Jenness, with much subtlety, tries to show that Pearl and Stefansson contradict each other, and that Stefansson contradicts himself as to whether he really relied on the method of living by forage. Any one who looks up the quotations and reads both them and their context will see there is no such contradiction. For instance, Jenness quotes Stefansson: "Our own grub will be chiefly rice, fat and sugar," and apparently wants the reader to infer that Stefansson was talking about a whole journey. Any reader of "The Friendly Arctic" knows better, and especially we who were with him know better. He was talking about the food with which we always filled our sleds on starting from a ship. This we ate as fast as we felt like until it was gone, for we had full confidence in getting game after the sun came back. The food we hauled was merely to enable us to get well started

on our long journey in the early spring before there was as yet enough hunting light.

Take another instance: "Mr. Stefansson \* \* \* wisely provided himself with three vessels loaded with all necessary supplies of pemmican, sugar, rice and other foods," says Jenness, but he neglects to point out that those ships were hundreds and sometimes a thousand miles away from where we were traveling and living by hunting, and that they were largely occupied in supplying not Stefansson but Jenness and his associates. Some of the ships were carried off in Stefansson's absence (when he was thought dead) by the Anderson-Jenness faction and against Stefansson's written orders. Furthermore, all members of the Stefansson expedition know that most of the supplies carried on these ships were originally provided to feed their crews and those members of the scientific staff who operated near a ship base—not Stefansson and his exploratory parties, who lived by hunting far away and used the ship supplies only when they were near the ships and when it happened to be less bother to do so than to hunt.

It takes too much space to trace all the adroit misquotations of the Jenness attack. Those who have the inclination can do so in "The Friendly Arctic," "My Life with the Eskimo," and Stefansson's other books.

We now go on to a consideration of whether the Jenness paper does not pass over the borderline of being merely adroitly unfair and misleading into the domain of simple untruthfulness.

There was one part of the Jenness paper that astounded us. With all our knowledge of the extent to which misrepresentation has been carried in trying to gloss over the circumstances relating to the "Collinson Point Mutiny," we did not think Jenness or any one else would dare to misquote government documents, especially those written by men still living. Accordingly, we were dumbfounded by the section of the Jenness article (p. 9 of the SCIENCE article) which purports to quote instructions given by the Honorable G. J. Desbarats, Deputy Minister of Naval Service (who, by the order-in-council which governed the expedition, was in charge of it on behalf of the government) to the effect that Stefansson was

not in full command of the expedition. We thought, for a moment, that these were some instructions hitherto not published. That seemed unreasonable. Mr. Stefansson, being himself unable to understand the basis for Jenness's statement, wrote Mr. Desbarats submitting with his letter a copy of the Jenness article from SCIENCE. Mr. Desbarats' reply to Mr. Stefansson we are permitted to quote. It is as follows:

*Deputy Minister's Office  
Ottawa*

1st August, 1922.

I am in receipt of your letter of the 29th enclosing a clipping from SCIENCE which contains a letter from Mr. Jenness regarding your book, "The Friendly Arctic."

On reading the quotation from the official orders beginning at the foot of page 9, I was extremely surprised at the idea of my having written anything of the kind. On comparing the quotation with the text of the instructions I find, however, that the quotation is correct, *only it is made up of three different paragraphs which in the original are separated by pages of instructions. The sentences quoted, when gathered together, as they are in Jenness's letter, give a different impression to that which they were intended to convey, or did convey when read together with the rest of the instructions.*

There can be no doubt of the government's intention to appoint you in command of the Canadian Arctic Expedition. The order in council authorizing the expedition states "Mr. Stefansson to have full responsibility, and to have the choice of the men going on the expedition and of the ship, provisions and outfit needed for the trip."

The instructions which I issued to you and from which Mr. Jenness takes his quotations are equally clear. They state, "The expedition will be under your personal direction and control, and you will give general directions to the various leaders of parties, as may be required."

The instructions which I sent out were always addressed to you. Instructions to Dr. Anderson were given to him only in your absence on your long exploring trip.

*(Signed) G. J. DESBARATS,  
Deputy Minister of Naval Service*

Disobedience of orders on a polar expedition is as serious a thing as disobedience in time of war. In both cases men's very lives depend on

the loyalty and discipline of their companions. It is easily understood, therefore, that those who disobeyed will leave no stone unturned in attempting justification or extenuation. It is difficult to see, however, why they keep nagging until they drive into breaking silence us who know disagreeable things about them which Stefansson has left untold. But they at least have courage—to write from Ottawa misquotations of Ottawa officials and to assert (in the face of a vote of thanks from the Canadian nation and the endorsement of two prime ministers) that Stefansson did not have the support and does not now command the confidence of the Canadian government.

Of course the two premiers named are no longer in office and a new government has taken their place. Thinking, apparently, they might have better success with the new officials the Anderson-Jenness faction of the expedition lodged with the Minister of Mines in March, 1922, certain charges against Stefansson. These were dismissed by the minister, showing that the attitude of the present government does not differ from that of the preceding.

There remain to be mentioned Mr. Jenness's insinuations that Dr. Pearl is ignorant of Arctic conditions. Mr. Jenness can hardly say the same of us (Noice, at least, has been in the Arctic six years against three for Mr. Jenness). It is curious, then, that we find ourselves so uniformly in agreement with Dr. Pearl. Of course, Mr. Jenness may explain this by our well-known loyalty to Stefansson and our support of him and his views. But we can similarly explain the Jenness attack by his well-known affiliation with the men who in 1914 disobeyed Stefansson's orders on the ground that his views were so wrong and his plans so "unsound" that he was practically "crazy," and that they were therefore "justified" in their disobedience.

Now that the views they then thought crazy have been tested and found sound, now that the methods so bitterly criticized have been proved successful, would it not be better both for those who supported Stefansson and those who opposed him to stop squabbling and turn to more constructive things?

BURT M. MCCONNELL  
HAROLD NOICE

## NATIONAL RESEARCH FELLOWSHIPS IN THE BIOLOGICAL SCIENCES

To the series of research fellowships in physics, chemistry and medicine now being maintained by the National Research Council, with the financial support of the Rockefeller Foundation and the General Education Board, a new series in the biological sciences has just been added. This new series is made possible by a gift of \$325,000 from the Rockefeller Foundation to be expended during the five-year period, July 1, 1923-June 30, 1928. This makes a total sum of \$1,325,000 to be used by the council in the maintenance of post-doctorate research fellowships in the various scientific fields already noted.

The new series of fellowships in the biological sciences (including zoology, botany, anthropology and psychology) will be awarded to persons who have demonstrated a high order of ability, for the purpose of enabling them to continue research at suitable institutions, preferably in the United States. The personnel, equipment and presumptive cooperation of institutions will be considered in determining the residence of the fellows.

*Purposes.* The purpose of the National Research Fellowships in the Biological Sciences is the promotion of fundamental research in these subjects. This involves not only the immediate acquisition of more knowledge through research, but also the securing of a greater number of thoroughly trained investigators. It is hoped that the establishment of such fellowships may prevent the loss of research interest in the early post-doctorate years by the premature or excessive absorption of promising investigators in teaching, and may also improve the conditions for research in the educational and other scientific institutions of this country.

The term educational or scientific institutions, as herein used, is not to be interpreted as referring exclusively to colleges, universities and technical schools, but may include such institutions as marine or fresh-water stations, museums, government bureaus or special research institutes.

*Stipends.* Fellowship stipends are not in-