

Dear Cornellian:

How silently, how silently the wondrous gift is giv'n sings Phillips Brooks' familiar Christmas carol. God did not stride on the stage of history with trumpets blasting so that all might take notice. This was expected, but as we scan the pages of the past we find that He sought always to teach Israel that He was not bound to fulfill its expectations. Instead, He came in the guise of the simplest kind of event—the birth of a child to a young girl. Almost nobody knew that it happened. And yet Isaiah and Jeremiah and Micah knew something about it, years and years before it came to pass.

The Saviour a baby wrapped in common swaddling cloth? Born in a stable? Unbelievable circumstances for the birth of a King? Or circumstances of infinite wisdom?

How well we now know that the great lesson in the birth of this child and of the swaddling cloth and the stable is in the unexpected magnificence of these moments; these tremendous moments which have given new dimensions to the lives of men for almost two thousand years. The story of Christmas reminds us again and again about the simple unencumbered way in which God has planned for man's reconciliation unto Himself. It is no wonder that Christmas means hope and happiness.

Christmas is music and laughter and dancing eyes. It is uncontainable joy; joy in the anticipation of bringing happiness to someone — by the giving of an unexpected gift; perhaps part of the same joy that God experienced in giving His gift. And so Christmas is merry and Christmas is holy. May your Christmas be merry and holy, both at the same time, and may that special package under the tree, wrapped by small and trembling hands, be more than hands can hold.

The Veterinary College is in its 68th year. As it continues to define its place in the academic community at Cornell University and in the intercollegiate scene with other universities, it strives with equal zeal for excellence in teaching and excellence in research, for this is the fire of education: its warmth, its radiance; its energy.

The professional staff has grown to 112, from 93 last year, and from 6 at the establishment of the College in 1894.

In writing about the early days of the University, James Law said, "When Cornell was opened, October 7, 1868, the chair of veterinary medicine found its home in the centre of Morrill Hall, one stair up, with a second room in the basement for museum and pharmacy. Our

clinical building was furnished by the Campus grass walled in by the great dome of God's blue sky and watered and disinfected by the life-giving rays of the sun, and the ozone from hill and dale, lake and forest."

Raymond Birch '12, in reminiscing about James Law, said that "His department was quartered successively in Morrill Hall, in the old wooden Laboratory Building located southeast of Sibley Hall, in McGraw Hall, and finally in James Law Hall, named for him post-humously."

What sharp contrast between this humble beginning and the magnificent facilities which we now have, raised on successive foundations which were laid, as it were, by the labors of great men who served with wisdom and integrity and dignity as our professional forbears.

But tomorrow we must be better than today and there is ample evidence that this will be so. By reviewing some of the highlights in the departments perhaps you can see that your Alma Mater can and will remain in a distinguished position of eminence, not by virtue of bricks and mortar which build monuments, but by virtue of brilliant and ambitious men, which build great institutions of learning.

Electron microscopy and histochemistry constitute two attractive areas in the mainstream of research and education in Anatomy at the College. Bob Habel, Head of the Department, reports that Al Stinson, Assistant Professor, is responsible for the anatomical program in electron microscopy, where current emphasis is being given to the epithelium of the rumen. This is especially appropriate since we now know that it plays such a very important role in absorption. Dr. Shinichi Mikami, Head of the Department of Anatomy of the Veterinary College at Iwate University, Morioka, Japan, will be here for nine months, and will conduct research on histochemical methods in electron microscopy. Alexander (Sandy) deLahunta '58, a candidate for the Ph.D. degree, is conducting correlated histochemical studies of the oxidative enzyme systems. Sandy spends his noon hour working out in the Teagle gym and has convinced other members of the Veterinary Faculty to do the same.

Most of you undoubtedly will agree that one of the perplexities in an understanding of embryology is in acquiring a three dimensional mental image of the developing embryo. Visiting Professor H. Pieter de Boom from the Faculty of Veterinary Science, Onderstepoort, South Africa, has carved a styrofoam scale model of a 48 hour chick embryo, two feet high, in serial sections that can be separated for study. This has been a wonderful contribution, admired by staff and students alike. His efforts and teaching excellence were so appreciated by the students that the first and second year classes which he instructed held a reception for him prior to his departure for Pretoria in December.

John Cummings '62 has been an AVMA Fellow in Anatomy and is completing his description of the blood vessels of the bovine hypophysis. Howard Evans, Professor of Anatomy and Secretary of the College, was elected President, Cornell Chapter of Phi Kappa Phi for 1962–63 and Bob Habel was elected Secretary-Treasurer of the American Association of Veterinary Anatomists.

In our report to you last year, mention was made that Al Sellers, Head of the Department of Physiology, had been interviewing a number of well qualified men with good academic backgrounds in biochemistry and pharmacology to fill vacancies in these disciplinary areas. Two excellent men were selected. Robert H. Dunlop, born in London, England, was graduated from the Royal Agricultural College in Cirencester in 1947. He managed a farm in Gloucestershire for two years before moving to Canada in 1949. He was graduated from the Ontario Veterinary College in 1956 and received the Borden Award for the highest scholastic standing in his class. He then went to Minnesota and earned the Ph.D. degree under Alvin F. Sellers, working on the problem of bovine engorgement toxemia. He returned to England and served as a clinical pathologist in a large corporate practice in Hampshire. We are pleased to tell you that he was appointed Associate Professor of Veterinary Pharmacology at the Veterinary College, Cornell University, last summer.

John F. Wootton, Assistant Professor of Physiological Chemistry, also has come to us from "merrie Englande." For the past two years he has been engaged in biochemical research in the Department of Chemistry, University College, London. But John is a native of Penn Yan, New York, and a graduate of Cornell University. He earned his B.S. degree in 1951 majoring in biochemistry, and the M.S. in 1953 in biochemistry and organic chemistry. He then served for two years as Chief, Biochemistry Section, Second Army Medical Laboratory, Fort George Meade, later becoming Clinical Chemist at the Clifton Springs Sanatorium and Clinic. In 1960 he completed the requirements for his Ph.D. degree under Dr. Harold Williams at Cornell, working on chymotrypsin-catalyzed reactions.

C. Edward Stevens, Associate Professor of Physiology, was awarded a Special Fellowship Grant by the National Institutes of Health to study for one year under the direction of Dr. Hans Ussing, Institute for Biological Chemistry, University of Copenhagen, Denmark. Dr. Ussing is recognized throughout the world for his fundamental studies on membrane transport. Since Ed is particularly interested in normal and abnormal ruminant digestive tract functions, this opportunity to work with Dr. Ussing has been especially fortunate. We are glad that he could go but we are anxious to have him back. Replacing Ed for the academic year is James W. Boyd, a veterinarian from the Institute of Animal Physiology, Babraham, Cambridge, England, who has earned

a distinguished reputation for his work on enzyme systems in animal tissues. Alan Dobson, Visiting Professor, returned to the Rowett Institute in Glasgow, Scotland, after having spent a year with us. You can see that the British Isles have contributed much to our on-going program in the physiological sciences.

Lou Nangeroni '51 was awarded a National Institutes of Health Grant for a promising study on electronarcosis in large animals, and Emmett Bergman has been progressing well on his work on ketosis. These are difficult problems but they are in the hands of capable men.

In the Department of Physical Biology, major activities have revolved around the completion of the field laboratory and putting into use two unique facilities for work with large animals: the irradiation field, and the whole body counter. During the spring term, Cyril L. Comar, Head of the Department, and his staff worked hard at developing a special international course on Radiation in the Animal Sciences, which was sponsored by the United Nations. The course was scheduled during the summer months. Just as the delegates from twenty-two participating countries began to arrive, Cyril developed a jaundiced hue and, without much choice, agreed to have some stones removed from his gall bladder. While there might have been an immediate temptation on the part of the staff to "push the panic button and run for cover" it was not quite necessary to do that. The course was well organized and the staff competent. It is good to report to you that within a few weeks Cyril was back on the job, participating in the course, and is now his usual hale, hearty self.

Ed Gasteiger, Professor of Physical Biology, participated in the 22nd International Congress of Physiological Sciences at Leiden, The Netherlands, together with Santa Ichikawa who is a Visiting Professor from the Showa Medical School in Japan. Fred Lengemann, Associate Professor of Radiation Biology, is now on leave with the Atomic Energy Commission in Washington, D.C. He participated in a conference on the Agricultural and Public Health Aspects of Radioactive Contamination in Normal and Emergency Situations at Scheveningen, The Netherlands. Dan Tapper, Assistant Professor of Radiation Biology, participated in the Second International Congress of Radiation Research in Harrowgate, England. Bob Wasserman, Associate Professor of Radiation Biology, organized and served as chairman of a conference on Transfer of Calcium and Strontium Across Biological Membranes, which was held at Cornell University and which was attended by outstanding specialists from many countries. Francis A. Kallfelz '62, a Ph.D. candidate in the Department of Physical Biology, went to Vienna last summer to serve on a panel for the Development of Laboratory Manuals, sponsored by the International Atomic Energy Agency. Jay R. Georgi '51 completed the requirements for the Ph.D. in Physical Biology and is now a Research Associate in that department. Jay has taken over the work on the whole body counter in animal disease studies which was handled formerly by Bob Twardock. We were sorry to lose Bob to the College of Veterinary Medicine, University of Illinois, where he went to set up a radiation biology program. However, we acknowledge the fact that this is a good opportunity for Bob and also a good opportunity for the University of Illinois.

In the second year of its existence as a distinct department, Physical Biology has grown to five professional and four research associate appointments and a visiting staff of four research scientists. With the exception of state support for two academic positions, the department is supported almost entirely by federal grants and contracts, a sum that is approximately one half million dollars.

The department offers four different courses in radioisotopes, including tracer techniques and the biological effects of radiation. Most courses are at the graduate level and are offered to qualified students in any of the colleges at Cornell University. The major efforts of the department are directed toward research, undergraduate teaching at the present time being a minor function but nonetheless an important part of the departmental program.

In the Department of Medicine, our genial ambassador and Department Head, Mike Fincher '20 has been reelected to the Executive Board of the AVMA from the northeast district. He also has acted as "Vice Presidente" for the Large Animal Section of the Fourth Pan American Veterinary Congress in Mexico City held in November. Steve Roberts '38 returned in September from his sabbatical leave which was spent revising his book entitled Veterinary Obstetrics and Genital Diseases. He visited several large breeding farms where he had opportunity to study the major reproductive problems. Steve continues to serve as coach of the Cornell Polo team and more recently has developed quite an interest in mining. His son Steve is attending the Colorado School of Mines. Dick Bartholomew '62 of Fairhaven, Vermont, and Tom Davis '62 of Rochester, New York, have been appointed as internes in the department. The two previous internes, David Morrow '60 and Herbert VanKruiningen '60 are now graduate students in the Department of Pathology and Bacteriology.

Phil Levine '32, Head of the Department of Avian Diseases, returned in May from his sabbatical leave in Israel. He then participated in the Congress of the British Veterinary Medical Association and the regional meeting of the World Veterinary Poultry Association in Scarborough and Cambridge, England, in September. Then in November he served as "Vice Presidente" of the Poultry Science Section of the Fourth Pan American Veterinary Congress in Mexico City. As a poultry pathologist, he has flown enough to cultivate a plumage. Bruce Calnek '55 has developed a very interesting and productive research project on

avian leukosis under sponsorship of the National Institutes of Health. Practically all flocks in the United States are infected with the leukosis virus. While there is no evidence that it causes disease in man, there is considerable interest in avian leukosis in human medical circles because some vaccines are produced in embryonated chicken's eggs. Since the virus is transmitted in ovo, considerable concern has been expressed about its possible effects when inoculated into man as a "passenger" virus in modified live virus vaccines.

One of the most troublesome diseases of chickens over the past several years has been a PPLO infection known as Chronic Respiratory Disease. During the past year a new and effective technique was developed by Phil Levine, with collaboration of Julius Fabricant, in which embryonated chicken eggs are dipped in an antibiotic solution at low temperature. The antibiotic is absorbed through the intact shell in sufficient concentration to destroy the infectious agent without damaging the living embryo.

In the Department of Small Animal Medicine and Surgery a second assistant professorship was established in 1962. Ellis P. Leonard '34, Head of the Department, appointed George E. Ross, Jr., to this position. George holds the B.S. and D.V.M. degrees from Kansas State University, and served for two years as a medical interne in the Department of Small Animal Medicine and Surgery at Cornell. He has completed his residence requirements and 33 hours of graduate credit toward a Master of Science degree at Kansas State University. His research on bone grafting has been completed and the thesis is now in preparation. Bob Kirk '46 has been busily engaged as editor of a forthcoming book on Current Therapy in Small Animals. Both he and Ellis Leonard have participated in numerous meetings around the country. Last Christmas the Kirks had a new organ installed in their home and Bob is now quite an accomplished organist. If any of you should desire to engage him for a professional performance and can out-talk his modest declinations, you will see that his talents lie not only in science but also in the arts.

Patricia Thomson Herr '60 and Anita Peterson Lorenzen '62 are serving as competent and conscientious internes in the Small Animal Department this year. Al Beck '59, industrious Assistant Professor, also is President of the Tompkins County SPCA.

A. Gordon Danks '33 resigned as Head of the Department of Large Animal Surgery and has assumed a new position as Director of Student Administration for the College. He will continue to lecture in jurisprudence and special surgery. As student counsellor, chairman of the Committee on Admissions, chairman of the Committee on Deficient Students, and college registrar, he has one of the most active offices in the administrative wing.

Donald D. Delahanty '44, Professor of Surgery, was appointed Head of the Department of Surgery, succeeding Gordon Danks. Don is quite a hustler and a thoroughly intense man. He is vitally interested in every student, in every case, in surgical dexterity for the least possible trauma to tissues, and he is also interested in dexterity with the brush. Don is quite an artist and he mentioned to me one day recently that someday when his children are through college he would like to complete the requirements for a degree in fine arts. John S. Kenney '61 of Paris, Kentucky, and John P. Combs '62 of Batavia, New York, are internes in the Department of Surgery and have carried a lion's share of the patient load. Jack Lowe '59' who had served as an interne in this department is now completing the requirements for a Master of Science degree under Lennart P. Krook in the Department of Pathology and Bacteriology. Jack has completed a very interesting study on experimentally induced bone disease in the horse, and will soon be back at full pace in the Department of Surgery.

You will recall that Peter Olafson '26 spent three months in Nigeria last year as a member of an International Cooperation Survey Team. He enjoyed the experience so much that he returned to spend a sabbatical year in research on animal diseases at the Biological Research Institute, Achimoto, Ghana. Perhaps we will soon know if the hippopotamus is prone to hyper-hyperkeratosis or even possibly the victim of the great hazard of skin-diving, the "bends". Pinch-hitting for Dr. Olafson as Acting Head of the Department of Pathology and Bacteriology is Dorsey W. Bruner '37, Professor of Bacteriology and ardent enthusiast for the Salmonellae and the major league ball teams. This department is the largest of the eight departmental units of the college and includes fourteen professional appointments, five research associates, ten assistants and a laboratory director. It embraces disciplines including pathology, microbiology, immunology and parasitology. In addition to carrying a heavy administrative responsibility Dorsey also serves as editor of The Cornell Veterinarian and as you undoubtedly know, co-author with William Arthur Hagan of The Infectious Diseases of Domestic Animals.

Charles G. Rickard '43 after returning from Tübingen, Germany, where he became a Tyrolean Bergsteiger (a sport; not a political party), was awarded a sizable National Institutes of Health Grant for a very stimulating research program in virus induced canine neoplasms. John E. Post '58, candidate for the Ph.D. degree, is working with him. They are using the mastocytoma and the transmissible venereal tumor in the dog as model systems in a program which includes aspects of virology, immunology, electron microscopy, pathology, cytology and cytochemistry.

The mastitis research project has expanded considerably. Gordon Campbell of Crieff, Scotland, Russell Willoughby from Guelph,

Ontario, Canada, and Arion Zarkower from Hull, Quebec, Canada, are all veterinarians who are graduate students working in Neil Norcross' immunochemistry laboratories on various aspects of the problem. Incidentally, Neil has scheduled the first graduate course in immunochemistry offered at Cornell University, and possibly the first offered in any veterinary college.

During the past year the National Academy of Sciences-National Research Council in Washington, D.C., through its Division of Biology and Agriculture has been planning a joint research effort with Argentine scientists to study ways and means of making Argentine meat safe for export to the United States. This is to be accomplished by assuring inactivation of any residual foot-and-mouth disease virus in the meat. James H. Gillespie, Professor of Bacteriology, Assistant Director of the Cornell Research Laboratory for Diseases of Dogs, and Secretary for the Section on Research, AVMA Centennial Meeting, has been engaged by the Academy of Sciences on a part time basis. He is serving as Executive Secretary of an Advisory Committee on Foot-and-Mouth Disease and also serves as Executive Secretary to the United States delegation of a Joint Commission with Argentine scientists on foot-andmouth disease. I have been serving as Chairman of the Advisory Committee and Chairman of the U.S. delegation to the Joint Commission. We have been to Buenos Aires twice this year on this assignment. It is one that is quite complex since it is difficult to separate scientific aspects of the disease from the political and economic. As part of the mission, a group of six of us flew to Tierra del Fuego, which is in "penguin territory" across the Strait of Magellan. The trip was made in a semi-antiquated Beechcraft with a patched fuselage, leaky cabin and obstreperous radio compass. However, the pilot knew Pategonia even in the mists and fogs, so we had no trouble; just a few anxious moments.

Another travelling ambassador, who has amazing endurance and never seems to run out of pep or steam is Donald W. Baker '29. He participated in the First International Symposium on Acarology, which was held not in India or Paraguay where he has worked relatively recently. It was held right here at Cornell. Among his other interests, Donald is Secretary of the Southern Tier Veterinary Medical Association and is President-Elect of the New York State Veterinary Medical Society.

Kenneth McEntee '44 took time out from his enviable research program in reproductive diseases to present a paper on *Infertility in Bulls with Testicular Tumors* and to moderate panel discussions on *Embryonic Mortality* and on *Estrus Cycle Control* at the Fourth World Congress on Fertility and Sterility in Rio de Janeiro, Brazil, last August.

Henry O. Dunn, Ph.D., who was formerly Director of Research for

the New York State Artificial Breeders Cooperative, has joined the staff in reproductive pathology as a Research Biologist, working in the field of cytogenetics and biostatistics.

Bill Wagner '56 also working in reproductive pathology was promoted from Field Veterinarian to Research Veterinarian in recognition of his conscientious and capable abilities.

Marjorie and John Bentinck-Smith '44 have been giving special attention to strained spinach, pulverized squash and homogenized beets in recent months. Actually this is for the benefit of Laura, born last summer. Francis Fox '45 and Bob Hillman '55 are still competing with Tico for the front seat of the Ambulatory Clinic cars. And speaking of cars, John Whitlock is driving a new blue Lincoln Continental.

Lest you think that the faculty does nothing more than flit around the globe, I must reassure you that we know full well that the primary purpose of the College is to teach. Also we admit freely that the student body is second to none. Fifty percent of the candidates for the D.V.M. degree have had three or more years of pre-veterinary education and fifty percent have had the minimum of two years. They are all well motivated and will be fine veterinarians. Of 83 graduate students, 41 have been doing their major work in the veterinary college and 42 had minor subjects under the sponsorship of our faculty. In addition, 23 service courses were offered for 144 students from the Colleges of Agriculture, Home Economics, Arts and Sciences, and Engineering.

We now have five distinguished emeritus professors, and I am happy to tell you that they are all doing well. Hadley C. Stephenson '20 had a rugged time after some surgery last summer, but Scandinavian connective tissue is claimed to be tough and he is a good example. He still puts both shoulders behind the wheel of the Veterinary Virus Research Institute and gives it his full interest and support.

In October, Dr. William A. Hagan and I attended the AVMA Research Council meeting in Chicago and I am happy to say that the atmosphere and food must be good in Ames because he looked fine. When you return to the College for a visit, be sure that you stop in the Hagan Room and see the bronze plaque placed there by the Alumni Society in recognition of the distinguished service that he gave to the College.

Hugh and Mary Dukes have been in Des Moines during the past year, but Hugh did manage to visit Ithaca for a couple of days last summer. He has been giving some of his outstanding demonstrations in Living Biology at high schools in Iowa and these have been extremely popular. We can expect to see some of those young people whom he has motivated in veterinary medicine some day.

Dr. and Mrs. Joseph A. Dye moved to Salt Lake City for a short time following his retirement but they have now returned to Ithaca. We see them occasionally and are always glad to welcome them back.

Herbert Lester Gilman '17 retired on July 1, 1962, and was awarded the title of Emeritus Professor of Veterinary Bacteriology by the Board of Trustees of Cornell University, in recognition of his long and devoted service. He is a member of Sigma Xi and a charter member of the Society of Phi Zeta, past president of the Southern Tier Veterinary Medical Association and a member of the New York State Veterinary Medical Society and the AVMA. He served as Chairman of the Section on Research at the Annual Convention of the AVMA in 1940. Most of his professional life has been devoted to research on the diseases of dairy cattle, particularly three troublesome reproductive diseases: brucellosis, trichomoniasis and vibriosis. In 1956, he was the recipient of the Borden Award for his contributions to knowledge about diseases of dairy cattle.

Except for eighteen months in military service and nine months' private practice, Dr. Gilman has served on the faculty of Cornell University for 47 years. While his professional vocation has always been veterinary medicine, his avocation has been "the sport of kings". He is an avid follower of race horses and plans to spend much of his time in retirement enjoying his "second calling".

A few weeks ago Clayton (Deke) DeCamp '24 and I were discussing some of the affairs of the College. Deke, who is incoming President of the New York State Veterinary Medical Society, thought that more people should know some of the facts about the current professional curriculum, so perhaps a brief statement or two would be appropriate fuel for the torches of enthusiasm which we know you carry for the College.

The four-year fixed curriculum leading to the D.V.M. degree, approved by the Council on Education of the American Veterinary Medical Association and ratified by the New York State Education Department, covers 165 credit hours. Additional course work in Clinical Orientation and Clinical Conferences is required to qualify for graduation, but no credit is given for this. It is important to note that the total credit hours exceeds by 45 hours the average of the semesteroriented four-year programs in Arts and Sciences, Agriculture, and other colleges awarding the bachelor's degree. These 45 hours are equivalent to 11/2 years' work. This means that the curriculum for the Veterinary College covers more than 5½ years of formal education in a four-year program. In addition, the student must have completed at least two years of college education to qualify for admission to the Veterinary College, which explains in part why veterinarians are able to contribute so much to the welfare of man, and how we recognize our responsibilities as stewards in a learned profession.

"Though Time with cunning skill Hath taken our treasures at his will, One thing he missed, and it will be Forever ours,

- 'tis memory."

Word of the deaths of the following Alumni has reached us during the year:

Harry P. Aronson '27, Roosevelt, Long Island, New York John K. Bosshart '12, Camden, New York James S. Carnrite '14, Fort Plain, New York Stanley E. Ferguson '27, Lake Geneva, Wisconsin Walter E. Frink '07, DeRuyter, New York James A. Harris '14, Le Roy, New York Floyd T. James '14, Oklawaha, Florida John LaFrance '22, Binghamton, New York John A. McNamara '04, Corning, New York Charles D. Pearce '08, Clearwater, Florida Glenn J. Powell '19, Nunda, New York John A. Rathbone '21, New London, Connecticut Aubrey E. Robinson '20, Madison, New Jersey Samuel A. Schneidman '15, Bellaire, New York Morris H. Shapiro '33, Bronx, New York Guy G. Stevens '11, Groton, New York Floyd H. White '11, Greenbrae, California Aubrey A. Wooden '23, Waterloo, New York

A great man of the cloth used to enjoy pointing out that the shepherds after visiting Bethlehem did not go into a monastery but back to tending their sheep. It is not difficult to imagine that the overwhelming happiness with which they were filled "bubbled over". Surely it left its mark on others with whom they rubbed shoulders in the day-to-day events of life, among the rank and file of humanity. What wonderful influence the contagiousness of a smile and the infectiousness of happiness has on other lives. May this kind of happiness be yours as we greet the dawn of a New Year, and may you always feel that this College and you are forever part of each other.

Sincerely,

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