

Animal Doctor

THE HISTORY AND PRACTICE OF VETERINARY MEDICINE

LEON F. WHITNEY, D.V.M.
and GEORGE WHITNEY, D.V.M.



ANIMAL DOCTOR

The History and Practice of Veterinary Medicine

by Leon F. Whitney, D.V.M.
and George Whitney, D.V.M.

DAVID McKAY COMPANY, INC. *New York*

DISCARDED BY
UNIVERSITY ELEMENTARY SCHOOL
LIBRARY

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

University Elementary School Library

ANIMAL DOCTOR
The History and Practice of Veterinary Medicine

COPYRIGHT © 1973 BY LEON F. WHITNEY, D.V.M.
AND GEORGE WHITNEY, D.V.M.

All rights reserved, including the right to reproduce this book, or parts thereof, in any form, except for the inclusion of brief quotations in a review.

LIBRARY OF CONGRESS CATALOG CARD NUMBER: 72-83038

MANUFACTURED IN THE UNITED STATES OF AMERICA

To All Future Veterinarians

About the Authors

ANIMAL DOCTOR was written by two animal doctors, father and son, whose combined experience covers a broad spectrum of veterinary medicine. So many young people have come to them for advice about what the profession offers, wondering whether they can find in it their life work, that the Doctors Whitney decided to put it on the line and tell it as it is. In ANIMAL DOCTOR a reader will find the subject thoroughly covered.

Dr. Leon F. Whitney started his career as a livestock farmer. Dr. George D. Whitney was born on a farm. Dr. Leon gave up farming and was for 12 years Executive Secretary of the American Eugenics Society. As a hobby he studied genetics and nutrition in dogs, work he still continues. Over 12,000 dogs have been bred in his kennels. He was a faculty member of Yale University, where he conducted research. At the age of 45 he decided to work for a Doctor of Veterinary Medicine degree, which he obtained at Auburn University. In 1941 he opened the well-known Whitney Veterinary Clinic in Orange, Connecticut. He is author of 52 books and many scientific papers.

Dr. George D. Whitney is also a graduate of Auburn University, in the class of 1943. Before attending that university he worked with his father in his scientific investigations. After graduation he spent three years in the Army during World War II doing food inspection work and as veterinarian for horses and dogs, ending this stint as a Captain. He then joined his father in the operation of the Whitney Veterinary Clinic.

The senior doctor retired to conduct research, leaving the management to “Dr. George,” as he is called by the owners of the clinic’s many patients.

Foreword

In presenting the information we have in this book, we tried to put ourselves in the place of a young man or woman who is considering Veterinary Medicine as a life career. What would we want to know about it? What did we once want to know ourselves? Since so many city people think of the subject as "dogs, cats and canaries," we must correct that mistaken conception.

Veterinary Medicine is an all-embracing subject with many ramifications, a fact which few people realize. All of its divisions are important for human health as well as for the health of animals. We hope we have presented a complete picture of the subject.

Our wives deserve much credit for their suggestions and help as we wrote the manuscript. We also thank Mrs. Muriel Schonfeld who edited and typed it.

Drs. Leon F. and George D. Whitney

Orange, Conn.
1973

Preface

At this time in history the challenges to the veterinary profession are tremendous. Environmental danger signals are all around us. A hundred and sixty-six species of animal life have become extinct during this century and dozens of others are threatened. Veterinarians are trained to recognize the normal and the abnormal in lower animals and must take a rigorous role in exposing problems before these problems effect mankind.

Adequate food supplies for the future must be met by containing and conquering disease and malnutrition in the food-producing animals.

With human population increasing, the over two hundred diseases communicable from lower animals to man must be watched and checked with vigilance.

Oliver Wendell Holmes wrote, "Join the action and passion of your times at peril of being judged not to have lived." In view of today's events he might have written, "Join the action and passion of our times at peril of leaving a world in which nothing lives."

History

The profession of veterinary medicine is an ancient one. Treatises written as long ago as 2500 B.C., in China and Babylonia, tell us that animal doctors were concerned with diseases of horses and buffalo, asses and oxen. The famous Code of Hammurabi, written about 1900 B.C., includes the legal fee for treating animals and the penalties for malpractice.

A little later—1800 B.C.—the Indians had veterinary hospitals. What they referred to as “the veterinary art” is what we today call veterinary medicine. An educated group of men treated mainly horses and elephants and probably oxen, if we can judge from primitive drawings. Bovine animals apparently were less important from a medical point of view, although herds of sheep were an important part of the economy.

We do know something about veterinary remedies used by the ancient Egyptian animal doctors because they left us a record of how they treated cattle and dogs.

The early Greeks made veterinary medicine a science. Hippocrates, who lived from 460 to 351 B.C., wrote about treating sick as well as healthy animals. Aristotle, whom we regard as the creator of natural science, left us writings on the treatment of sickness in animals. Both of these “natural philosophers” investigated the workings of the bodies of animals in order to increase their knowledge of human physiology. The Greeks must have been primarily concerned with doctoring horses because their name for veterinarians was *hippiatroi* (“horse doctors”).

The Romans, too, were chiefly concerned with draft or riding animals. They gave those who cared for their animals’ ail-

ments the title of *veterinarius*, and a hospital where ailing animals were kept, a *veterinarium*.

With the fall of the Roman Empire, veterinary medicine, like all other sciences, went into a decline. During the Dark Ages there were few writings about animal science; nor were there many during the Renaissance, as there was in the area of human medicine. All during that period of superstition, ignorance, and cruelty, inquiry into animals' diseases were neglected. Finally, in the fifth century A.D., a Roman named Vegetius produced a book, *Artis Veterinariae* (Veterinary Art). In it he tried to dissuade his readers from beliefs in supernatural powers and influences.

In 1598, one thousand years after Vegetius' treatise, a book called *The Anatomy of the Horse* appeared, written by an Italian named Ruinii. Still there were no schools teaching veterinary medicine. The semi-skilled men called farriers (horse-shoers) considered themselves able to care for a horse's ailments as well as his shoeing. How these men got their knowledge is not certain, but it was probably by the apprentice system. Thus, ignorance as well as knowledge passed from generation to generation. As recently as 1800, the veterinarian was still called a farrier.

With the increase in human population, cattle became more and more an important factor in the economy. Almost nothing was known about treating or preventing cattle diseases, with the result that losses were enormous. Herds would be decimated, be replaced, and die out again. It has been estimated that during the hundred years from 1700 to 1800, 200 million head of cattle died from epizootics (epidemics in lower animals).

Something had to be done about it. A veterinary college was established at Lyons, France. This was followed by the establishment of more colleges and by 1800 there were twenty

in Europe, but none in America. During this period, many Americans were eating buffalo meat until the herds had been all but exterminated, and European cattle were imported as a source of meat. Only then was there a real need for trained veterinarians in this country.

About twenty European veterinarians came to America in the early 1800s and practiced, mostly on horses. Beyond that the farriers and self-appointed horse doctors also looked after the health of the increasingly important horse. An attempt to establish veterinary schools in Boston and Philadelphia failed, but the New York College of Veterinary Surgeons did produce some graduates in 1867.

After the Civil War, a number of schools sprang up, mostly to teach horse-doctoring, and by 1927 more than 11,000 men had been graduated. These schools were two- or three-year institutions. When the internal combustion engine was developed the need for horses became less and less. Many of the veterinary schools soon closed and today none of these "horse-doctor" institutions remains, although a few of their older graduates still practice. The first modern College of Veterinary Medicine was opened at Iowa State in 1879.

Contents

Foreword	xi
Preface	xiii
History	xv
1. What Is Veterinary Medicine?	1
2. The Large-Animal Practice	13
3. The Mixed Practice	23
4. The Companion-Animal Practice	27
5. The Food Inspection Veterinarian	37
6. The Research Veterinarian	41
7. The Teaching Veterinarian	49
8. Other Important Areas of Involvement	53
9. Three Typical Days in Practice	61
10. Have You Got What It Takes?	75
11. Your Education	79
12. The State Board Examinations	91
13. Getting Established	95
14. The Future of Veterinary Medicine	101

What Is Veterinary Medicine?

Anyone considering the profession of veterinary medicine as a career needs to know all the facts he can get. The dictionary defines veterinary medicine as "That branch of medicine which concerns itself with the study, prevention, and treatment of animal diseases." The definition omits an important concern of the profession: the prevention of the spread of diseases from animal to man.

If you come from an urban area you may think that the practice of veterinary medicine means caring only for dogs, cats, and pets in general. A dean of one of the veterinary colleges showed us a breakdown of 1,700 applications received by that school: only a minority of the 1,700 were from young men from farms. The great majority were from men and women in cities. Over 500 of the applicants were living in New York City. Many of these applicants will remain in the

city, treating poodles and parakeets, but others will head for the country, where they will work with food-producing animals.

A great many who have consulted us about veterinary medicine as a profession expect their work to be confined to companion animals. In the city they have owned pets of various kinds and have accompanied them to local veterinary establishments and have seen the treatment given them. Some have worked in local veterinary hospitals either in their spare time or have spent entire summers working there because they want to pursue the profession as a life's work.

On the other hand, there are young people from farms who have no knowledge of how a city veterinary hospital is run. They have a completely different idea of veterinary medicine. Some may have accompanied veterinarians on their calls and been impressed with the wonderful service that can be offered in saving the lives of animals and preventing disease.

Because there are so many aspects to the profession of veterinary medicine you must understand at least the main ones. If you do attend a veterinary school, you will have to learn them all and you will have to be prepared to work in any one of many fields.

Veterinary medicine can be described as the study of the normal and abnormal in lower animals. When one considers the number of lower animals, this is a broad field. For a student to learn even the normal anatomy of all lower animals would be an impossibility, and therefore specialization is necessary.

In our country the profession of veterinary medicine came into being to fulfill the need of caring for work animals, and later food animals, and more recently, companion animals. Research in all areas followed as the need increased. During the past thirty years research results have been pouring into

the professional journals at an ever-increasing rate, particularly as concerns the problems in lower animals that are similar to those in man. In a large percentage of man's ailments we have a similar problem in some lower animal.

The versatility of veterinary medicine may best be explained by examining the duties of the veterinarian in a few specific fields.

Are you interested in horse flesh? The work of the race track veterinarian is quite different from the work of the veterinarian caring for pleasure horses or working on Thoroughbred breeding farms where animals may be worth from \$5,000 to \$50,000 or more. Practitioners for bovine animals may have 90 percent beef cattle to work with or may work with dairy animals almost exclusively. The researcher may be in charge of sending animals up in rockets for an Air Force project or may be studying leukemia-like diseases in cats. The companion-animal veterinarian may specialize in cats or in ophthalmology and have practitioners refer cases to him or her from a large surrounding area. The mixed-animal practitioner may, in addition to working with all animals, spend a few hours a week inspecting carcasses at a local slaughterhouse. The areas of endeavor are endless: nutritionists working with animal-food farmers, fur-ranchers, or companies that process food for animals, or as pathologists examining the remains of all sorts of creatures to find what diseases are present. This work may save countless others.

We hear more and more about plans for veterinary schools, where, after two years of study, a student will decide on an area of specialization, and for the last two years of his training will do intensive study in that area. Such specialization may necessitate changes in state board examinations.

Veterinarians regard their profession as one of the most worthwhile of all professions. The senior author was, for many years, on the faculty of the Yale Medical School where he did research, and he knows from his close association with many physicians and fellow research workers how much there is also to be said for human medicine. In fact, some of his veterinary education was a year's study at Yale where he took seven courses. He could have chosen to be a physician, but he was determined to obtain a veterinary degree and is glad he did. He would do it again.

But we are not acting as missionaries trying to lure you into veterinary medicine. Before you have finished this book you will learn that this is a demanding profession.

The American Veterinary Medical Association divides the field into the following classes and, on the basis of a verification survey conducted for the AVMA in 1970 for the United States, here is the total number of men and women in each class.

Large animal	1,416
Mixed practice	7,424
Small animal	5,758
Other classes	3,790
Public health	360
Regulatory veterinary medicine	1,443
Military veterinary medicine	833
Unknown	970

This study was broken down by states. The ratio of general practitioners to small-animal specialists is much smaller in heavily populated urban areas than in more sparsely populated rural areas. Vermont has only seven small-animal spe-

cialists and forty-three veterinarians who are engaged in mixed practice, for Vermont is a rural state in which the number of dairy cattle is about equal to the human population.

California reports 355 in mixed and 1,058 in companion-animal practice.

New York, 337 in mixed and 471 in companion-animal practice.

Wisconsin, 284 in mixed and 65 in small animal practice.

You will be interested in knowing what these different classifications encompass and we will try in the following chapters to give you an unvarnished, factual picture of veterinary medicine.

We have talked with dozens of people from cities and suburbs who love animals and want to devote their lives to keeping them healthy. Do they really know what kind of profession it is? To young people who have an erroneous idea of veterinary medicine, we suggest they take a trip to one of the big hog farms, or to a dairy farm, or beef cattle ranch, and after they spend some time looking around the farms to return and then we will talk.

“Oh! That’s not my idea of a vet’s job,” some people may say.

“What is your idea of it?” And we learn that the person owned a number of pets or some baby chicks and loved them all. We further learn that these people may have observed only the workings of a city animal hospital.

While there are 5,758 veterinarians who specialize in companion-animal health, this segment of the profession is less important on the basis of its *economic worth* to the country as compared to the huge field of farm animal care.

Dogs and cats are not regarded by Congress as domestic animals. Except for those animals used in research, our gov-