

Today's **Animal Health**

\$1.50

july/august 1980



Today's Animal Health

Volume 11/Number 4

July/August 1980

Cover Photo:

"To School Well Fed on Grape Nuts," an advertisement originally lithographed on tin in 1917. Reproduction courtesy of Portal Publications, Corte Madera, CA 94925.

STAFF

Richard S. Glassberg, D.V.M./Editor
Jane Wright/Associate Editor
Pat Taketa/Art Director
Harry Maiden/Circulation Manager
D. M. Diem/Staff Photographer
Dyana Paul/Youth Editor
Millwood Custer, D.V.M./
Companion Animals Editor
Charles H. Reid, D.V.M./Equine Editor
Robert J. Schroeder, D.V.M./
Ecology and Public Health Editor
Oscar W. Schalm, D.V.M./
Research Editor
Wesley A. Young, D.V.M./
Exotic Animals Editor

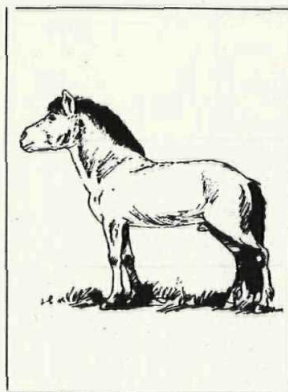
ADVERTISING SALES

Will Decker, Advertising Director
22312 Kirkwood
El Toro, CA 92630
(714) 770-8050

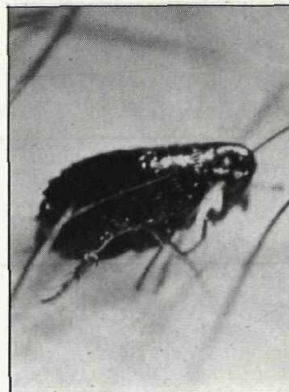
TODAY'S ANIMAL HEALTH is published bi-monthly by the nonprofit charitable Animal Health Foundation
8338 Rosemead Boulevard
Pico Rivera, California 90660
(213) 257-0724
Single copies \$1.50. 6 issue subscription, \$6.00. Copyright, 1980, Animal Health Foundation.

TODAY'S ANIMAL HEALTH is published to inform animal owners about responsible animal ownership and animal health. There are subscribers in all 50 of the United States and in 17 foreign countries. The magazine is used as a tool for client education by veterinarians and for educational purposes in classrooms and school libraries.

The ANIMAL HEALTH FOUNDATION supports research in animal health and pet population control. The Foundation also provides free veterinary care to pets belonging to elderly persons living entirely on social security benefits and those living on Aid to the Totally Disabled in the Southern California area. This program is made possible through the cooperation of local veterinarians. These activities are supported by donations from the public and can be maintained only through your continued financial support. Your contributions to the Foundation are tax deductible.



8



16



24

FEATURES

- 5** ANAL SAC PROBLEMS/*by Ilka Woods*
- 6** FELINE INFECTIOUS PERITONITIS
- 8** DOMESTIC ANIMALS OF CHINA/
by H. Epstein
- 12** TODAY'S ANIMAL DOCTOR/
by Robert W. Lucas
- 16** FLEAS/*by Warren Walker, D.V.M.*
- 20** PASHA THE WONDER DOG,
FORCE'S FINEST/*by William Overend*
- 24** SEEING EYE 1929-1980
- 29** ANTIFREEZE/*by Carl Nowicki*

DEPARTMENTS

- 4** DIALOGUE
- 11** FOR THE YOUNG
TRAINING YOUR PET RABBIT/
by Sherill Cobb
- 30** FOR THE YOUNG
MISSY/*by Peter Breen, Jr.
and Brenda Edwards*

dialogue

Yesterday afternoon I was discussing with a friend how much I would like the address of an association which aids wild horses. You can imagine my surprise and pleasure when I "happened" to pick up your magazine (that very evening, at a vaccine clinic), and find exactly what I had asked for!

I had a few minutes to glance at your magazine and managed to write down your address and the address regarding the wild horses. I was very impressed with what little I did see of your magazine.

I hope in the near future I shall be able to subscribe to your magazine regularly.

Keep up the excellent work.

Mrs. Gail Rector
San Francisco, CA 94116

I picked up a copy of "Today's Animal Health" the other day when I took my dog to the vet — it is an excellent, interesting and fascinating magazine. I'm very impressed and only disappointed I didn't know of it sooner.

Please add me to your list of subscribers — thank you.

Sandy Frankie
Phoenix, Arizona 85023

Your magazine "Today's Animal Health" is an excellent reference guide for those of us taking Animal Science courses.

All articles have been very informative for me when helping the neighbors give their cats pills, assisting with all kinds of horse problems and watching my own animal's health.

Keep up the good work and I'm looking forward to receiving my next issues.

Mary C. McPheeterse
Tucson, Arizona 85719

Enclosed please find my renewal slip for your magazine Today's Animal Health. I shall NOT be renewing this subscription for myself. I am a biologist by profession and simply find your articles too simplistic. However, I do appreciate the job you are trying to do and believe that for the layman your journal is excellent.

4 Today's Animal Health

Accordingly, will you also please find enclosed a check in payment for a one year subscription to Today's Animal Health for my mother.

(Ms.) Alexis A.E. MacLean
Rochester, NY 14611

I have seen "Today's Animal Health" often at my "Vets" office, and would like to have my own copy. Your publication is very interesting — keep up the good work!

Richard O. Butler
Essex Fells, New Jersey 07021

I first read "Today's Animal Health" in our Vet's office and think it's a very fine magazine.

I look forward to receiving my first copy.

Mrs. Judy A. Wright
Speedway, In. 46224

With 35 years of intense interest and cat breeding behind me, I have a large following of cat lovers and feel that altho they all can't or won't subscribe to your great magazine, I have to run out to my copying service and reproduce the material for them. In this last November, December issue, I made duplicates of "Feline Infectious Peritonitis" and "Feeding and Care of the Cat."

I had a bad time finding in Metropolitan Detroit, veterinarians that knew how and where to go for those F.I.P. tests.

Cats of Dalai
Berkley, MI 48072

Tests for Feline Infectious Peritonitis are done by Veterinary Disease Laboratory, 27635 Forbes Road, Laguna Niguel, CA 92677 and other veterinary laboratories. -ed.

In the November/December issue of Today's Animal Health Shirley McDermott erred in her criticism of "the standard humane society attitude toward Christmas pets." Ms. McDermott incorrectly assumes that the impulse buying of Christmas pets should be reflected in a rise in the number of unwanted animals relinquished to shelters during January, February and March. It is probable that a new owner's infatuation with a puppy or kitten will last until the animal

begins to outgrow its cuddlesome appearance. A study by Robert Schneider, DVM (Journal of the AVMA, Vol. 167, No. 4) found that puppies not kept by their owners beyond the animals' first year of life have an average length of stay in the household of 4.4 months. Thus, statistical analysis of the "Christmas pet adoption-and-return syndrome" should be based upon the number of animals received by shelters during May. The shelter records referenced in Ms. McDermott's article are, in reality, supportive of the viewpoint that an abnormal number of pets are acquired on impulse during the Christmas season. In fact, the two metropolitan shelters cited by Ms. McDermott recorded their highest monthly totals of animals received during the month of May. Such a limited statistical sample is inconclusive; however, this data suggests shelters are correct in taking a cautious approach toward the adoption of animals during the Christmas holidays.

Contrary to Ms. McDermott's contention, most animal shelters do not counsel people against gift pets. Rather, The Humane Society of the United States, as well as other agencies, advise the public not to give animals as surprise gifts to unexpected friends who may be unprepared for the arrival of a puppy or kitten. The HSUS also recommends against introducing a pet into a new home on Christmas since the festivities of the day may distract a family's attention from the animal.

The HSUS encourages prospective pet owners to adopt a dog or cat at Christmas from their local animal shelters. We believe it important, however, that special preparations be made for the arrival of a Christmas pet so that it will properly adjust to its new home.

Guy R. Hodge
Director, Research & Data
The Humane Society of the United States
2100 L Street, N.W.
Washington, D.C. 20037

I find this magazine rewarding in my work as a veterinarian asst. as well as a lover of animals.

Robin M. Miller
Westminster, MD 21157

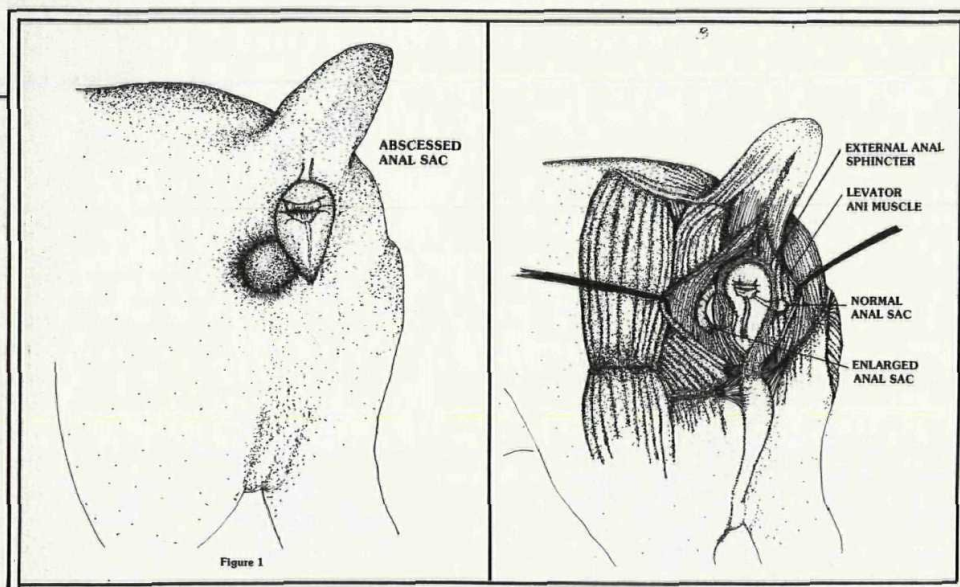
ANAL SAC PROBLEMS

Do you have a "Scooting" Dog?

by Ilka Woods

Illustration by J.J. Laughlan

This drawing shows an enlarged abscessing anal gland just to the left of the anus.



This drawing shows the location of the anal glands in relation to the muscles in the area. The gland on the left is enlarged while the one on the right is normal.

One of the most frequent ailments of the dog is impaction and inflammation of the anal sacs. Dogs and cats, as well as several other mammals have anal sacs which store secretions from surrounding glands. There are two of these sacs under the skin, one on each side of the rectum.

What the function of these sacs is remains uncertain. The material stored in the anal sacs has a strong unpleasant odor. Some people feel that this allows animals to mark their stool and territory with a distinctive scene. Often when strange dogs meet they will smell each other under the tail, as if checking each other's credentials.

Normally the anal sacs are emptied during defecation. Frightened dogs often emit a strong odor and this is because as they became tense, pressure was exerted on the anal sacs causing them to empty their contents. Skunks when frightened will express their anal sacs or scent glands.

The anal sac fluid from the skunk has a very sharp unpleasant odor that persists for a long time as anyone who has had the unfortunate experience of being sprayed can tell you.

In dogs, impaction of the anal sacs causes the dog to lick and chew around the anal area. Often the dog will scoot his hind end along the ground in hopes of emptying the anal sacs and getting relief from the pain that is associated with impacted anal sacs. The old wives' tale that a scooting dog is a sure sign of worms is false. More often the scooting is due to impacted anal sacs rather than worms.

Dr. _____ DIFFICULTY

Often the pet with inflamed, swollen anal sacs will have difficulty with bowel movements because of the pain connected with defecation and may even become constipated. In dogs with swollen infected anal sacs, the skin over the region is usually glistening red, thin and extremely painful. Relief, at times, can be provided by applying warm, moist packs to hasten the softening of the hard painful swelling.

Many times the sac ruptures discharging pus to the outside and leaving a small, draining open wound next to the rectum.

When detected early, your veterinarian can express the anal sacs and may infuse medication into the sac. If the sac is greatly swollen and infected, your veterinarian may have to open the sac surgically and drain it. Once the anal sac infection has been treated, the pain quickly subsides.

INFECTIONS

In certain dogs, infection may become chronic and recur every few months. In animals with repeated problems, surgical removal of the anal sac offers the only permanent cure.

Fortunately, anal sac disease is not nearly the problem in cats as it is in dogs.

FELINE INFECTIOUS PERITONITIS

Cornell Feline Research Laboratory Update

FIP AND THE FIP ANTIBODY TEST

We have become extremely concerned about the confusion throughout the country in relation to FIP and the FIP antibody test. We believe there is misunderstanding among cat breeders and the veterinary profession concerning exactly what the FIP antibody test measures, what a positive test means, and what one should do with an FIP antibody positive cat. While the FIP antibody test is of value in helping the clinician to arrive at a diagnosis of FIP, the test by itself is not diagnostic. Furthermore, recommendations that are utilized for feline leukemia test and eradication in our opinion are not applicable at this state to FIP.

What is the FIP Test? — The FIP test currently available is a laboratory test to detect the presence of circulating antibodies to the FIP virus. The test does not measure the presence of virus as do the leukemia tests, but rather the "footprints" of virus. A positive test is reported as a "titer" (1:25, 1:400, etc). The larger the titer the more antibodies that are present in the blood.

Interpretation of a Positive Test — A positive FIP antibody test by itself is not diagnostic of clinical FIP, nor is it an indication that an active FIP infection is currently occurring in that cat. A positive test means only one thing — that the cat has been infected sometime in the past with FIP virus. Any further interpretation of a positive test is merely speculation since scientific data are not available to substantiate any further claims. However, based upon epidemiological information and minimal scientific data, it would appear that the majority of FIP antibody positive cats are shedding the virus, probably from the intestinal tract and/or the respiratory tract. A positive test from a healthy cat in no way implies that this cat will ever develop clinical FIP. In fact the vast majority of healthy serologically, positive cats will not develop clinical FIP.

Interpretation of a Positive Titer — While high antibody titers against most viruses indicate strong immunity to that virus, this is not necessarily the case with FIP. In our opinion many people are placing undue emphasis upon the quantity of the titer from a healthy cat. While there is some justification for considering the titer in a cat that is ill, we seriously question that this is appropriate for the clinically healthy cat. Some cats develop higher antibody titers than others, and the antibody titer varies considerably with time. Although the exception, we have seen cats with titers of 1:1600 have titers of less than 1:5 within a year. Preliminary data

from our studies indicate that FIP is an immune mediated disease by a mechanism which is still unknown. The presence of antibody or some other component in the immune mechanism sensitizes a cat so that under appropriate circumstances it may develop the second disease, so-called "wet" or "dry" FIP. Our data indicates there is little if any difference in the susceptibility of a sensitized cat with a titer of 1:5 as compared to a titer of 1:1600.

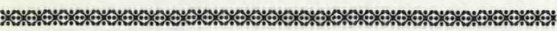
Should FIP Positive Cats be Euthanized? — Apparently there have been some misquotes in the cat literature concerning the recommendation for euthanasia of FIP positive cats. While the mortality in clinical FIP approaches 100% and therefore euthanasia would seem to be in order once a definite diagnosis of clinical FIP has been made, we have never recommended that FIP antibody positive cats should be routinely recommended for euthanasia. Some people are recommending euthanasia of all FIP antibody positive cats, regardless of titer, while others are recommending euthanasia of cats with titers of 1:400 or higher. We believe these recommendations are not justified based upon the information concerning FIP currently available. Because of the extremely high incidence of FIP infection and the many questions about this virus and the disease to which we do not have answers, we cannot recommend at this time a test and eradicate program for FIP.

Incidence of FIP Antibody Positive Cats — The incidence of FIP antibody positive cats varies between 20 and nearly 100% depending upon the population of cats that are tested. Sixty-five percent of the serums submitted to the Diagnostic Laboratory at Cornell from all sources were positive for FIP antibody. The population in general excluding cattery and colony cats has an incidence of 20-30%. From diagnostic laboratory data and from an informal survey conducted with cat breeders it would appear that the incidence in breeding catteries is greater than 80%. The virus obviously is quite contagious and is nearly ubiquitous within the purebred cat populations.

When Should the FIP Test be Run? — While the FIP test is not diagnostic and is currently being over-used, we believe there are 3 specific circumstances where the test is indicated. First, the test is of value in aiding the veterinarian in making a clinical diagnosis of FIP in a sick cat. A positive FIP antibody test, especially if the titer is 1:400 is consistent with clinical disease. A negative or low titer tends to reduce but not eliminate the possibility of clinical FIP. Secondly the test is of value to determine

the presence of FIP virus within a cattery. Twenty to 30% of the cats within a cattery should be screened for the presence of positive antibody titers. If positive titers are found one can assume that approximately 90% of the cats in contact with these positive cats will also have positive titers. Little is to be gained by testing the remainder of the cattery. Thirdly the test can identify potential shedders of virus when a new cat is being purchased for introduction into a cattery or household that is free of FIP virus.

Summary — It is our opinion that the FIP antibody test currently is being over-used and over-interpreted. The test is of value to the practitioner in specific circumstances, but by itself it is not diagnostic of clinical FIP. Further it is our opinion that clinically healthy FIP antibody positive cats should not be recommended for euthanasia under a routine test and eradication policy.



DISINFECTANTS AND FELINE VIRUSES:

A recent study at the Feline Research Laboratory screened 35 disinfectant antiseptics, surgical scrubs and instrument disinfectants for their virucidal activity against feline panleukopenia (FPL) virus, feline calicivirus, (FCV) and feline rhinotracheitis (FVR) virus. All of the products tested were effective against the FVR virus, and enveloped herpes virus. Most of the commonly used disinfectants were not effective against the calicivirus, with the exception of the phenolic and aldehyde compounds. The FPL virus was resistant to all of the disinfectants except the aldehydes. The product that had the most satisfactory virucidal action and that appears to be practical for use in catteries and homes is ordinary household bleach or Clorox (5.6% sodium hypochlorite). At the recommended dilution (1.32) or 4 ozs. per gallon of water) Clorox would also be effective against the canine parvovirus which has the same properties as FPL virus. Clorox can be used in combination with several disinfectants or detergents without losing its virucidal properties. However, caution should be used when Clorox is combined with other products. Specifics of this study will be published in the near future, and summary tables of the results are available by writing to The Cornell Feline Research Laboratory.



If you would like to receive The Cornell Feline Research Laboratory Newsletter — Send your name and address to:

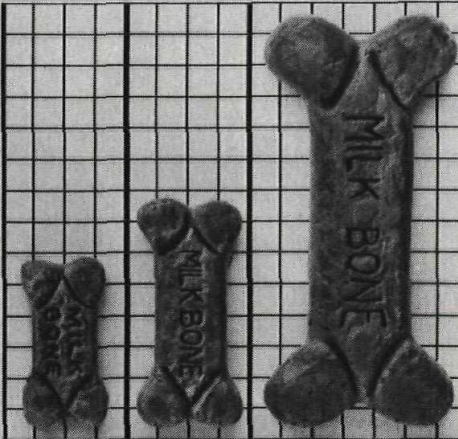
The Cornell Feline Research Laboratory
NYS College of Veterinary Medicine
Cornell University
Ithaca, New York 14853

MILK-BONE Dog Biscuits come in different sizes because dogs do.

Dogs come in different sizes. That's why Milk-Bone® Dog Biscuits come in different teeth-cleaning sizes and hardness for small, medium and large dogs. Milk-Bone Dog Biscuits help scrape away stains and tartar to get your dog's teeth cleaner and whiter. They're 100% nutritious, too, in Original flavor or Beef flavor.



How Milk-Bone Brand Dog Biscuits provide the proper chewing exercise for dogs.

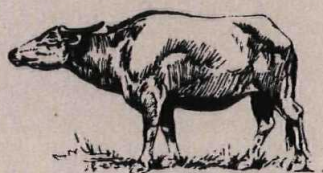
Relative size of biscuits			
	SMALL	MEDIUM	LARGE
Average weight per biscuit (ounces)	.14	.28	1.17
Overall length (inches)	1.8	2.4	4.3
Overall width (inches)	.94	1.1	2.0
Relative breaking force* (pounds)	77	80	164

*Breaking force is determined by placing biscuits in specially designed fixtures which are then placed in a Dillion tester which applies a measured force.

DOMESTIC ANIMALS

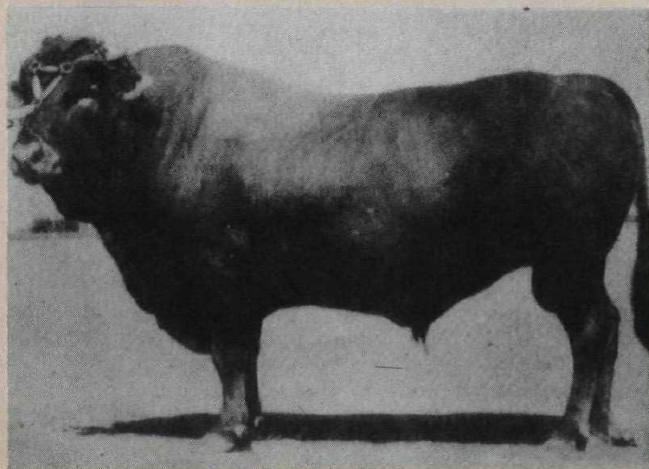
A trip through the People's Republic of China in 1963 and a study of the literature on Chinese livestock were combined by Dr. Epstein to give a unique view of animal production and animal health in China. China, including Tibet, has provided the world with some of its most cherished breeds of dog and has contributed to improved breeds of several other domestic animals. However, there is still a wealth of untapped genetic material for the improvement of livestock.

Outstanding characteristics of some Chinese animals include the Kwanchung ass, which is as heavy and strong as the Leon-Zamoran and Catalan asses of Spain, the Poitou of France, or the large asses of the U.S.A. The pelts of Chungwei kids and of Tanyang and Huiyang lambs stand comparison in beauty, durability and lightness with the pelt of the Karakul. The Sinkiang fine-wooled sheep is one of the most cold-resistant Merino-type sheep in the world. Other valuable characteristics



Cattle

Cattle, called "yellow cattle" (Huang Niu), irrespective of their actual color, are the most widely distributed of all the domestic animals in the country. The various breeds and types differ mainly in body size, presence or absence of a hump, and, where a hump is present, in its size and position. The domesticated yak flourishes on the extremely poor, scrubby pastures of high mountain areas and is an excellent pack and riding animal for mountain travel. Even with relatively poor feed it can carry a heavy load for 15 miles a day for months at a time, and stay in good condition. Buffalos are used mainly in the rice-growing provinces of southeastern China, both as draught animals and for milk production.



Sheep - Goat

Sheep, bred in 20 of the 26 provinces of the Chinese People's Republic, are derived either from Mongolia or Tibet (with the exception of the recently introduced Merino, Rambouillet, Corriedale and Karakul breeds). The four main types of sheep are fat-tailed, thin-tailed, fat-rumped, and Merino. Goats are more widely distributed than sheep in China, as they are also bred in the southernmost provinces where there are no sheep. The most important breeding area is Inner Mongolia, where large flocks of Cashmere goats are bred.



OF CHINA

by H. Epstein

include the exceptional fertility of the Hu-yang (Wusih) sheep and the Pearl River Delta, Kinhwa and Fungcheng pigs, the large number of functional teats of Kinhwa, Fungcheny and Hwai sow, the long white bristles of the Jungchang pig, the black bristles of the unimproved Min and Ningan breeds, and also the ability of some Chinese breeds of pig to turn water plants into pork and lard.

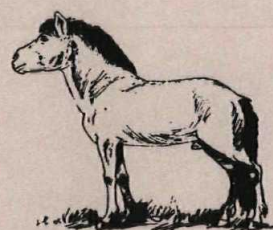
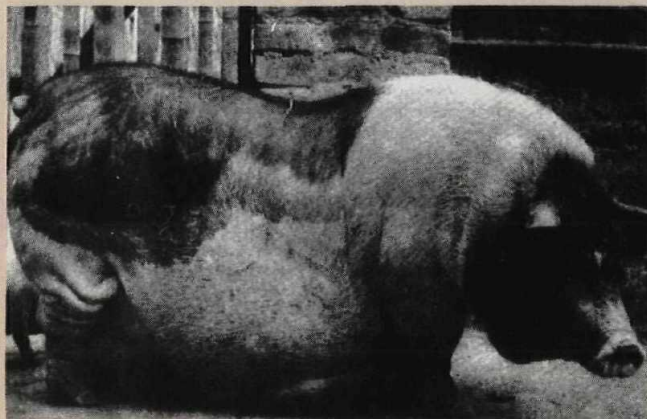
These and other attributes of Chinese livestock may

yet enrich the world gene pool provided that the very real danger of some of the Chinese breeds becoming extinct is realized and that action is taken, before it is too late, to preserve these potentially valuable breeds. Dr. Epstein has given a comprehensive review of both the common and rare breeds of cattle, yaks, buffalos, sheep, goats, pigs, horses, asses, camels, reindeer and dogs in China (with excellent illustrations) which will be of interest to all breeders and veterinarians.



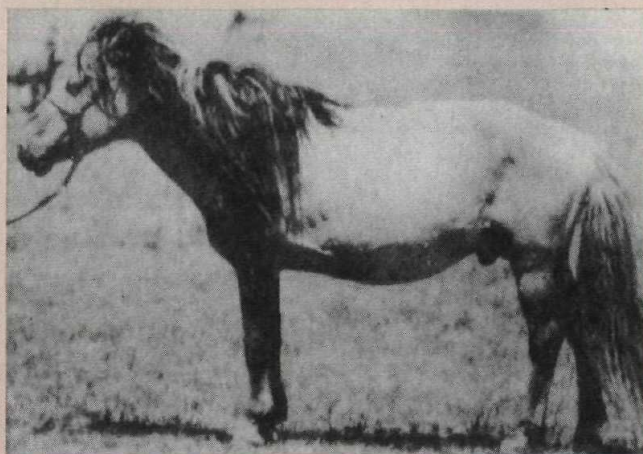
Pig

The pig and the dog, both used for food, were the earliest domesticated animals in China. Over 100 different breeds and varieties of pig are known; of these, about 40 are considered to be of economic value. They are classified by geographical divisions: south China, central China, north China, west China, and Taiwan. Both the South and Central China native types are generally characterized by a short, wide and dished head with wrinkles at right angles to the sagittal axis, a short broad body, hollow back, pendulous belly, well rounded hams, relatively soft bristles and variegated color. However, many breeds and varieties may be found which deviate from the general standard in one or several respects. The taxonomic difficulty is aggravated by the existence of a large number of local varieties. Many of the local types have become extinct during the past 15 years through grading up to superior native breeds or cross-breeding with Large White or Berkshire boars.



Horse

With the exception of the southeastern provinces where paddy is cultivated and the buffalo is the principal draught animal, horses are bred in nearly every part of China. The greatest concentration of horses is in Inner Mongolia and the adjacent provinces of Sinkiang, Ningsia and Heilung Kiang. In historical times, horse flesh was eaten generally; the tribes west of China bred and fed horses especially for this purpose. In following centuries, horses of various racial types continued to be introduced from abroad, especially after the fourth century B.C. when Chinese adopted riding on horseback.



"Copyright, 1980, Los Angeles Times.
Reprinted from the July 1970 issue
of D.V.M., The News Magazine of Veterinary Medicine
by permission of Gridley Publication, Inc.

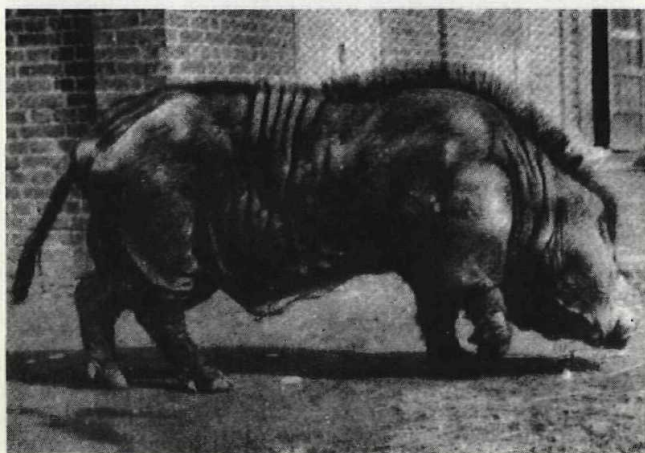
DOMESTIC ANIMALS OF CHINA

Deer

Reindeer in China are bred in a small area in the mountain forests. They mature rather late, reaching full strength at 5 years of age. Milk is the most highly valued product of the reindeer, although the doe is a very poor milker, giving just over one-half liter a day for a short period. Reindeer milk is deep yellow in color, sweet and thick like cream, and contains 14 to 22% fat.



Boar



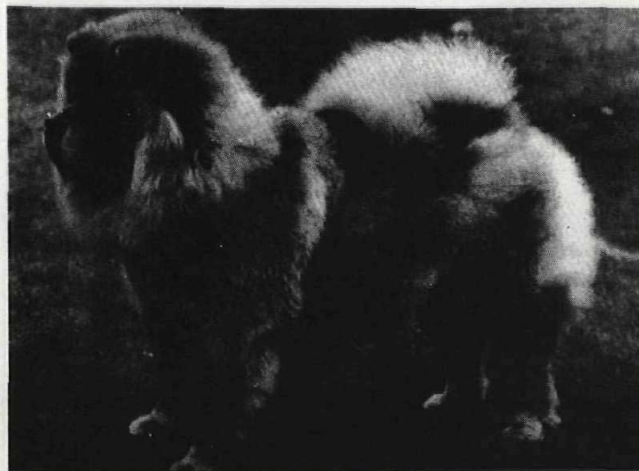
Dog

Dogs of China may be classified roughly into four groups: pariah, shepherd dog, greyhound and toy dog. The pariah dogs were often kept for meat. The custom of eating dog meat is traceable to the sacrificial consumption of the flesh of the wolf in ancient times. The puppies are fattened on rice, and killed when they are about 9 months old. After removing the hair by scalding, the carcass is cut into six or eight pieces, boiled for about one hour, and then fried in oil. The meat is cut into small pieces and cooked with dry mushrooms, preserved bean cake, native onion, a little ginger and water-chestnuts.

Greyhounds were evolved in the desert regions of Egypt and southwestern Asia, where they are bred to this day. They appear to have been introduced into China at various times from India and Pakistan. They were formerly found in the encampments of Mongolian princes, many of whom possessed 40 or 50 pairs which were used for hunting wolves and foxes.

The toy dogs were called "Sleeve dogs" in China, because, during the period when wide sleeves were fashionable, they were kept in the sleeves of persons of rank or wealth. They were not allowed to run about on the ground and were kept on the top of a kang or stove bed-place. Their food was much restricted and consisted chiefly of boiled rice. One breed of toy dog, the Pekingese, was developed mainly by the ladies and eunuchs of the imperial court, which they attempted to breed as nearly as possible to the likeness of a lion.

Dr. Epstein does not give a complete account of all the various breeds, types and varieties in the different parts of China. Such information has not been published, he states, not because there is a lack of interest on the part of the scientists of China, but rather because all of them have to carry a heavy burden of instruction or practical breeding work.



Reprinted from the July 1970 issue of DVM, The Newsmagazine of Veterinary medicine by permission of Gridley Publication, Inc.



by Sherill Cobb

Illustration by Christi Bonds

Did you know that a rabbit can be trained to use a litter box? Did you know he can learn to do simple tricks? Yes, like a dog or cat, a young rabbit can learn many things, if you are willing to teach him. The main thing to remember in training a rabbit is to repeat the exercise you are teaching. By doing something again and again, your rabbit will quickly learn.

LITTER BOX

First, before you bring your young rabbit home, make a litter box for him. Take a shallow cardboard box and put newspapers in the bottom. Then place the box in a corner, perhaps in the laundry room. Wherever you put the box, be sure to leave it in the same place.

When you get your rabbit you will see how clean he is. His soft fur smells and feels so clean, because he baths himself often with his tongue, like a cat. Since your rabbit is a clean animal, he will usually leave his droppings in the same place. At first, however, you can help him by taking him often to his litter box and leaving him there. When he has finished he will hop out and run about the house.

After a week or two he will be trained so well that he will go alone to his box. Of course, each day you will want to empty the soiled paper and put fresh paper in the box. Keep his food and water a few feet from his litter box. Each day he should have fresh rabbit pellets in a clean bowl, and next to it a bowl of fresh water. In a short time, your pet will learn that his litter box, food, and water are in a special place.

Remember: with litter box training, each day take him often to his box, and keep his special place clean.

SIMPLE TRICKS

After you have trained your rabbit to use his litter box, then train him to do simple tricks. For instance, you can get him to sit on his hind legs. Hold a treat food, such as fruit loop cereal, above his head, and he will sit up. Then give him one fruit loop, and gently rub his nose upward. At the same time, tell him that he is a good rabbit. Do not give him more than one or two treats at a time. Too many treats will upset his stomach.

After he learns to sit up, you can teach him to toss a ball. You can use a

rubber ball or a small wire ball, with a bell on the inside. Place a small ball in front of him. At first he may only smell the ball, but keep placing it in front of him. When he does pick it up, he will toss it. Then give him a cracker jack or a fruit loop and pet him. Again, tell him you are proud of him. Soon he will be tossing the ball across the room.

After your rabbit learns to toss the ball, teach him to jump through a wire hoop. You can make a ring hoop out of a straightened coat-hanger. Place the hoop in front of your rabbit, talking to him. Then hold a treat, perhaps a dry shelled peanut, in the center of the hoop and pull it through. In a few moments he will jump through the hoop. Give him his treat, and get ready to hold up the loop again. He will like this trick. To show his joy, he may flick his ears and toss his head about.

Remember: with simple tricks, give one or two treats, pet him, and talk to him. Repeat this action many times.

With a little time and training, your pet will learn to do many tricks. And you will be the proud and happy owner of a well-trained rabbit.

TODAY'S ANIMAL DOCTOR

by Robert W. Lucas

The Doctor of Veterinary Medicine, whose field of operation not long ago was mainly rural America, is becoming a prominent figure of urban life. Veterinarians are growing in number and in professional prestige.

The demand for veterinary service has exploded in the last decade. That demand is being met not only by "generalists," or family doctor types, but also by a multiplying number of specialists in patterns similar to that unfolding in human medicine.

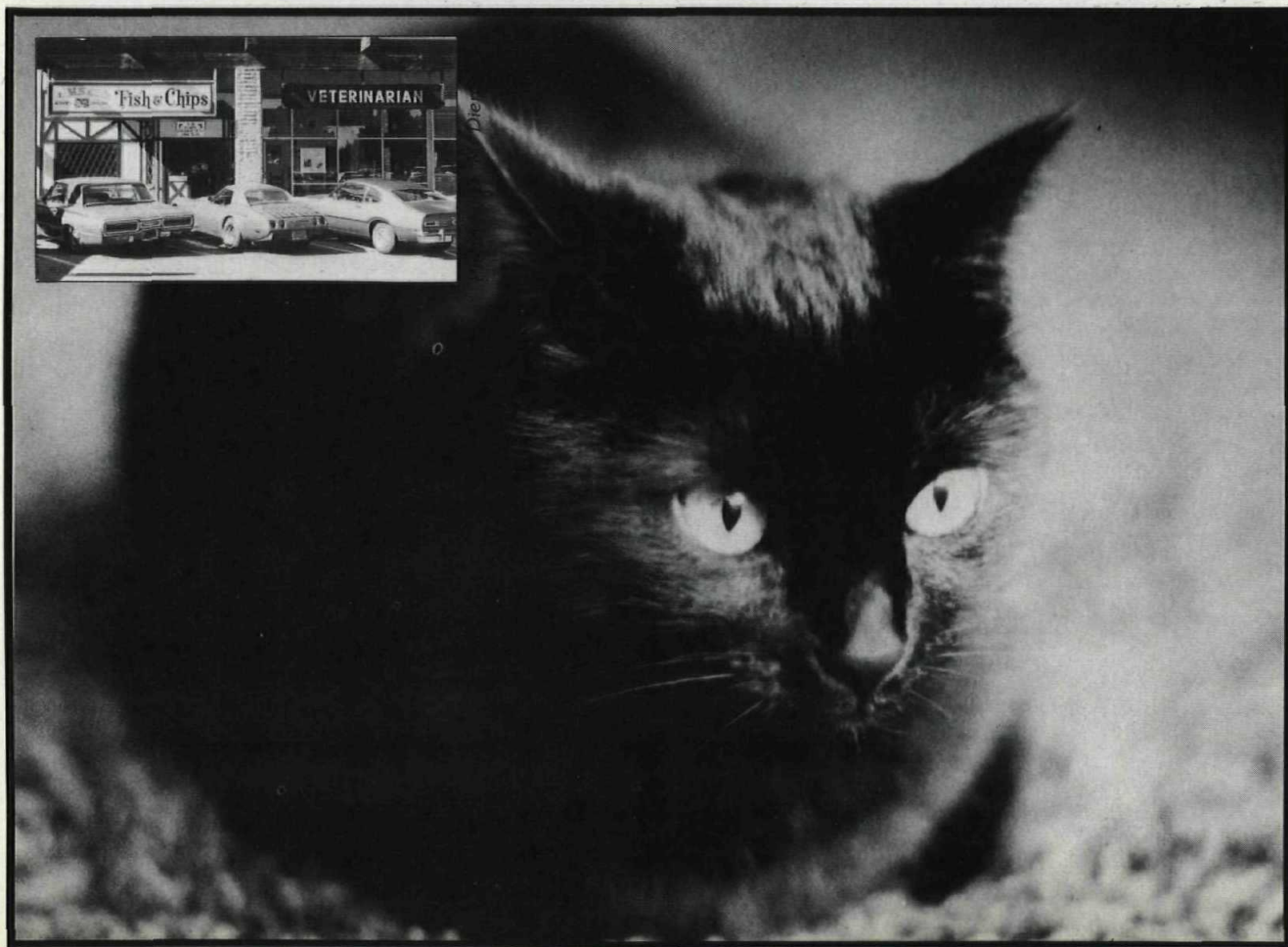
Today's veterinarian is closing the gap between human and animal medicine. Veterinarians are now implanting new hips in grossly traumatized dogs. They are using ultrasound in exploring the deep recesses of ailing horses, and a board-certified ophthalmologist may choose to use a laser beam on a cat's detached retina.

What was once an ancient art, described (complete with suggested fees) four millenia ago in a Babylonian code of laws, is now available in color-coordinated urban clinics cheek by jowl with fast-food eateries.

There are still veterinarians, 6,000 of them, who slog through cow barns, hog and sheep pens and chicken yards, administering to food and fur-bearing animals. (These animal doctors take care of the Country's 110 million head of cattle, 55 million dogs and pigs and 13 million sheep). They are all but immortalized in the best-selling trilogy of books by the Scottish veterinarian, James Herriott.

However, the omnipresent animal doctor today is more likely to be the crisp, young suburbanite who looks after the family's pets much as the dentist cares for the family's teeth. The urban D.V.M. is known also to play the role of family counselor and wailing wall, providing the catharsis for the loss of pets in a dangerous, mechanized world.

Many animal doctors say that their practices often involve the owners as much, if not more, than the "companion animals" themselves, because with an astonishing increase in pet ownership (55% of the



Photos by D.M. Diem

United States households now contain pets) has come heightened concern for the health and welfare of those pets, mainly cats and dogs.

Of the 23,791 practicing veterinarians in 1977, more than 17,000 were caring for non-economic animals, 70% of which were dogs and cats.

Estimates of the number of dogs and cats in the U.S. can be little more than educated guesses. The agriculture division of Upjohn Company puts the dog population at 48 million. The number of cats is guessed at between 23 and 36 million. (The American Horse Council puts the horse population at eight million, 80% of which are kept for recreation. There are another 100,000 horses bred and trained for racing.)

Some veterinarians are engaged in controversy with community forces advocating publicly-financed "spay and neuter clinics." The ultimate issue here is the cost of holding down the animal population, whether in big cities or small. But some elements in the veterinary profession see the problem as a back-door approach to socialized animal medicine.

A unique "pet motel" in Prairie View, Illinois has accommodations for more than 250 and 100 cats. However, during the last four years, the facility, owned by Internation Pet Motels, Inc., has also boarded horses, goats, fish, lizards, king rat snakes, hooded rats, mice, gerbils, hamsters, minks, ferrets, monkeys and a wide variety of birds.

Records of the booming pet food industry support assumptions of widespread pet ownership. Pet foods now command more shelf space in the average supermarket than baby foods, soft drinks, candy and breakfast cereals. Fifteen years ago the American people were spending \$700 million a year for prepared pet foods. Last year the bill for the fastest-growing grocery item — food for Tabby and Bowser — reached more than \$3 billion.

The ownership of companion animals has become an almost universal American tradition. Veterinarians report that immigrants, shortly after arriving in the U.S., acquire one or more pets and lavish attention and money on them, a practice not common in their home countries.

What is stimulating the trend toward pet ownership?

Young couples, in no hurry to have children, acquire pets instead. Men and women, young or old and living alone, keep pets as a antidote to loneliness and for protection. When people move from rural settings and farms to urban centers (as millions have in the last three decades), they take with them deeply rooted feelings for animals.

Market research by pet food manufacturers and advertisers finds evidence that the modern household pet has become a symbol of "family, unity, peace, warmth and love." Motivational studies of attitudes in pet owners produce findings such as "ego gratification," "surrogate child," "love object" and "anthropomorphization."

Widespread pet ownership is also a by-product of comparative affluence enjoyed by millions of Americans today. Both the option and the desirability of owning a pet are called to the attention of the American family daily by the ceaseless cascade of pet food advertising on television. All of this is transforming the practice of animal medicine in this country.

It was barely a century ago that a credible system of

veterinary education reached the U.S. from Europe. Animal disease plagues had swept Europe, killing 200 million cattle between 1710 and 1760 and causing veterinary schools to be established in France. By 1800 some 200 schools had been organized in a dozen cities of Europe.

There was, on the other hand, little need or demand for veterinary education or practice in colonial America during the years following the white man's arrival. The native Indians had no domestic animals. Those who had horses had received them from the Spanish Conquistadors. There was no reservoir of disease organisms. Because of the unparalleled fertility of the soil, animals thrived in the early New World.

It was not long, however, before such diseases as contagious pleuropneumonia, Texas fever, hog cholera, bone tuberculosis, anthrax, brucellosis, encephalomyelitis and several types of pox invaded the American animal kingdom.

It was, however, 239 years after the founding of Harvard University, the oldest institution of higher learning in the United States, that the first school of veterinary medicine was organized in this country. The first state school of animal medicine, Iowa State University, did not make its appearance until 1879.

State-organized and financed veterinary schools were added slowly, replacing private schools, struggling for enrollment well into the twentieth century. As cars replaced horses, veterinary education declined along with the value of the horse. The schools graduated a total of only 132 veterinarians as recently as 1927.

Sensing a need, however, responsible practitioners of veterinary medicine launched the promotion of more adequate veterinary education in the mid-forties, with the result of seven additional state schools between 1944 and 1957. By 1964 there were 3,874 students (overwhelming percentage male) enrolled in the study of animal medicine. Then, coincident with the surge of pet ownership, the United States' 22 state veterinary schools were training 6,571 animal doctors by 1976. Competition for admission to the schools became intense, with seven applicants for each opening. Qualifications for entering veterinary schools have become more stringent than for schools of human medicine. There are at present 33,000 practicing veterinarians in our country.

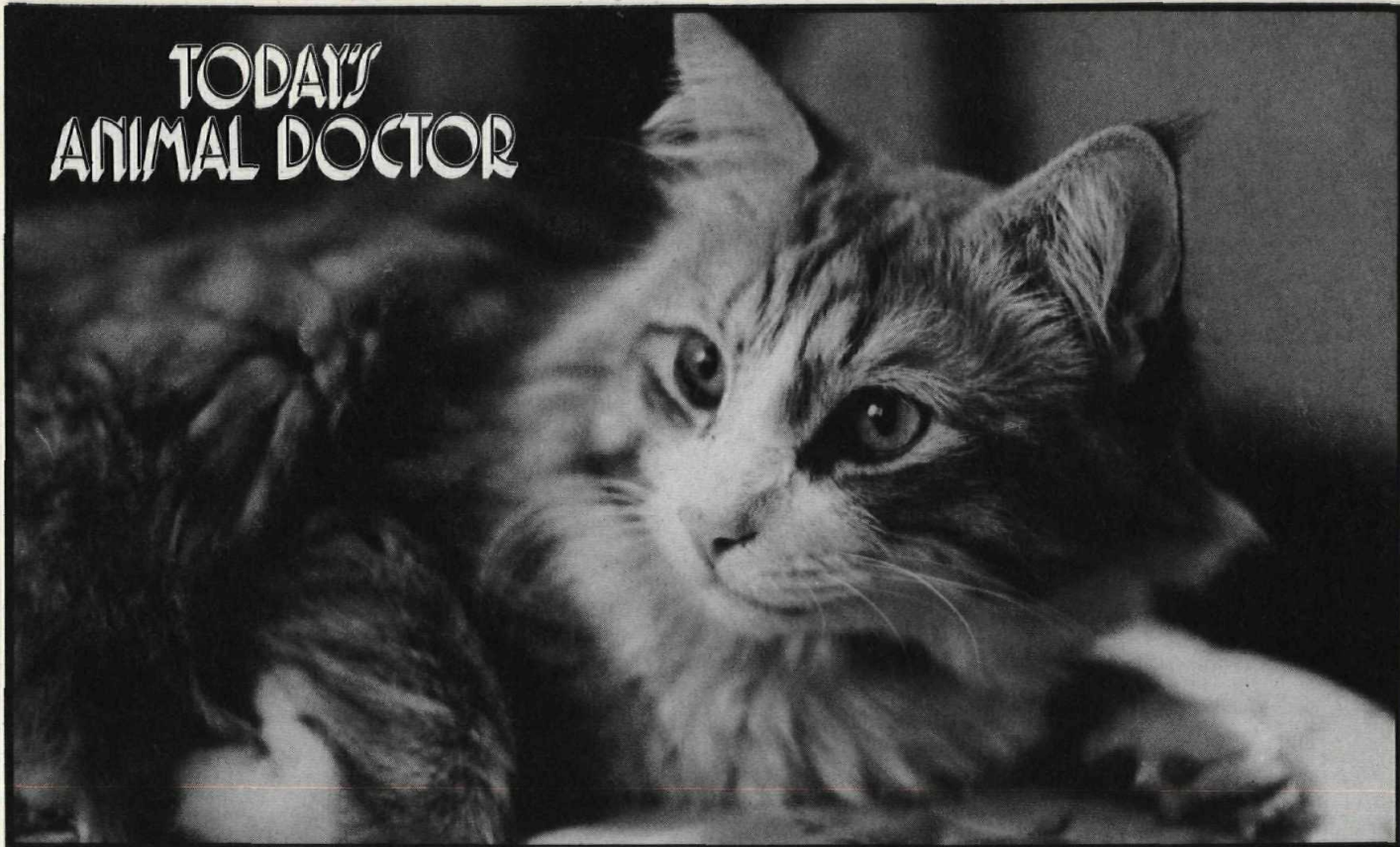
There are thousands of D.V.M.s employed in public health services of the federal government: in control of animal-borne diseases, the inspection of meat products and poultry, the surveillance of slaughtering and packing houses, the testing of milk and other dairy products and the preparation of serums and vaccines. Hundreds more are at work in animal laboratories and schools.

The dominant figure in today's animal medicine, however, is the young, frequently specialized, well-trained D.V.M., working in his urban clinic or hospital, earning an average of more than \$31,000 a year and practicing on cats and dogs.

The general practitioner, if confronted by an especially complex medical problem, has access to "board certified specialists." These include men (and occasionally women) who have concentrated their advanced years of schooling on pathology, radiology, anesthesiology, microbiology, toxicology, public health, surgery, internal medicine, ophthalmology, animal laboratory medicine, preventive medicine and theriogenology (reproduction).

Veterinary doctors today are applying sophisticated

TODAY'S ANIMAL DOCTOR



Photos by D.M. Diem

techniques to correct crippling abnormalities in valuable animals. They are increasing the breeding capability of the cow, promising to extend the genetic pool already enhanced by artificial insemination. With new equipment and procedures they are able to repair shattered bones in pets and commercial animals that, only a few years ago, would have been certain candidates for euthanasia.

A \$200,000 son of the famed racehorse Secretariat was found to suffer from the Wobbler Syndrome, an abnormal conformation of the vertebrae of the neck causing pressure on the spinal cord. The resultant trauma to the spinal cord produces instability in the animal, causing it to wobble. Less than a decade ago this foal would have been killed.

Lloyd's of London paid the owners of the foal the maximum benefits of their risk policy and assumed ownership of the horse. Lloyd's then authorized veterinary medicine in Pullman, Washington, to undertake a myelogram examination of the foal and subsequent surgical procedure known as the Clowar bone plug. This required that a plug of bone be placed between two cervical vertebrae thus permitting the unstable vertebrae to fuse into one and no longer traumatize the foal's spinal cord.

The myelogram and surgery costs totalled about \$1,500. The horse, now owned by Lloyd's and Washington State University, can produce during a lifetime of breeding approximately 100 foals a year. The normal stud fee for this salvaged animal is \$750, whether or not the mare becomes pregnant. That represents almost three quarters of a million dollars of animal production over ten years.

Veterinary theriogenologists have refined a process known as ovatransfer, involving the non-surgical collection of ova which until recently had been considered impossible. Ovatransfer can increase the

lifetime breeding capability of a cow from seven or eight calves to more than fifty. This extends the good qualities found in the female to more animals, thus expanding the genetic pool. And the research involved in this process has contributed a valuable research model for human medicine. A more recent advance is the suspension in growth of a fetus by refrigeration which allows the search for a new mother.

Veterinary radiologists, until recently handicapped in examination of larger animals by the limits of x-ray penetration, are making progress with the application of ultrasound as a diagnostic tool. The application of ultrasound in determining organ size, density and function should save lives of large animals, notably the horse.

Earlier this year, a nine-year-old female German Shepherd dog, Brandy, was struck by a car in Salem, Oregon. Brandy's left sacrum (pelvic bone) was fractured along with the left hip socket. The right side was dislocated and the dog had hip dysplasia on both sides. As recently as four years ago, Brandy would have been put to permanent sleep.

Brandy was put in the hands of Barclay Slocum, a Eugene veterinary orthopedic surgeon and current chairman of the Canine Hip Committee of the Veterinary Orthopedic Society. Through the cooperation of many veterinarians, the surgical procedure known as "total hip replacement," first applied to humans, had been made applicable to dogs.

Dr. Slocum gave Brandy a new hip. Two weeks after the original surgery, the dog could walk on the newly implanted hip. Four weeks later Brandy could run and jump in and out of cars.

The full-time practicing specialist is coming on the animal medicine scene slowly and cautiously. General practitioners say that it is a five or ten-to-one bet that pet

owners, advised to take their animal to a specialist, will not do so — yet. One reason is the expense. Specialists charge more for often complicated procedures. Another reason is the reluctance of pet owners to change doctors for their companion animals. It seems to be a fact that a curious symbiosis develops between a pet owner and the D.V.M. who becomes the pet's "family" doctor. And presently there is a specialty board evolving for the general practitioner as well.

The threat of malpractice has appeared as a small cloud on the veterinarian's horizon, a development which is seen as added pressure for the general practitioner to pursue more education. The basis of at least one suit, claiming one million dollars for "emotional trauma similar to the loss of a child," attests further to the strong feelings involved in present-day pet ownership.

Both the economic gamble and probable ultimate role of the veterinary specialist are illustrated in the experience and comment of a specialist in Charles J. Parshall, Jr., of Richfield, Ohio.

Dr. Parshall completed training and research on eye disease at Johns Hopkins Medical School and developed an ophthalmology referral practice at Hopkins before trying to offer a specialty practice full-time. In 1969 he set up an autonomous or specialty practice in an area of Ohio where there were three million people and 250 veterinary general practitioners.

"It took five years to begin to see the light of economic possibility," he says. "By that time there were about four of us trying the specialty fulltime." Now Dr. Parshall, having accumulated a case load of some 1,000 first-time referrals and 2,500 re-evaluations and progress exams, is looking for other discipline specialists to share his facility. This pattern of specialized practice is appearing elsewhere in the country.

The reach of specialized research and practice in animal medicine is also illustrated in the case of cats, which comprise 30 to 50 percent of all small animal practice.

A recent session of the American Association of Feline Practitioners included representatives of the Laboratory of Veterinary Oncology at Memorial Sloan-Kettering Cancer Center, New York, the Department of Clinical Sciences at Ohio State University, the Royal Free Hospital of Medicine at the University of London and the Cornell Feline Research Laboratory at Cornell University.

Papers were delivered on what were termed "monumental" discoveries in the development of fluorescent anti-body tests for feline leukemia virus, pathogenesis of feline infectious peritonitis, and vaccines effective against two of the most serious respiratory viruses — herpes and calici; broadening knowledge regarding cardiomyopathic diseases; nutritional understanding of deficiencies resulting in blindness; new and safer anesthetics.

However promising the future of animal medicine, the veterinary profession has its problems.

In 1978 the American Veterinary Medical Association (AVMA) retained the Boston research firm of Arthur D. Little, Inc. to survey the veterinary supply-and-demand situation in the United States. The association named ten veterinarians as a manpower advisory committee to assist in the survey.

When the study forecast only about 41,600

veterinarians in demand by 1990, "leaving a surplus of at least 8300" by that year, the advisory committee reported that "most of us were shocked by the final conclusions."

"It seems obvious to us that under the present trend our profession is facing a crisis," the committee said. "We pray that leaders of our profession . . . will have the courage to face the problem and the wisdom to find solutions."

Both the problem and the solution seem to involve a slowdown in the addition of veterinary schools, regionalizing existing institutions and broadening interstate compacts. That, in fact, is the suggestion of the Little study, notwithstanding that six more schools are considered "possible" or "probable" in addition to the 22 now in operation.

Political agitation has appeared in communities around the country for municipally-owned and tax-subsidized neuter and spay clinics. Proponents insist that facilities that offer low-cost service to the public are essential to hold down the proliferation of pets (mostly dogs) that, especially in large cities, are depositing tons of dog waste on city streets and lawns and are becoming a major source of health-threatening contamination.

Veterinary organizations, fearful that such moves are only opening gambits in a drive for "socialized animal medicine," oppose such clinics.

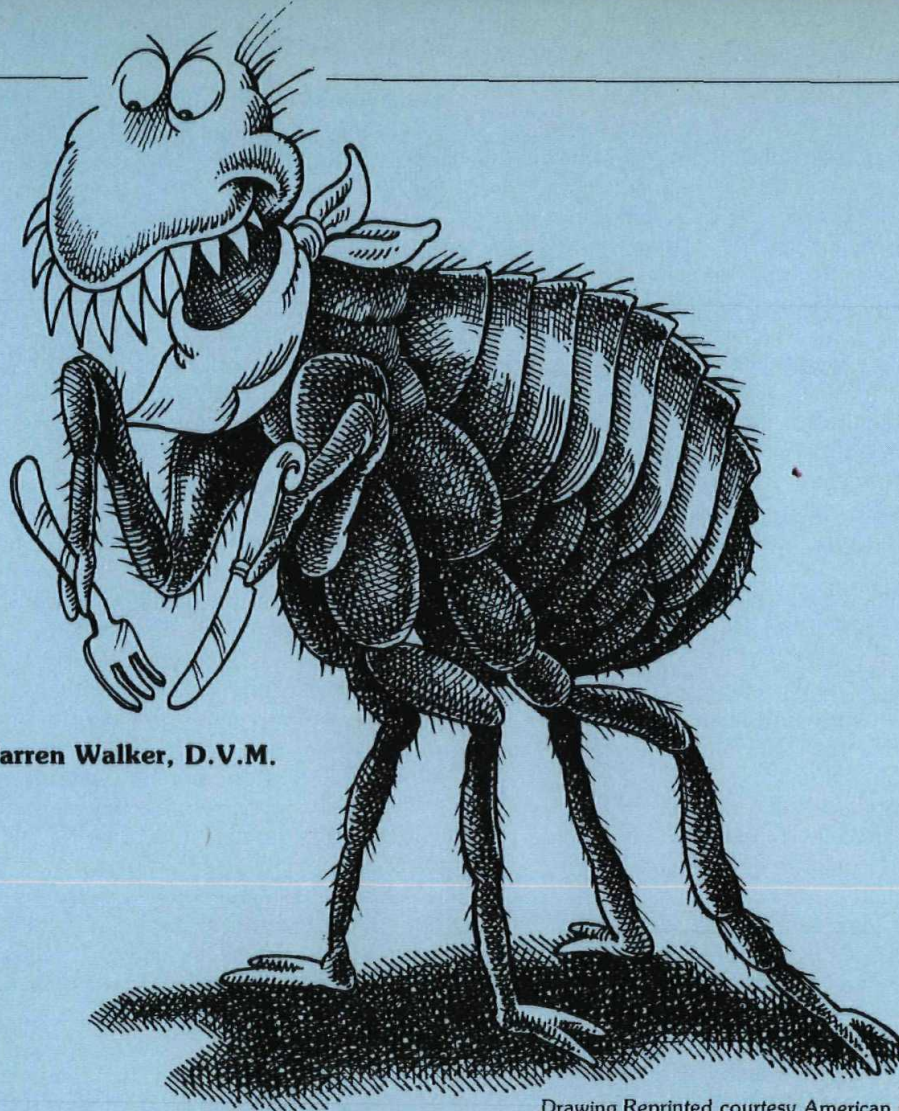
Paradoxically, the same widespread interest in pets that now characterizes American attitudes is fomenting opposition to the heavy use of animals in laboratory research. Heightened public concern with human health, environment and product safety is stimulating research on drugs, chemicals, cosmetics and the physiology of stress response.

Much of this research has involved the use of animals. The New York Times recently reported organized resistance to the "sacrifice" of thousands of dogs, cats, apes, monkeys, horses, sheep, goats and pigs in the research process. Protests against the alleged "excessive cruelty" to millions of laboratory animals are being aired by organizations such as the "Scientists' Center for Animal Welfare" and "Friends of Animals," the latter including 400 doctors.

Veterinary toxicologists test all drugs and chemicals in animals before they are to be given or used by either animals or humans. The D.V.M. in this field is interested not in the therapeutic value of the compounds, only in their safety.

The toxicologists are on the look-out for testing methods that reduce the reliance on animals. Apart from the objections to the use of animals on humane grounds, toxicologists speak of the high and rising costs of animal testing. The report that to do a "safety evaluation" on a single chemical presently costs \$50,000 to \$75,000 just to buy the necessary animals upon which to run tests. When the husbandry and manpower costs are added, the total bill can reach between \$250,000 and \$500,000.

In 1977 about 22% of the animal doctors were in their twenties and 31% were in their thirties. Thirty-three percent of the veterinarians active in 1977 received their D.V.M. degrees during the first seven years of the 1970s and only 15 percent before 1950. If it can be assumed that there is a connection between youth and adaptability, the veterinary profession would seem admirably prepared for what may lie ahead.



by Warren Walker, D.V.M.

Drawing Reprinted courtesy American Cyanamid

FLEAS

So your dog or cat has fleas. Don't fret, they join the best of families, according to authorities at the American Animal Hospital Association.

Will going out to the local supermarket and buying one of those flea collars solve the problem? Well, it might help, as long as the problem isn't too severe and if your pet's environment isn't infested with more fleas ready to take over as soon as their brothers and sisters pass into that Great Flea Heaven in the sky.

Conversations with veterinarians from Alaska to Key West, Florida, indicate that most pets need additional help in combatting this most persistent of parasitic pests. The problem is multifold. First of all, fleas have been around since prehistoric times, and they have had a lot of practice at surviving whatever threatens them.

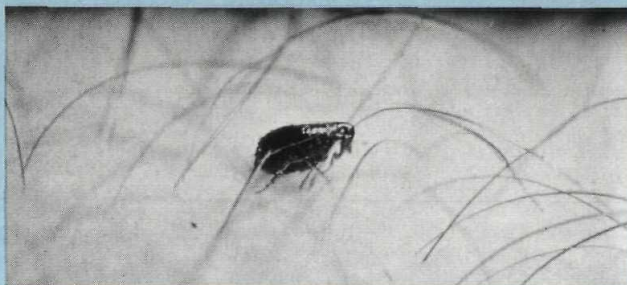
In bygone days, evolutionists speculated that fleas were probably winged creatures, rather like tiny gnats. According to one theory, dogs and cats could feel the wings as the flea traveled through their fur so evolution decided on a much more ingenious plan: a pair of hind

legs so powerful that the flea could leap up in cartwheels, using its appendages as grappling hooks, and landing on the host animal undetected.

"The cat flea, one of our most common, can leap from 18 to 36 inches with ease. For a human this would be comparable to leaping over the 555-foot Washington Monument," according to Dr. Warren G. Walker, a former president of the American Animal Hospital Association.

Another problem is that *fleas are extremely adaptable to most any environment*. Naturally, areas with warm, moist climates are the best breeding ground for fleas; but it's been found that fleas can remain frozen for considerable periods of time and still thaw out to be as good as new. Indeed, in the Antarctic, fleas have been found living happily in bird nests buried nine months of the year under yards of snow and ice!

So what can mortal man do that centuries of scratching and biting have failed to achieve? First, say the veterinarians, *treat your pet's environment* and that



Hungry Flea. This flea which fed on a human wrist was photographed by Dr. George H. Muller, who used a macro-lens for this close view. Dr. Muller is a nationally known veterinary dermatologist in Walnut Creek, California.

QUIZ YOUR FLEA FACTS

Courtesy American Cyanamid

How much you do know about fleas? Take the quiz below and find out.

CHOOSE THE LETTER WHICH BEST ANSWERS THE QUESTION. (ANSWERS BELOW)

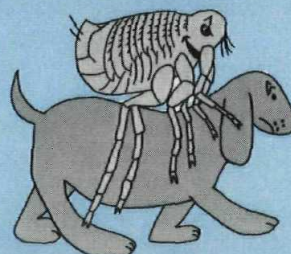
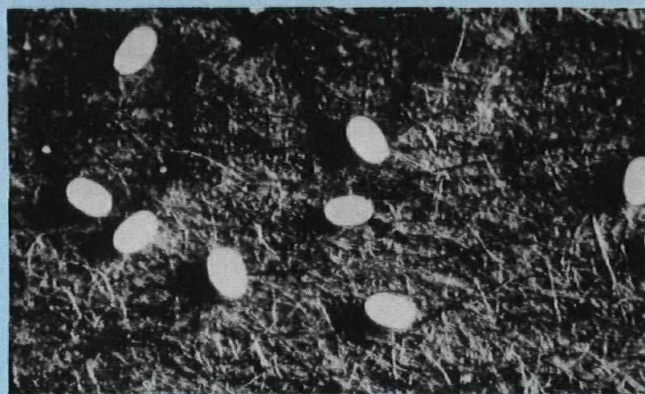
1. How many different kinds of fleas are there?
a) 8 b) 100 c) between 500 and 800
d) between 1600 and 11,000 e) 20,000
2. What climate do fleas thrive in? When the temperature is between:
a) 50°-60° b) 60°-70° c) 70°-80°
d) 80°+ e) all of the above
3. How many eyes do fleas have?
a) 2 b) 1 c) none d) a&b e) a,b&c
4. What kind of flea is normally trained and used in a flea circus?
a) chicken flea b) dog flea c) cat flea
d) human flea e) Oriental rat flea
5. What diseases can fleas cause?
a) typhus b) Bubonic plague
c) rabbit fever d) tapeworm
e) all of the above
6. Which of the following are considered effective anti-flea measures:
a) flea collars b) frequent baths
c) dippings d) spraying or dusting
e) oral medication f) all of the above

ANSWERS: 1 - e, 2 - c, 3 - e, 4 - d, 5 - e, 6 - f

If you scored less than 100% and you have a pet who has fleas, you may want to read more about fleas and learn the different steps you can take to keep fleas out of your pet's hair.



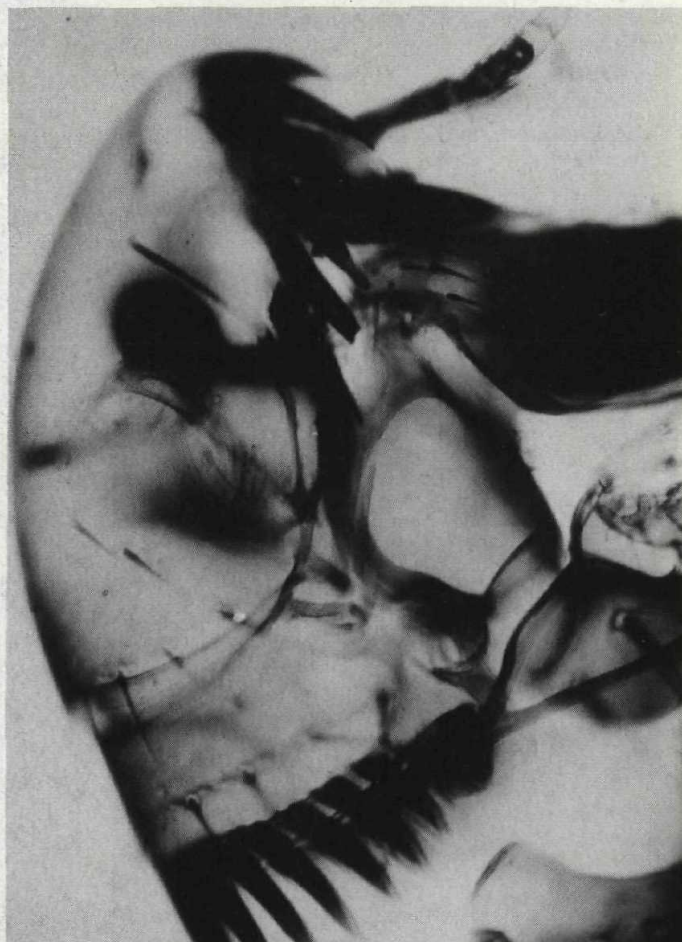
Monster? No, it's a common cat flea who took time to pose for an electron microscope portrait. The swordlike appendages are the flea's combs which slant backward. Behind the combs (not pictured) are glands which secrete a saliva which causes irritation and in some cases an allergic reaction. Also behind the combs (not seen) are the flea's mouth parts which contain a "blood sucking" tube and serrated piercing stylet (not seen). Photo was taken by Dr. John E. Saida of Auburn, Alabama.



The flea/dog cartoon is courtesy of Dr. Michael D. Lorenz, a veterinarian associated with the University of Georgia. The "flea eggs" were photographed by Dr. George H. Muller of Walnut Creek, California.

FLEAS

A better perspective of the entire flea and (right) a close up view of a head. The left photo was taken by Dr. John E. Saidla with an electron microscope at Auburn University. The macro-photo on the right was taken by Dr. George H. Muller, a nationally recognized veterinary dermatologist from Walnut Creek, California.



includes the *indoors* and *outdoors* as well. If you have a pet, spray or dust the bedding and sleeping area with products your veterinarian recommends.

Also spray or dust the shrubs and grass where your dog or cat might prowl. Dr. John A. Miller of Key West, recommends applying insecticide "once a week for three or four weeks. The yard may require further treatment every two weeks or so, depending on the weather."

Inside your home, make sure you spray deep into the crevices and bedding where your pet sleeps. And if you suspect fleas in your carpets, be sure to get rid of the vacuum cleaner bag after sweeping. Flea eggs and larvae thrive in the bags and can soon regain a hold in your house. It's also a good idea to do a thorough vacuum cleaning at least three times at seven to ten day intervals to break the flea cycle.

As for treating the pet itself, most veterinarians recommend bathing, dipping, and/or frequent application of a flea powder or spray, particularly during warm weather. Be careful about mixing different types and brands of powders, liquids, chemicals and "flea

collars" with advice from a veterinarian.

In Alaska, flea control becomes a little easier. "Most of our fleas are imports," said Dr. S.A. Mersch, a veterinarian in Anchorage, "and usually a dip and spray are sufficient unless the pet has an allergic reaction. That takes care of the fleas the pet brings to us. For those who remain at home a thorough vacuum cleaning will generally complete the job if done quickly and thoroughly."

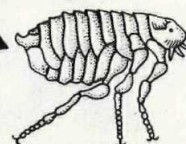
All veterinarians agree that the most important thing in flea control is this: In most cases treating your pet for fleas without simultaneously treating the environment is both inefficient and ineffective. Consult your veterinarians and, in severe cases, your exterminator as well.

Fleas are not only a nuisance; but in about 10 percent of cases they can cause allergic reactions in your cat or dog. You may not be able to rid the entire world of fleas, but you can keep them out of your little corner of it.

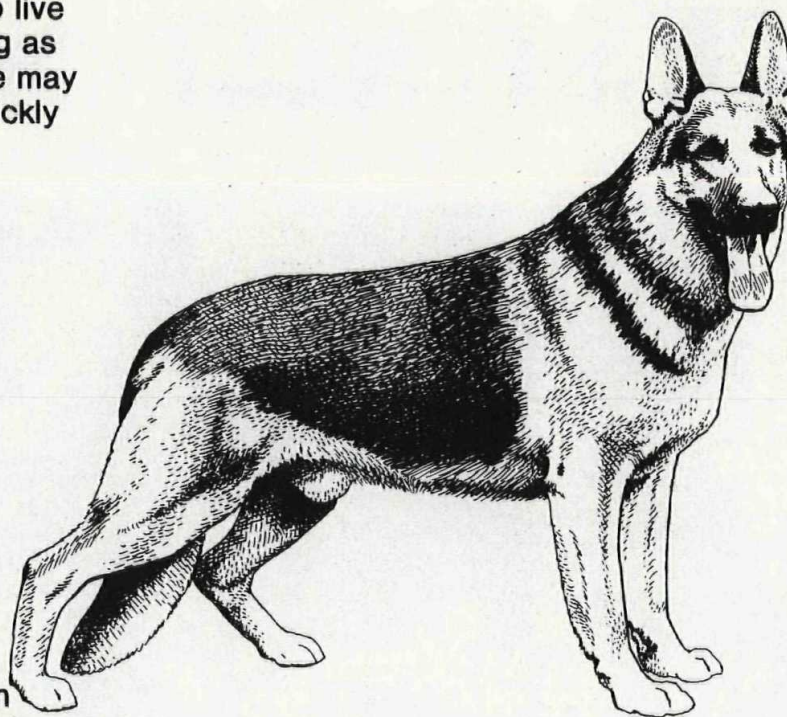
LIFE CYCLE OF THE FLEA ON DOGS

(*Ctenocephalides canis*)

An adult flea may live without feeding for as long as 125 days. Adult flea finds a new host pet, and often jumps from pet to pet. Unless controlled it is possible for a flea to live on a host for as long as 2 years. The life cycle may be completed as quickly as three weeks.



Adult female flea finds a host pet.

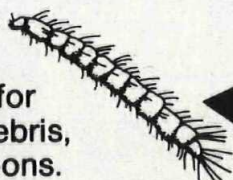


Adult female feeds for 2-3 days, then begins laying hundreds of eggs. When your pet stretches, or scratches, eggs fall into carpeting, bedding, grass.



Eggs hatch in 1-2 days.

Depending on conditions, an adult flea may begin to emerge from the cocoon in as little as 5 days.



Larvae feed for 4-8 days on debris, then spin cocoons.



Reprinted courtesy American Cyanamid

Until recently, a 7-year-old German shepherd named Pasha was just another hard-working cop on the Santa Monica police force.

He'd done some good work during his 2½ years on the force, had even won a medal for valor. But, to tell the truth, his had been kind of a spotty career.

The worst day of all was that time a woman came into the Santa Monica Police Department to report a traffic accident, bringing her pet Chihuahua with her.

Not only did Pasha attempt to eat the Chihuahua, he almost succeeded.

EMBARRASSING MOMENTS

There were other embarrassing moments, too. The night Pasha raced into a house on a burglary call but forgot all about chasing the suspect when he spotted a bowl of dog food on the kitchen floor and immediately started chowing down.

Even worse was the night when he went tearing through another house and out the back door on a prowler call, failing to notice, until it was much too late, the swimming pool directly in his path.

PASHA THE WONDER DOG, FORCE'S FINEST

by William Overend

PLAY TIME — Pasha and handler Barney Melekian take time for a variation of his favorite game — catch.

Photo by Los Angeles Times



Wonder Dog.

Two weeks ago, in one of the most glorious moments of recent local police history, Pasha sniffed out and captured the man police have called everything from Spiderman to the West Side Rapist.

"GOOD DOG"

Since then, his picture has been in the newspapers and on television. He's even been given a couple of steaks.

But for Pasha, as humble as he is heroic, the most rewarding moment of all came just after the capture of the man police had hunted for months.

That was when Santa Monica Police Officer Barney Melekian, Pasha's handler, patted him on the head and uttered those memorable words:

"Good dog!"

The first time I saw Pasha was about five minutes before the capture of the suspected West Side Rapist, a man named Harold Holman.

It was about 4 a.m. on a Thursday, and I had been awakened by an LAPD helicopter, which seemed to be hovering about three feet over my bedroom, shining its searchlight into my apartment windows.

I went outside long enough to catch a glimpse of several LAPD patrol cars at the corner of my block and Pasha sniffing around the building next door.

At that point, two more police cars came barreling at me. I had my hands over my head before they were out of the car. Although I told them I was a reporter, they didn't seem particularly impressed and I didn't think it wise to reach into my back pocket to show them my press card.

"Get off the street," one of them ordered. "That dog doesn't know who you are. He'll tear you to shreds."

Even then, without knowing much about Pasha, I doubted he could be as vicious as the police claimed. However, the humans were another question. I returned to my apartment long enough to pin my press card close to my heart, then headed outside again.

By that time, Pasha had caught the suspect. As it turned out later, the man had a couple of bite marks on his arm, but he looked to be in pretty good shape, all things considered, so I went back to bed.

What happened, I learned later, was that there had been a burglary call about a half-hour before Pasha arrived. The suspect, had been spotted in my neighborhood. The police, who had been looking for the man for months, had set up a perimeter around the area.

CLASSIC OPERATION

It was a classic police operation in almost every respect. The LAPD helicopter kept the man pinned down, while the patrol cars on the perimeter prevented his escape. All that remained was for Pasha to come in from Santa Monica to track the man down.

As it turned out, the suspect had run under my bedroom window to a building two houses down, pulled open the screen cover leading to a crawl space under the house, replaced the screen, and inched his way about 30 feet under the house.

It's possible that if Pasha hadn't picked up the scent,

wouldn't have found him. Even if they had, considering that he was armed with a .38 pistol, it most likely would have turned out to be a major SWAT operation.

Pasha, however, spared everyone a lot of work. After leading Melekian to the screen, he lunged under the house as soon as his handler could open it. Crawling toward Holman, he seized him first by the leg, then by the arm after Holman started punching him in the face.

Melekian was under the house right after Pasha, one of the more dubious honors that befall the men assigned to handling police dogs. For a while, he didn't know if he was going to have to shoot or not, but finally the suspect gave up.

While Melekian kept his eye on the suspect, LAPD Officer J.P. Lane joined the group under the house, locating the .38 and helping pull Holman out to the two dozen police officers gathered outside.

According to police, the suspect's only comment was a rather desperate plea:

"Get that dog off me. He's trying to eat me."

At Melekian's home a few nights later, Pasha peered in through the sliding glass doors from the backyard as the 30-year-old police officer talked about their adventures together.

Pasha was born in Germany, Melekian said. He was trained there in tracking, obedience and protection. But then a doctor from Bel-Air bought him for \$9,000 to make him a show dog. He was doing pretty well at that until somebody noticed a little piece of plastic inserted in his ear to make it stick up, which finished his show-biz career.

"One of the myths about police dogs is that they're vicious," Melekian added. "That's not true. They're affection-trained, Pasha could chase somebody down and bite them, then 30 seconds later, if I let him, it would be OK for the suspect to pet him."

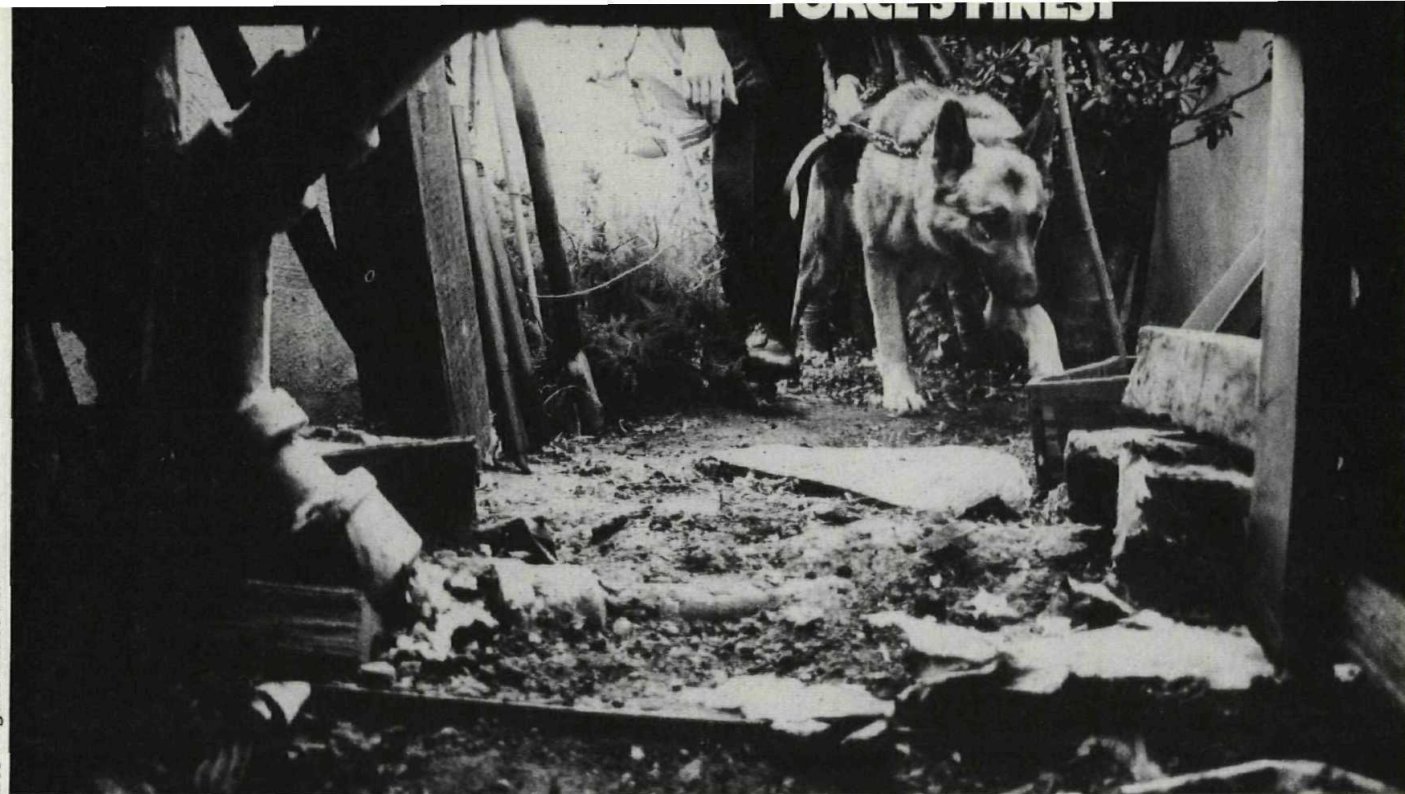
"Their sense of smell and hearing is very acute," he said. "You have an odor when you are scared. The dog detects that odor. In a sense, he is keying on terror — the adrenalin and accelerated heartbeat of a suspect. In a block-long warehouse, it's estimated the dogs can hear a heartbeat at the opposite end of the building."

THREE TEAMS

Melekian and Pasha have been working together since the Santa Monica Police started their dog program in November, 1977. There are three teams of dogs and handlers, and they usually work night shifts from 8 p.m. to 6 a.m. Melekian issues his commands in German, and he is the only one Pasha will respond to with the exception of Mrs. Melekian.

"There's no question I prefer working with him to a human partner," Melekian said. "He's predictable, even when it comes to chasing cats. He's never really very moody. I can always tell what he's thinking, and he doesn't argue over where to go for dinner."

On the other hand, he smells. Melekian's patrol car, the back seat removed to give the 100-pound Pasha more room, has the odor of a kennel. It's also partially ripped to shreds inside. Pasha ate half the dashboard once when Melekian left him in the car with the windows rolled up. He's also eaten a couple of door panels over the years.



"He likes to go to work. As soon as I go out and start the car, he goes bananas," Melekian added. "He's not much of a social dog, just lies around until it's time to go to work. But then he really picks up. That's what he is. He's a working dog."

In addition to his original training in Germany, Pasha received extra coaching in police work at the Adlerhorst Kennels in Riverside before the Santa Monica police bought him for \$2,200. Melekian estimates the dog has another year or two before he slows down. Then he hopes to buy him.

"Pasha and I are very close," Melekian said. "I'll go back to regular police work after Pasha is retired. I wouldn't want to work with another dog."

Since he started his career as a police dog, Pasha has assisted in more than 300 felony arrests. He's found about 50 crime suspects who were doing their best not to be found, and he's only bitten 19 of them.

That's mainly because Melekian does his best to discourage him from chewing up criminals. Actually, there's no malice in Pasha, Melekian explains. Biting people is sort of a game, like catching a Frisbee is for other dogs.

The rules of the game, basically, are that Pasha can't bite anybody unless Melekian orders him to or they try to attack Melekian or another officer, or — and this is the key rule — they try to move after Pasha has sniffed them out.

NOTHING TO FEAR

If a burglar, for example, is discovered by Pasha hiding in a building, the dog most likely will simply bark and stand guard, perhaps placing his mouth ever so gently on the suspect's arm. If the suspect stands

perfectly still, there's nothing to worry about.

But one move and Pasha is free to bite. In training, that's a reward and it works the same way in real situations, although Melekian says Pasha never bites any harder than the "level of resistance" he encounters.

"Of the 19 people he's bitten, 12 had guns," Melekian says. "We train the dogs to go for the arm. If somebody tries to kick him, he'll take the leg. But it's a myth that they go for the throat. The most serious injury he's caused was a broken arm."

The low point in Pasha's career was the incident with the Chihuahua just a week after Pasha had joined the force. The initial diagnosis was that the Chihuahua was going to die, but it was later determined he was only in a state of shock.

Nonetheless, George Tielsch, who was then Santa Monica chief of police, made the decision that Pasha's career was going to be a short one unless Melekian could prove the dog could be persuaded not to make a habit of trying to devour smaller animals.

SHOCK COLLAR

"I took Pasha back to the kennel in Riverside and spent a week working with him, using a shock collar," he says. "We had him to the point where he was being chased by a Yorkshire terrier. Then we had Chief Tielsch come to the pound, and put Pasha in a room with two cats. He didn't make a move, so the chief gave him another chance."

About six months later, that decision proved to be a wise one. A man under the influence of PCP had stabbed a Santa Monica police officer twice and was about to stab him again when Melekian unleashed Pasha, who sprang for the man's arm and held on even though the man stabbed him in the paw.

THE HUNTER — Pasha peers under West L.A. building where he earlier caught West Side Rapist suspect.

←

"By that time, we were pumping bullets into the guy," Melekian says. "A lot of dogs won't move when there's gunfire, but Pasha was great. For a while we thought he was going to lose his paw, but he recovered and they gave him the department's Medal of Valor."

He worries about Pasha in such situations, Melekian says. Two weeks ago, sending the dog under a house after an armed man, he was afraid Pasha might be shot.

"But the bottom line is that the dog is expendable," he says, "I hate to think about it, but that's the truth. If he had been shot the other night, he would have been cover for me and I would have had an extra second or two to shoot back."

— — —

Much as Melekian likes Pasha, he says there are some problems involved in having a German shepherd for a partner.

"Even with cops, you become an extension of the dog rather than vice versa," he says. "Just walking down the hall at the station, guys will pet the dog before they say 'Hi' to you."

"We go to parties and people will ask where Pasha is," he adds. "It kind of bothers you after a while."

There are other problems with using dogs for patrol duty, Melekian says. The basic one is that it exposes police departments to possible charges of brutality.

"You need handlers who exercise their judgment cautiously," he says. "Dog programs were popular until Birmingham, Ala., police commissioner Bull Connor used them on black children in the South. Obviously, it's a politically sensitive issue, and it has to be done right."

So far, Melekian adds, everybody seems delighted with the way the program is working in Santa Monica. There are similar programs, he says, in Inglewood, Culver City, Redondo Beach and Long Beach.

As for Los Angeles, it depends on who's doing the talking.

Lt. Dan Cooke, an LAPD press spokesman, took the position that LAPD's police dogs, used exclusively according to other LAPD officials for finding bombs and drugs, could do just about anything Pasha can do if called upon.

"It all depends what kind of collar you put on them," said Cooke, a claim that brought a police chuckle from Melekian.

Not that Cooke was trying to take anything away from Pasha, of course. Nor were any other of the Los Angeles police who last week showed their gratitude to Pasha by treating him to a five-pound steak.

"That dog is a hero in my opinion," said Lt. Glenn Ackerman, the man in charge of the West Side Rapist case. "If we could afford it, it would be nice to have an expanded dog program of our own."



Your community could use some foreign aid.

Just about any American town could use foreign aid, in the form of a high school student from another country.

For over 30 years, communities and families all over America have hosted foreign high school students on a yearly basis, through a program called AFS.

A student lives in your home for one year, while attending high school. Everyone benefits.

Students teach us things about the world we could never learn from books.

For more information write to:
AFS International/Intercultural
Programs, 313 E. 43rd St., N.Y., N.Y. 10017.
Or call toll free (800) 327-2777. In Florida
(800) 432-2766.

**AFS International Exchanges
for high school students.**

We provide the students. You provide the love.



Dorothy Harrison Eustis and three of her German shepherds raised and trained at Fortunate Fields, the scientific breeding kennels established by Mrs. Eustis in Vevey, Switzerland.

THE SEEING EYE 1929-

It was November 5, 1927, and a cold wind swept across the Cumberland River, sending a chill into 19-year-old Morris Frank as he made his way up Union Street in Nashville, Tennessee. When he approached the corner newsstand, the vendor called out: "Hey, Mr. Frank, there's a piece in this week's Post about people like you." Frank paid five cents for the current copy of *The Saturday Evening Post*, remembering later: "That five cents bought an article that was worth more than a million dollars to me. It changed my whole life."

Morris Frank was (and is) blind, and the article in the Post would be responsible for setting in motion an idea that would result in one of the most remarkable philanthropic organizations in the world. It was written by a wealthy Philadelphia woman named Dorothy Harrison Eustis who owned a breeding kennel in Switzerland. In the article in the Post she was describing how the Germans trained dogs to guide men blinded during the war. Morris Frank exploded with excitement: "I want one of those dogs!" he wrote to Mrs. Eustis. "Thousands of blind people like me abhor being dependent on others. Help me and I will help them." Amazingly, the organization would be founded less than

two years later. It would be named after the article in the Post, a title drawn from the book of Proverbs in the Bible: "The Seeing Eye."

The person responsible for founding The Seeing Eye was Dorothy Harrison Eustis, the product of an old, wealthy Philadelphia family. She had an unusual interest in German shepherd dogs, especially the working dogs, animals with strength, stamina, intelligence, humor and perception, characteristics she so admired. She started a kennel in the Swiss Alps above the village of Vevey. Her aim was to breed back into the German shepherd the qualities that were being lost through breeding of showing animals. She engaged a geneticist, a man named Jack Humphrey, to run the kennels. Then, after a visit to the German government school in Potsdam, she wrote the article for *The Saturday Evening Post* which so impressed Morris Frank.

Jack Humphrey, the first instructor of The Seeing Eye, is the man who established standards for the organization's dogs and their instructors. He was much more than a trainer. He was an authority on breeding, and a man of vast practical experience with animals. A former cowboy, newspaper reporter and animal trainer



First Class — The pride and joy of The Seeing Eye was its first class of students, shown here at the first Seeing eye school in Nashville, Tennessee, in February, 1929, after the school was incorporated by Morris Frank. From left: Jack Humphrey, chief instructor; Dr. Raymond Harris of Savannah, Georgia, and his dog, Tartar; Adelaide Clifford, an original Seeing Eye instructor; Dr. Howard Buchanan of Monmouth, Illinois, and his dog Gala; and Willi H. Ebeling, who was to become the first administrator of The Seeing Eye.

1930

(including lions and tigers), he is still remembered among old-timers in the business for an unbelievable feat accomplished for a movie producer: training a camel to walk backward — exactly 17 steps. He was known as a man who would accept a challenge more quickly than a certified check, and he accepted numerous challenges — among them, breeding and training dogs for Mrs. Eustis for assignment to the Swiss Army, the Red Cross, prison and police work. Now he was confronted with his most important challenge — teaching a dog to guide a blind person safely; and also instructing the dog's future master, a spirited young man from Tennessee named Morris Frank.

The school today has the most modern of facilities, but it is almost astonishing how little had to be changed in the past 50 years in The Seeing Eye's training of dogs to guide blind people. As the pioneer of the dog guide movement in America, Morris was part of the great experiment, which included teaching the blind person about dogs. Principally he learned that his dog was a four-footed worker, not a miracle worker or mind-reader. The dog would work for one reason, because she loved to please her master and the only payment she would require was affection and praise for a job well

done. Immediately, Morris learned to praise his dog with "Good Girl!" for good work, and to remonstrate with her for poor work by saying, "Pfuil!"

Morris met Buddy and gave her a small piece of ground meat. From then on, dog and master lived together. Seeing Eye dogs are still introduced to their future owners in this way. Buddy was specially selected to be Morris' dog, chosen on the basis of size and temperament. Students and dogs are still carefully matched before their joint training begins.

Fifty years ago it took Morris Frank, the first student, a month of training with his dog before he and Buddy were deemed capable of striking out on their own. A month remains the time that students at The Seeing Eye spend in learning to work with their dogs.

While still in Switzerland, Morris Frank, Jack Humphrey and Mrs. Eustis held long conferences about their plans for an organization to furnish dog guides to blind people in the United States, but Frank would have a monumental job to do first, as Mrs. Eustis noted, because there were signs throughout the United States reading, "No Dogs Allowed," and a blind man's dog had to be with him everywhere he went. Most of all, he



Peter Putnam and his first dog, Minnie, while he attended Princeton University. Mr. Putnam is the author of a current history of *The Seeing Eye*.



Seeing Eye graduates have worked at a wide variety of occupations. This body and fender man kept his dog close by.



This housewife found that she could do many little tasks such as water her houseplants.

THE SEEING EYE 1929 - 1930

would have to overcome in the public mind the image of blind people as beggars on the streets with dogs as their companions, defeated-looking men with tin cups. Mrs. Eustis was emphatic: "You, Morris, must set a new picture in the public mind. You must hold your head high and make a blind man and his dog now stand for dignity and self-reliance."

The Seeing Eye opened the doors of its first school in Nashville, Tennessee, one year and three months after Morris Frank read Dorothy Eustis' article in *The Saturday Evening Post* about dogs guiding blind people. The first class consisted of two physicians: Dr. Howard Buchanan of Monmouth, Illinois, and Dr. Raymond Harris of Savannah, Georgia. By this time Willi Ebeling had entered the picture and had become a moving force in The Seeing Eye.

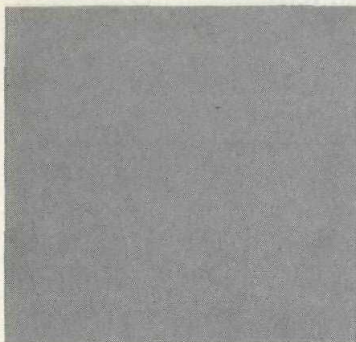
A retired importer and a breeder of German shepherd dogs, Mr. Ebeling was so fired with enthusiasm when he heard of the new organization through Jack Humphrey that he went to Nashville to take part in the venture. The climate in that city proved unsuitable for the work, however, and Mr. Ebeling offered the use of his home and kennels near Morristown, New Jersey, while a new

headquarters was sought. By 1931, this was established on the Whippany Road and Mr. Ebeling became the school's first Executive Vice President, serving in that office until 1954. Under the administration of his successor, George Wernitz, Jr., the present headquarters in Washington Valley was built and, with G.W. Debetaz as Vice President in Charge of Training and Elizabeth L. Hutchinson as Vice President for Student Services, thousands more Seeing Eye dogs were teamed with their blind masters and mistresses. Mr. Wernitz retired in 1975 after 25 years of service to The Seeing Eye.

In the first year of the school, 17 blind persons received dogs. Today The Seeing Eye serves more than 200 individuals a year, recognizing that not all of America's 450,000 legally blind people want dog guides or are able to use them. Also, since The Seeing Eye pioneered the dog guide movement in the United States, other schools have been established.

From the beginning, blind people served by The Seeing Eye wanted independence, not charity. For decades a first dog has cost \$150, subsequent dogs cost \$50, and the blind recipient is required to pay for it himself. The cost of a dog includes round-trip

Streetcars were among the early forms of public transportation that Seeing Eye dogs made available to their masters.



Early Graduate — Getting through traffic is a primary concern of every blind person and it was and still is one of the first tasks a Seeing Eye dog learns to accomplish. Here the late Francis S. Graves, former superintendent of the Pennsylvania Association for the Blind, lets his Seeing Eye dog lead him across a traffic-filled street in Scranton, Pennsylvania, in September, 1930.

transportation to Morristown, New Jersey, and board for a month at the school. No eligible blind person has ever been turned down by The Seeing Eye for lack of funds — the obligation can be met in payments of as little as a dollar a month after returning home.

The history of The Seeing Eye is full of dedication, courage and generosity, but one still must recall Dorothy Harrison Eustis with total admiration. It took real courage for her to stop abruptly 12 years of important work at Fortunate Fields and devote herself and much of her wealth to the development of the humanitarian work of The Seeing Eye. In the case of Dorothy Eustis, determination and vision were indeed a mountain-moving combination. She died in 1946. She was succeeded by Henry A. Colgate and later by James Carey.

Jack Humphrey never planned to train dogs to guide blind people; he was quite happy with his work at Fortunate Fields. He gave up that career to instruct dogs and students at The Seeing Eye and, more importantly, to teach people to educate the dogs. One special Humphrey policy — a discovered, actually — that prevails at The Seeing Eye is the tenet that every instructor tests the dogs by having them guide him or

her through traffic and around obstacles while blindfolded.

As for Seeing Eye policies, some developed spontaneously; others were carefully thought out. But all were based on the question, "How will this affect graduate and dog as they go about their daily lives?" And The Seeing Eye's insistence on encouraging blind people's independence and self-respect had a wider influence in work for blind people generally. Of course from the start, the school's doors were open to men and women, black and white, without discrimination.

The Seeing Eye assumes the obligation to preserve a blind person's independence from the moment he leaves the school for as long as he or she is physically able to use a dog. Seeing Eye dogs work, on the average, ten years or more but a graduate may still require four, five or even more dogs in a lifetime. This future commitment places a long-term responsibility on the school that it must never fail to meet because regaining and maintaining their independence is still the hope and strength of Seeing Eye graduates. The figures of the past year reflect the continued vitality of The Seeing Eye and illustrate its ongoing services to blind people.



ANTIFREEZE



Coolant — A continuing Threat to Pets

by Carl Nowicki

It was not much of a puddle — just a small stream of liquid dripping from under the car. The small gray tabby went over and licked at it. It had a pleasant aroma and a sweet taste that the cat found palatable. It was water that had leaked from a cracked radiator hose in the homeowner's car, and it contained a high percentage of coolant/antifreeze.

Within a short time the cat began to act weak and nervous. The gait became more of a stagger than a walk. Soon vomiting began. By the time the owners noticed the problem the small cat was already slipping into a coma. The cat was rushed to a veterinarian and was saved by prompt treatment. If detected promptly most pets can survive antifreeze poisoning.

According to a survey by the American Animal Hospital Association, 76 percent of its nationwide network of spokesmen reported having treated one or more cases of antifreeze poisoning. And many rated antifreeze poisoning as a serious problem in their area.

"We all know that antifreeze/coolant solution is not to be drunk. The warning labels are right on the container. Unfortunately, we seem to forget that animals can't read. It's up to us to keep them from poisoning themselves," said Dr. Warren G. Walter, a former president of the American Animal Hospital Association.

What makes coolant/antifreeze so dangerous is its content of ethylene glycol, which prevents both engine boil-over in the summer and freezing in the winter. To get an idea of how toxic ethylene glycol is, here are some figures:

- One teaspoon of antifreeze can kill an average size cat.
- Two and one-half tablespoons will kill a 15-pound dog, and five tablespoons will kill a 30-pound dog.
- . . . since there are two tablespoons to an ounce, this means that a small beagle or cocker spaniel can die from the amount of antifreeze in a good size jigger or two!

Also of concern is the fact that even small quantities of antifreeze can cause kidney damage that might go undetected.

In this year of gasoline shortages and other automotive related problems, what can you do to help cut the annual toll from antifreeze poisoning? First, check your car's heater and radiator hoses. Inspect them for cracks, punctures and loose clamps that may leak. When the engine warms up . . . pressures increase and so does the chance for coolant leaks.

Check the radiator itself, making sure that there's no seepage through a split or crack. Look for any puddles under the car.

Make sure your car's thermostat is operating properly and, if it's a late model car, that there's no leak in the overflow container or its hoses. Your service station, garage or car dealer will be happy to help check the system.

But most important, be careful in changing or disposing of antifreeze. It should not be allowed to remain in a gutter or other area where an animal might get at it. Antifreeze evaporates very slowly.

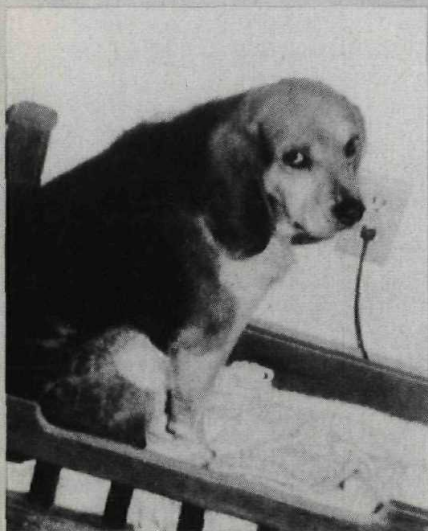
FOR YOUNG PEOPLE

Missy is a tri-colored beagle who belongs to the Walker family in Swanzey Center, New Hampshire. Ed and Norma love her very much, as Missy is their only companion, since their children have grown up and are no longer at home.

Every morning Ed and Missy walk Norma. to work at the nearby high school. After leaving her there, Ed and Missy continue their stroll around the school's football field, then return home.

About a year ago, Missy lost interest in these daily walks. She gained weight rapidly, and seemed sluggish and lazy. All Missy wanted to do was lie around the house and sleep. The Walkers also noticed that her coat was poor and no longer shined.

The Walkers took Missy to their veterinarian, Dr. Fritz, in Peterborough, New Hampshire. He examined her and diagnosed that she was the victim of thyroid problems. They were told that this is uncommon among dogs.



by **Peter Breen, Jr. and
Brenda Edwards**

Seniors at
Monadnock Regional High School

MISSY



Dr. Fritz said that this is an inflammation of the thyroid gland, which is near the "Adam's apple" in humans. Problems occur when the gland cannot maintain metabolism, so food is not utilized for energy.

The result is a lack of activity and an increase in weight. Dr. Fritz treated Missy with a pill form of medication to add thyroid hormone that will help carry on the gland's function normally. Missy has to take these pills for the rest of her life.

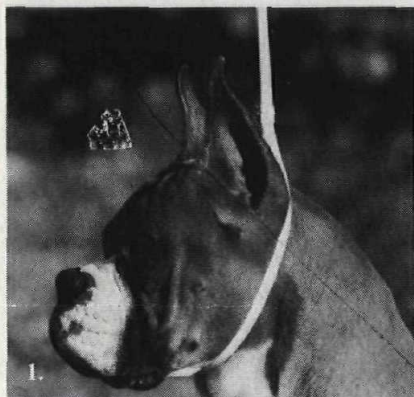
Missy is on a "KD diet" for her kidneys. This has nothing to do with her other problem, but was necessary due to past kidney problems, which might have been caused by being hit by a car when she was a puppy.

Since treatment, Missy likes to walk the Walkers each morning, tugging impatiently and frantically as though saying, "Hurry; I've so much to catch up on!" Norma and Ed don't mind, for they missed walking Missy and want to catch up too.



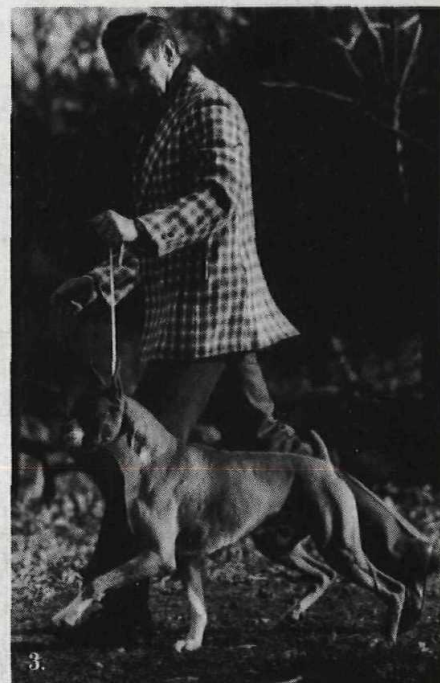
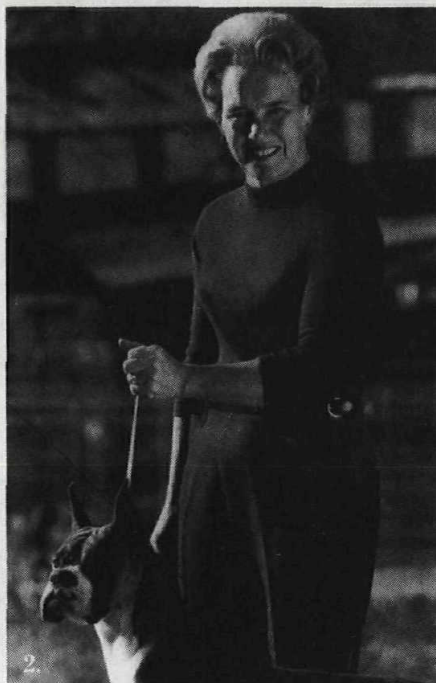
How to win friends and influence judges.

by Jane and Bob Forsyth



Nationally known dog handlers, Jane and Bob Forsyth, demonstrate their proven lead-training procedures.

1. Place the lead as high on the dog's neck as possible, while still behind the ears, and
2. hold lead securely at the proper level to insure that the dog's head will remain up;
3. then simply walk for short sessions of 10 to 20 minutes. If you meet with resistance, stop for a few minutes of play with a ball, then try again.



Not long ago, the owners of a St. Bernard named Ginger came to us in a state of complete frustration. While Ginger looked like a champion, she didn't *act* like one. Every time she stepped into the ring, she'd pick a fight with the unfortunate canine behind her! Needless to say, the judges were not impressed with Ginger's behavior and, despite her good looks, her record was not an enviable one.

We decided that Ginger really needed proper lead breaking in the presence of other dogs. With the lead as high as possible on her neck while still behind her ears, we held it securely at an angle high enough to keep her head up. Then we simply walked her for 15 to 30 minutes. Ginger continued to act aggressively at first, so we stopped briefly and talked to her gently. Ginger learned in just one session, and went on to do considerable winning. It's amazing how positively

judges respond to well-behaved dogs!

Ginger's case shows how performance in the ring can make or break a winner. But proper training is just one factor that can affect your dog's performance. Another vital, but often overlooked, factor is good nutrition. After all, the rigors of traveling and the stress of the show ring can drain your dog's energy. If your dog is not getting the top nourishment he needs, he's not going to have the energy and alertness to perform at his best.

That's why we recommend—and feed—a high-quality, fortified meat diet. ALPO® Beef Chunks Dinner fits the bill perfectly. We like the fact that ALPO Beef Chunks Dinner not only has the meat by-products and beef dogs love, but it's fortified with soy protein and vitamins and minerals for the complete and balanced diet dogs need.

Meat, as you know, is a natural

food for dogs—rich in protein and fat. Protein and fat are staples of a high-energy diet. Fat itself contains more than twice the energy capacity of a like amount of carbohydrates. Of course, fat alone can't meet all of a dog's needs, which is why ALPO Beef Chunks Dinner also contains the protein, vitamins and minerals that a good fortified meat diet should have.

Keeping your dog on a high-protein meat diet, such as ALPO Beef Chunks Dinner, has two big benefits: (1) It will keep him at his peak—in the prime, hard condition judges look for. His coat, sleek and lustrous. His eyes, bright and alert. (2) It will give him the energy he needs to face the often rigorous life a show dog leads.

Full of confidence and vitality, properly lead broken and under control, how can a dog fail to influence the judges, when he looks—and acts—like a true champion! □

Animal Health Foundation
8338 Rosemead Boulevard
Pico Rivera,
California 90660

Good breeding
and Kal Kan feeding.
It shows.



Ch. Jo-Ni's Red Baron of Crofton.

Baron is the winningest terrier in U.S. dog show history.

With his triumph at Westminster's 100th event, his total rose to 76 best-in-shows and 150 group wins.

And he's been getting the nutrition he needs from Kal Kan® ever since he

was just a promising Lakeland pup.

All 13 Kal Kan varieties are packed with plenty of rich meat, along with all the vitamins and minerals a dog needs to reach its potential.

Make the most of your champion's good breeding with Kal Kan dog food.

©1976, Kal Kan Foods, Inc.

NON-PROFIT ORG.
U.S. POSTAGE
PAID
SANTA ANA, CA
PERMIT NO. 687