In some cases of nerve syphilis the power of locomotion is affected. The condition is often wrongly diagnosed as birth injury or as infantile paralysis. A certain type of paralysis seen in these cases can be corrected by medical treatment without any operation.

Any child with paralysis of arm, leg or side should have a thorough examination by a physician, Dr. Dennie emphasized, because a large number of them do have syphilis.

The germ of syphilis may exist in a form that is intrinsically able to withstand the chemicals used to treat the disease and which are successful in curing it in the majority of cases, Dr. Herman Beerman of the University of Pennsylvania School of Medicine suggested. Existence of such strains of the germ, he pointed out, would explain the occasional failure of modern drugs in treatment of the disease.

Science News Letter, January 1, 1938

ZOOLOGY

# Arctic Canada Looks for An Improved 'Husky' Dog

CANADIANS in the frozen region beyond the northernmost railroad are watching eagerly as dog breeders, amateur and professional, work hard to develop a strain of sled dog to replace the famous pure-bred Eskimo husky dog.

For the husky, hero in countless stories of fact and fiction and still the main means of transport in a frigid region only occasionally reached by boat and plane, is now disappearing as a result of indiscriminate cross-breeding by the white man.

In some parts of the Arctic, J. Dewey Soper, Canadian scientist and investigator, reveals in a report on Eskimo dogs issued by Canada's Department of Mines and Resources, "pure-blooded Eskimo dogs are now very rare. This is due to the fact that the white man, especially in recent years, has given considerable attention to increasing the size and strength of native dogs for draught purposes by cross-breeding with other types.

#### Breeding Often Indiscriminate

"This breeding has often been carried on in a rather indiscriminate way and although in some instances a faster or heavier type of dog has been developed, it is highly problematical if, for general purposes under Arctic conditions, any improvement has been achieved."

The dogs which today ply the trap trails in the wooded regions and the dogs which pull sleds over Arctic wastes for missionaries and police are a mixed lot, in every color from the grayish-white of the pure-bred husky, through blacks and browns, yellows and spotted varieties, telling the story of mixture with Russian wolf-hounds, wolves, big Newfoundlanders, mongrels, collies and even German police dogs.

Their varied appearance, as well as the increasing rarity of the pure-bred husky, which is quite rare in some parts of Arctic Canada, reveal the fact that each breeder has had something else in view to add speed, strength or size to his sled dogs.

#### Pure-Breds in North

The purest bred dogs receive the best care and are found at the farthest north police, mission and fur posts, hundreds of miles above the Arctic Circle, where planes do not yet reach and where boats come only once a year. For here they are almost the only means of transportation.

Growing rapidly from birth and

weighing 50 pounds when a year old, the husky weighs 100 pounds and can pull its own weight in sled and supplies when it is fully grown. In the winter it is fed two or three pounds of walrus or seal meat at nightfall. Dogs belonging to Eskimos are fed principally walrus meat, for the Eskimo himself is fond of seal. In the summer the team is left to itself to forage seafood cast up on the shore.

#### Must Guard Caches

When food is low the husky, which can travel as much as a thousand miles on a journey and can go for long periods of time without food, will eat almost anything. Then harness, sled ropes, clothing, kayaks have to be kept away from the dogs, for they will devour anything made of seal or walrus skin.

Food caches have to be guarded by especially large boulders, too big for the 100-pound dogs to move. But no matter how hungry, it is a fact that the husky will not touch wolf flesh, though they will eat each other.

Experiments in breeding are going on continually. The Royal Canadian Mounted Police have carried out experimental breeding at their headquarters in Ottawa with Borzoi dogs and at northern posts with other breeds. The Hudson Bay Company, giant fur trading organization, and other fur establishments, have carried out breeding tests with all types of large dogs.

Huskies breed all year; a litter can be expected at any sea- (Turn to page 11)



MIXED

A team of six mixed Eskimo husky dogs hauls a sled across the Great Bear Lake in western Canada. On dogs like these trappers, the "Mounties" and others depend for winter transportation.

Another unfavorable item in the 1937 health picture was a marked increase in the prevalence of smallpox in certain states. It is a shameful fact that despite the ease with which this disease can be controlled, the number of cases has steadily increased in this country since 1934, and it is now certain that the total number of cases this year will be more than double the figure for three years ago. It is very fortunate, indeed, that most of the smallpox which has prevailed has not been of the virulent type and that, consequently, the casefatality rate for this disease has remained low.

The accident situation in general improved somewhat during 1937, although the number of deaths from occupational accidents and automobile accidents has shown an increase. These increases, however, have been more than offset by the decline in fatal accidents in the home.

#### More Influenza Unlikely

At this writing, the general public health outlook for 1938 appears favorable. We must, of course, always reckon with weather conditions and no one can foretell what they will be during 1938. The health services and the social agencies were never more alert than now. and I believe they will be given all possible encouragement and support. That will make for less sickness and fewer deaths, unless, of course, we meet with an unforseen epidemic. No one can ever be certain about this contingency. A severe epidemic of influenza, for example, would result in many thousands of deaths and an increased general mortality rate. We are not likely to have an important influenza outbreak in 1938, however. We had one early in 1937 and it does not often happen that this disease obtains epidemic prevalence two years in succession. There is, in my judgment, little likelihood of a major outbreak of any of the other communicable diseases.

#### Tuberculosis To Decline

I believe that tuberculosis will continue to register a declining mortality, and that the unremitting campaign which is being waged against the diseases of pregnant and parturient women will show continued progress and will result, also, in a lowered infant mortality rate.

Please understand that there is no guarantee in these predictions, but I am, as I was a year ago, very optimistic about the outlook for the health of the American people. We are learning every day how to profit from the increased

knowledge coming from the scientific medical laboratories; our official agencies are becoming more skilled and are supplied with more resources; our press is cooperating more actively in the campaigns for better health. Altogether, the outlook continues to be extremely promising for longer and healthier living for Americans.

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son. Usually the female goes away to a wild and secluded place, there to have her litter of six or eight pups. She is crabbed and suspicious at that time and will not permit any male dogs around her. For she knows that the male husky will eat her pups if he gets a chance. In winter, the Eskimos build a small snow kennel for the mother dog, place bags or skins on the floor and make the animal as comfortable as possible.

Science News Letter, January 1, 1938

Sixty British scientists have formed a society to study snow and ice.

Even smaller towns of Britain had theaters in the time of Roman conquest.



NEARLY PURE BRED

This grayish-white dog, which can pull its own weight in sled and supplies, is typical of the thousands of nearly pure-bred huskies in the Far North. Indiscriminate cross-breeding has, however, made large inroads in the purity of the breed.

PHYSIOLOGY

## Bulldog's Build, Behavior Due to Glandular Defects

THE bulldog's peculiar head, body build and behavior, including the occasional devouring of bulldog puppies by their mother, have been traced to defects of thyroid and pituitary glands in research reported by Dr. Charles R. Stockard of Cornell University Medical College to the American Association for the Advancement of Science.

These gland defects in the bulldogs, and other gland defects or disorders in other breeds of dogs, are inherited and are associated with changes in the animals' instinctive behavior.

Dogs like the St. Bernard and the bloodhound have inherited pituitary gland defects which are responsible for their peculiar build. Humans with this particular gland defect grow into giants with lantern jaws and huge hands and feet.

#### Clumsy Mothers

In the giant dogs, the maternal instinct is undeveloped. The mothers ignore their puppies and have to be taught to lick and clean their young. All the puppies in the litter may be crushed to death within a few days because of two other defects in maternal behavior. These are failure of the "push reflex" and of a reflex for limp bending of wrist and ankle. The "push reflex" is shown by the normal bitch when she lies down beside her puppies, carefully letting her body slide down and pushing the puppies away so as to avoid mashing them. The wrist and ankle reflex serves to push the puppies aside as the foot of the mother descends to the floor of the nest when she returns to her puppies.

Feeding magnesium salts to the mothers, Dr. Stockard reported, was partially successful in overcoming the failure of proper maternal behavior, but the fault was in the glands, not the diet.

The change in a normal dog from a frolicsome puppy to a sedate and dignified grown-up dog and the dog's devotion to his master are also governed by gland changes. Before the dog has matured he is equally attracted by any friendly person but after he has gone through certain normal gland changes he develops his strong devotion to his master. These gland-linked behavior changes are characteristic of all dogs but are more emphasized in breeds like the bull that have abnormal glands.

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