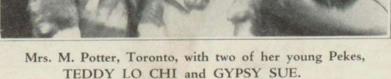
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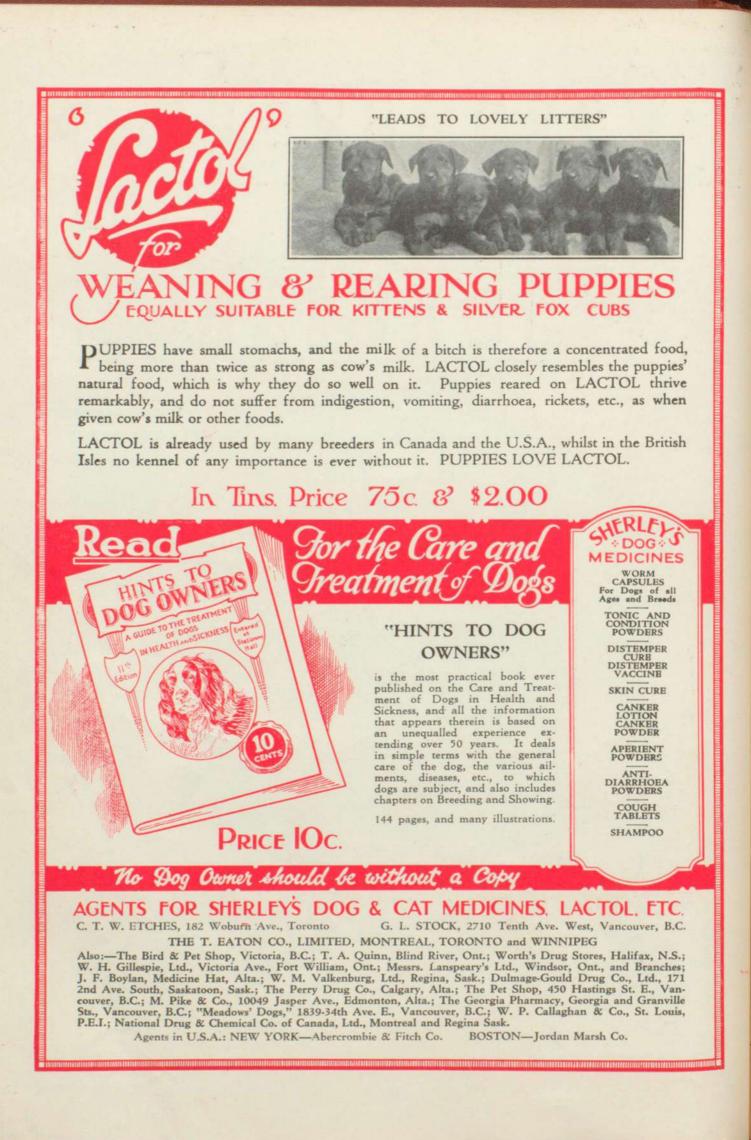
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Ficial Organ of the Canadian Kennel Club (Inc) 25 Melinda St. Toronto 2 Canada TORONTO (2), JANUARY, 1929



Official Organ of

THE CANADIAN KENNEL CLUB INCORPORATED

VOL. 17

TORONTO, JANUARY, 1929

No. 4

KENNEL and **BENCH**

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Edited by James D. Strachan

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In writing your advertisements or other articles for publication in Kennel and Bench, do not abbreviate or omit words. Write all names plainly and correctly.

words. Write all names plainly and correctly. Club Secretaries are requested to notify us of appointments and dates for all shows to be held by them. All items of interest, such as meetings of all breed or specialty clubs, will be welcomed and given due publicity. In short, we want this paper to be of every assistance to the fancy in as wide a sphere as possible. All matter intended for publication should be written on one side of the paper only, and must be accompanied by the writer's name and address, not necessarily for publication, but as a private guarantee.

CANADIAN KENNEL CLUB MEETINGS.

The Regular Monthly Meeting of the Board of Directors of the Canadian Kennel Club will be held in the Board Room at the Club's Offices, 25 Melinda Street, Toronto, Ontario, on Thursday evening, January 17th, 1929, commencing at eight o'clock.

The Regular Monthly Meeting of the Board of Directors of the Canadian Kennel Club will be held in the Board Room at the Club's Offices, 25 Melinda Street, Toronto, Ontario, on Friday Afternoon, February 8th, 1929, commencing at three o'clock.

The Fortieth Annual General Meeting of the Canadian Kennel Club will be held in the Victorian Room at the Prince George Hotel (Corner of King and York Streets), Toronto, Ontario, on Friday Evening, February 8th, 1929, commencing at eight o'clock.

CANADIAN KENNEL CLUB OFFICERS.

Patron-His Excellency the Viscount Willingdon, Governor-General of Canada, G.C., S.I., G.C.M.G., G.C.-I.E., G.B.E., Ottawa, Ont.

Honorary President-C. A. Stone, Toronto, Ont.

Honorary Veterinarian-J. A. Campbell, B.V.Sc., Toronto, Ont.

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Vice-President-Col. J. N. MacRae, M.C., Galt, Ont.

2nd Vice-President-Jno. W. Bruce, Richmond Hill, Ont.

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Ontario.

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Peter Herd, Toronto. Capt. Walter Smith, London.

Vincent G. Perry, London.

Alberta.

A. E. Figg, Edmonton.

British Columbia. Albert Kerr, Vancouver. Neil Kelso, Burnaby.

Veil Kelso, Burnaby. Manitoba.

J. C. Woodend. Winnipeg.

Maritimes. Jack Fry, Jr., Halifax.

Quebec.

Robt. A. Ross, Ville St. Pierre. P. E. Aird, Montreal.

Saskatchewan. Dr. J. T. Cooper, Saskatoon. YE EDITOR'S CHRISTMAS MAIL.

From all over the continent, and from across several seas, came an avalanche of messages telling of as many friends remembering the old scribe at Christmas time. Many of the messages were wonderfully original, and many were meritorious for the art they furnished. Such a one was "Life," from "Dicky" Swicker, Halifax, N.S. The subject appeared on page 17 of our Christmas number.

Art Davis, Ottawa, featured a collie and his message ran, "A Merrie Christmas to ye, a Happy New Year, too. Be carefu' hoo ye spend it"—well, you can guess the rest.

George Kynoch, Winnipeg, featuring Scotties, said: "The world is happy, the world is wide; Kind hearts are beating on every side." And how true that trite expression really is.

Enno Meyer, Cleveland, sent a real masterpiece that has already been framed. The subject shows the Meyer home, "Pine Lawns," and the dogs favored by the Meyers, being Alsatians, Bull Terriers, Manchesters, Sealyhams and Bulldogs. My readers will be able to imagine the picture that embraces the whole.

A. D. Heward, Oakville, sent a wintry scene, and as it is signed by Mr. Heward, we take it that it is the work of his own hand. We knew "A. D." to be a past master at growing roses, and an able breeder of Cockers, but had no idea that he was familiar with the "working tools" of the artist.

Lt.-Col. Robert Guggenheim sent a (Continued on page 49.)

Meeting of the Board of Directors of the Canadian Kennel Club, Inc.

The regular monthly meeting of the Board of Directors of the Canadian Kennel Club was held at the Club's offices, 25 Melinda Street, Toronto, on Thursday evening, December 13th, 1928, at 8 o'clock. The President, Lt. Col. G. F. McFarland, K.C., presided. Directors present included:-Brig.-Gen. C. M. Nelles, Col. J. N. MacRae, M.C., R. Lee Wainright, and Harry Clayton.

The President advised that he had called the meeting one week earlier than usual, so that it would not conflict with the busy Christmas season.

Brig.-Gen. C. M. Nelles, having been elected Mayor of Niagara-on-the-Lake, received the congratulations of the President and Directors.

The Secretary read the minutes of the previous Directors' Meeting, and on motion, regularly moved, seconded and carried, the minutes were declared "adopted as read." The President reported that, after the last Directors' Meeting, Mr. Reg. P. Sparkes had advised him by letter, that he, (Sparkes) had been taken ill before he had been able to conclude his evidence, and that his intention had been to let the Directors know, that in the event, that they thought he had broken any rule of the Club, that he would gladly apologize to Mr. Chevrier personally, and publicly by prominent advertisement through the medium of Kennel and Bench. This letter was accompanied by a request that the matter of his disqualification be reconsidered.

Feeling that the matter should be referred to the Directors who had considered the case, a copy of the Mr. Sparkes' letter had been sent to such Directors, and from the response received the disqualification had been lifted. It was regularly moved, seconded and carried, "That, the action of the President and Secretary in ascertaining the views of the Directors, and subsequently accepting a letter of apology, and a published advertisement of apology from Mr. Sparkes, and raising his suspension, be, and the same is ratified and confirmed."

The Secretary submitted detailed information received from the Canadian National and the Canadian Pacific Railways, relative to transporting the Provincial representatives to the Annual Meetings, and it was regularly moved, seconded and carried, "That, the Canadian National Railway be pa-

tronized wherever possible by this elub."

The Secretary submitted the following applications for membership:-

Baker, Charles B., 3415 Shuter St., Montreal Que.

Brock, Milton, 110 Victoria St., London, Ont.

Capel, C. T. S., 32 Java St., Ottawa, Ont.

Gilroy, H. A., Box 139 Chemainus, B. C.

Kendrick, Wesley, Box 286, Essex, Ont.

Larin, F., Prince of Wales Hotel, McGill College Ave., Montreal.

Sandison, Alex, 250 Main St., Winnipeg, Man.

Staines, Glenn, S., 3107-9 Woodward Ave., Detroit, Mich.

Wilson, Wm. Jas., 44 McLean Ave., Toronto, Ont.

Wright, Mrs. Jas., 78 W. Main St., Welland, Ont.

And it was regularly moved, seconded and carried, "That, the applicants be received into membership in the Club."

The Secretary submitted the following general statement of accounts, for payments:-

November Accounts (General).

and the second	
Salaries (Toronto)\$	568.00
Salary Levy (Ottawa)	450.00
Rent	125.00
Telephone	12.00
Light	4.27
National Printers (1st and	
2nd Progress Estimate,	
(Volume 32 Stud Book)	600.00
H. E. Clare, (Engraving	
Resolution of Sympathy)	12.00
(Engraving championship	
certificates)	10.00
H. Waters (Wreath, Mr.	
Swire)	15.00
Telegrams	3.72
Grand and Toy (Office Suppli	es)—
100 mailing tubes,\$2.50	
2 boxes Notarial seals60	
1 quart paste 1.40	4.50
Canadian Engravers (Half	
(Tones)	49.09
Articles written for Kennel	
and Bench	98.25
Travelling Expenses-	
J. D. Strachan, (Winnipeg)	75.00
R. L. Wainright (Board	
Meeting)	7.00
Col. J. W. MacRae (Board	
Meeting)	5.00
All and the second s	

Central Ontario Beagle Club	
(Rebate on show)	9.00
British Columbia Fox Terrier	
Club (Rebate on show)	12.50
Fort Garry Kennel Club (Re-	
bate on show)	.50
Office Specialty (1M. White	
Cards)	4.75
Industrial Press (Ptg. Kennel	
and Bench)	436.00
	100.00
Postage (Kennel and Banch)	38.11
Bench)	30.11
Postage (Canadian Kennel	
Club)	100.00
A. P. Mutchmor (Steno-	
graphic work re Provin-	
cial Committee 1927)	10.00
Exchange	3.15
Customs	6.90
Picture	1.00
Caretaker	1.00
	1.00

\$ 2661.74

And, it was regularly moved, seconded and carried, "That, the general statement of accounts as presented be paid."

The following special statement of accounts was presented for payment:-

November Accounts (Special).

Donations for Complete Returns from Show Secretaries.

British	Columb	ia Fox '	Terrier
---------	--------	----------	---------

Ass	sociatio	n	\$	10.00
Fort	Garry	Kennel	Club	25.00

35.00

Fort Garry	y Kennel	Club	
		\$25.00	
Peterboro	Exhibition	As-	
sociation		15.00	
Associated	Kennel	Club,	
Inc		15.00	55.00

\$2,751.74

And it was regularly moved, seconded and carried, "That, the special statement of accounts as presented be paid."

The foregoing being the business coming before the Board of Directors at this time, it was moved, "That the meeting do now adjourn."

Note.-These minutes are subject to correction when presented for adoption at the next meeting of the Directors.

The President's Page



event of outstanding importance to dog men all over the world occurred a few days ago when the Distemper Research Committee presented its report. This Committee was constituted some years ago, largely by the efforts of "The Field", a weekly newspaper published in England. This paper established the Distemper Fund to which contributions were made by the British Parliement the Keneral Clede prior Burt Clede and the presented in the State of the second s

lished the Distemper Fund to which contributions were made by the British Parliament, the Kennel Club, various Hunt Clubs and other organizations interested in the investigation. Several years of research have now been crystalized in the form of the report which has established the fact that the agent causing the disease is a virus, and announces that double inoculation, first with a vaccine, which is the sterilized virus of distemper, and then with an attenuated strain of living virus, is an almost infallible prevention of distemper. The report quotes various examples of actual cases. For instance, in the Puckeridge Hunt pack of hounds, twelve couples were inoculated in February of this year. In April, distemper broke out in the pack, but not one of the treated hounds developed the disease, whereas of the uninoculated hounds, thirty-five couples contracted it and eleven couples died. This discovery would almost seem to correspond to the greatly-to-be-desired discovery of a cure for cancer in human beings, and the members of the Canadian Kennel Club will reflect with pride that our Club has been making annual contributions to this splendid cause, the total gift amounting now to one hundred guineas.

CHEAP CHAMPIONS

Mr. C. G. Hopton, the eminent judge and journalist, in his column in the last edition of "Rod and Gun," has some very pertinent remarks to make on the ease with which it is possible for a dog to become a champion in Canada. He makes the statement that it is possible, under the present system, to make a champion without even meeting a dog in competition. Unfortunately this is literally true. This, of course, cannot occur in any of the better known or more popular breeds, but certainly there have been many shows where there was no competition whatever in the less popular breeds and where, nevertheless, the winner's points were gained. Of course, it is quite possible that in many of these cases the quality of the animal was high enough to deserve the points, but it is almost certain that in other cases it was not. The result is, that the title of "Champion" tends to be cheapened which seems to work an injustice on the owner of the dog which has gained its points in keen competition. Moreover, the number of points awarded depends on the number of dogs in the show of all breeds, instead of the number of the particular breed to which a dog belongs. Mr. Hopton advocates the passing of a rule prohibiting the awarding of the winner's points unless there is competition, with the number of points determined by the number of entries in each breed. The suggestion is worth our serious consideration.

CANADIAN DOGS WITH BYRD

It is interesting to note that an important part of the equipment which was taken by Commander Byrd on his trip to the Antarctic which began at Dunedin, New Zealand, on December 1st, comprised seventy-nine Canadian "Huskies," consisting of thirteen teams of six dogs each, and one particularly fine lead-dog which will be used to head a pack of Alaskan "Huskies." One of the Canadian teams has won many championships in the annual dog derbys, and another team, curiously enough, consists of a bitch and five of her own dog puppies.

BOSTON TERRIER JUDGES ASSAULTED

Patrick E. Dowd, of Boston, and Thomas Hunter, Jr., of Roxbury, who have judged Boston Terriers at many Canadian shows, were the victims of a particularly vicious assault not long ago. From the account of the affair in the newspaper, it would appear that the motive was revenge for opposition to a certain candidate for an office in the Boston Terrier Club; which opposition roused the ire of a prominent and powerful "racketeer" (a breed of vicious citizen with which we are happily not familiar in Canada). and that the men were attacked by a gang after they had left the meeting of the Boston Terrier Club. They were both terribly beaten. Dowd may be crippled for life and Hunter will be in bed for many months. One hesitates to comment on the crime conditions in our neighboring country, but this appears to be a case where "res ipsa loquitur," making comment unnecessary.

Proposed Amendments to the Constitution and Dog Show Rules

As required by Article 20-Amendments-of the Constitution of the Canadian Kennel Club, which reads as follows.

"This constitution may be amended at the annual general meeting of the Club by the affirmative vote of twothirds of the members present, but no amendment shall be valid until approved by the Minister of Agriculture for Canada and filed at the Department of Agriculture for Canada. Notice of all proposed amendments shall be given in full to the secretary ninety days in advance of a general meeting, and they shall be included in the notice calling such meeting, otherwise the meeting shall have no power to deal with the same."

The following proposed amendments to the constitution having been received within the prescribed time limit, they will come before the annual meeting, which will be held at Toronto on Friday evening, February 8th, 1929, at 8 o'clock.

Mr. J. D. Strachan,

25 Melinda Street,

Toronto, Ontario.

Dear Sir: Pursuant to Article 20-Amendments of the Constitution of the Canadian Kennel Club-at the next Annual General Meeting of the Club I will move the following resolution:-

"That, Section 7 of Article 3, Members-be deleted in its entirety, and that the following Section be substituted therefor:-

"No member shall be entitled to any of the rights or privileges of the Club during any year until his Annual Fee for that year is paid, and if any member fails to pay the Annual Fee on or before September 30th in any year, he shall thereupon cease to be a member. He may, nevertheless, again become a member upon payment of the initial membership fee. He shall not, however, be entitled to vote for the election of Directors at any election taking place during the calendar year in which he has not paid his fee on or before the thirtieth day of September of that year."

In support of this amendment, I would point out that the existing Section of Article 3-Members-appears to be too indefinite, and is liable to be misrepresented-whereas the proposed Amendment will state clearly the position of any members whose fees remain unpaid, in his relationship to the Constitution. Faithfully yours.

G. F. McFARLAND.

Mr. J. D. Strachan, 25 Melinda Street. Toronto, Ontario.

Dear Sir: Herewith take notice. that at the forthcoming Annual General Meeting of the Canadian Kennel Club I will move the following Resolution, pursuant to the requirements of Article 20 of the Constitution-Amendments:-

"That, the Constitution and By-Laws of the Canadian Kennel Club be amended by deleting from Article 7-Meetings-the following words:-

"With the exception that a General Meeting shall be held each year in the city of Toronto during the time the Canadian National Exhibition is being held."

In support of the above motion, I need only mention that the Constitution clearly states "That, a General Meeting shall be held each year in the City of Toronto during the time of the Canadian National Exhibition." For lack of a quorum no meeting was held under this provision of the Constitution during 1926, 1927 or 1928a condition that clearly indicates that this particular meeting is not wanted by the members at large, and such being the case, it becomes logical that the Amended Article will meet the wishes of the members.

Yours truly,

G. F. McFARLAND.

406 Vancouver Block, Vancouver, B.C. Oct. 1, 1928.

Mr. J. D. Strachan.

25 Melinda Street, Toronto, Ontario.

Dear Mr. Strachan: Notice is hereby given, that at the next Annual General Meeting of the Canadian Kennel Club, I will have moved (in my absence) the following Resolution:

Moved: That the Constitution and By-Laws of the Canadian Kennel Club be amended by adding thereto under the heading, Rules of Entry, the following:

"A dog born in Canada for which provision for registration has not previously been made, and that has won ten championship points under at least three different judges at three different shows held under the rules of the Canadian Kennel Club, and that is recognized as a champion by the Canadian Kennel Club, and supported by a complete three-generation pedigree shall be eligible for registration."

In support of this resolution, I would attract the attention of the members to the fact that, as the Rules of Entry now stand, unregistered Canadian-bred dogs are not given equal status with unregistered foreign bred dogs of equal merit. By way of example:-

"An unregistered dog that was born in the United States, and has won ten championship points under at least three different judges at shows licensed by the American Kennel Club and supported by a complete threegeneration pedigree is eligible for registration in the American Kennel Club Stud Book (Rule "2," Conditions under which dogs can be registered in the American Kennel Club Stud Book), and by virtue of its American Kennel Club Stud Book registration, it is then eligible for registration in the Canadian Kennel Club Stud Book as provided for by Rule of Entry "G."

No provision is made for the registration of worthy Canadian-bred dogs, whose ancestors were unregistered, even though such Canadian-bred dogs have won International Championships.

The American Kennel Club apparently realizes that from time to time superior (although unregistered) specimens of various breeds will appear, and with a view to placing the very best specimens at the disposal of breeders who desire to breed from registered stock only, have made provision for the registration of such specimens as above described, and while our Rules of Entry obligate the Canadian Kennel Club to subscribe to those provisions, we have failed to grant the same privileges to our worthy unregistered Canadian-bred dogs, to the detriment of breeders in general.

Respectfully submitted.

Yours very truly, (Sgd.) WM. H. PYM.

As required by Dog Show Rule 31-Amendments-of the Dog Show Rules of the Canadian Kennel Club, which reads as follows:

"The Dog Show Rules and Regulations governing clubs may be amend-

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ed at any annual meeting of the club by the affirmative vote of threefourths of the members present, but notice of all proposed amendments must be filed with the Secretary of the Club sixty days in advance of the meeting and shall be included in the notice calling such meeting; otherwise the meeting shall have no power to act therein, and no new rule shall be effective until three months after its passage. No new rule or regulation can be rescinded until after six months from its coming into force."

The following proposed amendments to the Dog Show Rules having been received within the prescribed time limit, they will come before the Annual Meeting on Friday evening, February 8th, 1929, at 8 o'clock.

Vancouver, B.C., Oct. 3rd, 1928. J. D. Strachan, Esq.,

Sec.-Treas. C.K.C.,

25 Melinda Street,

Toronto.

Dear Sir: Pursuant to the requirements of Article 31 of the Canadian Kennel Club Dog Show Rules, I herewith give notice that at the next meeting of the Club called after ninety days of your receipt of this letter, I shall move that Rule 21 shall be revised to read as follows:

"Dogs may be entered for exhibition or for specials only, if so stated on the entry blank, but dogs entered in this manner must be entered in one of the following classes, in which case they shall not compete: Puppy, Novice, Canadian-bred, Limit, Open. In judging General Specials, the competition shall be for dogs that have been awarded Best of Breed and Best Opposite Sex."

In support of my motion I can point out several possibilities that may occur which would defeat the aims and objects of a show-giving club, as well as the policy set forth by the Canadian Kennel Club, if the original Rule 21 is enforced.

Firstly, it may be possible that no special for best of breed has been offered by the club for one or more breeds of dogs exhibited, thus eliminating these overlooked breeds from participating in the judging of "General Specials."

Secondly, there is a possibility of all dogs winning Best of Breed being of one sex, thus throwing the special for Best Opposite Sex in the show in the discard.

Thirdly, dogs awarded Best of Breed may be of one sex, with the exception of one or two mediocre specimens that have been alone in their breed classes, and have been awarded best of breed more out of sympathy than for merit. These are eligible for General Specials, when a dog winning Best in Show has only by a very small margin defeated another of its breed, yet this good Opposite Sex has to give way to another that is lucky to have won a purple ribbon.

Yours truly,

GERALD L. STOCK.

2710 Tenth Ave W., Vancouver, B.C.

Mr. J. D. Strachan,

Oct. 8, 1928.

0001 0, 10

25 Melinda Street,

Toronto, Ontario.

Dear Sir: Kindly be advised, that at the next Annual General Meeting of the Canadian Kennel Club, I will move the following Resolution by virtue of Dog Show Rule 31—Amendments:

"That, Rule 30—List of Recognized Breeds—be amended by taking the word 'Bloodhound' out from that section of the list known as working dogs, and placed in its proper section, which is, of course, Sporting Dogs."

In support of the above correction, I need only point out to you that in all other countries the Bloodhound is listed as a sporting dog.

Faithfully yours,

J. R. TENNANT.

Mr. J. D. Strachan,

25 Melinda Street,

Toronto, Ontario.

Dear Sir: Herewith take notice, that at the forthcoming Annual General Meeting of the Canadian Kennel Club, and in virtue of Dog Show Rule 31—Amendments—I will move the following Resolution:—

"That the Dog Show Rules of the Canadian Kennel Club be amended by adding to the end of the existing Dog Show Rule No. 5 the following words: 'Show-giving clubs must collect the regular entry fee for each dog entered'."

In support of the foregoing, I might mention that what is commonly known as a "Kennel Entry" had come to be considered an evil at dog shows held at British Columbia, and it is with a view to eliminating the evil that this amendment to Dog Show Rule No. 5 has been brought forward.

> Faithfully yours, HARRY CLAYTON.

Newtonbrook P.O., Ont., Nov. 1, 1928.

Mr. Jas. D. Strachan,

Sec.-Treas. Canadian Kennel Club. Toronto, Ont.

Dear Sir: Pursuant to Canadian

Kennel Club Dog Show Rule 31— Amendments—at the forthcoming General Annual Meeting of the Canadian Kennel Club, I will move:

"That, Dog Show Rule No. 30—List of Recognized Breeds—be amended by prefacing the present sub-headings of the breed divisions to read as follows: Group 1, Sporting Dogs; Group 2, Working Dogs; Group 3, Terriers; Group 4, Toys; Group 5, Non-Sporting.

"That, new rules to be known as Rules 31, 32 and 33 be added to the existing rules, Rule 31 to read as follows:

"The judge shall designate the best specimen of each breed, male or female, judged by him, entered either in the breed classes or for Specials only.

"Rule 32 to read as follows:

"Each all-breed show-giving club shall provide for five group specials not divided by sex, such groups to be arranged in the same order, and to comprise the same breeds as appear in Rule 30. Only dogs designated Best of Breed by the judge, as already set forth, shall be eligible to compete for the Group Special in which they belong, according to this grouping. All entries for such group specials shall be made after the judging of the regular classes, and the show-giving club may charge an entry fee, if said entry fee has been published in the Premium List. In case of absence or failure of the dog winning Best of Breed to enter in the group special to which it is eligible, no other dog of the same breed shall be allowed to enter this group special.

"Rule 33 to read as follows:

"The five dogs winning in the above five-group specials may compete in a final group special for the title of "The Best in Show,' for which no entry fee shall be charged. Not more than five judges shall officiate in this group. When specials other than the above group specials are given, they shall be judged subsequently to and by the same judge or judges as have judged the final Group Special for the best in show."

In support of the aforementioned Amendments and proposed sustaining Rules 31, 32 and 33, I would simply refer to that jumbled spectacle seen at most of our all-breed shows in Canada when the special for best dog in show, all breeds, has to be judged. Really, it always reminds me of the story of Noah and the Ark. At shows where ring space is invariably small, the existing arrengement is provocative in the extreme. The procession moves on. A Shepherd Dog takes a snap at a Peke, or vice versa. Nose to tail they go, and if anyone stops, the others seem to pile up, and there is trouble from the start. In the ring there may be a score or more that have no earthly chance to be placed Best of Breed.

By the arrangement I propose, at shows where all the breeds might be in competition, 27 dogs would be the most that could come together to have their "Best" selected. Of course, I refer to the group proposed to be known as Group 1-Sporting Dogs. There never would be 27, for the reason that breeds such as Basset Hounds, Griffons, Harriers, Norwegian Elkhounds, Otter Hounds, Field Spaniels and Sussex Spaniels are seldom seen at shows in Canada, so that at the largest of our shows 20 breeds of the sporting dog group would be the limit.

With these groups coming together in this impressive grouping, there would be impressive interest sustained as the show was nearing its close. Then, as the five animals selected from the groups came together for Best Dog in Show, all breeds, there would be sensible ring room. The judge would have at least a chance to see the virtues of the selected five, and to rate their qualities conveniently and accurately. The interest would be sustained until the very last moment of judging, and much of the unrest so noticeable at most shows amongst the exhibitors would disappear.

> Yours truly, T. B. GRIMSHAW.

ADDITIONAL AWARDS ASSOCI-ATED KENNEL CLUB INC.

English Setters-Best of breed, "Wild Irish Surprise."

Irish Setters-Best of breed, F. H. Plant's "Ch. King Morella Oge."

Cocker Spaniels—Best of breed, "Frontenac Speckled Beauty."

Irish Water Spaniels-Best of breed, "Rosie O'Grady."

Springer Spaniels-Best of breed, "Boghurst Bushe."

Whippets-Best of breed, Mr. Halliday's "Ch. Sept."

Irish Wolfhounds-Best of breed, "Kesh of Southwick."

Russian Wolfhounds — Best of breed, "Turgeroff of Marlboro."

Shepherd Dogs, Groenendaels — Best of breed, "Chum."

Collies-Best of breed, "Corona Pilot."

Eskimos-Best of breed, "Wolf." Great Danes-Best of breed, "Harmonica of Ouborough."

Newfoundlands — Best of breed, "Captain Roulf." Old English Sheepdogs-Best of breed, "Laddie Boy."

Doberman Pinschers-Best of breed, "Robinson's Betty."

German Shepherd Dogs-Best of breed, "Smokie Von Sparrow."

St. Bernards — Best of breed, "Jumbo."

Fox Terriers, Smooth-Best of breed--"Little Snip Snap."

Fox Terriers, Wire—Best of breed, "Humbervale Dancing Master."

Irish Terriers-Best of breed, "Tipperary Tip."

Kerry Blue Terriers-Best of breed, "Maple Ridge Mike."

Sealyham Terriers—Best of breed, "Grainsby Jack."

Welsh Terriers-Best of breed, "Cymro Eto."

West Highland White Terriers-Best of breed, "Lochgelly Mossy."

Scottish Terriers-Best of breed, W. R. Stanley's "Ch. Airdrie Peggy."

English Toy Spaniels—Best of breed, "Judge."

Pekingese-Best of breed, "Pen Ting Fu."

Pcmeranians — Best of breed, "Storm King of Dara."

Poodles-Best of breed, "Amour." Toy Terriers - Best of breed,

"Little Ruby." Yorkshire Terriers—Best of breed,

"Wedgewood Mist." Boston Terriers-Best of breed,

Mrs. M. Stevens' "Ch. The Burglar Dee Cee."

English Bulldogs-Best of breed, "Queen of Challenger."

Chow Chows — Best of breed, "Teddy Yantzse."

French Bulldogs-Best of breed, "Gamine De Parie 2nd."

Springer Spaniels, Winners Dogs, "Belmoss Contender"; reserve winners, "Langtown Lubricant."

Russian Wolfhounds, Winners Dogs, "Turgeroff of Marlboro."

Wire Fox Terriers, puppy bitches, 1st, "Richmond Tillie Kash."

Sealyham Terriers, Winners, dogs, "Grainsby Jack."

Welsh Terriers, Winners, bitches, "Little Beauty."

Scottish Terriers, Winners, bitches, "Ch. Airdrie Peggy"; reserve winners, "Barmston Baroness."

English Toy Spaniels, Winners, bitches, "Peggy."

FANCIERS, TAKE NOTICE! YOU who are interested in the following breeds, AIREDALES, FOX TERRIERS, SHEPHERDS, send for a sample copy of the KENNEL REVIEW, one of the oldest and best dog magazines published and the only REAL AIREDALE paper on the market.

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THE VETERINARY'S REPORT.

It is so long since we have seen a veterinary's report to a show-giving club that we publish hereunder the report submitted by R. G. Cuthbert, B.V. Sc. to the British Columbia Fox Terrier Association, following that Association's specialty show held at Vancouver on Thanksgiving Day:

"Dear Sir:

The following is my report on the Annual Specialty Show of the B.C.F. T.A., held on Nov. 12th, 1928, at the Horticultural Hall, South Vancouver. All dogs admitted appeared to be healthy and free from communicable disease. I am pleased to be able to compliment the Bench Show Committee on the comfortable and sanitary quarters provided for the exhibits.

The wooden partitions inserted between the individual dogs was a particularly effective preventive of spreading disease, besides giving the terriers the privacy they require, these partitions could not be used repeatedly, however, without thorough disinfection.

The notice "Please do not handle Exhibits," while none too conspicuously displayed, was a step in the right direction, and I would advise that such notices be displayed at all shows, in order to educate the public on at least one vital point of Dog Show etiquette.

A little comment might be made with regard to the avenues of entrance to the building, those who did err by entering the show by the back door, were very honest, and brought their dogs to be examined. others may not be so scrupulous, or they may be ignorant of the requirements of the show, so I would suggest that all other doors or gates be locked until all entrants are first examined.

Identification numbers attached to the collar before admission to the building would eliminate the danger of non-contestants being admitted.

This method is adopted by some American shows and it affords one an opportunity of stamping the tags and thus to mark the dogs that have been submitted to examination and passed.

Hoping that these few remarks will be viewed in the light of constructive criticism,

I am,

R. G. CUTHBERT, (Hon. Veterinary Surgeon.)"

Wishing You All a Happy New Pear

1928 is now merely a matter of history, a matter of so many "yesterdays" having slipped away into the past. 1929 is here, it is ours to do with as we will—to some great extent, let's use it right.

9

Be believe this magazine has improved with the year that has just passed, and we desire that improvement to develop to the entire satisfaction of our readers.

Kennel and Bench claims no greater distinction than that of being the official organ of the Canadian Kennel Club, Inc., and as such it is the members' own paper.

To support your own paper is your personal obligation. The editor's job is to mould your measure of support into something that will please you, and will bring results commensurate with the support you will give it.

I will be banking on every reader, and particularly on every member of the Canadian Kennel Club, to make Kennel and Bench one of the most desirable dog journals on the American continent during 1929.

May this New Dear be a Splendid Dear for Pou All.

May you enjoy Health and much Prosperity.



Let the Spirit of the above picture be the predominating Spirit of 1929. Let us come closer together, kindly, considerate, and for the common cause of dogdom. J. D. STRACHAN, Editor.

"Cast Your Bread Upon the Waters"

The Complete Story of Distemper Research Work.



URING the Spring of 1923 the "Field" (London, England) sent out its now famous S.O.S. distemper signal calling for financial support from the dog fanciers of the world in order to back a Research Council that has since been known as

the "Field" Distemper Council, under the guidance of the late Sir Theodore Cook, the Hon. Sec'y of the Council.

Immediately a committee was formed in the English Kennel Club to raise funds to carry on the crusade against distemper, and the English Kennel Club appropriated one hundred guineas per year for a period of three years towards the fund.

The American Kennel Club came right out on the 17th of April, 1923, and passed a resolution to appropriate an amount equal to that of the English Kennel Club and for the same period of time.

The Canadian Kennel Club had the matter brought to its notice on the 21st of June, 1923, and at that meeting the following motion was unanimously adopted: "That the sum of 25 guineas be appropriated for a period of three years, and that the first appropriation be sent at once, all appropriations to be sent through the Kennel Club, England." As a matter of fact the appropriation was extended a year, so that Canada's subscription was an even 100 guineas. And so the start was made.

Progress reports were received from time to time that spoke of encouraging findings, but so deeply rooted was the feeling that distemper, having always been a scourge to dogdom, it always would continue to be, and so the progress reports were accepted for what they were worth only.

On Friday, December 14th, through the courtesy of the editor of the "Field," we received the information that has already brought encouragement and joy to the dog fanciers of the world generally. This morning, Monday, December 17th, the Mail and Empire (Toronto daily) carries a seven-inch editorial, and already the community is agog with the glad tidings. Toronto Star (Toronto daily) has cabled its London representative for the fullest details to be sent to the "Star."

To the exclusion of everything that we have already set up in type for our January issue, we publish the complete reports from the "Field" (November 29th issue), so that our people may have the advantage of the very identical information that our co-workers in England have been given to date, and later we may be in a position to give the matter further publicity from time to time as production and distribution warrant it. As it is, however, as dog fanciers may we not enjoy a Happy New Year in 1929, with thankful hearts towards Dr. P. P. Laidlaw and Dr. G. W. Dunkin, who from 1923 until this date have given their lives in the cause of the dogs whose gods we are, and thankful, too, that we were privileged to subscribe to the fund, and above all, thankful to the "Field" newspaper, who sponsored the scheme in the first place.

Now, Kennel and Bench readers, here is the greatest treat of all time laying in your lap. Clean your spectacles off and fill your pipes, shut off the radio, plug the telephone, and settle down for a real thrill. Following are "Field" editorials and complete reports:—

The Prevention of Distemper

A point has been reached in the inquiry into distemper among dogs in which it is possible to say that a means has been found of preventing it. That in the simplest words is the result of the work which was set on foot more than five years ago by the "Field" and its readers. The idea of a preventive against distemper had long before then been held. Many attempts to find one had been made, some by inquirers well fitted to discover one, more by people in whom the wish was father to the thought. Many preventive remedies were on the market, are still, most of them entirely useless, some positively harmful. The task of finding one that was scientifically sound, and could be proved to be so by exhaustive experiment, did not appear hopeful. It was complicated by the fact that there were not only many alleged remedies, but by the more perplexing circumtsance that the nature of distemper, the symptoms that were proper to it and those that were incidental or accidental or superimposed on the original infection, were imperfectly understood, and that the origin of the disease was itself in dispute.

These difficulties, it may well be, appeared more formidable to the scientific man than to the layman. There are many diseases, old in recorded history, if not in fact, than distemper, for which the accumulated medical knowledge and the joint medical effort of the world has found no remedy, and the essential cause of which is still obscure. The layman's passing acquaintance with germ diseases caused by the infections of bacilli or other micro-organisms, might lead him to believe that with the detection of the criminal micro-organism (surely a simple matter!) an would be well. The scientific inquirer knows better. To the layman five years may seem a long time for this investigation. The scientific referee knows that it is extraordinarily short. It is the greater marvel that, in this five years, a result has been reached which in the words of Sir Charles Martin, F.R.S., the chairman of the "Field" Distemper Research Committee, establishes "beyond peradventure" that dogs can now be "rendered resistant to infection by distemper."

We follow exactly the careful scientific wording of the phrase. What it means is that in practice dogs can be vaccinated so that they will never have distemper, and however much they may be exposed to infection cannot acquire it. That is the result to which the five-years' inquiries and experiments conducted on behalf of the "Field" have led. The value of the method has been demonstrated by vaccinating more than 1,300 dogs and hounds, which, though exposed to distemper and subjected to the essential poison of distemper, have proved immune from the disease.

On that achievement the warmest thanks and congratulations of the "Field" and every dog lover in the world are first and chiefly due to Dr. Laidlaw and Major Dunkin, who have given five of the best years of their lives to the research. Thanks also are due to the scientific referees who have forwarded and directed their enquiries, and the readers of the "Field" and the subscribers to the "Field" Distemper Fund would be ungrateful indeed if they did not tender their thanks to the "Field" Distemper Council, of which the Duke of Portland is chairman, and the Medical Research Council, of which Earl Balfour is president, for the incomparable influence which they have brought to bear in prosecuting the research to a successful conclusion. Lastly it will not be out of place to thank and congratulate those many subscribers to the Fund in the United States and in India, as well as in Great Britain and the Dominions, who have supported these efforts by their subscriptions and their encouragement, and not least by their patience in awaiting the outcome of them.

The Duke of Portland, K.G., presided at a meeting of the "Field" Distemper Council at No. 3, Grosvenor Square, on Wednesday, November 21st, to receive the report of the scientific investigators, Dr. Laidlaw and Major Dunkin of the Medical Research Council. The report was presented by Sir Charles Martin, F.R.S., chairman of the Scientific Committee, and there were present at the meeting, in addition to the chairman, the Duke of Portland, the Duke of Devonshire, K.G., the Earl of Chesterfield, K.G., Lord Mildmay of Flete, Sir Walter Fletcher, F.R.S., secretary of the Medical Research Council, Sir Humphry Rolleston, K.C.B., Mr. Edward Barclay, Mr. W. L. Mc-Candlish, chairman of Committee, the Kennel Club, Mr. Eric Parker, Professor J. Basil Buxton, F.R.C.V.S., Mr. A. Landsborough Thomson, and Professor Hobday, F.R.C.V.S.. The report was accepted by the Duke of Portland on behalf of the Council.

Preface

The "Field" Distemper Council and the Medical Research Council have received from the Distemper Research Committee the following report, including a statement by the investigators of the whole of their work during the past five years in the study of the cause and prevention of dog distemper. This report both Councils have adopted, and they now accordingly present it to the public.

The whole work of scientific investigation described in the following pages has been conducted for the Distemper Research Committee by Dr. P. P. Laidlaw and Mr. G. W. Dunkin, both in the service of the Medical Research Council. The heavy cost of the special buildings required for animal accommodation, the services of kennel-maids and other assistants, and all expenses directly incurred in this work have been provided from the voluntary contributions to the Fund raised by the "Field" newspaper and administered by the "Field" Distemper Council. The site for the work, laboratory accommodation, and other technical facilities have been provided by the Medical Research Council at the Farm Laboratories of the National Institute for Medical Research, near Mill Hill, Middlesex.

It will be observed from the report that this work has added securely to our knowledge of the causation of the disease, and that it has already also brought a most satisfactory measure of practical success in the prevention of distemper in ferrets and dogs. The knowledge and experience gained will certainly have a wider value, as indeed events have already proved, for the study and control of virus diseases in general among men and in other animals. Upon these results, both scientific and practical, the mvestigators are to be warmly congratulated. It is hoped that by arrangements already in hand the immediate benefits of this work will very soon be made generally available for the owners of dogs. The investigators, however, are confident that further improvement and simplification in the methods of immunizing dogs can be attained, and for that reason it is highly desirable that the researches should continue for another year or two. The "Field" Distemper Fund (Windsor House, Bream's Buildings, London, E.C. 4) will accordingly remain open for further subscriptions from the public which has in the past so generously supported this important work.

President, "Field" Distemper Council. PORTLAND.

Chairman, Medical Research Council. November 24th. BALFOUR.

[Since the report was presented, a further letter has been received from Dr. P. P. Laidlaw in which he mentions that vaccine has been issued for a further 380 dogs and hounds, and that reports continue to be satisfactory.]

PROGRESS REPORT OF THE "FIELD" DISTEMPER RESEARCH COMMITTEE

A Report upon the Cause and Prevention of Dog Distemper

By P. P. LAIDLAW, B.Ch., F.R.S., and G. W. DUNKIN, M.R.C.V.S., being a summary of the investigations carried out under the auspices of the "Field" Distemper Fund, 1923-1928.

(The whole of the work of scientific investigation referred to in the following pages has been carried out for the Distemper Research Committee by Dr. P. P. Laidlaw and Mr. G. W. Dunkin, both in the service of the Medical Research Council. The site for the work, laboratory accommodation, and all technical facilities have been provided by the Medical Research Council at the Farm Laboratories of the National Institute for Medical Research, near Mill Hill, Middlesex. The heavy cost of the special buildings required for animal accommodation, the services of extra assistants, and all running expenses other than laboratory work have been met from the "Field" Distemper Fund.)

Progress Report of the Distemper Research Committee

To the "Field" Distemper Council and the Medical Research Council.

For the purposes of the progress report now submitted, the Research Committee have departed from their usual procedure, followed in each of the seven interim reports previously submitted, of reviewing only the work done since the last occasion. They have asked Dr. P. P. Laidlaw and Mr. G. W. Dunkin, who have for the past five years undertaken the investigation, and to whom must be attributed all the success which has been achieved, to prepare a general account of their researches from the beginning. This summary by the investigators is accordingly submitted herewith.

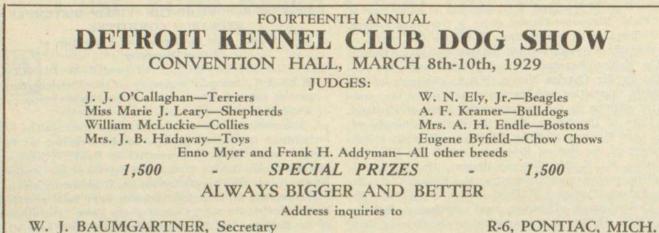
The reason which has led the committee to adopt this course is that the investigations have reached a point when the knowledge acquired is capable of being usefully applied in practice to rendering dogs resistant to infection by distemper. This has been demonstrated beyond peradventure by experiments at the Farm Laboratories during the year, and trials made with sporting and other dogs under ordinary conditions have so far supported the conclusions of the laboratory experiments.

The Method of Immunization

The method consists of a double inoculation. The first inoculation is made with a vaccine which is in fact the inactivated virus of distemper. The second is made, after an interval of about ten days, with an attenuated strain of living virus. The dose of living virus is a hundredfold that which would infect a dog not previously treated with the vaccine, but as a rule it is followed by nothing more than a trivial and transient disturbance of health; often no departure from the normal can be detected. Dogs which have undergone this double inoculation have proved to be completely resistant to the disease thereafter, whether exposed to infection by being placed in close contact with animals suffering from the disease or by the administration of infective material.

The method of preparing the vaccine is not yet ideal, and the dosage of the vaccine and of the subsequently given living virus can be undertaken only by skilled hands. But until artificial cultivation of the virus, outside the animal body, has been achieved, these difficulties are not likely to be completely removed, although important improvements in the technique of manufacture and of administration will surely be discovered in the course of further experience.

In the meantime, the preparation of the materials is difficult and calls for great skill, while for the administra-



tion of the vaccine and virus the services of a veterinary practitioner are desirable

Large-Scale Vaccine Production

It follows from what has just been said that the vaccine cannot be made without first-class laboratory resources and equipment, and the question arises as to how dog-owners can now be provided with the means of preventive treatment which scientific experiment has shown to be useful.

It is clear that the manufacture and distribution of vaccine on a large scale cannot be undertaken by the investigators. Such operations are not the function of a research laboratory, and they call for an organization of another type and for resources of a different order. At various stages in the course of the investigations experimental batches have been issued for trial by dog-owners under ordinary conditions; the quantities available have necessarily been small, and the distribution has been made solely with a view to obtaining evidence useful to the work of research. Now, however, that there is justification for bringing the method into general use the work of vaccine production must pass to other hands. This is necessary not only in order that large-scale production may be achieved, but also in order that the investigators may be left unembarrassed in their further research work for the improvement of the method.

In this regard it may be noted that the methods of preparation and administration have already been made public. In accordance with customary scientific practice, the investigators have published details of their results, stage by stage, in a series of papers communicated to an appropriate scientific journal. (References to those papers are given at the conclusion of the appended report.) It is therefore open to commercial firms in this and other countries to develop the

production of the vaccine with a view to placing it on the market, while the absence of any monopoly should safeguard the public in respect of the price charged.

The Committee realize, nevertheless, that indiscriminate manufacture might result in the marketing of inferior preparations, which would inevitably lead to disappointment and tend to bring the method into undeserved discredit. They have accordingly thought it well, as regards Great Britain, to invite a well-equipped commercial laboratory to undertake the work, and to offer it at the outset such technical advice and assistance (as, for instance, in the standardization of the product) as may be helpful. Similar facilities would of course be placed at the disposal of any other laboratory or institution desirous of taking up production, provided that the Committee were satisfied that the necessary experience and equipment were available.

Continuance of the Research Work

Finally there is no reason to suppose that the investigators who have made steady progress to this point have necessarily reached the limit of their achievement, and that this first practical fruition is the final harvest of the work. There remain several possible lines of investigation along which some improvement of the method may be sought, and it is therefore proposed that the research work should continue for a further period.

There is, for instance, little doubt that the complete solution of the problem of distemper prevention demands the cultivation of the virus apart from the living animal. This has so far baffled the ingenuity of the investigators. Nor, in general, have those working at other virus diseases, here or in other countries, yet been more successful; but the solution of the problem in any one case is not unlikely to point the way to its solution

in others. The investigators are therefore continuing their efforts to grow the virus of distemper in artificial media.

Another line of research which is still being pursued has as its goal the production of a potent anti-serum against distemper. Efforts to do this at an earlier stage in the work were unsuccessful, but lately, owing to the greater knowledge of immunity against the disease which has been obtained, a renewal of these attempts has led to more promising results. If a powerful anti-serum could be made, it would offer an alternative method of immunizing dogs, namely, the simultaneous injection of antiserum and living virus; the former would prevent the animal from having more than a mild and brief attack of fever, while the latter would confer a lasting resistance. The possible advantage of this method is that it would involve only one injection and might thus prove more manageable in practice than the method of vaccination described in detail in the appended report. Further, a really powerful anti-serum might provide a useful curative treatment for dogs already suffering from distemper, if administered in the early days of the disease.

It may be repeated, however, that for the prosecution of these additional endeavours it is necessary that the investigators should be freed from the handicap now imposed by requests for vaccine from those who have found it useful in the course of experimental trials, and from others who have learnt of the results.

Whatever fortune may attend further work, whether in the near future or in other hands at a more distant date, the Research Committee are confident that the work already done has resulted in a substantial measure of practical success, upon which the investigators are greatly to be con-

12

gratulated. The Committee hope that appropriate commercial development will shortly bring the benefits of this work to the dog-owning public and will result in a great diminution of the ravages of distemper among dogs.

> CHARLES J. MARTIN (Chairman).

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F. HOBDAY.

- A. J. SEWELL.
- A. L. THOMSON

(Secretary). November 15th, 1928.

A REPORT UPON THE CAUSES AND PREVENTION OF DOG DISTEMPER

By P. P. LAIDLAW, B.Ch., F.R.S., and G. W. DUNKIN, M.R.C.V.S. (From the Farm Laboratories of the National Institute for Medical Research, Mill Hill, Middlesex, England.)

Historical Introduction

Dog distemper is justly regarded as the most serious disease which threatens the well-being of the canine population of this country. It pays no respect to race or breed, but attacks the high born and the low bred animal alike. At times it may cause a comparatively trivial illness of a transient nature, and at others infection is followed by a serious and prolonged illness with a high mortality rate. Cases which ultimately recover from the more severe forms of the malady frequently show some pronounced disability which places the animal at a serious disadvantage with its fellows.

Distemper has apparently existed for very many years. Laosson (1882) in his review of the history of the disease attributes the first record to Aristotle, but in this instance, as is also the case with many of the other early records, the description of the disease is so scanty that identification with distemper must remain uncertain. In this country distemper was certainly present early in the nineteenth century, for it attracted the attention of Jenner (1809), who considered that the disease had existed for more than 50 years previously, but had been confused with rabies. He gives a masterly description of the disease as observed amongst foxhounds, draws comparisons between this and the infectious fevers of man and describes a detailed routine for the disinfection of kennels, which, however, gave disappointing results in practice. Delabere Blaine (1817) considers the disease was unknown in England about 1700, though very common in his day. Distemper was then, and had been for years, rampant on





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the continent of Europe, but at this time it was believed that cat distemper was identical with dog distemper. Laosson (1882) and Karajewski (1882) adduced experimental evidence in favour of this view with the result that confusion persists, in certain quarters, to the present day.

Distemper appears to have been confused with jaundice (yellows) and also with rabies. Numerous examples of records of the disease might be quoted, but summed up they show that distemper was present in the canine population of most countries of the world for very many years, and from time to time in different places there might occur a sudden increase in virulence of the disease with disastrous results for the dogs in question.

The recognition of the importance of bacteria as causes of disease towards the close of the nineteenth century, naturally led to the search for an organism which could be shown to be the causal agent of dog distemper, and from time to time new organisms were isolated and claims put forward on their behalf. Galli-Valerio in 1896 claimed to have secured cultures of the responsible organism. Copeman (1900) isolated a small bacillus which he considered was the infecting agent and prepared a vaccine for the prevention of the disease. In 1905 von Wunschheim isolated a small bacillus

which he regarded as of the first importance. An entirely different view was put forward by Carre (1905), who claimed that it was possible to transmit dog distemper by means of filtrates of infective material, and that the filters might be so fine that no known visible organism could pass through them. In other words Carre was convinced that the infecting agent was so small as to be invisible under the modern miscroscope. Kregenow (1906) in a series of carefully conducted experiments entirely failed to confirm Carre's results, and Carre's conclusions were not generally accepted. Lignieres (1906), who had previously regarded an organism isolated by himself as the true infective agent, repeated some of Carre's filtration experiments and abandoned his original conclusions and accepted those of Carre.

In 1911 from two independent sources there was announced the isolation of an organism from cases of dog distemper. This organism is now named "Bacillus bronchisepticus," and is probably identical with that previously isolated by Copeman in 1900. M'Gowan (1911) was able to isolate this organism from the majority of distemper dogs and also found it in other species of animals, including man. Ferry (1911, 1912, 1912-13) found this organism in the great majority of distemper cases when they were examined in the earlier stages of the disease, and frequently found it in pure culture in the respiratory tract. Torrey and Rahe (1913) also showed that this organism was present in many cases of distemper and might be secured in pure culture. The evidence in favour of this organism playing an important part in the disease is thus weighty, for all these workers adduced evidence that the bacillus, when recently isolated, was pathogenic for dogs. They claimed indeed that the disease produced by the bacillus was genuine dog distemper, and if their conclusions were corerct, it would seem that Carre's view was wrong. Ferry (1914) showed that "B. bronchisepticus" might pass certain bacterial filters in small numbers, but the fundamental divergence between the two schools remained, for Carre claimed that the disease might be transmitted to young puppies by filtrates from which no bacterial growth could be secured, and "B. bronchisepticus" is an organism which is readily grown on ordinary laboratory culture media; the other school maintained that this easily cultivated organism was the primary cause of the disease.

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A BALANCED FOOD

The "Field" Distemper Council

At the time the Scientific Committee of the "Field" Distemper Council commenced its work, this divergence in view regarding the aetiology of the disease was considered of the highest importance, and a decision between the two opposing views was a necessary preliminary to much further work. Critical examination of the claims for "B. bronchisepticus" being the causal agent showed that the production of typical disease by cultures of this organism was not convincing. The difficulty of proof was recognized by the discoverers of the organism. The previous research workers never knew for certain that the experimental dogs used for their tests were susceptible to the disease, or if they had, at some time, suffered a mild attack of distemper, recovered therefrom and become immune. An experiment in which no typical result followed inoculation of the bacillus could be explained away by supposing that the animal was immune from the first, leaving only the successes to be considered. Again the disease is so highly infectious and the mode of spread was so little understood that it was very difficult to guard against accidental infections during the course of crucial

These considerations experiments. were recognized by M'Gowan, who stated that accurate experimental work in infecting dogs was almost impossible. He performed a few experiments with his cultures, but does not consider them free from error. Ferry, and Torrey and Rahe also saw the difficulties, but conducted experiments under the best conditions they could secure. These four workers considered that their experiments, though not conclusive, indicated that "B. bronchisepticus" was the causal organism. Similarly critical examination of the claims for protection of dogs against the disease by means of cultures of this bacillus, vaccines, etc., shows that the ordinary dog is of small value for such experiments. If some of the dogs are immune when they come up for experiment, some degree of success is sure to follow any vaccination method. and until really large numbers are dealt with the net result may be quite misleading. It was thus abundantly clear that for accurate research a supply of dogs of known susceptibility was essential. The only way to secure this was to breed dogs specially for the purpose under conditions which would guarantee that the experimental animal had never come in contact with distemper infection. It was decided that the only method which would ensure this was: to breed the dogs inside a ring fence in the strictest possible isolation; to remove the parents from inside the ring as soon as practicable; and do everything possible to prevent infection from gaining access to the susceptible stock. It was recognized that this decision involved considerable outlay, considerable expense in upkeep, and serious delay in experimental work with dogs. But experience has amply justified those responsible for the decision, for there is now available a supply of dogs of known susceptibility which the research workers consider an inestimable advantage for all experimental work and especially in all protection experiments. Without this supply of dogs, the work would have been very much more difficult and the interpretation of many experiments would have remained doubtful. Another advantage of the special supply of dogs was the fact that all animals were in first class health and condition at the time they came under experiment, with the result that it was possible to study distemper in its simplest form uncomplicated by secondary infections.

It may be noted here that the maintenance of this clean stock of dogs for four years without distemper appearing shows that the disease does not arise spontaneously, and it is very probable that all cases of distemper are due to transference of infection from one animal to another.

The Arrangements for Experiments with Dogs

The arrangements for the breeding of the susceptible dogs were as follows: A piece of ground on the farm was selected some hundreds of yards removed from all buildings and was completely enclosed by corrugated iron fencing sunk three feet into the ground and extending six feet above the surface. Inside the enclosure, towards one end of the compound, sixteen kennels were erected, and each kennel was provided with an appropriate enclosed run open at the top. Towards the other end of the compound, a small bungalow was built to accommodate two kennel maids, who were expected to live inside the compound, isolated with the dogs. At one corner of the iron fencing forming the wall of the compound, a small building was made, and this formed the sole means of entrance or exit from the enclosure. This building was divided into three compartments. Entering the building from without the compound, the first compartment forms a disrobing room, the second a bathroom, and the third a dressing room where sterile clothing is available. From the third compartment a door opens into the interior of the compound.

On every occasion of entry into the isolated area, the routine of disrobing, bath donning sterile clothing, is carried out. The number of persons allowed to enter is strictly limited. At one other position in the wall of the compound there is a second small building, which consists of two compartments. The first forms a small storehouse for food, etc.; the second is fitted as a sterilizing room and contains a large copper and an autoclave. A small hatchway is the only means of communcation between this building and the interior of the compound. All food for the dogs is boiled or autoclaved before being passed through the hatchway, with the exception of a ration of cod-liver oil for the younger animals. All blankets, etc., for the dogs are autoclaved, and as far as it is practicable, everything entering the compound is sterilized.

It will be observed that the precautions taken to prevent infection spreading to the interior of the compound are very elaborate, but it was felt that no risks should be taken with a disease which is known to be so extremely infectious. After the first introduction' of dogs into the com-

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Bright orange. A beautiful dog of the well - known Dara strain, fully representative of that breeding, who carries a wonderful coat of the



right color and texture, with very sweet head and nice wellplaced ears, and who will make a reputation for himself.

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FEE - \$20.00

CH. CHISWICK GOLD STAR, IMP. (C.K.C.S.B. 62591) From an unretouched photo.

TRESLEIGH ZOBEY (IMP.) (C.K.C.S.B. 60870) ANOTHER new importation and consid-ered one of the finest dogs that bas crossed the Atlantic. Splendid type and a very sound black. 3½ lbs. weight, with a beautiful head and very small ears. FEE \$20.00

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pound, everything went well for some weeks. But distemper occurred and the entire stock of dogs was removed and a fresh start made. It may be pointed out that the occurrence of distemper in the compound now would cause some twelve or eighteen months' interruption in the work, for it would be necessary to start all over again and build up a new stock of susceptible dogs.

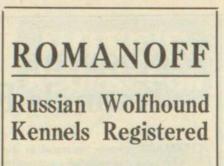
For the past four years the isolation compound has been working smoothly owing to the loyalty and care of those entrusted with the administration of the routine and their attention to the disinfecting ritual which is insisted upon. It is clear that some small oversight or carelessness in disinfection or sterilization might admit infection to the compound with disastrous results, and Mr. G. Gamage's services here have been invaluable. It must be remembered further that the life of comparative isolation led by the kennel maids within the compound must have been tedious and at times irksome. Miss Smith and Miss Hyslop, followed by Miss Gray and Miss Reason, have been unremitting in their care, and owing to their expert attendance the dogs and puppies have flourished.

As soon as practicable the original stock introduced into the compound was withdrawn, and the longer the work is carried on the more remote is the contact of this stock of dogs with distemper. There is no evidence that the stock is increasing in sensitivity to the disease, but it is of enormous assistance to work with dogs of known susceptibility and this has been possible for the last four years.

The Dog Hospital

With such an infectious disease as distemper it was evidently necessary to try and exclude all possibility of accidental infection occurring in the animals under experiment. The dog hospital, still used at Mill Hill, was built originally for experiments on dogs. It is a fly-proof structure divided into two symmetrical portions by a central post-mortem room. Each of these portions consists of a series of cubicles, completely separated from each other, arranged about a central hall which contains a large tank of disinfectant. The building is heated and the walls and roof are lined with "Uralite," and the joints sealed as completely as possible. Entrance to either half of the building is only possible through a short corridor, the floor of which is sunk and contains constantly 3 in. of disinfectant solution. Every person entering the building wears rubber boots to thigh or knee, and a rubber covered over-

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ROMANOFF RUSSIAN WOLFHOUND KENNELS Brantford, Ontario, Canada coat which overlaps the boots. On entry into the building boots, coats and hands are washed with disinfectant.

After every visit to a cubicle containing an animal, whether showing symptoms or apparently normal, the rubber armour is washed down with disinfectant once more. The floors of the central halls are thus kept wet with disinfectant all the time work is in progress, and any infective material settling on coats or floors is rapidly sterilized. No two cubicles are opened at one and the same time.

At the outset of the work this method appeared to be satisfactory, but it was discovered that when most of the cubicles were filled with experimental dogs infection would spread within the building to healthy control animals in spite of the rigid antiseptic precautions. Work with ferrets showed that it was not possible to limit the spread of infection in a small closed space, and another plan of experiment had to be devised. The experimental house is now used as a dog hospital for special cases and for work with ferrets.

It was believed that the infection was due to contamination of the air enclosed in the building, and a series of kennels were constructed and scattered about the grounds around the laboratory buildings. Each kennel had a small run attached, was surrounded by fencing and wire netting, and was separated from its nearest neighbour by a distance of 15 or 20 yds. The attendants wear the rubber equipment previously described, and are washed down with disinfectant before and after visiting any single kennel. Working in this way, the free dilution by the external air appears to have prevented air-borne infection from occurring, and it has proved possible to keep a susceptible dog for months in one kennel while experiments were carried on in the adjacent kennels. As far as can be ascertained, there are only two instances of accidental infection during the time this system has been in use, so that on the whole it may be said that the method has proved satisfactory.

After kennel and run had been inhabited by infected animals they required disinfection, and for this purpose a thorough scrub and wash down with a disinfectant, such as 1 per cent. Lysol, was found to be all that was required. The infecting agent is readily destroyed, and there is no evidence of infection persisting in the kennels after such treatment. A disinfected kennel may be used the following day with safety. Experimental Distemper in the Dog

The experience of workers in the field shows that dog distemper is a disease of variable severity with symptoms of protean character. The divergence in symptoms is so great that some observers distinguish several types of the disease, and it was possible, when the work began, that there were really several distinct diseases grouped under the term distemper. It may be said at once that the experimental work indicates that dog distemper is a single entity, and that there is no evidence of several diseases masquerading under one name. A dog which is immune to one strain is immune to strains from other sources.

Everyone is agreed that the variable symptoms are due, in part at any rate, to mixed infections and that the secondary infections are responsible for much in the sum total of the disease. Broncho-pneumonia, for example, is met with in distemper cases, but it is not an essential part of the distemper picture; many dogs pass through distemper without any sign or symptom of pneumonia. When pneumonia occurs, it is due to the invasion of damaged lung tissue by a secondary infection. The naturally occurring disease is spread by contact between diseased and healthy dogs, and there is thus an excellent chance of the secondary infection being passed on at the same time. In kennels with packs of hounds or in dog hospitals where numbers of animals are in close relationship, the chances of the spread of secondary infections are greatly increased. It thus comes about that distemper as seen by the veterinary surgeon is frequently a complex.

Under experimental conditions the position is very different. Here infection is thrust upon a perfectly healthy dog by a method which excludes the secondary infecting agent, with the result that distemper develops in its simplest form and as a rule runs an uncomplicated course.

Experimental distemper may be defined in brief as follows: Dog distemper is an acute infectious fever characterized by an incubation period of four days, a coryza at the onset of the disease, an unusual temperature curve, severe gastro-intestinal disturbance, and a variable set of symptoms due to inflammation in the respiratory tract. In a proportion of cases nerve symptoms, due to an encephalitis, may develop.

The incubation period is remarkably constant. It is occasionally as short as three days and may in excep-



tional cases be prolonged to six days, but in the great majority of instances it is four days.

The onset of the disease is sharply defined by fever and a watery discharge from the eyes and nose. The discharge is frequently trivial, even in very severe cases, but it may be profuse. Within twenty-four hours the discharge may become faintly purulent, and the conjunctivae acutely congested. Crusts of half-dried cells collect at the angles of the eyelids, and a purulent discharge may persist throughout the illness.

The temperature rises abruptly at the commencement of the illness and may reach 105° F. or even more within twenty-four hours. After one or two days it subsides to near the normal level of 101.4° F.; but it soon rises again. The second rise is usually slower than the first, and more prolonged. Its duration is exceedingly variable and may be as short as fortyeight hours in the mild cases or as long as three weeks in the more severe cases.

At the onset of the disease the dog usually vomits and refuses food. With the fall of temperature appetite returns for a time to diminish once more as the secondary fever develops. In practically every case there is diarrhoea and in the secondary febrile period; this may be profuse. The motions are slimy, may contain streaks of blood, and have an offensive and somewhat characteristic odour. The diarrhoea may persist for some days after the remission of the fever. The poor appetite coupled with the diarrhoea interferes with the nutrition and the animal wastes rapidly.

Symptoms from the respiratory system are usually slight. A slight cough is not uncommon in the period of secondary fever, but definite bronchitis or broncho-pneumonia does not occur. At the same time, there is nearly always some evidence of inflammation in the respiratory passages during life or at autopsy.

Involvement of the nervous system may take place early or late in the disease and is very variable in occurrence. The earliest symptom is a sudden attack of semi-consciousness with vigorous chewing movements, accompanied by the secretion of thick saliva which exudes from the angles of the jaws. The fit may pass off after a few seconds or persist for a minute, after which the dog appears to be perfectly conscious once more. Fits of this type may occur at irregular intervals, but as a rule they come more severe and merge into attacks of epileptiform convulsions. Muscular spasms and twitches may be observed in those cases which develop nerve symptoms late in the disease. and these in turn may become exaggerated and lead to convulsions. Whenever fits were observed the affected animal was destroyed with chloroform so that there is no information as to the late results in the nerve type of case.

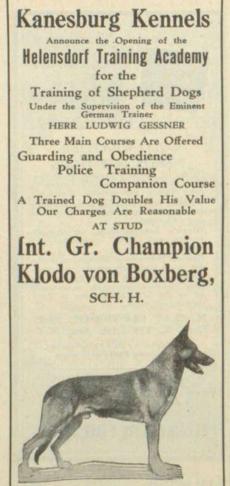
The response in very young puppies is frequently atypical and only a few experiments were done with puppies about two months old.

Experience of distemper under experimental conditions shows that it is a disease of very variable severity. The variation is partly attributable to dfferences in susceptibility in dogs, but it is clear that different strains of virus possess different degrees of virulence. Taking all cases together, it may be said that experimental distemper is a disease with a comparatively low mortality rate. There are cases in which the infection overwhelms the patient such as that illustrated in Chart IV., but these are unusual and occur for the most part in quite young puppies. Cases which show signs of infection in the nervous system are always serious, but they again only account for a proportion of the whole. For the rest, though the disease may be acute and the animal

hard hit for a time, the prognosis is good. This finding is, at first sight, at variance with the experience of workers in the field, but is readily explained by the absence of secondary infections under the best experimental conditions. Dog distemper may be regarded as an acute mfectious fever. comparable in many respects with influenza or measles in man, a disease which by itself will produce a severe fever and serious bodily disturbance, but is rarely fatal, and yet a disease which may light up a latent, infection or enable secondary infections of various kinds to gain a foothold on damaged tissue.

Experimental work also shows the extremely infectious nature of distemper in the early stages of the disease. At the onset of the disease, before symptoms are manifest, the distemper dog is a source of danger to its fellows. The nasal discharge and the circulating blood are uniformly infective at the early stages of the disease and uncertain in the later stages. There is evidence that infection may spread for short distances through the air in a confined space, and that actual contact between animals is not necessary for the transference of infection from one dog to another. It is probable that in these cases the infection enters by the respiratory tract, and corresponding with this it is quite easy to infect a dog by the insufflation of a small quantity of virus into the nasal passages. No evidence of an ectoparasite acting as a vector of infection has been discovered.

Vesico-pustules, which have been, and in certain quarters still are, regarded as a diagnostic sign of distemper, appear to be only indirectly connected with the disease. They may occur in susceptible animals without any other symptom and after recovery from the eruption the dogs are fully sensitive to small doses of distemper virus and the resultant disease runs a typical and unmodified course. Dunkin (1926). In many cases of experimental distemper, vesico-pustules are never seen throughout the whole course of the disease. The contents of the pustule will not infect, nor will they induce protection in a susceptible animal. Laosson (1882). It seems clear, therefore, that the eruption is due to some cause other than distemper, and when it develops in a case of this disease it must be due to some secondary infective agent. The occurrence of pustules may suggest distemper and draw attention to other symptoms of greater significance, but by themselves they are insufficient to justify a diagnosis of dog distemper.



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For Training Circular and Stud Cards write HENRY L. KANE OWNER 69 West Washington Street, Chicago As distemper is a disease of very variable severity, in the milder cases it may be very difficult to diagnose it with certainty. Cases occur in which a bi-daily temperature record is almost the only guide to a correct diagnosis, and temperature charts should be of the greatest value to the clinician in all doubtful cases; isolated records are, on the other hand, of much less value.

During the first febrile period the dog may show very few clinical symptoms, and yet at this time his secretions and excretions, as also his blood, are all very infective for susceptible animals. The isolation of animals from their fellows at the earliest stage of the disease would probably do much to stop the spread of infection.

As stated above, uncomplicated distemper is not a very fatal disease for healthy animals, if the cases which develop nerve symptoms are excluded. Efforts should be made to keep cases. of distemper separate from each other, as it is exceedingly probable that the crowding of dogs together is largely responsible for the spread of secondary infections. These secondary infections may be the determining cause of death; for example, bronchopneumonia developing in a dog already depressed and weakened by the distemper infection is always serious and may lead to a fatal outcome, though the distemper infection by itself might have been overcome with ease.

Close contact between susceptible animals during a distemper outbreak leads inevitably to the rapid passage of the disease from dog to dog. Under these conditions it is to be expected that the virulence of the disease will increase, and, though there is no experimental proof of this rise in virulence, it is so probable on general grounds that ample spacing for animals must be strongly recommended to dog owners.

Distemper in Ferrets

When the investigation was being planned, it was felt to be highly desirable to be able to employ some animal other than the dog for certain phases of the work. If possible the alternative animal should be small and capable of being maintained in rigorous confinement. Unfortunately dog distemper is not a disease which can be communicated to the ordinary laboratory animals. Rabbits, guineapigs and white rats are resistant to infection. The records of distemper in wolves, wild dogs, lynxes and racoons, in captivity, did not help. Fox (1923). The distemper in the foxes in the silver fox farms, studied by Green (1925) is probably dog distemper, as Laosson (1882) found no difficulty in transmitting dog distemper to two captive foxes. Distemper in cats was believed by many to be the same as distemper in the dog; there was even some experimental evidence in favour of this view, Laosson (1882), Krajewski (1882), but a number of experiments were made by us and all gave completely negative results. The hedgehog was used by Sanfelice (1915) and was reported by him to be susceptible when injected intracerebrally. In the only experiment tried, a hedgehog proved resistant to a massive dose of virus administered subcutaneously. Ferrets were reputed to be very susceptible to dog distemper, and these were tested and found to be admirably adapted for experimental work. It may be noted in passing that the weasel and the stoat have also been found to be susceptible animals.

In several respects the ferret is a peculiarly suitable animal for the experimental study of dog distemper. First, it is exceedingly susceptible to infection. Secondly, the disease is nearly always fatal. On account of these two facts, it is very unusual to find a resistant animal in a batch of ferrets purchased in the open market. Thirdly, the ferret will thrive in the most rigorous confinement, which is a very important point when studying such an infectious disease as distemper. Fourthly, the ferret breeds readily and quickly, if it is kept under good conditions and well fed.

The ferret has been employed extensively throughout the whole investigation, and it is not too much to say that such success as has been achieved is largely due to work with ferrets. It is needless to state that all crucial experiments have been confirmed on dogs, but the use of the ferret allowed a great deal more work to be carried out, and at the commencement of the work when the specially bred dogs were not available, the ferrets proved invaluable.

The majority of the ferrets used for the investigation were specially bred for the purpose, but purchased animals have also been used freely. The ferrets are bred in a special hut about 40 yards distant from the nearest distemper area. The hut is fly-proof, and warmed in winter time. The attendants never come in contact with distemper cases and are not allowed to keep dogs of their own. Visits to the hut are discouraged. The ferrets are fed on raw horse meat and milk with an occasional ration of bread. Two litters of young are obtained each



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year and occasionally three. The average number in the litter is nine.

For experimental purposes the ferret is placed in a special cage made of sheet zinc, which is similar to that designed by Professor Topley for the study of epizootics in mice. This type of cage allows of observation of the animal for prolonged periods without handling it, and thus eliminates one possibility of unconscious transference of infection. The Topley cage containing the ferret is placed in a cubicle in the experimental house previously described, and thus a second barrier is raised against the spread of infection. The attendants wear the rubber armour which is washed down with disinfectant between visits to different cubicles.

Working in the above manner it has proved easy to limit infection to a single cubicle, but it has not been possible to prevent the spread of infection within a cubicle. A control (uninoculated) ferret may be kept for weeks in one cubicle while infected ferrets are tended in the adjacent compartments and infection does not spread to the control animal. On the other hand, if there be two ferrets in Topley cages inside one cubicle, one of which is infected and

the other uninoculated, infection of the control animal occurs. The most plausible explanation for this result, which has been obtained on several occasions, is that air-borne infection occurs. This view is in harmony with the fact that the infection may pass from dog to ferret without any actual contact occurring. It is sufficient to bring ferret and a distemper dog near together, for a time, in a confined space and the ferret will acquire the disease. Again this explanation is in harmony with the results which have already been reported in the case of dogs.

The Infectious Nature of Distemper. It is not surprising, in view of the spread described above, to note that contact between sick and normal animals for a brief time leads to a spread of the disease or that the introduction of a clean ferret into a cage from which a sick ferret has been removed results in infection of the sound animal. Minute quantities of blood or tissue from a sick ferret will almost invariably cause disease in a susceptible animal if injected subcutaneously.

In the case of the ferret, there is usually an incubation period of about ten days during which time the infected ferret appears to be quite normal. When very large doses of virus are given, and especially when the strain of virus is a potent one, the incubation period may be shortened to six or seven days. When small doses are given the incubation period may be prolonged.

The inset of the disease is shown by watery discharge from the eyes and nose. Within twenty-four hours the discharge becomes faintly purulent and the eyelids frequently become puffy. The chin is reddened and soon minute vesicles appear at the junction of the naked skin of the lip with the fur. The feet become swollen, the pads red, and occasionally the skin on the lower half of the abdomen and inner aspect of the thighs becomes reddened. On the third day the vesicles on the chin become small pustules and the ferret remains curled up in a corner, refusing all food. Improvement is quite unusual, and the ferret becomes gradually weaker and is often moribund on the fifth or sixth day. Occasionally the progress of the disease is slower, and an animal may remain in a sick state for more than a week, but ultimately the ferret dies from inanition, broncho-pneumonia, or convulsions. Cases which appear to be recovering frequently relapse or succumb to acute nerve symptoms. The clinical picture is

thus fairly characteristic and as there are not many mild cases of distemper in this species, the ferret is a very useful test animal to employ in those cases where the diagnosis in dogs remain doubtful.

Ferrets which did happen to recover from one attack of distemper proved to be resistant to infection, not only by the strain of virus which caused the original disease, but also to all other strains of distemper which were obtainable.

The Nature of the Infecting Agent in Dog Distemper.

Quite early in this report, it was pointed out that there were two divergent views regarding the aetiology of dog distemper. The one supported by M'Gowan, Ferry, Torrey and Rahe taught that the disease was due to B. bronchisepticus, a recognizable bacillus with definite morphology and cultural characteristics; the other supported by Carre considered that the infective agent was an ultra-microscopic organism.

Experimental work with ferrets and dogs soon showed that the view of Carre was probably the correct one. As has been pointed out, it is exceedingly easy to transmit the disease to a healthy dog or ferret by injecting a minute amount of blood or emulsion of tissue taken from a diseased animal, and yet it has always proved to be impossible to secure cultures of an organism resembling B. bronchisepticus from such material. In the great majority of cultural experiments, the infecting blood and tissue proved to be sterile. In this connection it may be mentioned that the advocates for a bacterial origin of the disease admit that they were nearly always unable to secure cultures of bacteria from the circulating blood, so that the new results are in agreement with theirs in this respect, but it must be added that blood, if collected early in the disease, is one of the most certain agents that can be employed for the transmission of infection.

Direct confirmation of Carre's filtration experiments was not so easy

and all the earlier experiments gave negative results. For a time the experience was similar to that of Kregenow who failed in every instance to secure infective filtrates. Ultimately it was found possible to filter the infecting principle through standard bacterial filters with uniformly successful results. Infective filtrates were secured when employing Pasteur Chamberland L2 filters. Mandler filters, and membrane filters of known porosity. All these filters are known to retain nearly all visible bacteria, and it was further demonstrated that the filters actually employed would hold back bacteria and yet allow the infecting principle to pass. Filtration of biological fluids and mixtures through filters of the type commonly employed by bacteriologists is exceedingly complex and many factors are involved, each of which may alter the result of a given experiment. The analysis of the factors involved in this problem has engaged the attention of Mr. Elford, who is working under the supervision of Mr. Barnard. It may be mentioned that quite recently membrane filters of standard porosity, and the data available indicate that the organism causing distemper is of the same order of size as the organism causing pleuro-pneumonia of cattle.

Throughout all the experimental work efforts have been made to secure cultures of the infecting agent, but in every instance failure has resulted. In no experiment has there been found any evidence of multiplication of the virus. In some experiments the virus persisted for a short time, but in every case it ultimately died. Subcultures were never found to be infective for healthy animals. This experience is in harmony with the view expressed above regarding the actiology of the disease, for it is the experience of nearly all laboratory workers that with the single exception of pleuro-pneumonia of cattle filterable viruses cannot be cultivated on any ordinary culture Efforts are still being medium.



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Dogs Boarded and Conditioned. New Fire-proof Kennels. Note the address: ABE SWARTZ, Wynnewood, Pa. - U.S.A. made to secure cultures of the distemper virus, as this is regarded as essential to complete success, but it is now doubtful if any satisfactory results can be achieved.

The results of the work so far recorded confirm the view propounded by Carre, viz., that dog distemper in its simplest form is an acute infection fever caused by a filterable virus or ultra-microscopic organism. This fever lowers the body resistance to other infecting agents and as a result complicated cases of distemper are common. In field work and in crowded kennels, complications are the rule.

The Immunization of Ferrets.

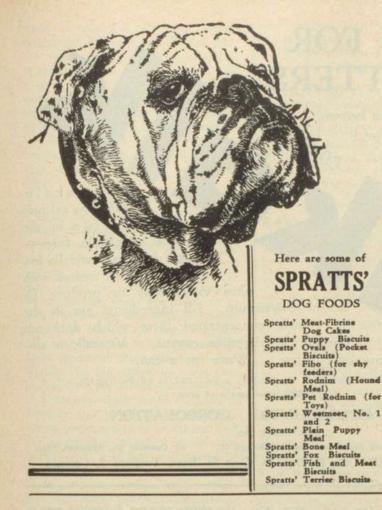
A ferret, just as appears to be the case with a dog which has recovered from one attack of distemper, is immune to further attacks of the disease. This immunity is solid and lasts for a long time, probably for life, and forms a very striking contrast to the susceptibility and low resistance of the normal animal. Experiments were therefore undertaken to try and discover some method of bringing about the resistant state without causing active disease. It was considered probable that any method which proved successful in the case of the ferret would also prove efficacious, with minor modifications, in the case of the dog.

Experiments have shown that it is possible to induce a considerable degree of resistance in the ferret by the administration of vaccines. This resistance may be consolidated and rendered durable by the injection of a dose of appropriate living virus. The vaccines employed differ in detail according to the method of manufacture but they all consist essentially of virus which has been inactivated (killed) in some way. The treatment of the virus must not be too drastic or the efficacy of the product diminishes. The vaccine causes no significant bodily disturbance but renders the ferret, after a short time interval, resistant to the living virus which was used in the manufacture of the vaccine. The animal which

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has received both vaccine and virus is solidly immune.

The vaccines are thus similar to the bacterial vaccines which are employed extensively to-day (typhoid vaccine). There is, however, a very important difference. Bacterial vaccines made from artificial cultures of bacteria are carefully controlled and even counted if it is desired. As has been explained, the distemper organism, in spite of long continued effort, has not yet been cultivated on artificial media and therefore the best raw material for the manufacture of vaccine is not available. Experiment showed that certain tissues of distemper ferrets taken at the height of the disease, contained a large amount of the infecting agent, and further that the amount might be adequate to allow of the pounded tissue being converted into an efficient vaccine by several different methods of treatment. The method is far from ideal and is lacking in precision. For example, the virus content of the raw material cannot be measured with accuracy and thus the potency of the final product is variable and indefinite. In spite of the drawbacks the method has proved to be exceedingly useful in actual practice and the results were a great encouragement to explore similar channels for the immunization of dogs.

The spleens from sick ferrets may be converted into efficient vaccines in several different ways. These have been described by us in a recent publication (1928a) and need not be referred to in detail, as ultimately choice was made of one method which gave excellent results not only in the case of the ferret but also in the case of the dog.

The Manufacture of Vaccine for Ferrets.

Ferrets suffering from acute distemper are killed by an overdose of chloroform on the fourth or fifth day of illness when they are usually in extremis. The carcase is dipped in 2 per cent. Lysol and pinned out. The spleens are removed with sterile instruments using strict aseptic precautions. The spleens are weighed, pounded in a sterile mortar and rubbed up into a smooth mass as quickly as possible. Sufficient saline is added to yield a 20 per cent. suspension of spleen pulp and after brief stirring the contents of the mortar are transferred to a sterile bottle containing glass beads. The bottle is shaken vigorously in a machine until all the fragments seem to be broken up. The contents of the bottle are then filtered through a double thickness of sterile butter muslin, into a sterile bottle. All shreds of tissue are thus removed and discarded. A small quantity of the filtrate is removed for a potency test. Sufficient strong formaldehyde solution is added to the main bulk to yield a final concentration of 0-1 per cent., after which the mixture is shaken and transferred to the cold store. After four days the formolized spleen suspension is invariably non-infective for ferrets, and sterility tests are made both for aerobic and anaerobic bacteria. If the product proves to be sterile, as is usually the case, it may be used as a vaccine without any further treatment. Owing to the presence of a small amount of formaldehyde, however, vaccines of this kind are irritant when injected subcutaneously. A non-irritant product can be made by adding sufficient ammonia solution to give a faintly alkaline reaction. In practice ammonia is added until a reaction of pH 8-0 to pH 8-2 is secured, and thus all free formaldehyde is converted into urotropin and the final product is devoid of irritant properties.

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Both animals into two ferrets. should sicken with distemper within ten days. If they do not do so, it is clear that the virus content of the material which was converted into vaccine was low and the resultant vaccine will probably prove to be inferior. Owing to the long incubation period of distemper in the ferret it is necessary to assume that the material will yield a good vaccine and finish the preparation of the vaccine at one sitting. It is not advisable to keep the ferret spleens whilst the potency of these organs is being determined, as during the wait of ten or more days considerable deterioration will occur in the virus content of the tissue.

Experience of upwards of forty different batches of vaccine prepared in this way shows conclusively that it is not difficult to secure a product which is fairly uniform and usually quite efficient, while if due care be taken and the concentration of formaldehyde recommended be employed there should be no difficulty in securing a sterile product.

The complete immunization of ferrets is achieved as follows: Small areas of skin in the selected animals are shaved and sterilized by the application of tincture of iodine. Two cubic centimetres of vaccine are in-

jected through the sterile area into the subcutaneous tissues by means of a syringe and fairly large hypodermic needle. The animal is put aside for two weeks. At the end of this time a quarter of a cubic centimetre of living virus (approximately a hundred fatal doses for an unvaccinated animal) is injected either into the skin or subcutaneously. The strain of virus should be the same as that employed in the manufacture of the vaccine. No symptoms should follow the administration of the vaccine or the virus and a fortnight after the last injection the ferret should be immune to all strains of distemper virus whether secured from ferrets or dogs.

With this technique it proved possible to immunize about 90 per cent. of ferrets at will, and the immunity was shown to last for months. Immunized ferrets have been placed with interested landowners who have promised to work them as usual and to report on the after-history of the animals. In some instances reports have been received stating that the immunized ferrets have withstood infection, but naturally in many instances exposure to infection has not yet occurred. In one instance, four immunized ferrets were placed with eight others and worked as usual. In

the course of time distemper appeared in the ferretry. The four immune animals survived without showing any symptoms of the disease, the eight untreated animals all died. Up to date no adverse report has been received regarding these immunized animals.

The vaccine made by the method described has been shown to keep for some months without serious deterioration, and it was found that organs other than spleens might yield vaccines with similar properties. On the whole, however, the spleen gave the best and the most uniform product.

In concluding the consideration of the immunization of ferrets, it may be pointed out, even at the cost of reiteration, that crude distemper virus (distemper ferret tissues) may be inactivated with formaldehyde, and that virus so treated forms an efficient vaccine. One dose of this vaccine renders a ferret resistant to infection by some hundreds of fatal doses of the same strain of virus as was used for the manufacture of the vaccine. A ferret which has received both vaccine and virus becomes immune to all strains of distemper virus.

Vaccination alone (the injection of formolized material only) is inadequate to ensure a solid and lasting immunity. Experiments showed that the resistance following vaccination is gradually lost. After three to five months some of the ferrets which were tested with living virus showed symptoms but ultimately recovered. In other experiments, the protection was so poor at the end of a year that one-half of the experimental animals died after the injection of living virus.

The Immunization of Dogs.

There is good evidence that one attack of distemper in a dog, followed by recovery, results in a solid immunity which lasts for life. Put in another way, a dog but rarely has more than one attack of distemper. It is true that there are instances in which distemper has been diagnosed more than once in the same dog, but it is probable that in the majority of these instances there has been some mistake in the diagnosis. Mistakes in diagnosis are inevitable in the case of a disease which varies so much in severity and in which complications are so common and so prominent that the underlying infection is not suspected, or if it is suspected cannot be definitely recognized. In some few instances it is possible that particular dogs have had multiple attacks of distemper, just as there are human beings who have been subject to more than one attack of measles, but it appears to be the general rule that one attack of distemper confers lifelong immunity, just as is the rule with measles. This striking immunity has led every research worker to attempt the immunization of dogs, whenever he was convinced that he had discovered the cause of the disease. It is only reasonable to' suppose that if the actual agent which produces distemper were discovered it should be possible to induce immunity by vaccines made from this agent. However that may be, it is clear that the majority of those who have claimed that a given organism was the cause of distemper, have supported their claim by accounts of protection conferred on dogs through the use of vaccines, sera, etc., made from their supposedly casual organism.

Copeman (1900) maintained that vaccines of his organism were of value to preventing disease. Phisalix and Lignieres, who independently isolated what appears to have been the same organism, also considered that the favorable results attributed by them to vaccination indicated that their bacillus was the true infecting agent. Phisalix vaccine was investigated by a committee in this country and the report was not favorable. B.

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bronchisepticus isolated independently by M'Gowan, Ferry, Torrey and Rahe has been converted into vaccines, and these have been extensively used in the treatment and prevention of distemper. The good results which were reported did lend support to the view that the casual organism had been discovered, but Hardenbergh (1926), in a recent analysis of a series of cases, failed to find any good evidence that vaccines of this organism conferred protection against the disease.

It may be fairly said that none of the vaccines made from visible baceria has been successful in preventing distemper in a long series of cases. They have not stood the test of time, though at the outset the results seemed favorable. It is very probable that the research workers were misled through unwittingly carrying out experiments on dogs which had previously had distemper in a mild form and were, therefore, immune from the start. In this connection it must again be emphasized that a specially bred dog is an inestimable boon to the research worker for work of this type. Even so, the disappointments of the past serve as a warning to the investigator to be cautious in interpreting all protective experiments.

As has been indicated previously, the evidence secured from the study of the experimental disease shows that the visible bacteria which have been isolated from time to time are not the cause of the acute infectious

fever which is the foundation of all cases of true distemper. The visible bacteria are to be regarded as secondary invaders and as such play a subsidiary part. Their importance varies from case to case, and it remains quite possible that bacterial vaccines may be favorable in diminising or limiting the complications which are all too common in this disease.

Putting on one side the protection experiments with visible bacteria there remain a few records of attempts at immunization by other means. Bryce (1882) collected blood from a distemper dog, boiled it and added carbolic acid. The resultant product was injected into two puppies and the result was considered favorable, but the work does not appear Puntoni (1923 to have continued. and 1924) propagated distemper virus from dog to dog by intracerebral injection and found that the brains of such dogs were rich in infective material and yet free from ordinary bacteria. The infecting agent in emulsions of such brains might be inactivated by formalin and the resultant product would form an efficient vaccine. His work was hampered and at times interrupted by his failure to secure susceptible animals as and when they were required. Towards the end of 1927 Lebailly (1927) claimed that it was possible to make efficient vaccines from the spleens of dogs suffering from distemper. The account of his experiments is brief and certain important details are lacking, but he also seems to have secured some measure of success.

No exact repetition of Puntoni's work was attempted, as this would have involved the passage of distemper virus intracerebrally, with the result that there would have developed symptoms of distemper encephalitis, and it did not seem probable that this particular form of encephalitis could have been recognized with certainty. It was more probable that errors would have arisen. The work of Lewy and Kantorowicz (1923); Lewy, Fraenkel and Kantorowicz (1925); Lewy, Lewy and Kuttner (1926) showed quite clearly that the study of distemper by intracerebral passage was beset with special difficulties which make the interpretation of the results uncertain. Puntoni's results have been tested indirectly by the manufacturer of vaccines from the brains of dogs with the acute nerve form of distemper, and it is clear that vaccines so prepared may be of considerable value. Lebailly's results were tested, as his experiments were very similar to those which gave good results in the case of the ferrets. There is no doubt that it is possible to prepare vaccines along the lines followed by this worker, but the method he followed is capable of improvement in several important particulars.

Ferret Vaccine for Dogs.

The vaccines which proved to be so valuable in the protection of ferrets were tested on dogs, and it was found that a single dose of such a product was inadequate to protect a dog against a dose of living virus. The size of the dose was increased and the results did not appear to be much better. Multiple doses were then tested, and it was found that if three doses were given at intervals of a week a resistant state might be established in every case. The degree of resistance varied slightly from animal to animal, but the vaccinated dogs always showed a very mild response to the injection of living virus, whereas the control (unvaccinated) dogs developed an unmodified disease.

Five separate experiments were carried out to determine the value of triple vaccination with vaccine prepared from ferret spleens. Twenty dogs in all were vaccinated three times, and fifteen others were employed as controls. The controls were kept in the kennels alongside the vaccinated animals throughout the whole experimental period. One or sometimes two weeks after the last dose of vaccine had been given the control and the vaccinated animals were injected with living virus and the responses in the dogs were noted. Bi-daily temperature records were kept of all animals throughout the whole experiment. The twenty vaccinated animals all did well, and only five of them had any considerable degree of fever, which, however, was of quite short duration. In none of this series was there any untoward symptoms throughout the mild illness, which would probably not have been recognized as distemper by an impartial observer. The majority of the fifteen controls had typical acute distemper attacks, and the diagnosis was usually obvious. In the control group there were, however, only two fatal cases, and there were three examples of very mild disease. It seemed clear that a very considerable degree of protection could be secured by the three doses of vaccine. It was further established that the dogs which had received living virus were solidly immune, for large doses of living virus could be injected subsequently and no disturbance followed; again, it ap-

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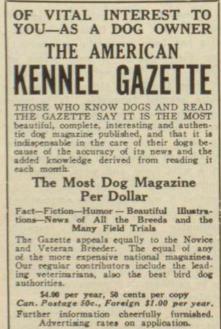
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peared that any strain of distemper virus could be injected with impunity. the work was extended to privately owned hounds and dogs, the owners of which were willing to try and secure immunity even though the immunization technique could not be guaranteed to be free from risk. The results of the field work will be considered later. Here it may be noted that the results seemed good, but there were no adequate controls.

Consideration of the method shows



AMERICAN KENNEL GAZETTE 221 Fourth Avenue, New York City YOU SHOULD SUBSCRIBE TO THE GAZETTE. ASK ANY ONE WHO READS IT. that it is far from ideal, and though of considerable theoretical interest it is not of great practical utility. In the first place the amount of vaccine which can be obtained from a small animal like the ferret is not great, and the time occupied in the whole process of immunization is considerable, lasting, as it must, for more than a month. Moreover it was disappointing to find that a vaccine, which in a single dose protected ferrets completely, did not give absolute protection to a dog after three injections at intervals of a week.

The Manufacture of Vaccine for Dogs The results claimed by Puntoni and later by Lebailly seemed to be superior to those which were secured by the use of ferret vaccines and it was considered possible that the difference might be due to the fact that both these workers employed dog tissues in the manufacture of their vaccines. Efforts had been made early in the work to secure vaccines from dog tissues, but all the experiments were disappointing. Renewed efforts, which included the examination of dog tissues harvested at different stages of the disease, led to the production of very efficient vaccine from the distemper dog. The details of this work have just been published (1928b), and reference must be made to the original paper for all details by those interested.

The vaccines were made in the manner that has already been described for ferret material. It was found that abdominal lymph glands, spleen, liver and brain might all be made into efficient vaccines on some occasions and not at others. A review of the successes and the failures indicated that the first pre-requisite for the manufacture of good vaccine is a rich supply of virus in the organs from which it is made. When the virus content of the tissue selected from the distemper dog was shown to be high (minute doses proving infective for ferrets) the vaccine proved to be efficient. When the virus content of the tissue was low the vaccine made from it usually proved to be inferior. For example, the brain in the average case of distemper does not contain much virus, and if it is employed for the manufacture of vaccine the resultant product is worthless. The brain in the acute nerve type of distemper sometimes has a high virus content, and can be then converted into good vaccine by the ordinary method. The abdominal lymph glands and spleens gave almost uniformly good results when the tissues were collected between the seventh and eigteenth days following infection. Spleens collected at the time recommended by Lebailly-the height of the first febrile reaction-did not give such good results. The liver was variable, but with this organ again it was found that if it contained much virus the vaccine made from it was usually of good quality, and if the liver did not contain much virus the resultant vaccine proved to be inferior. It does not seem posible to choose an optimum time for the collection of these tissues, as the difference in response in different dogs is so great, but it is clearly advisable only to collect tissues from dogs which are hard hit by the disease and preferably at the time when they appear to be at their worst. Experience of a number of successes and failures allows one to form a good idea as to which tissue should be included in the batch of vaccine in any given case. On several occasions it has proved possible to work up liver. spleen, lymph, glands and brain together and secure more than a litre of vaccine from one distemper animal. There is still, however, a great deal of work necessary in order to define the conditions for the manufacture of vaccine in quantity and of uniformly good quality.

The results with a good batch of vaccine made from distemper dog tissue are really most remarkable. A single dose of five cubic centimetres of vaccine, administered subcutaneously, will induce such a degree of resistance in the recipient, in one week, that injection of a large dose of virulent virus produces very little effect. There may be some slight fever for a day or two, accompanied by alimentary disturbance, but the dog remains cheery, active and takes its ordinary ration with gusto. The control animal has an acute fever, often vomits and refuses all food, has severe diarrhoea, wastes rapidly, and is nearly always dull and apathetic within four days of the onset of the disease. Charts VI. and VII. illustrate the responses in a vaccinated and a control animal respectively. The vaccine was made from a mixture of tissues from a distemper dog. The difference in the temperature records is striking and the difference in symptoms was equally obvious. Chart VIII. illustrates another vaccinated animal's response to a potent strain of virus, and it will be seen there is a little fever for two days. Another animal of the same litter was vaccinated at the same time, with an equal dose of vaccine, and gave no response whatever to the living virus. Chart II. is reproduced again, as this represents the response in the control animal. In this case the fever is not so violent



as in the previous control animal (illustrated on Chart VII.), but the dog became rapidly worse and ultimately developed fits, which necessitated its destruction. Many more cases in illustration might be given, but they all show that it is possible to secure from distemper dogs a vaccine which will confer almost complete protection after a single dose of 5 c.c. administered hypodermically.

Dogs Completely Immunized

Dogs which have been immunized by vaccines followed by living virus prove to be solidly immune. They resist large doses, not only of one strain but of all strains of distemper. They may be placed in contact with acute cases of the naturally occurring disease and do not become infected. They have further been shown to be immune to virus given intracerebrally, so that it would seem that the nervous system partakes in the general immunity. As far as can be determined the immunity is long lasting. Certain dogs were placed with persons interested in the work, and they promised to report if ever distemper symptoms developed. No report of this nature has been received.

The results with this technique seemed so good that work with privately owned hounds and dogs was

undertaken on a larger scale, and the results will be found summarized towards the end of this report. It should be emphasized that the complete immunization process includes the administration of living virus as a final measure; for test of resistance induced by vaccines a potent strain of virus is used, but for field work a weak strain, which appears to have become attenuated for dogs through oft-repeated ferret passage, is employed. Further, it should be noted that the vaccinated dog which develops a mild fever following the injection of living virus does not appear to be a source of danger to susceptible animals. It is quite likely that on occasions where the response to the vaccine was poor, and where consequently the modified distemper attack following the living virus injection was severe, infection might spread, but experiments have shown that it is legitimate to carry out the whole of the immunization process in contact with susceptible animals. In no instance did infection pass from the treated animal to the susceptible companion.

From what has been recorded regarding the two types of vaccine it will be seen that a single dose of vaccine made from ferret tissue is sufficient to protect a ferret against the living virus, but three doses of this product are required to induce a resistant state in a dog. On the other hand, a single dose of vaccine made from dog tissue may render a dog irresponsive to living virus. The value of dog vaccine for ferrets thus became of interest, and it was found in a series of experiments to be nearly worthless. Three doses of dog vaccine, of proven quality for dogs, given at intervals of a week, did not appear to evoke any resistance in ferrets. The vaccinated animals seemed just as susceptible as the controls.

Thus, ferret vaccine is good for ferrets and relatively poor for dogs; dog vaccine is good for dogs and bad for ferrets. The fact that the homologous vaccine is superior to the heterologous, in the case of dog distemper, is not only of practical importance, but also of considerable theoretical interest, and it would probably repay further study.

The results in this special case are not directly transferable to other diseases due to filterable viruses, but, if borne in mind, they should prevent undue optimism regarding complex vaccines of the kind under discussion. These may prove to be efficient with one species of animal, but it does not follow that they will be as efficient with other species.

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Preventive Serum

In the case of diseases in which recovery is followed by a solid and durable immunity it is frequently possible to demonstrate protective substances in the blood of the immune animal and to increase the amount of the circulating protective substances by repeated injection of the noxious agent (hyper-immunization). If such substances are produced in reasonably large amount it is sometimes feasible to collect the blood from an immune or hyper-immune animal, separate the serum and use this serum for immunizing susceptible stock. In the case of rinderpest, for example, the injection of serum along with virus produces a mild type of the disease and, on recovery from this, the animal is immune. The amount of serum and the dose of virus have naturally to be nicely proportioned.

It was considered possible at the commencement of the work that dog distemper might belong to this class of disease and that it might be possible to secure a serum with valuable protective properties. As was reported previously, all the earlier experiments gave negative results, and it was stated that the immunity of the recovered dog, or ferret, was not due to circulating anti-bodies, but to the resistance of his tissues. The serum of recovered animals did not appear to delay the onset, or modify the severity, of an attack of distemper. At this stage of the investigation serum from hyper-immune dogs also did not give encouraging results, and this line of investigation was abandoned for a time.

Quite recently the matter has taken on an entirely new aspect, for it has been shown to be possible to secure a serum with valuable protective properties. This advance appears to be due to the fact that we now know how to secure material very rich in virus, and the administration of this to immune animals leads to the appearance of anti-bodies in the blood. It appears to be necessary to inject some millions of infective doses, preferably more than once, into the recovered animal in order to secure a valuable serum, and the virus employed must be taken from the same species of animal as is used for the manufacture of the serum.

Little work has, so far, been carried out with the serum, as there has been considerable pressure on the staff and equipment in endeavouring to define the conditions for making distemper vaccines. It seemed better policy to consolidate that success before commencing intensive work in the new channel. It may be said, nowever, that the serum is sufficiently potent to prevent a small dose of virus causing disease. Dog serum, which is the only serum so far secured, will only work on dogs; it does not prevent or seem to modify the disease in the ferret. It is impossible to assess the value of the new serum until much more information is available, but it should be possible, by grading the dose of virus and serum, to establish the im-



mune state in a susceptible dog with very little bodily disturbance. It is even possible that a serum-virus method may, in the end, prove superior to the vaccination-virus technique. It is possible that really potent serum might prevent disease after infection had occurred but before symptoms developed (serum treatment in the incubation period of the disease). It is also possible (though it is felt to be improbable, that a potent serum might be of use in treating animals in which the disease was already established. Finally, it is highly desirable from the scientific standpoint that the mode of action of protective sera in the case of diseases due to filterable viruses should be studied in detail. At the present time, as the work of Andrewes (1928) shows, the way in which these sera prevent disease is ill understood and the older conception of their action must be reconsidered.

The Protection of Privately Owned Hounds and Dogs

The successful immunization of dogs under laboratory conditions led naturally to an extension of the work into the field in various parts of the country. Many dogs, of various breeds, have now been immunized by veterinary surgeons according to the technique described above and with material supplied from the farm laboratories. Altogether, 949 dogs, comprising various breeds, have been treated by 44 veterinary surgeons during the last two-and-a-half years. The practices of these gentlemen are scattered over the British Isles in such widely separated localities as Perth, Tiverton (Devon), Watford, Margate, Hereford, Manchester, Malton (Yorks), Co. Tyrone, etc.

It will be convenient to consider

the results secured under two separate headings: 1. Foxhounds. 2. Dogs of other breeds.

RESULTS SECURED BY THE VACCINE 1.—Foxhounds

From the information available it appeared that the most anxious time for Masters is that which follows on the assembly of hounds into kennel from walk. In many instances distemper breaks out about this time and, partly owing to the overcrowding which frequently exists, the disease runs riot through the whole of the young entry. In view of this state of affairs the practice recommended was to administer the vaccine while the hounds were still at walk and to inject the virus just after assembly. With this procedure hounds should have developed some degree of resistance, in response to the injection of vaccine, by the time they were assembled, and accidental infection in the kennels was of small moment because a final injection of living virus was always given to consolidate the immunity.

This procedure was sometimes difficult to follow. In some hunts the walks were so widely separated that it was thought to be impracticable to proceed along these lines, and in one case hounds were assembled before the injections commenced. The result was disastrous, for distemper broke out before the immunization was completed, and of the ten couple in question five couple died. At the same kennel eleven couple were vaccinated at walk and given virus on assembly. They were housed with non-vaccinated hounds. Distemper broke out. One immunized hound died and 66 per cent. of the uninoculated hounds perished.

Three hundred and twenty-five couple of hounds belonging to fifteen different packs have been treated. The number of inoculated hounds in each of these packs varied considerably, but it was usually small as the amount of vaccine available was not large. In all cases the vaccination was confined, for obvious reasons, to the young entry. Some disappointment has been caused among Masters of Foxhounds at the paucity of puppies it has been possible to inoculate, but clearly the extent of the field work has been limited by the supply of vaccine available. The shortage of vaccine, although unfortunate from the owners' point of view, has actually been of assistance to the investigation. Had there been unlimited supplies of vaccine and all, or most, of the susceptible hounds in any pack been immunized, the results would have been much more difficult to interpret owing to the absence of control animals. Untreated hounds of the same stock and age running with the immunes form an index for the incidence and severity of distemper in the kennels and allow one to judge of the degree of protection afforded by the inoculation.

Both Masters of Foxhounds and veterinary surgeons have been most kind in supplying information regarding the condition of hounds during the inoculations, the occurrence of any outbreak of distemper in the packs, and the results in the immunized and untreated animals. It may fairly be said that the inoculations gave very little trouble, and there was only one case of a hound dying during, and possibly as a result of, the inoculations. In the great majority of instances the whole immunization was carried through without any anxiety. Some of the hounds were immunized more than two years ago, and others have been done quite recently. In some cases they are known to have been exposed to infection, and in others they have not yet come in contact with the disease, so that the degree of protection is not known in some instances. The records from certain packs are, however, so striking that hopes are raised regarding the whole. A few reports may be quoted:

THE PUCKERIDGE. In this pack twelve couple were inoculated in February, 1928. In April of this year distemper broke out in the uninoculated hounds, but none of the treated hounds developed the disease. Thirtyfive couple of uninoculated hounds contracted distemper and eleven couple died.

THE TIVERTON. The Master reports in a letter dated July 8th, 1928, as follows: "Of the young entry for 1927 and 1928 which had been inoculated, none had distemper. There was an outbreak of this disease in the kennels in December, 1927, among the two-year-old hounds, but none of the vaccinated hounds developed the disease. Four vaccinated hounds were sent to neighbouring kennels in which distemper was present, but none of them was ill."

THE WARWICKSHIRE. Twentytwo couple of the young entry of this pack were inoculated in March, 1928. The Master, replying to a questionnaire, has written as follows: "All the inoculated hounds have been exposed to distemper infection, but none has contracted the disease. Forty-fiveand-a-half couple uf uninoculated hounds have developed distemper, and of these 24½ couple have died."

2.-Dogs of Other Breeds

Two hundred and ninety-eight dogs of various breeds have been dealt with, including the following: Labradors, wire-haired terriers, dachshunds, Cairn terriers, golden retrievers, spaniels, pointers, bull terriers, bulldog, whippet, toy spaniels, Dandie Dinmonts, Skye terriers, Shetland collie, Alsatian, retrievers, mastiff, Kerry blue, keyshond, Aberdeen, etc. The inoculation of these dogs, including the administration of living virus, was carried through without serious trouble or anxiety in nearly every instance. One Dandie Dinmont died following, and probably as the result of, the administration of virus. A few dogs did not respond very well to the vaccine and had severe fevers following the virus, but these were of short duration.

The majority of the dogs in this group are well bred and frequently exhibited at shows, where, as is well known, there is always an excellent chance of infection being acquired. The owners of these dogs agreed to report whenever an inoculated dog acquired distemper, and up to date no report of this nature has been received. On the other hand information shows that the inoculated animals have withstood infection in certain cases. Four puppies belonging to a litter of wire-haired terriers were inoculated in May, 1928, and in a letter dated September 22nd the owner states that two of these puppies have twice been in contact with other puppies which were suffering from distemper. No ill effects followed this accidental exposure to infection from a case of severe distemper diagnosed and treated by a veterinary surgeon.

Fifty-two puppies in a well-known kennel of Dandie Dinmonts have been inoculated during the past two years and distemper has never been contracted by any of them, though they have appeared at dog shows. On two occasions the owner has purchased and introduced into her kennel an addition to her stock, and both of these subsequently died of distemper.

The results of the field work, whether they concern foxhounds or other breeds of dogs, are most encouraging, and, coupled with the laboratory findings, they indicate that it is possible, or will be possible in the future, to immunize hounds and dogs at will. It is true that the inoculated animals have yet to stand the test of time, and it must be shown that the immunity does not deteriorate with age. In view of the fact that the final step in the immunization process consists in the administration of living virus it is unlikely that the immunity will deteriorate. It is also desirable that larger numbers of hounds and dogs should be dealt with, but this is a matter of time and adequate supply of vaccine. So far as the results go they are most gratifying.

The Future

It is hoped that the foregoing statement of the work which has been carried out under the auspices of the "Field" Distemper Fund will have given the reader some idea of the nature of the problem set before the research workers, some conception of the difficulties which were encountered and how they were met, and finally the nature and the degree of progress that has been made.

There remains for consideration the aim and scope of future work. It is almost certain that the complete conquest of the distemper problem and the final subjugation of the disease is bound up wth the successful cultivation of the virus apart from the living animal. In this direction no success has been forthcoming in spite of oftrepeated effort. It is desirable that renewed attempts should be made to overcome this outstanding difficulty. Baffled in this direction, it has yet proved possible to evolve a vaccination method which promises to do much to prevent the ravages of distemper in selected groups of animals. It is desirable that this vaccination method should be made as perfect as possible and as readily available as can be arranged, and efforts are being made with this object. Quite recently a protective serum has been secured, the value of which it is impossible to estimate at the present time. It may prove to be of practical utility or merely of academic interest. In either case it is desirable that it should be investigated to the limit of what is possible. These two lines of investigation have for their prime object the benefit of the majority of the canine population, but beyond this there is the value of the increased knowledge regarding an acute infectious fever. knowledge which may suggest the correct method of study, or the best method of preventing or controlling infectious fevers injurious to other animals and to man.

> PORTLAND, President. On behalf of the "Field" Distemper Council.

THE "FIELD" AND DOG DIS-TEMPER

Success of the Inquiry Distemper in dogs can be prevented

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and will be controlled. That in a sentence is the outcome of the scientific inquiries which were undertaken five years ago at the instigation of the "Field" and which have been pursued with the help and encouragement afforded by the Distemper Fund which was raised and has been sustained by readers of the "Field." The inception of the scheme and its history are dealt with elsewhere. The scientific inquiries which have culminated in the success that we now announce are reviewed in the report which follows and which has been written by the principal investigators, Drs. G. W. Dunkin and P. P. Laidlaw, of the Medical Research Council. It will be convenient to supplement them by a short general summary which indicates the steps by which their conclusions are reached. When the inquiry began it was made more difficult by the existence of two conflicting theories of the cause of distemper. If there had been but one admitted cause, the source and character and mode of action of which alone remained to be discovered, the examinaton would have been simplified. But with two suggested causes, both of which could not be right, it became necessary to clear one of them out of

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Possible Origin of the Disease

Of the two possible origins of distemper the one that seemed simplest and most familiar was that of a germ similar in kind if not in type with those which cause other recognized diseases in animals, or man, and which need only patience and scientific insight for their identification. A germ of this kind had been declared to exist by a number of responsible investigators at various times over a period of more than a quarter of a century before the inquiries set in motion by the "Field" had begun. Distemper had been assigned to a bacterial organism as long ago as 1896, and the assertion had been confirmed by various bacteriologists, who had given the responsible organism a name, and had even prepared vaccines from it. The "bacillus bronchisepticus" had many firm advocates.

On the other hand, there were dissentients who were not less positive. In the annals of germ diseases a new kind of enemy had appeared, one that was invisible and yet could infect. The infection was like that which germs produced, but this infecting agent could not be found by the best microscopes. In the examination of micro-organisms which can be bred and grown in suitable liquids, the sustaining mixtures where they live in their millions are passed through very fine laboratory filters-of porous porcelain for example-leaving a residuum of the organisms. But liquids which were for good reason believed to contain disease poisons living and growing could sometimes be passed through the filters, leaving not a micro-organism behind. Such ultramicroscopic organisms were called "filter-passers."

The Filter-Passer Virus

In the midst of the assertions that the cause of distemper was the quite perceptible and cultivable "bacillus bronchisepticus" came the disclaimers of other investigators who declared that the poison was that of a "filterpasser." The ablest of these objectors had prepared a fluid from dogs afflicted with distemper, had passed it through a fine laboratory filter so that it should or could contain no bacilli, and yet had found the filtrate potent to infect puppies with distemper.

The case for "bronchisepticus" was that it was found in dogs with distemper. The case against it was that puppies could be infected with distemper by a liquid from which "bronchisepticus" was absent.

The case for the "filter-passer" was that dogs could be infected with a poison or virus obtained from dogs which had distemper. The difficulty of proving the case was that while distemper bore all the marks of a germ disease, the germ if it were a filter-passer could not be seen and there were no evident means of cultivating it. It would have been far simpler if "bronchisepticus" had been the criminal, because this germ is easily cultivated, therefore easily examined, and an antidote to its criminal activities could have been suggested or provided.

The discoverers of "bronchisepticus" were not satisfied with its credentials. For one thing it did not always provoke distemper. But that might be because the dog had previously had a mild attack of distemper which protected it against further infectionsas is the case in several human diseases. Furthermore, distemper is such an infectious disease that when a crucial experiment had to be made it was most difficult to be sure that a dog was not, or had not been, infected before the experiment had begun. This objection was so strong that careful observers soon saw that the ordinary dog was of no use as a subject on which to test vaccines (made from "bronchisepticus" germs for example) because the animal might have had distemper and so be distemperproof.

It therefore became necessary, in order to make certain, to breed dogs that never had been intected with distemper and keep them in a ring fence so that they never could acquire it accidentally. This was done, though the problem was as hard as to keep a Londoner from acquiring the infection of a cold in a London winter.

The "Field" Breed of Dogs

As a result the inquirers obtained (1) a supply of dogs of known susceptibility to distemper. The dogs (2) were in first-class condition. They had (3) no secondary infections. And (4) the maintenance of this supply of dogs for four years proves the important fact that distemper does not arise spontaneously. Therefore it was probable that all distemper cases arose from transfer from one dog to another.

The elaborate precautions which were taken in the kennels at the Mill Hill Research station to ensure the absence of accidental infection are described in the Report. We may now indicate some of the inferences which these precautions enabled the investigators to make and some of the questions that arose.



And now that distemper has been conquered, "Towser" begins to find his place in the sun. This "Bozo" has everything now but his driver's license. Gr-r-r.

It was evident, for example, that the infecting agent, whatever it might be, was readily destroyed by disinfectant. Secondly, dog distemper, when acquired, was of very varying severity. This might have pointed to the existence of several diseases of distemper. But that was disproved. Dog distemper was a single disease. A dog immune to one strain is immune to strains from several other sources.

Variable symptoms were due to mixed infections just as the variable symptoms of a human cold are. For example, broncho-pneumonia sets in like pneumonia after influenza. In kennels where dogs are in close contact there is an increasing spread of these secondary infections.

Experimental Distemper

Let us now follow the course of the infection of the Mill Hill dogs under experimental conditions-that is to say, when the infection of distemper is thrust on a perfectly healthy dog. Experimental distemper of this kind is an acute infectious fever with an incubation period of four days, accompanied by coryza, intestinal disturbances, symptoms due to inflammation of the respiratory tract, and perhaps nerve symptoms. As a disease it is of very variable severity. There are among the dogs different degrees of susceptibility and differing degrees of virulence in the attack. The mortality at Mill Hill is low because there are few secondary infections among dogs carefully watched. The disease is very infectious in its early stages.

The next step in the experiments was to find some other animal beside the dog to which the infection could be passed, and its character, therefore, examined on a larger scale. Rabbits, guinea-pigs, rats, hedgehogs were of no use. Ferrets proved susceptible and these were bought and bred and the disease and its infection were examined in them. One of the first points to be brought out was that the infection could be air-borne—carried through the air from one animal to another if they were near to one another in a cage. Secondly, it was shown that minute quantities of blood from a distempered ferret would infect another ferret with distemper, if injected under the skin. Thirdly, if a distemper dog and a ferret were brought together the ferret acquired distemper. And, fourthly, a ferret recovering from an attack of distemper resisted infection, whether this was supplied by the original virus or poison of distemper, or by any other strain.

These experiments with ferrets and dogs were all tending to the confirmation of the contention that distemper was not due to "bronchisepticus," but to a virus which might contain an invisible filter-passer. Thus it was easy to transmit the disease by the injection of blood or tissue, but "bronchisepticus" could not be found in it. The infecting blood was apparently sterile, but it infallibly infected.

After some difficulties infective filtrates which had been passed through a laboratory (Chamberland) filter were obtained. Later experiments showed that the filter-passer might be of the same size as that of pleuropneumonia of cattle. But it is impossible to breed (or obtain cultures of) this infective agent. So that finally we have to say that the agent causing distemper is a virus or ultra-microscopic organism—as first asserted by Carre.

Then arose logically the question of the means of prevention; and this proceeded first by way of the ferret. Could resistance to ferret distemper be induced by giving it a vaccine from the virus? A vaccine is usually a partly sterilized or "inactivated" virus, that is to say one in which the organism is killed, but its poison remains; and the preparation of it is a ticklish business. The ferret vaccine (since no "cultivation" was possible) was prepared from pounded infected tissue, not a first-class method because the potency of the virus cannot be measured. This was administered to a ferret, and the presumed effect was consolidated by giving the ferret a dose of untreated virus after. Mere vaccination would not give a solid immunity. With the consolidating effect added, immunity was secured for ferrets.

Ferret and Dog Distemper

Would it be possible, therefore (the inquirers asked), to use ferret vaccines to protect dogs from distemper? Here came the great disappointment. They were not much practical good. Multiple doses of vaccine over some

length of time gave fair, but still rather uncertain, results. Consolidating the work of the vaccine by an injection of living virus proved a method far from ideal. It was fairly clear that the ferret vaccine was not to play the part in the prevention of dog distemper that the calf vaccine does in the prevention of smallpox. It became necessary to proceed by the more direct method of obtaining a vaccine for the dog from the dog. This was done in a way analogous to that followed with the ferrets and is described in the Report. Vaccines were made from the emulsified tissue of dogs that had suffered from marked distemper. A vast amount of work had to be done in making these preparations because no standard of quality could be arrived at. With these vaccines the living dog was vaccinated and, as in the case of the ferrets, a dose of living virus was afterwards administered to consolidate the effect. This must be done for complete immunization. The central fact which emerges is that by these methods complete immunization can be secured.

Other points to be noted are that ferret vaccine is useful for ferrets, but is poor for dogs. Dog vaccine is useful for dogs, but is bad for ferrets. An homologous vaccine is in all cases superior.

It remains to be ascertained whether a preventive serum (as distinguished from a vaccine) can be obtained from a solidly and durably immunized dog. We know at any rate that a dog serum will work only in the dog. It is possible that a potent serum might be obtained from the dog and might prove of first-class value. That is what we want to know. The other thing which would, if accomplished, be of the highest value, would be the successful cultivation of the virus of distemper apart from the living animal. Protection seems to have been secured. We want to test its value.

These are the lines on which future investigators will follow. It remains to point to the solid proofs of success achieved. No fewer than 1,330 dogs under the treatment of 44 veterinary surgeons have been successfully immunized against distemper. There have been 325 couples of fox-hounds from fifteen different packs also treated, and the success of the treatment in the prevention of distemper among them has been demonstrated.

CANCELLATION

English Setter "Rackett's Belle 2nd" Limit Bitches, ineligible, having completed the fourth first prize win in the Limit Class at the Hamilton Kennel Club Show, 1928.

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DOGS OF THE EMPIRE

By FREEMAN LLOYD.

Wishing all my Kennel & Bench Readers a Bright, Prosperous and Happy New Year.

HE New Year is upon us and it behooves the wide-awake doggie man to keep his eyes focussed beyond the ordinary ken of the go-easy person. This is going to be a good year for Dog Racing big-dog racing. The greyhounds on the race

32

tracks of the world are hitting the public tastes for extra means of enjoyment plus a little speculation. The people, rich and poor, are always ready for an innovation of the sporting kind. There have been experienced difficulties over the conduct of greyhound race-meetings in New York and other cities in the United States, but, sooner or later, the complainers will be brushed aside. It is hard to belive that the American public will stand for the nonsense that proclaims horse-racing is all right and dog-racing all wrong.

The Canadian owners and breeders of first-class greyhounds are advised to stick to their holdings, for the reason that a very large demand for longtails will come along about the months of May and June. It is said that it was the horse-racing interests that helped to put the kibosh on the latest and probably the best Greyhound Racing premises in the neighborhood of New York -in fact the Borough of Queens, one of the most important sections of the big city. The large attendances at the dog tracks at Celtic Park, L.I., and Dongan Hills, S.I., N.Y., were against the interests of other concerns. Encouraged by fair or foul means, the police were persuaded to prosecute the pleasure-givers and takers at the greyhound tracks, so Celtic Park had to close its gates "in consequence of the serious illness of many of the dogs," as the newspapers had it. But it wasn't dog distemper and pneumonia that shut up Walter Chrysler and Co.; it was the pull of the horse track organizations. Now it is said that Chrysler & Company are going to the mat with the horse people and call for a show-down that shall mean the closing or opening of all race tracks whether they be for thoroughbred horses or pure-bred greyhounds.

It was commonly remarked around New York that if Al. Smith had been elected as President of the United States, in less than a year there would have been dogracing on Broadway. This figurative language was meant to express that a wider extent of "liberty" would be enjoyed under the regime of an open-minded and less hampered organization than the other side of the political house. Some people wanted to know why the Mayor of New York was pleased to enjoy himself at a greyhound race track in London, and dare not show his nose at a like affair in his own city. For it will be remembered that Mr. Walker went to see an international dog sprint somewhere in the British metropolis, and had the pleasure of the distinguished company of a former Lord Mayor of London.

Late in December, a new police commissioner was appointed for New York. The new chief, Grover Whalen, is a man of the world, and perhaps a bit too good for a policeman, as policemen go. He is partial to a good horse and that means he has a liking for a good dog. Moreover, he is a good mixer and loves to see the people enjoy themselves. He is also a "dry goods man" but not in the prohibition sense. Mr. Whalen will not let Belmont Park keep open while the gates of the Celtic and the Dongan Hills Parks are kept closed. If it comes to big money, the Chrysler greyhound gang will be able to put up as much as the horse racers, and even the Saratoga season will be threatened, so it is said. So let Canadian and other breeders of greyhounds be prepared for an enormous call for these dogs during the next year or two.

The great interest taken in greyhounds was well expressed by a well-known Welsh turf accountant who passed through New York a week before Christmas. Mr. and Mrs. Sid Williams had been touring the United States, staying for some time in California. But one thing they had forgotten while on the Coast, and that was to purchase a really first-class greyhound. So where could the best greyhound be obtained? That was the purport of the voice that came over the telephone. "I want the bestthe very best," it repeated. It was discovered that the greyhound was required at once and to sail on the Berengaria, so the inquirer was reminded of the quarantine regulations on the other side. Mr. Williams said that greyhounds were getting more and more expensive in England but the thought had occurred to him, while crossing America, that he would like to own an American or Canadian-bred greyhound-and the very best at that, if money could buy such a dog. Hundreds of greyhounds arrived in New York from England during 1928. Why shouldn't Canada participate in this ever-increasing and profitable market?

The western prairies ought to provide as good greyhound coursing as any part of the King's Dominions. The sport of coursing is a very old one; it was as duly honoured hundreds of years ago as it is now. The sport should be kept up, if only to maintain the general lasting stamina of the greyhounds of to-day and to-morrow. The pastime of greyhound racing will tend to make sprinters rather than stayers out of the modern greyhound or, at least, that stamp of short-distance dog that is now employed to chase rather than course the artificial hare or rabbit.

When greyhounds are given very long and straight runs, staying powers will not deteriorate in the longtailed breed. Of course, there is a difference in the greyhound of the enclosed coursing meeting and the greyhound required for the tremendous tests at Altcar, where the running for the English Waterloo Cup is decided. The sprinter is preferred for the enclosure and sprinter-plus-stayer for the trying trials over the Altcar flats and ditches.

The enclosed courses or "plumptons" as seen in New

South Wales, Australia, were very fair for the hares. The run was against the hill and, as often as not, the fur had the better of the dogs. The hare was driven out of the bushlands, the greyhounds being hidden away in a blind on the right-hand side of the tunnel from where the hare made her appearance. For a couple of hundred yards the run-up ground was grassland, fairly flat and without obstacles, logs or soil lumps. When the hareif a good one-was given the usual law, the dogs had a clean run up to her over a nice piece of ground, so that whatever speed there was in a greyhound it would be seen there to its advantage or otherwise. The run-up was The magnificent always tremendously interesting. strength of the hare's hind legs was seen when the fur reached the incline of the hill where the wrench or turn was generally made. Furthermore, the bunny often led them a merry dance, as she was wrenched or turned time after time. If she kept her legs until she reached the brow of the hill she, as a rule, was enabled to reach the escapes and show her scut to the beaten dogs.

This style of coursing—this, the up-hill coursing of Australia—appeared to be eminently fair to the fur; moreover, there was the demand for a greyhound of stamina as well as speed. I thought that the plumptons in the neighborhood of Sydney had it all over the flat-as-apancake enclosed coursing of the old Kempton Park days, near London. The first of the enclosed grounds for coursing was at Plumpton, Sussex, England, and that is the reason for the enclosed meeting in other countries being so styled.

All of us who are interested in dogs have heard about the bulldog cross that was once used to give courage to the breed of Greyhounds. However, the bulldog of that day was a much lighter-built and more active dog than the long, low and cloddy English bulldog of the present time.

It was the celebrated Earl of Orford who did so much for greyhounds and coursing, who made use of the bulldog cross. There were times when this nobleman was known to have fifty brace of greyhounds. It was his fixed rule to never part with a single whelp until he had a fair and substantial trial, so that its speed could be tested. The earl had evident chances (beyond almost any other individual) of having, amongst so great a number, a collection of very superior dogs. So peculiar ion) most patiently for seven removes, he found himself in the possession of the best greyhounds ever then known, giving the small ear, the rat tail, and the skin almost without hair, together with that innate courage which the high-bred greyhound should possess. This greyhound would rather die than relinquish the chase.

It was said that in consequence of the bulldog cross (as used by the Earl of Orford) the greyhounds descended from that cross were inclined to put their noses to the ground, when they had become unsighted in a course or taken out into the fields. Such greyhounds would run for miles on a scent, if allowed to do so, it was written.

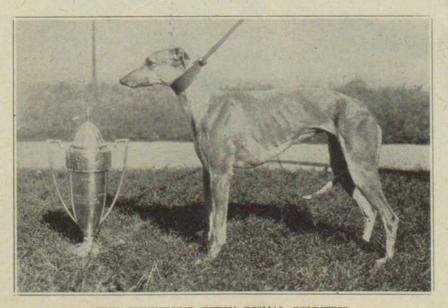
It was the earl—the princely owner of Houghton—who did more than any man of his time for greyhounds and coursing, not only in Norfolk but for the whole of England. And he died amidst the excitement of a coursing match in which his wonderful bitch, Czarina, was successful. Over the loss of his housekeeper the earl's mind had become disordered, but on the day of the match he contrived by some plausible pretext to get his keeper out of the room, and then to instantly jump out of the window, run to the stables and saddle his piebald pony. He must see Czarina run! And so Lord Orford reached the field. None had the power to restrain him. All attempts and entreaties were in vain; the match he was determined to see, and no persuasions whatever could influence him to the contrary.

Finding no endeavors could divert him from the ecstatic expectation the early had formed, the greyhounds were started, and Czarina won. During the course, no human power or exertion could prevent him from riding after the dogs, more particularly as his favorite bitch, Czarina, displayed her superiority in every stroke. But in the moment of the earl's highest exultation, he fell from his pony and pitched on his head. So expired the Earl of Orford, whose greyhounds subsequently became the property of his friend and sporting associate, the famous Colonel Thornton of Yorkshire. Thus did the Norfolk longtails go into the County of Broad Acres.

Norfolk has been famous for its men as well as its dogs. Among the eminent men this English county has given birth to and one whose writings have an intimate connection with the dog, or at least the history of that animal. was John Kaye, better known by his Latinized name of Caius, a renowned physician in the reigns of Mary and

was his order of attainment, that he went still farther in every possible direction to obtain perfection. He introduced every experimental cross from the English lurcher to the Italian Greyhound.

The Earl of Orford had strongly indulged an idea of a successful cross with the bulldog, which he could never be divested of, and, after having persevered (in opposition to every opin-



THE GREYHOUND BITCH DISMAL COUNTESS. Bred and owned by D. Callaghan, Joliet, Ill. Winner National Coursing Association Fall Futurity Stakes, Girard, Kansas, October, 1928.

10

Elizabeth. He was born at Norwich in the year 1510. His treatise De Canibus, or an account of the whole Race of British Dogs, was a masterpeice performance. It was composed at the request of his friend. Gesner, and established the author's fame on the Continent, for his skill in Natural History.

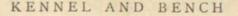
In the progress of James the First, to Cambridge, as he passed through Caius College, which the Doctor had founded, the Master, as a compliment to the Monarch's learning and also to that of the founder, presented the King with Kaye's History of the University, upon which James observed:

"Give me rather Caius De Canibus."

It was a duke of Norfolk who drew up the first coursing rules at the instance of his Sovereign—Elizabeth; and it was in Norfolk, at Swaffham, the earliest coursing club was formed. The antiquity of the breed is undisputable. Flavius Arrianus wrote the first specialized work on the breed just over 3,000 years ago. Then there is the biblical mention of the greyhound in Solomon's Proverbs, chapter 30, verse 29—read it. But even this mention of the breed stamps it as unique. Ovid wrote, "As when th' impatient greyhound slipped from far bounds o'er the glade to course the fearful hare."



Challenger Tom Heeney, the heavyweight pugilist, and his two racing Greyhounds. It is said that these Greyhounds held speed records in New Zealand. It will be remembered that Tom trained for his last big fight at the Rumson Farm Kennels, and that most of his leisure time was spent amongst a decidedly doggy population, even the secretary of the Professional Handlers' Association being responsible for the challenger's meals.





HE Christmas rush is over and many a thoroughbred pup has found a new home in Montreal or has been shipped

to the Country of the Mighty Dollar. I paid a visit to the "Warrior" Kennels on Christmas Eve, but was unable to have a good dog talk with the owner, as he was kept busy answering the telephone. Telegrams kept pouring in from all parts of the United States. The demand for Wire Fox Terriers and Scottish Terriers has been very brisk.

Jack Steer is expecting a new importation from England any day: a stud dog named Olcliffe Pincher, which I hope will be advertised in Kennel and Bench next issue. Unfortunately he cabled too late for the great winner, Olcliffe Carnation; she had been sold a few hours before the Montrealer's order was received.

Very few men have done as much for the beginning fanciers as Jack. He has imported over a dozen highclass wire studs during the last ten years, which he has placed at stud for a very low fee, and he has always been ready to accommodate those that were short of cash and unable to pay fees in advance. If Montreal can boast of having the biggest number of wire-hair brood bitches of any city in Canada, Jack is partly responsible for it. You may think that, in the long run, he is the one that benefited most of the situation, through buying the puppies, but I have seen many a time when he has even gone through actual losses in order to keep unlucky breeders from giving up the dog game.

I was surprised one day to see in his kennel a big litter of "Dudleys."

"Where did you get them, Jack? Why don't you drown them?"

"I bought them, Fred. I can't drown them; they cost me \$10 each, and I want to sell them as pets."

"How much are you going to sell them for ?"

"Five dollars each."

"What about your Scottish sense of business ?"

"Oh, well, they were bred by a poor boy who wants the money to pay for his college. He was going to part with his brood bitch if I had not bought them. Some day he will mate

her to my stud and breed some good ones."

Amongst the studs imported by Jack I recall: Olcliffe Warrior, O. Command, O. Fearnought, O. Firebrigade, Gilstead Workman, Matford Tiger, M. Captain and M. Valuer, and last, but not least, Oldene Primus, which was later sold to Mrs. Ehlerman of the Croydon Kennels, Connecticut. Primus was a full brother to Peri, the dam of Signal Circuit. He sired Craigellachie Fascination, who is doing a lot of winning for her new owner, Mrs. Layte of New Jersey.

"Blood will tell" is an old truth, but it seems to tell more in the Wire-hair Fox Terrier than it does in any other breed. The reason, as so ably stated by Mr. Percy Roberts, in December issue of Kennel and Bench, is that Fox Terriers have never been bred in a haphazard way.

Reading over Mr. Roberts' article, one cannot fail to notice how the advertisement of the "Ormsby" Kennels Registered, in the same issue, seems to be a condensation of the history of the wire-hair breed.

I wonder if there is, I will not say in America only, but in the whole world, a kennel of Fox Terriers who has succeeded through line breeding in bringing together the blood of every international champion of the breed as the "Ormsby" has.

Let us take as a remarkable instance the pedigree of Ormsby Ever Ready, who is offered at a nominal fee.

International Champion Ormsby Lighting was mated to a son of Ormsby General (and General is her full brother), thereby line breeding the following champions: Ch. Wireboy of Paignton, four times; Ch. Cromwell Cheeky, twice; Ch. Matford Vic, twice.

If you extend the pedigrees of all the Ormsby studs, you will realize, as I did myself, that the blood of all the international champions, including Barrington Bridegroom, is strongly represented in these kennels.

How, then, can you explain that Canadian and especially Montreal breeders do not seem to appreciate the value of these studs? Bitches are received from the biggest kennels in the States many times a week and very few come from Montreal.

What is wrong with Montreal fan-

ciers? I have visited a few of them and have been abashed at the amount of friction that exists amongst the different clubs, I should say clans! There are too many clubs for one thing, and I know of as many as five clubs who have considerable deposits in the bank and who have not put up any show for years. It is evident that these clubs are afraid they will not get sufficient support from the members of the other clubs.

35

Let us try to cultivate a little more unison for a period and see how it will work to Montreal's mutual advantage.

We were all very sorry to hear of Tom Grimshaw's illness. He has many friends in Montreal who are praying for "son prompt retablissement."

Mr. W. R. Aitken went over to England for Christmas. We hope he comes back with a good "die hard," a good Wire, and maybe a good Dach or what you will, but he will bring something. Wait and see.

The activity amongst the Boston Terrier breeders is not what it could be since J. R. Constantineau has nearly given up breeding.

However, with such men as Jack Almon, "Billy" Barnes and Frank Lamb, that joyful Américan terrier ought to come back where it used to be: at the head of the breeds. Let us have another "First up," or another "Billy Kelly."

I understand the demand for Pekingese and Pomeranians has also been very brisk, but I have not been able to visit the breeders of these interesting toys. I hope they drop me a few notes or a card of invitation, especially if their Christmas supply of soft drinks is not yet exhausted. I am particularly fond of ginger beer. It tickles my throat and helps me to talk English. Sometimes Scotch; it just depends on quality and quantity, as in dogs. Some have been sore already at my inserting some French sentences in my write-ups.

If I knew that it would make them sore enough to start them writing I would send a full page of notes in French.

Bonne et heureuse Annie. Au revoir.

Let everybody get his ad ready for next issue. I will start myself with ¼-page. L'exemple entraine.

THE KENNEL ENCYCLOPAEDIA.

There have been two or three Kennel Encyclopædias placed on the market from time to time. One Kennel Encyclopædia was in two volumes and was quite a pretentious work indeed. The first work of this kind was published in 1903 and the second in 1908, but much water has passed under the bridge since these dates and every one is conversant with the great strides made in dogdom during the last 20 years. Quite a few breeds are popular to-day that were not mentioned in the works we have referred to.

Whilst the Christmas rush was at its peak we received from the Virtu-& Co., Ltd., Publishing Coy., London, England, a copy of Dr. Frank Townend Barton's latest gift to dogdom, "The Kennel Encyclopædia," a work of 392 pages, contained in one volume and, frankly, Dr Barton's book "is just it," and in the days to come we will be sorely tempted to draw out some of its wealth of information for the benefit of Kennel and Bench readers. As it is we may yield to the temptation and quote from the new book to-day and crave the forgiveness of author and publishers alike at the same time, but our guilt will only amount to a strong desire to convey to our readers that at last, there has been published a likeable, readable Encyclopædia that is all that it claims to be.

From page 33-BAT-BAT. We cull the following:

BATHS, PLAIN AND MEDICATED

The bath represents a very important part in the hygiene of the coat and skin of the dog, though unfortunately it is a good deal abused, especially by those who keep a dog, or dogs, for companionship. The dog breeder and the exhibitor generally use the bath with discrimination. knowing perfectly well that it has its "uses" and "abuses". Repeated baths are very injurious to a dog's coat, as these not only destroy the lustre, but make the hair soft and fluffy. It is a very difficult matter in town to keep a white dog clean, which is the usual excuse for so often washing these.

The plain bath is represented by warm water and soap, whilst the bath medicated consists of the addition of such substances as creolin, sulphurated potash, Epsom salts, quassia, ammonia, and various other substances, medicated according to the action it is desired to produce. Fleas and lice can be destroyed by the use of medicated baths, provided that these are used hot and repeated at short intervals-say every third or fourth day until the skin pests have been finally banished. Failure to destroy lice is often accounted for because a sufficient number of baths have not been given, or else the intervals between these have been too long, the result being that more lice have been hatched in the meantime; in other words, a fresh crop has appeared. Apart from this, thoroughness of application is most important. All parts of the body (head excepted) must be submerged, whilst the head is treated separately, especially at the back of ears. It is an excellent plan to clip a dog if it is troubled with lice and then resort to the use of the bath. For the plain bath the temperature of the water should be such that the hand and arm of the attendant can easily be held in the water. A wooden tub, 4 ft. 6 in. in length and 21/2 ft .wide, is the best form of bath, as wood is not injuriously acted upon by such substances as mercury, sulphated potash, etc. There should be a rubber cork in the bottom of the bath to empty same over a drain.

Forest Kennels Reg'd Irish Setters

No breed is gaining so steadily in popularity as the Irish Setter, and no Kennel in Canada breeds so many really high class specimens as the Forest Kennels.

At present we have many wonderful youngsters from several choice matings. Amongst them possible champions—undoubtedly. Here is an opportunity to secure your future winner, or to improve your breeding stock, and—The prices are right

SPRINGER SPANIELS

Another popular breed that will continue to grow in popularity as long as "breeding" and "training" is given the attention that discriminating breeders are giving these problems to-day. We have several splendid Springers of different ages and both sexes that have been fully, or partly trained that we will sell at reasonable prices to ensure quick selling.

Write to-day for particulars to either of the following addresses:

C. A. STONE 202 Howard Park Ave., Toronto, Can. MRS. ALEX. TEMPLE R.R. No. 2, Freeman, Ont. In parasitic mange (sarcoptic) very good results follow the use of sulphur baths. To each gallon of hot water add 2 oz. of sulphurated potash, previously dissolved in 1 pint of boiling water. Repeat every four days. This same bath can be used for the destruction of lice, fleas, and other skin pests. For ordinary purposes—also for the destruction of fleas—carbolic soft soap is very useful when used with warm water, but this should not be used for puppies.

The amount of creolin (Jeyes' fluid) to add to a bath should be a dessertspoonful to each gallon of water. As this chemical is rather painful to the skin—more especially if the latter is inflamed or sore—it must be well diluted in the bath. For delicate and thin-skinned dogs, rather less than the quantity named above ought to be used. If a dog has to have a bath, keep it without food for a few hours beforehand, as many dogs will vomit after they have had a bath.

What could be more instructive? And the whole work is just as easily absorbed by the layman reader.

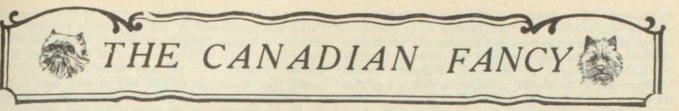
The book has been dedicated to Her Grace the Duchess of Newcastle, whose name has been associated with Russian Wolfhounds since the breed was introduced into England, and her Wire Haired "of Notts" Fox Terriers are known the world over.

The illustrations are an extra treat altogether and cover about 65 breeds, whilst 2 full page pictures show (1) the skeleton of the dog with an explanatory table of 29 references, (2) the points of the dog with 37 references. Such breeds as the Akita, the Afghan Hound, the Basset, the Bull-Mastif, the Elkhound, the Keeshond, the Papillon, the Samoyed, are beautifully pictured and described.

OUR NEW CHAMPIONS.

"BILLO BEX OF DOREBORN" (73793), German Shepherd Dog. Mrs. Jas. O. Sanborn, Wellesley, Mass. Alsation Shepherd Dog Club of Canada, 1927, 2 points; Alsatian Shepherd Dog Club of Canada, 1928, 2 points; London Canine Association, September, 1928, 1 point; Western Fair, London, 1928, 2 points; National Kennel Club, 1928, 5 points.

"BOGHURST BUSHE" (71119), Springer Spaniel. John Ritchie, Ottawa, Ont. Ladies' Kennel Club, 1928, 2 points; Central Canada Exhibition, 1928, 2 points; Associated Kennel Club, Inc., 1928, 2 points; National Kennel Club, 1928, 5 points. KENNEL AND BENCH



Wishing One and All of the Canadian Fancy— A Bright and Prosperous New Year. Walter H. Reeves.

Will you please try and get the habit this year of sitting down and sending happenings of your kennel. Let us all try harder than ever to make our fancy worthy of our great country. I feel that I am repeating myself, but the signs of prosperity are so plainly visible that there is no need to apologize for asking the Canadian Fancy to cooperate. There should be no East and West in furthering the interest of the pure bred dog. We have a great country, men who thoroughly understand how to breed with the best results and providing, we one and all will forget cur little personal grievance and work with one ambition, we can make our hobby, not only a pleasant recreation, but as I have so often written, a profitable one.

I am indeed pleased to note that Mrs. J. C. Wooden, Manitoba director, has written against the impressions that may have been caused by W. J. Marples' remarks in his "Impressions of Canadian Shows", suggesting a Western Kennel Club. I can thoroughly endorse our director's statement that societies in the West are fully capable of looking after the interests of the fanciers generally in each locality. I have known "Will" Marples for a great

By WALTER H. REEVES, Belleville, Ontario.

T gives me much pleasure to be able to extend through my pages in Kennel and Bench, my greetings to my readers, and the sincere wish that the year which we are starting together, may be one of great prosperity to them and their dogs. I have tried to make these pages a meeting place for all and I take this opportunity of thanking my readers for their cooperation in helping me to further the cause of the Canadian Fancy and Canadian bred dogs. I hope I may again count on the support of the fancy all over the Dominion to make these pages of general interest. Every month my mail gets larger and larger with items of news, but I am still like Oliver Twist, still asking for more.

many years and am confident that it was with the best intentions that he suggested a division of the "Government House", but I am also confident, that the well known English all-rounder gained his impressions from "kickers" who would always be against any government. The few weeks the judge spent with us, were not enough to enable him to get the right impression of our great Western fancy. In my travels I have met these destructive critics, but they are very much in the minority and I have found that by far the majority of the Canadian fancy are not only loyal but real boosters for the Canadian Kennel Club and that they have the utmost confidence in the men they have elected to represent them at Melinda Street. I can thoroughly endorse the statements of P. C. Woodend, that the Western exhibitors are real sportsmen and that we have a Club looking after our interests of which we have reason to be proud. It would be well if those "kickers against the bit" would carefuly peruse our President's message in his page in Kennel and Bench last month. He states: "The year has been a steady and healthy growth in the business of the Canadian Kennel Club. The financial statement which will be presented at the annual general meeting in February will I think as found to be entirely satisfactory to the members. It will show a substantial increase in revenue and also a substantial increase in expenditure for the good of the dog game generally. During the year nine specialty shows and thirtyfour all breed shows were held under Canadian Kennel Club rules." I would also direct the attention to the particulars given to me by Mr. J. W. Brant, the accountant of the Live Stock Records, Ottawa. An increase of nearly 4,000 registrations from 1923 to 1927 and an increase of revenue a little over \$15,000 in 1923, and \$24,-140 last year. Figures cannot lie and here is undeniable proof if any is needed, that the Canadian fancy is steadily but surely growing. I wonder if these men who talk about the good old days when discontent was rampant all over the Dominion, have digested the information given about these good old days. That all the Canadian Kennel Club could pay the late Norman Swire was the princely salary of twenty dollars a month to edit the club's official organ, "Kennel and Bench." The Canadian fancy's good friend, the late Norman K. Swire, I am confident in his wildest flights of optimism, never imagined that the club he loved and served so faihtfully would ever be able to bring out such a profitable and tastefully gotten up issue as the Christmas number of Kennel and Bench, which we received last month. May I, Mr. Editor, extend to you the sincere congratulations of the Canadian fancy. As I have been asked to do, from many of your readers. The unanimous opinion of my correspondents being that "Jimmy had surpassed himself."

37

When the well known English paper the "Field" started its fund for the investigations regarding the cause and cure of distemper many of us, and I must include myself, were inclined to be pessimistic as to the ultimate results. The investigations started five years ago with money given by subscription in England, Canada, and the United States and funds voted for the purpose by the English

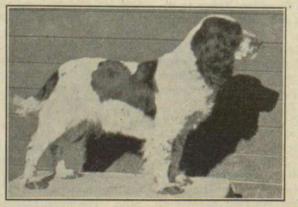
Parliament. These funds and subscriptions made it possible for Dr. Laidlaw and Mr. Dankin to be placed in charge of the investigations and experiments which were carried out at the laboratories of the National Institute for Medical Research at Middlesex, England. Special buildings had to be erected, protected in such a way that the dogs and animals kept therein would be immune from any possible chance of contamination or association from outside sources. From the information to hand it would appear that several generations of healthy stock were bred, on these experiments which have been successful were carried out. The first step naturally was to try and find the elusive germ which had for so many years been sought by eminent veterinarians. Apparently from the splendid successful results of the work done by Dr. Laidlaw and Mr. Dunkin the virus of distemper was rendered inactive and made into a vaccine. This vaccine was then inoculated into the dog and ten days later a second inoculation was made, the vaccine this time being composed of a weak strain of the living virus. The second inoculation is said to render the animal permanently immune. The very meagre reports to hand of this wonderful discovery tells us that over a thousand dogs have up to date been treated and rendered immune but the investigators have yet to discover ways and means of cultivating the virus, without the living animal. It is difficult to estimate what this splendid achievement means to breeders of dogs. Distemper has always been the cause of the death of many embroyo champions and it is impossible to realize the relief of us all when the time comes that we can procure the vaccine and render our dogs immune. *

I regret that an error appeared in the November issue in referring to the official Sealyham Terrier, Maytime Michae¹. I wrote that he belonged to John Paton, whereas this terrier belongs to Miss Dorothy Grant, who I noticed was exhibiting him at the Peterboro Show where he caused a deal of favorable comment.

I was able to spend a very pleasant afternoon at the National Kennel Club, Inc., show which was held in conjunction with the Royal Agricultural Winter Fair. Coming back from a journey across the border I arrived in time to see Mr. John Bates sorting out some exceedingly nice classes of wire fox terriers and Miss Marie J. Leary handling some real classes of German Shepherds in a most efficient way. This show certainly appeared to me to be one of the most successful shows I had ever attended. The part of the Royal Coliseum Building allotted to the holding of the show was simply crowded with spectators, who were apparently taking the greatest interest in the judging. Captain H. Dudley Waters, the show secretary and superintendent and the Bench Show Committee are de-

serving of very sincere congratulations on the splendid success they achieved, the show being unique for the all round general quality of the exhibits and the excellent arrangements. Naturally with so many good dogs competing the "rail birds" and exhibitors did not always see eye to eye with the judges. but it certainly would be a bad day for the dog game if we all saw alike, it is the uncertainty of the game which makes it so interesting. My impressions of the breeds were that Theodore Offerman had one of the best

groups of Airedale terriers seen out for some time. J. Cartwright introduced in dog puppies a youngster of promise in Benson Bang Up, a son of Wrightville Bootlegger and a credit to his breeder. T. B. Grimshaw's Horwell Mr. Bombey, who has been doing so well for his owner, Geo. Ward, had to give way in open dogs to Dr. J. L. Rawbon's Rocket King. Benson Bang Up following, but Rocket King had to give way in winners to Miss E. Jeffries' Prince Rocket, a son of Champion Walnut King and certainly a credit to his breeder, C. Jackson. The best of the bitches was Sid Perkins' Rockley Reminder. Harry Clayton, who has been such a staunch supporter of the Waterside terrier, was not represented. I was glad to see a renewal of interest being taken and from the accounts I receive from across the pond it looks as if the Airedale is going to stage a real came back. Some really good terriers have been acquired by our friends across the border, therefore it looks as if for the first time for some years the competition is going to be really something like the old days at New York, when it was no unusual sight to see from four to six champions of International repute competing. Of all our terrier breeds I don't think any deteriated so much, and I, like many other admirers of this real useful terrier, am delighted to hear of the renewal of interest being taken. Considering the number of real good beagles we have. I was disappointed at the very meagre support given to Dr. C. Y. Ford. The Giralda Farms had a very sorty little team competing, and it would have been interesting to compare Thorpe Satchville Panther of Giralda and Continental Prim of Giralda, the little hounds which gained winners dogs and bitches and have also been doing such big things across the border with our best beagles. Bloodhounds, only one was exhibited, but a real good hound in J. R. Tennant's Ajax of Princetown. Vincent G. Perry naturally received a big and representative entry in Bostons, in fact Boston exhibitors had a real treat to watch the awards in the many strong classes. Mr. L. B. Daley's Ch. Daley's Detroit News gained winners dogs and a kennel companion, Reigh Count, was reserve winner. In bitches A. Craddock scored a win for Canada with his smart typical little bitch Queen of Jubilee. E. A. Brown being close up with the smart little mover Highball Sweet One. It was somewhat like old times to find thirty-six bulldogs entered, but naturally this can be traced to the fact that no less an authority than Tyler Morse, who has owned so many great specimens of the national breed was judging. C. Lusty and McNulty scored three well merited wins with Merry Monarch, but in open heavyweights R. P. Sparkes' sensational winners, Ch. Kippax Jock could not be denied, and his latest importation, Mauresa Molly, followed her kennel mate's example by getting winners bitch. They followed up these wins at the specialty show at Boston,



Herbert S. Routley's (Peterboro, Ont.), Famous Springer Spaniel, INT. CH. TRENT VALLEY CUTIE,

Mass., by getting the same honors and Jock once again got the special for best in show. I had a glimpse at Mauressa Molly on the bench and she reminded me of that old favorite of mine, Champion Kitty Royal. Lt. Col. G. F. Farland had Ch. Albion Victor entered for specials, and right well this good terrier looked. Strangely though he had to meet his litter sister, F. A. Coles' Albion Admiration for the special, the dog as usual winning. The breeder of these two great "White Ones", J. H. Chandler,

is deserving of sincere congratulations in having bred two such exceptional terriers in one litter. R. H. Elliott, naturally, was represented and his Haymarket Senator was looking exceptionally well. Collies were indeed a surprise. The entry being by far, the most representative seen out for many a day. It was only fitting that the late H. B. Hungerford's life-long friend Dr. C. Y. Ford should have been the first to award the Harry Hungerford Memorial Trophy for the hest collie bred by exhibitor. Wm. Fear gained winners dog with Captain Lukes, a son of Laund Lukes, reserve winners going to Mrs. W. F. Dreer's Ch. Honeybrook High Stepper, but Mrs. Dreer, however, gained the special with Beulah's Blue Dondernelda, a particularly pleasing collie who undoubtedly has quality, substance and types. "Dude" Baldwin was somewhat disappointed to have his Baldwin Marvel play second fiddle to W. J. Langdon's Langdon's Buckshot, two particularly good American foxhounds. However, the Ottawa pack came into its own again with Baldwin's Merwin, who gained the special for best. Fox Terriers were quite one of the features. In smooths that sound judge, Robert Sedgewick endorsed the wins made previously by C. T. S. Capel's Little Snip Snap, congratulations to this good terrier's owner in gaining the coveted title of champion, with Llandorf Tartar's son. He should prove of extreme value to smooth breeders. Mr. and Mrs. Beer scored some excellent wins with their beautiful bitch Treble Clef and the nice puppies Imp and Idol. John J. Bates certainly did good work in the wire ring. T. Grimshaw continued the success he has been experiencing with Ch. Benson Dark Horse's son, Benson Blazer, R. McAdam's good coated Burlington Reflex. Ted Ward, very naturally was delighted at the wins he had. Humbervale Dancing Master, who met and defeated the well known winner Talavera Sunstar. Dr. and Mrs. S. Millbank made the going amongst the ladies most interesting by having that beautiful terrier Ch. Stockmoor Story of Earlsmoor competing. When competing for the special, Humbervale Dancing Master put up a good fight before the judge awarded it to "Story".

Lt.-Col. C. H. Colwell scored a well merited win for Nova Scotia, when his Great Dane, Harmonica of Ouborough gained the special. Ted Ward, who was handling for Mr. A. L. Heinsmann, secured winners dogs and bitches with Ch. Albany Straight Tip and Rambling Ruth. This is another breed to which apparently we are not paying enough attention, surely it is time that the game Irishman should stage a come back. The Old English sheep dogs were probably one of the greatest attractions, and Mrs. L. A. Dohring undoubtedly well deserved her win of Best in Show with Champion Cliffwold Minstrel Boy. A particularly typical good "Bob." Here again is a breed that I believe should become popular. Theodore Offerman had by no means an easy task to award the ribbons amongst the Pekes. Mrs. B. Foster, very naturally was de'ighted with gaining winners dogs with Pun Chu. Mrs. J. McKee's San Kee, the leader in the open under eight pound class being placed reserve. Quite a win for the latter, for he was still a novice up to the time of the show. Mrs. M. Potter had a series of successes in bitches with the aid of Gipsy Sue, To To Nee Chi. To To Nee Chi, gaining winners bitch, with Geo. Foster's Radio Schuchong her nearest opponent. San Kee getting the special. A number of well known exhibitors were not represented in Pomeranians and although the classes were good they could not be called as representative as they might have been. Mrs. W. Wylie's champion Cairndhu Sunbright was the leading dog. and J. T. Waggitt's Arndale Golden Moth the best bitch. Mrs. G. E. Brown had a big team of Schipperkes, the only outside competition being "Jimmy" Strachan's Coltness Little Skipper. Robert Sedgewick was more than pleased at the entry of Scottish Terriers. Dr. H. E. Batt was greatly pleased with the success achieved with his good bitch Lamdon Lyra. Donald McKellar had a very typical team competing but they had to give way rightly to A. Buchanan's Champion Ellwyn Prince. Lamdon Lyra put up quite a fight when competing against the dog for the special. The Rensal Kennels carried away all the ribbons offered for Sealyham Terriers. Frank Plant's recent importation Brazen Bonipart made some friends. Joseph Hill's awards in the

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setters and spaniels were particularly well received and he certainly showed consistency in his placings. In English Setters D. C. Kok Southbor's Savanah could not be downed. Whilst in Irish W. W. Higgins' Ch. Higgins Red Pat held a slight advantage over another real Irishman in Charles Stone's Ch. Forest Larry Lloyd. W. M. Nickle secured many well deserved honors in Cocker Spaniels with his Frontenac team. The very typical black, My Own Perfection, gained the special for best. F. W. Lewis had some well merited wins with Calmo Defenco. R. Tyrwhett's Stanley Count gained winners dogs in particolors. I thought he was looking particularly well and so was Frontenac Speckled Beauty, who improves every time out. J. Ritchie had by no means an easy victory to get in front of Ch. Don of Toronto, with Langton Labricant in Springer dogs. Boghurst Bushie being closely followed in bitches by H. Mountain's good bitch Queen of Toronto. The awards in Shepherds were keenly contested and generally I thought the entry was particularly even in quality. Quite a lot of publicity has been given to the Russian Wolfhound judging. I was not present at the time so do not know anything of the facts-going along the benches I was very much impressed with the entry. Romanoff War Baby made a very big impression on the judge, Dr. Ford, who I understand purchased her and sent her out to California, where I may have the pleasure of seeing her again this spring.

In concluding my article for January I take this opportunity of thanking the many readers who so kindly sent their greetings for Christmas and the New Year, needless to say they were very much appreciated.

. . .

I have been asked by a correspondent to publish or send a photograph of a typical Springer Spaniel puppy. I am asking our Editor to oblige by reproducing a cut of a very good dog puppy I saw at Kansas City, also an extremely promising litter of Belmoss Springers and Champion Belmoss Countess, the property of H. J. Placy, Sherbrooke, Quebec.

CORRECTION.

On page 54 of last issue. Awards, Wire Haired Fox Terriers, at Puppies, Bitches. We say, "2nd, Miss L. Shortland's Glorious Betsey." This should read, "2nd, Miss Lena Short and Mrs. C. E. Luscombe, Glorious Betsy."

BOSTON TERRIERS AT THE ROYAL SHOW

(Special to Kennel and Bench by the Judge, Vincent G. Perry).

I was impressed with the entry of Boston terriers at the Royal Winter Fair show. A hackneyed thing to say, but I was especially impressed because I have been one of the Boston terrier men who have in recent years decried the fact that our Bostons were deteriorating in character in Canada. Of the thirty some odd dogs exhibited under me at this event there was only one dog in the whole show that in my opinion was not worthy of a first ribbon at almost any show-and the unfortunate thing about it was that one had to place dogs second, third and fourth, that in ordinary competition were worthy of first places-but this was by no means ordinary competition.

The entry was not a large one, but all the headliners were there. The bench fillers were absent, no doubt discouraged by defeat at the recent specialty show held in the same city, with the result that my classes were composed pretty well of the principal winners at recent shows.

In Canadian-bred dogs there were six beauties. First went to L. E. Anderson's Billy Disturber, an outstanding, flashy dog possessing the best of limbs, ideal markings set off by a rich mahogany brindle coloration, and a dog who makes the best of his chances at all times. He is particularly strong in head points, correct in station and much better than average in body lines. An altogether good dog this one.

Second to that most typical son of Ch. Mighty Atom, Pal's Peter, a good little one, with plenty of type everywhere. He failed in my eyes to the winner in this class mainly in hind action, and in skull formation. What he lacks in markings are made up for in compactness of build and general style.

Third in this class to another Mighty Atom son, W. C. Hill's Klassie Kay of Hillsdale. This dog did not half try at this show, and in company like this a dog must appear at its best to take foremost place. He is a well marked dog, with a nicely proportioned body, well-formed hindquarters and good hind action.

In limit dogs under 15 lbs. one of the outstanding dogs of the day took first. This is Mrs. L. B. Daley's Reigh Count, one of the best little dogs out on either side of the border in years. Here is a well put torether little tyke, posessing a faultless front, beautiful markings and coloration. That much desired Boston terrier expression was never better typified than in Reigh Count. He might be criticized as being too short in muzzle and in skull formation, but the dog is small all over, and this must be considered in reckoning his conformation. W. F. Milk's Pal's Peter, previously described, was second, not a close decision, but the little Canadian dog was by no means outclassed.

With Reigh Count out in open lightweight first went to an old favorite of mine, Mrs. F. Burridge's Highball's Little Man. Here is a dog that is all Boston; he is an unusually good headed one, marked as if he were painted with all the trimmings, and a dog beautifully sprung in rib, and possessing remarkable evenness in conformation. He is his own worst enemy in the ring, but the occasional views he gives standing in correct position is enough for the experienced eye to spot him as a dog of unusually fine make and shape. In general type he reminds me a good deal of the American Champion Mosholu Bearcat, recently judged best of breed at the New York and Boston specialty shows. Second was Pal's Peter. It would have been no hardship to have reversed this decision as these two dogs score very much the same. Little Man being filled out better under the eyes, and possessing a darker and more expressive eye, a shade cleaner cheek and a bit better skull. Pal's Peter, however, is a better fronted dog and has much better ring manners.

Nothing new came in until the open middleweight class, where Mrs. L. B. Daley again won with Ch. Detroit News. In this dog we have a gorgeous headed, substantial dog of correct station, brilliant markings and coloration, one of the classiest movers ever in a ring, extra good in all body points, taken all in all a wonderful specimen of the breed. Second to the American champion was Lynch and Greene's Bubbling Over the 5th, a clean cut dog possessing plenty of good points. In the days when Bostons were spoken of as bully type and terrier typethis dog would have been described as an extreme terrier. He possesses a lovely skull and eye, a shapely body, and a front that is most effective when viewed from the front. He can be a little careless in shoulder and does not move well behind. Klassie Kay of Hillsdale was third, a position he might have changed with the second dog had he tried a little harder, as he is better in muzzle, equally as good in body and better in hind action, though not so good in front or skull.

Heavyweights were a good lot with first going to a racey type of dog owned by Mrs. F. Cayley and named Gypsy's Highball. He scored in style and expression over the cobbier and sturdier typed Fashion Gay Boy owned, by R. H. D. Sims. I have not marked my catalogue, and from memory cannot correctly name the third and fourth winners in these classes.

Winners brought in the two American winners Ch. Detroit News and the near-champion Reigh Count, together with the Canadian winners, L. E. Anderson's Billy Disturber and Mrs. Burridge's Highball Little Man. The two Canadian dogs, although worthy winners at almost any show, were a bit unfortunate to meet two such cracks as the Detroit dogs, and winners was awarded to Ch. Detroit News, with Reigh Count in the reserve position. Detroit News scored in muzzle and station over his kennel mate. In my opinion I have never judged a better Boston than Detroit News when he is put down right. My good friend and that well-known judge, Chas. Grosse, of Cleveland, who recently put the reserve dog Reigh Count best on show at the Buffalo specialty show, in reviewing this little dog, stated he considered him the best Boston out in the States in ten years-so one can gather from that, that it was no easy task to judge these two Daley dogs.

The females were a lovely lot. Two extra nice ones appeared in the puppy class in Mrs. Daley's Dimples, and Kingbencher Kennels Kingbencher Roxalene. Here the Canadian bitch Roxalche outshone the visitor in general finish and was placed first.

A more attractive and showey little female is hard to imagine, a beautifully proportioned miss with the nicest of feet and limbs, a neat turned body and abounding in style. Maturity will give her the broadening of muzzle and strengthening in head points, the lack of which proved her only handicap when competing in the winners class. Dimples was a strong-headed one, but rather unfinished as yet.

Canadian-bred bitches brought out the aptly named Highball Sweet Heart, owned by Earl Brown. She is a sweet one indeed. They make few females with better heads or fronts. Attractively marked, nicely mannered, and moving better than most, she won here easily. Too much length of back is a slight handicap to her, but this is a fault one must overlook to some degree in a female of this breed. Second to Miss Mary Moore's Lady Nixey, a good little bitch all over, and barring a tendency to wedge in muzzle she could take her place among the top notchers. She has a most pleasing eye and expression, is absolutely correct in skull, is evenly and attractively marked and moves well. Third was a good-headed female, H. T. Carter's Little Mispeg.

Nothing new until open lightweights which was headed by Mr. and Mrs. R. Clement's Gypsy's Jewel, a most attractive lightweight and a topper surely.

The middleweight bitches were especially good, with little between them. The first place limit winner, George Strachan's Sweetheart of Mine, is a stylish, showey bitch of most intense type. Her greatest fault is a decided tendency to the masculine in type. Lady Nixey was second with Little Mispeg in third place.

Mrs. M. Steven showed the solitary heavyweight bitch in Jubilee I'm The Girl, a most substantial heavyweight of more than passing merit.

The winner of the open middleweight class was Arthur Craddock's Queen of Jubilee. During the past year I have judged several hundred Boston terriers in the United States, but not one bitch with a headpiece that can compare with this female's. It is the standard picturized. It is a feminine head without a suggestion of "dog-type." Put down in excellent condition, flashily marked, flawless in front and feet, by no means to be seriously faulted in body, and moving with more freedom than usual, there was no denying her claim to first place here.

Winners bitches brought in four lovely ones—Queen of Jubilee, Highball Sweet One, Gypsy's Jewel, Sweetheart of Mine—all of winners calibre surely, as was also the puppy winner, barred from competition here by being defeated in the lightweight class by the more matured Sweet One. No ring, ever to my knowledge, brought together four better Canadian-bred Bostons to compete for the highest honor of their sex, and it was especially noteworthy, for I find by consulting my catalogue that all four were sired by Ch. Highball Just It.

When one considers this, and the fact that two of the principal winners in the dog classes were sired by Ch. Mighty Atom, there is no denying that Toronto dogs are once more coming to the front as important sires in the breed.

Winners bitches could not be denied the beautiful Queen of Jubilee, which award gave her her championship. Highball Sweet One was reserve with Gypsy's Jewel a close runner up.

Best of breed went to Ch. Detroit News, who had the pull in body and hind action over Queen of Jubilee, although the female sacrificed no points in head, in fact her cleanness of cheek gave her a margin over the dog here. International championships await this pair.

VINCENT G. PERRY.

GIVE THIS JUDGE CREDIT

It is said that Judge Latimer, of Washington, D.C., asks each boy brought before him if he owns a dog. The Judge claims he has never had a persistent case of delinquency in a boy who owns a dog.

We heartily agree with Judge Latimore. When a boy owns a dog as his very own, and when there is that boyish relationship between the lad and his dog that is usually found, it is seldom that the boy may be found by himself. The stored-up energy of both find a healthy outlet, and many a danger zone is passed in that way. Give your boy a dog.

EDMONTON DOG FANCIERS CLUB ELECTS OFFICERS FOR 1929

The annual meeting of the above named club was held at Edmonton, Alta., on Monday, December 3rd, when the following officers were handed the reins of government for the year:

President-Harry Nash.

Vice-President—Arthur Wright. Second Vice-President—A. E. Figg. Secretary - Treasurer — (Appointment pending).

Executive—R. W. Cundall, A. G. Barton, Geo. Kirkwood, L. E. Wize and E. Marshall.

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A NEW BOOK OF DOG-GREL VERSÉ.

We are advised that it is the intention of our good Montreal friend, "Witty" Warren, of Bulldog and Whippet fame, to publish a book of dog-grel. The writer has just had the pleasure of reading the copy that will make the new book, and it is more *dog* than *grel* in my opinion, and because of that, "Witty's" book, when published, will enjoy a large sale from the first. As a sample of Mr. Warren's talent we take the liberty to steal the following lines which are a very good sample to test the book by:

THRILLS

My life has been one of adventure,

I have sought the world over for thrills:

I've been wrecked in the Indian Ocean,

I've smoked the green opium pills: I've tasted the lips of a princess,---I'll prove it, if you'll bet the dough, I've been lost in a northern blizzard When the glass was sixty below. I've found virgin silver in Cobalt And gold on the Yukon's shore: My broker has paid me thousands For a day on the Exchange floor. I've seen a torpedo coming Without even a chance to run: I've looked with never a tremble In the eye of a bandit's gun. I've backed the Derby winner When he won at a killing pace: But the thrill that held me longest Was the end of a WHIPPET RACE.

Other highlights that will tickle most doggie people are "The Handler's Dilemma," "Dress Suits," "Best in Show," "Made in Germany," "Non-Sporting Variety" and "The Call of the Cocker."

That Mr. Warren has a decided talent for writing original verse is undoubted, and it is well known that as a professional entertainer of many years standing, he will often use extemporaneous verse that is as delightful as it is unexpected.

When Mrs. Hilda M. Ridder, New York, advised Mr. Warren of the death of her recently made (Canadianbred) International Champion Boston Terrier O'Glo's Midgie (see page 39, last issue), "Witty's" reply was as follows:

"Grieved am I at Midgie's passing; Have faith, my friend, in Dogdom's

Lord-

He will note her in his classing, Anl place her high by his award."

We will await the publishing of Mr. Warren's book with more than usual interest.

ROYAL WINTER FAIR.

Mr. Theo. Offerman Comments on the "Royal."

It was certainly a pleasure for me to judge again in Canada. I had an enjoyable time and no one could have treated me better than the members of the National Kennel Club. Those who are fond of animals should take in the Royal Agricultural Winter Fair, for I doubt if anywhere in the world there is a better Fair. I attended the Royal Agricultural Fairs in England and this one in Toronto can hold its own with them. Some of the breeds of dogs I judged were good, others I was very much disappointed in. The first breed I judged were Airedales, while there were a nice even lot, nothing sensational. The winning dog, good color, nice front, good shower, and ears very uncertain, with a little manipulation before being brought in the ring his ears no doubt would have kept down. Second to him or Reserve winners, a dog in the same type, not as long in head, but good rich black and tan, could carry his ears higher.

The winning bitch was very sweet but showed very poorly; very shy. Canada formerly bred such fine Airedales it was a treat years ago to see them. The late Mr. Joseph Russell always had a big entry and not a poor one in the lot. The States seems to have the same trouble. They can't seem to breed good ones, yet in England they have record entries and many good ones, but the Airedale is a wonderful breed, and it is sure to come back bigger and better in the near future.

Bull terriers, another breed that formerly had a big entry and had a fine lot of dogs. Colonel McFarland had a fine brace and won rather easily.

Pinschers were mostly dogs from the States, some real good ones.

Schipperkes were real good; so many more than we have. Here is a real good little dog. Why they do not become popular is hard to say.

Schnauzers-only a few, nothing very wonderful.

Pekingese were my largest entry. A good lot. Very even and many good ones.

Pomeranians, while not numerous, very good; some extra good ones.

Yorkshire Terriers had some wonderful coated specimens.

One thing impressed me with the exhibitors, such fine sportsmen, not a kick or complaint, not even a why or a wherefore. Canada is going to be a big dog country, for the exhibitors or their ancestors all come from Great Britain, and the Empire is dog-loving.

I wish to thank my stewards for their help.

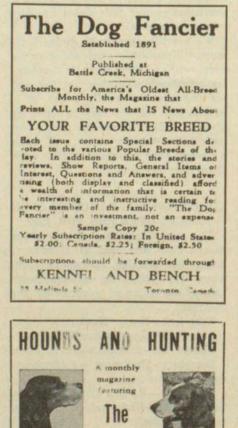
THEODORE OFFERMAN.

FAMOUS BOSTON TERRIER JUDGES ASSAULTED.

Quite the most disturbing information that has come to us in a long time is the information culled from some newspaper clipping sent to us by courtesy of our good friend "Witty" Warren, of Montreal.

It seems that the Boston Terrier Club had met for the election of officers at the Copley Square Hotel last Wednesday evening. A slate had been drawn up that favored a representative of an influential Bootleg Ring, this was opposed by two men famous in Canada and the United States in the person of Patrick E. (Paddy) Dowd and Thomas Hunter, Jr., and so hectic was the meeting that as the argument proceeded a knife was drawn and only for the members jumping in and interfering violence was averted, at least in the meeting. After the meeting had concluded

Messrs. Dowd and Hunter set out on



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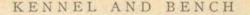
foot for their homes, and at Huntington Avenue in the heart of the Back Bay district the disgruntled raconteur with three accomplices in an auto overtook the pedestrians and attacked them with whiskey bottles and knives in such a brutal manner that it is said Paddy Dowd will be crippled for life. and that Tom Hunter, Jr. will be under his doctor's care for months. The assault is described by Police Superintendent Crowley as one of the most brutal and vindictive assaults ever reported to police headquarters, and he is now particularly interested in ascertaining why the assailants were allowed to vanish from the Back Bay district without even having been questioned after the victims had reported the case. He wonders why no apparent effort was made by the police to arrest the assailants and to obtain justice for the beaten pair. It is further suggested that the raconteur is a man of power and wealth who is feared by some police officials, patrolmen and politicians alike, and in a period of ten years he has climbed to widespread control in Boston illicit liquor circles.

The dog fancy of the two countries will be shocked to read the above, and particularly Boston Terrier fanciers who have had the impartial and expert judgment of both men, on their dogs from time to time. Both "Paddy" Dowd and Tom Hunter. Jr. have friends without number in Canada that will be pulling for their safe and speedy recoveries, and will welcome the speedy prosecution of the parties responsible for the present terrible condition.

HOME FOR CHRISTMAS

Montreal's "Grand Old Man," Mr. Wm. R. Aitken, writing from aboard the S.S. Melita at St. John, N.B., on Friday, December 14th, says, "I'm off for one more trip to the "old sod" and there's no saying where I'll get to, or what I'll get before returning, but I'll spend Christmas in London and New Years in "Auld Reekie" (Edinburgh) with the remnant of the "old gang," and I hope the changesea air-will help the old "box o' whustles" (chest). I've been a lame duck since the last show."

Very good "Weelum," here's hoping for a clear chest, a good "Wire," maybe two. That you'll get to every p'ace you deserve to get to-I nearly added to that one, but fortunately didn't-that you'll find the "old gang" hale and hearty, and that you'll return with restored and renewed strength-like an eagle. I wish I was with you, and that's that.



Notes From Alberta

By Provincial Contributing Editor, R. S. TYRRELL, Bottrel, Alta.

A

T this time of the year we are eulogized by our moral perceptors to turn over a new leaf, or to pass reso-

lutions for a perfect and complete line of conduct for the coming year. Before assuming the mant'e of the modern Elijah, let me wish all my fellow fanciers a happy and prosperous New Year.

Some of our shortcomings struck Mr. J. W. Marples rather forcibly during his recent visit as judge at shows in various parts of the Dominion. He has been kind enough to give us his views in the November issue of Kennel and Bench. Not having had an opportunity to discuss the various matters with him, and as he did not officiate at any of the Alberta shows, his remarks can hardly apply to fanciers in this province. Generally speaking though, the conditions are not dissimi'ar in the West. What struck Mr. Marples first and foremost was that we, as exhibitors, were not concerned seriously enough in the matter of showing our dogs. We must remember that in making comparisons with conditions on the other side of the pond, there are a good many things that combine to form a very different "ensemble". In Great Britain on the same day there are often three shows running simultaneously any one of which is accessible to the majority of exhibitors. The cost of conveying a dog to a show is only a fraction of the heavy charges we are obliged to pay. If one wins there are cash prizes that often leave the exhibitor with a handsome balance, after all expenses are paid, besides this there are silver cups and similar prizes galore. Here an exhibitor after paying out in expenses, perhaps half as much as the local market value of his dog, gets a ribbon-if he is lucky -and sometimes a Special, of sorts. Yet our exhibitors are charged with being poor sports and not serious enough! Believe me, as an old member, you have got to be quite a fair sport to start with, before going in for the game of showing dogs. Yet we must admit that Mr. Marples' criticism is not without foundation and it is up to each and every one of us, by our personal conduct at shows,

to raise the standard of sportsmanship. This can also be extended outside of the immediate show building. There is not the slightest doubt that we, as fanciers, are not boosting the game to the best of our ability. On December 17 and 18 the Alberta Kennel Club are holding a point show under Canadian Kennel Club rules, yet there is no advertisement of the event, neither is it scheduled in the November issue of our official organ. The only notice of the event at all is that found in Alberta Notes. Our head office was desirous that Alberta should have its fu'l share of publicity in the Christmas issue, and hoping to help along the good work, the Editor wrote every member personally, some ten per cent. were sufficiently interested to reply.

It is not so long since we heard that the East were not giving us a square deal! Surely the shoe is on our own foot now. Wake up, Alberta, for our own personal advantage, don't let such a charge as Mr. Marples' pass without making an effort to remedy the cause. His suggestion that we should have two Kennel Clubs, one for the East and one for the West, cannot be entertained for a moment. It is not so long since we had such a situation, but thanks to the very clear vision and broad-minded views of those at the head of affairs, we are now progressing most successfully. "In Unity There is Strength." Whether it would be possible to have a permanent paid official representative of the Canadian Kennel Club resident in the West is a matter for our Directors to decide, but that seems to the writer to be the only practical solution of our critic's ideas.

The matter of express rates has brought a large number of letters in my mail. One of unusual interest is that from Mr. S. B. Hedderly of Phoenix, who points out that it costs him about ten dollars to convey a dog to his nearest show. He is raising German Shepherds, and two of his dogs, "Peter von Minkwitz" and "Erich von Minkwitz," two young males, have been out on the trail with forest rangers all summer. The dogs stood up to the hardships of the life splendidly. Erich, who was shown at Edmonton in July, took first in the puppy class.

With regard to my recent suggestion that we should have an act making it compulsory for owners to confine their dogs to their own premises, except when under reasonable control, between sunset and sunrise, it is interesting to note that Michigan already has a law to that effect.

An old Canadian Kennel Club member at Moose Jaw, Mr. J. T. Booth, writes that his whippets have been much disturbed in their kennels at night by a neighbor's dogs prowling around, turning over garbage cans and raising h- in local gardens generally. He points out that this sort of thing often leads to quite innocent dogs being poisoned. The present restrictions regarding dogs in Calgary was caused by a similar incident and we fanciers who value our dogs both from a sentimental and financial viewpoint, have to suffer. To-day there arrived at the Cossack Kennels a young female Russian Wolfhound. purchased under a special agreement from Mr. M. B. Zwicker of the famous Marlboro Kennels, Halifax, N.S. In spite of the long, hard trip, she arrived in wonderful condition. She is by Ch. Korol ex Ch. Marlboro's Nona of Shay (imp.). Ch. Korol has a timed speed of 55 miles an hour and it is hoped by mating "Rosemond of Marlboro" with "Cossack Michael" to produce a track hound faster than anything the world has yet seen. At the same time, in conjunction with Mr. T. Owens' "Victoria Kennels," Lethbridge, Alta., we are planning, with the aid of "Hop-a-Long." to breed a Greyhound that will outrun the Russian.

We hear a good deal about the petty meanness of some dog fanciers but the real good sportsmanship of such exce¹lent fanciers as Dick Zwicker and Tommy Owens does not often come to light, neither is this quality solely confined to the sterner sex, the writer is not unmindful of the assistance given him by our wonderful Wolfhound breeder, Mrs. J. Paterson of the celebrated "Romanoff Kennels," in improving the quality of our Russian Wolfhounds in the West.

Heredity

By DR. F. D. EGAN, V.S., Detroit, Mich.

Educational Talk Prepared For a Regular Meeting of the Detroit Bulldog Club, Inc., on September 14, 1928.

THE breeding of pure-bred dogs implies the breeding of better dogs, at least that is the aim of all breeders,—to produce better dogs. It does not necessarily follow that because a dog is pure-bred he is a good specimen. Often a well planned breeding of good specimen pedigreed dogs will result in a disappointment to the breeder A study of heredity can only attempt to explain some of these disappointments.

There are no simple hard and fast rules of heredity that can be applied with mathematical accuracy. It is often true that we can observe a mother and daughter and know that they are mother and daughter without being told. This is the simplest law of heredity, that like begets like. The dictionary says that heredity is the transmission of the characteristic features of an organism to its offspring, which in plain language is that "like begets like". While it is true that like begets like, it is also true, in a paradoxical sense, that the exact reverse of this is true, because no two individuals are exactly alike. In brothers and sisters and in twins, no matter how much they look alike there are always one or more distinguishing features. While like begets like only within certain limits, there is also a distinct tendency to deviate within certain limits, so that the statement, "like begets like," is only partially true. This tendency to deviate is called variation. Heredity is opposed to change, because the force behind heredity is the principle that like begets like. There is, on the other hand, an opposing force which is constantly effecting change by variation which is more or less constant and constant variation is what we call more or less constant and constant variation is what we call evolution. The characters that tend to produce an exact likeness are called dominant characters and those that tend to produce variation are called recessive. For example everybody knows that the human being has five fingers. This is called a dominant character. But rarely people are born with six fingers. The appearance of the sixth finger when it occurs is termed recessive character. There is a case of record where families with six fingered people are more or less common and where six fingered people have been married to six fingered mates with the result as could be expected that the offspring of such marriages showed a high percentage of the occurrence of the sixth finger. While these experiments cannot be carried out to any great length in the human family there is sufficient evidence on record to show that a six-fingered variety of people could be established, so that eventually the sixth finger, instead of being recessive, would become dominant. Take the case of the German Shepherd dog in regard to the dew-claw. This is the fifth claw on the inside of the hind leg and is very objectionable in this breed. Originally all dogs had five toes on both front and hind feet. At present the dew-claw in some breeds is almost unheard of, but in the Shepherd it is very undesirable and is usually removed surgically. The appearance of the dew-claw is called recessive whereas at one time it was dominant because all mammals at one time had five dactyls on each limb. It is not uncommon to find double dew-claws making six toes on hind legs.

In 1865 an Austrian Monk named Mendel did some original experiments with plants and established the Mendelian theory of heredity which is that certain characters are transmitted as indivisible units. Example, crossing tall and dwarf varieties of peas did not produce medium size peas as was reasonable to expect, but to his surprise all of the second generation were tall, hence the tallness in this case was said to be dominant and the dwarfness recessive. The tallness only remains dominant by breeding the second generation back to tall peas. If the second generation are self-fertilized, that is fertilized by their own kind instead of breeding back to the tall variety, then the third generation shows half tall and half dwarf but no medium sized which is the important part of the experiment.

The explanation of the fact that the peas did not blend the short and tall varieties into a medium size is that there were no medium sized parent germ cells. The medium sized pea is only produced after several cross fertilizations. In the first cross of tall and dwarf varieties where the size is fixed and constant, 50% of the chromosomes are short and 50% are tall, and there are no medium size peas because there are no intermediary chromosomes. Chromosomes are called the hereditary determiners and are contained in the sperm cell or male element and also in the ovum or female element of hereditary transmission and they are the only similar features possessed by both the male and female cells. We shall have more to say about the chromosomes later.

Another distinguished investigator into the causes of heredity was Sir Francis Galton, whose theory does not conflict with Mendle's, but Galton's observations were based mostly on the human family. His records cover over 1,500 people living in England at the time and refer mostly to the question of stature or height. Human beings are the result of natural selection the same as wild animals and plants. Domestic animals and plants are the result of artificial selection and offer far more satisfactory material for experiment. While Mendel showed that hereditary characters are transmitted as indivisible units, Galton showed that this is not necessarily the case or that it is not constant because not all inheritance is the simple Mendelian type in which one of a pair of contrasted characters is dominant but as Galton shows that many characters of an offspring represent a blend of parental indifferences. But as we have said the human race makes poor material for such observation. As for example, the dog family the size of the Great Dane and the Pomeranian are fixed by artificial selection whereas Galton had no such contrasting differences among the people of England. If the people of England were married to pigmy people it is likely that Mendel's law would have worked in the same way as with the tall and dwarf peas. In the case of Galton's with the human beings the dominance is lacking and in place of dominance you have what is known as a "multiple factor hypothesis. The work of Galton resulted in a rather complicated arbitrary mathematical rule which is considered important to the science of breeding. In this brief article we cannot go into the long list of figures arrived at by Galton but applied to the breeding of animals it would mean that if two 20-lb. dogs were mated, the breeder would stand one chance out of two of getting a 20-lb. dog, but if two 16-lb. dogs were mated the breeder would stand one chance out of eight of getting a 20-lb. dog.

Galton's	Law of	Ancestral	Heredity.
	No. of	Effective	Effective
Generations	Ances-	of	of each
backward	tors	generation	ancestor
1	2	1/2	1/4
2	4	1/4	1/16
3	8	1/8	1/64
4	16	1/16	1/256
5	32	1/32	1/1024
6	64	1/64	1/4096

This table illustrates very vividly that an individual cannot cut off from its ancestors. It shows that the immediate ancestors contribute by far the greater share to an individual's genetic composition, therefore the immediate ancestors should receive the greatest consideration in selecting a sire but not all the consideration by any means.

As an example of Mendel's law in dogs we might take the Boston or French Bulldog. The French Bulldog should be dark brindle and the Boston the same with white markings. Occasionally one will get a pup nearly all white. This is due to reversion. Reversion means in breeders' common parlance, a "throwback". In the early days of the development of those breeds, all white or brindle with mostly white was permissible but by continuous selection of the brindles and the unpopularity of white, the present specimens were established. The sudden appearance of white is due to reversion. The all-brindle Frenchy is dominant and the white Frenchy or Boston is recessive. By taking a white Boston female and crossing with the regular marked male, the result in the first generation will be as a rule well-marked specimens. But these same well marked first generation specimens are apt to have puppies showing more white than the average especially if bred to a dog with too much white. Several breeders take advantage of this knowledge and will breed a white female but it is the wrong thing to do for the good of the breed.

There are different degrees of variation. The first and simplest is called individual. Second atavism: This biological term is derived from the the Latin root, avus, meaning grandfather. Atavism therefore may be defined as "Grandparentism". It is the re-appearance of ancestral characters not in evidence in the parents. Reversion is the third degree. Reversion is the same as Atavism, except that it is reserved to mean a variation appearing further back than the third generation. The difference in the two is only in the degree of remoteness.

Neither Atavism nor reversion present new characters but rather characters not of the accepted type or standard of the present. The fourth degree of variation is called mutation, and occurs in an exaggerated degree, very frequent or discontinuous and according to their nature may be favorable or unfavorable. Example, the tail-less Collie is called a Mutant.

The fifth degree is called malformation. Under this heading would come three-legged, five-legged, doubleheaded examples. They very seldom reproduce and in fact rarely live to maturity.

The causes of variation are largely credited to the unequal division of chromatin material in the process of maturation or cell division following fertilization of the ovum.

There is another factor influencing heredity which may upset all the rules of averages and which can not be calculated mathematically. This is the factor of prepotency. Potency means power and prepotency is an excess of power in the ability to transmit hereditary characters. It is spoken of as exclusive inheritance, in which the characters of one parent appear to the exclusion of those of the other.

Close breeding makes for prepotency. There are different degrees of close breeding which is subdivided under three headings, namely, Line breeding, inbreeding and in and in breeding.

Line breeding is the mating of individuals that have a common ancestor but are so far removed that their relationship is 50 per cent. or less of the same breeding. That is the mating of cousins or of the grandparent to the grand offspring. It is also possible to have close or diffuse line breeding, as for example the mating of a granddaughter to a great grandson. The objective behind all forms of line breeding is the concentration of certain blood and can take on various forms as the matings of cousins, half cousins, half uncle and niece, granddaughter and grandsire, double grandsons and granddams.

In - breeding is closer than line breeding and is the mating of individuals possessing more than 50 per cent. or more of the same blood, for example—full brother and sister, half brother and sister, sire and daughter, son and dam, double cousins, full uncle and niece, nephew and full aunt. The mating of full brother and sister is the closest possible breeding since they carry 100 per cent. of the same breeding.

In-and-in-breeding is the continued practice of in-breeding. While inbreeding has its advantages in fixing a certain good point it also has the added disadvantage and danger of fixing the faults.

Out-crossing is the exact reverse of cross breeding, and is sometimes more successful than line breeding as it has two good objectives, namely to introduce new blood into a close bred family and it affords a chance to breed the best to the best.

Out-crossing must not be confused with cross breeding. Cross breeding may consist of crossing breeds, grades, purebreds or species.

Inheritance in addition to conformation, size, shape, color, etc., also transmits the psychic characters as temper, calmness, excitedness, meanness and docility. The resistance to disease is one of the most important factors to study in heredity. Example, it is well known that some breeds have very little resistance to distemper whereas other apparently delicate and small breeds will stand distemper much better than the large and strong.

We have now covered three distinct types of inheritance. First, Mendelian, whereby certain characters of either parent are transmitted intact to the offspring. In this case we will imagine a longnosed dog bred to a short-nosed dog and the offspring showing only the long nose of one parent and no resemblance to the short nose ancestor. Second, the Galton or Blending type wherein a large and small dog are crossed and a medium sized offspring results or other features that do not show which ancestor had most influence on account of the blended results. Third, the prepotent type which was fully explained.

A serious study of the subject of heredity must involve the question as to the origin of life. It is less than 100 years ago or since the invention and improvement of the microscope that the cellular theory has been established, putting to sleep the theory of spontaneous generation in which many people believed and some still believe. Spontaneous generation is the theory that a living organism can be generated or produced without parents. That is, that organisms can come from nowhere in particular. Example, there are many dog fanciers to-day who believe that a dog born free from worms acquires worms in

a mysterious way, in other words, spontaneously. People will argue that the feeding of milk or meat or that not feeding milk or meat will cause worms. They forget the fundamental principle of heredity that like begets like and in order to get worms you must have parents of worms or in other words worms begin life as an egg the same as all animals. Spontaneous generation is to believe that a living thing can be evolved from lifeless matter. For example a little water gathered from a stream apparently clean would develop fish, frogs. plant life or bacteria in time for the simple reason that the water was not sterilized and that the eggs of the organisms were invisibly present in the water.

It is admitted by all recognized authorities to-day that all living things originate from a single cell called the ovum or egg. Whether it is a very small microbe, a plant, a dog or a man, they all start as a single cell.

THE WHITE HOUSE COLLIE BEST OF THE BELHAVENS.

Mrs. Florence B. Ilch, proprietor of the Bellhaven collie kennels on Locust Avenue, Red Bank, shipped last week one of her choicest collie pups to Mrs. Herbert C. Hoover, wife of the President-elect of the United States. The dog was shipped to Mrs. Hoover's home at Palo Alto, California. Mrs. Ilch was an ardent supporter of Mr. Hoover in his race for the presidency and the gift was an expression of her happiness over the election result. While talking to a Register reporter last week Mrs. Ilch said it was the first dog she had given away in her seven years as proprietor of the Bellhaven Kennels.

Mrs. Hoover's dog is a Sabellion White Collie and it is valued at more than \$1,000. Its name is Behoover and it is a full American-bred dog. The name was derived from Mrs. Hoover's surname and "B," which is the name prefix of the Bellhaven Kennels. Behoover is a grandson of the undefeated triple champion, Bellhaven Starbat Strongheart, the collie that has defeated every dog of its kind with which he has been in competition. The sire of the prize puppy is Bellhaven Braveheart, also a triple champion. The dam is Bellhaven Blossom Time, daughter of Bellhaven Laund Logic, an international champion.

The puppy is seven months old. Until Mrs. Ilch decided to give the dog away it was destined to be entered in many dog shows throughout the country this year and it was counted to win its share of cups and blue ribbons for the Bellhaven kennels. It has been groomed as a show dog since its birth.

The dog's parents and its grandfather, Strongheart, are at Mrs. Ilch's kennels on Locust Avenue. Strongheart's days as a show dog are over as he is ten years old. He will spend his remaining days at Red Bank, where he is still depended on to do much toward increasing the stock of American-bred, full-blooded collies.

Mrs. Ilch's telegram to Mrs. Hoover follows:

Mrs. Herbert Hoover, Palo Alto, California.

Shipping to-day to the first lady of the land by American railway express, insured for \$1,000, magnificent young male collie, name Bellhaven Behoover. This dog is the choicest specimen that can be picked from the entire collection of young stock in this, the greatest kennel of show collies in the United States. He is absolutely perfect in type and of the very finest breeding, possessing the sweetest disposition. Over distemper. Will prove wonderful companion and fit to grace the White House. Pedigree follows. With every possible good wish,

FLORENCE B. ILCH, Bellhaven Collie Kennels,

Red Bank, New Jersey.

(Courtesy The Professional Handlers' Review).

ALBERTA NOTES.

In the very brief time at my disposal before leaving Calgary, it is only possible to give a short outline of what has been accomplished at the 1928 winter show of the Alberta Kennel Club.

The quality of the entries was well above the average, and in number, somewhat larger than the summer event.

The support given by fanciers, not only local but from points all over the Western part of the continent, proves that where a show is put on and the ability and integrity of the judges are without that show will be a howling success.

Judge "Bobby" Thomson states that, in numbers and quality Pekingese were the best showing of that breed ever seen in the West. Judge Hugh Leslie mentioned that in the Springer

Spaniels the winning dog and bitch were absolutely outstanding, while the Wire Haired Terriers were well above the average. Chief of Police Ritchie gave a considerable standing to the show, at least we, or some of us, felt we were under the protection of the law! He was renewing his old love and was showing some excellent Scottish Terriers, the Chief was a keen fancier of the breed when residing in the land of the heather. Mr. Alexander Reid, another "heather Scot", was competing against him. He is a prospective Canadian Kennel Club member and is going to import some "real ones" from home, so that things are going to be livened up in the breed around Calgary.

The whole arrangement and decorated benches are a credit to the individual exhibitors and the officials of the Alberta Kennel Club. The old Marshall Wells building was comfortably warm, and with two rings going simultaneously, and the judges having plenty of efficient helpers in bringing the dogs into the rings, everything was running smoothly.

In Cockers, Best of Breed was absolutely the best Cocker Judge Leslie has ever seen in the West. In Open Setters either one of the first two could have divided the blue, and without doubt both quite outstanding.

There was absolutely no complaint of any kind whatsoever in connection with the awards, and frequent applause showed that the decisions were receiving the approval of the ringside.

Cossack Michael and Cossack Zanoza completed their Champsionships without ever having been defeated, by having taken the Special on two occasions.

Best Dog in Show, all breeds, the Wire Haired Terrier, Redcliff Milady, owned by Mr. G. D. Ireland, Vancouver.

Best Dog or Bitch, owned by a member of the Alberta Kennel Club, Ch. Calma's Dunbar, bred and owned by Mr. W. G. Climo, Calgary.

GERMAN DOGS IN WORD AND PICTURE.

Here is an opportunity for fanciers of Dobermans, Schnauzers, Alsatians, etc., to get some authoritative information on these now popular breeds.

The author is none other than Mr. Joseph Schwabacher, of Auerbach, Hessen, Germany, and the book sells at \$2.00 per copy.

Send for a copy to-day.

KENNEL AND BENCH. 25 Melinda Street,

Toronto, Canada.

Breeders' Register

TERRIERS (AIREDALE)

Caerphilly Kennels. P. Bawden, Owner. Ridgetown, Ont.

- Norway Kennels (Reg'd). Alfred Handy, Prop., 131 Chisholm Ave., Toronto, Ont. Phone Grover 1565.
- Rockley Kennels. Sid. Perkins, 1280 Dan-forth Ave., Toronto.
- SHEPHERD DOGS (ALSATIAN) Alva Kennels, Mrs. R. McColl, 32A Kingston Road, West Hill, Ont. Brother Wilfrid, P.O. Box 20, La Trappe,
- Car. Tuck Kennels (Reg'd) F A. Martin, Owner, 78 William St. N., Lindsay, Ont. Kanadda Kennels. W. J. White, Prop., 3 Bertie St., Lindsay, Ont. MacRae, Col. J. N., Galt, Ont. North Shore Kennels. C. A. McMahon and N. D. Clinton, Props., 211 Hunter St. E., Hamilton, Ont. Oak Ridge Kennels (Reg'd) L. C. P. tr

- Oak Ridge Kennels (Reg'd). L. G. Baker, Oak Ridges, Ont. Phone King 322.
- Strongheart Police Dog Kennels (Reg'd), Courtright, Ont., Canada.
 - TERRIERS (BOSTON)
- Roselawn Boston Terrier Kennels. Earl R. Cathcart, Prop., 34 Galley Avenue, Toronto. Phone Lakeside 5417W.
- Tiswilde Kennels (Reg'd). Mrs. M. E. McVicker, R.M.D. 1, Victoria, B.C. Town Talk Kennels. H. M. Jackson, Prop., 61 Havelock St., Toronto, Ont.
- BULLDOGS
- Banbury, Mrs. E. F., 121 Silver Birch Ave., Toronto, Ont. Phone Howard 1537.
- Beach Park Bulldog Kennels (Reg'd) Jas. Cassina, Prop., 949 Dundas Street West, Toronto, Ont. Kamel Bulldog Kennels (Reg'd). Reg. P. Sparkes, 93 Kent Road, Toronto, Ont.
- **BULL-MASTIFFS**
- Famous Farcroft Bull-Mastiffs. S. E. Moseley. "Farcroft" Hamil. Burslem, England. TERRIERS (BULL)
- Haymarket Kennels. R. H. Elliott, Prop., 42 York Street, Ottawa, Ont.
- Limestone Kennels (Reg'd). J. E. Brunett, Prop., 30 Alma St., Kingston, Ont. CHOW CHOWS
- Brockington, Felix R., 181-K McKenns Ave., Montreal, Que. 'Phone Atlantic 0482. Numa Kennels S. A. Reed. Prop., Box 692, Welland, Ont.
 - SPANIELS (COCKER)
- Brampton Cocker Kennels. H. A. Ross, Prop., Brampton, Ont. Phone 451.
- Calmo Kennels. F. W. Lewis, 359 Dundas St. E., Toronto, Ont.
- Carleton Kennels. C. E. Living, Golden St., Highland Park, Box 27, Westboro, Ont.

- Ottawa Kennels (Reg'd). Allan C. McGuirl, Prop., 53 Glen Ave., Ottawa, Ont. Pinecrest Kennels (Reg'd) Robert Dudley. 146 Margueretta St., Toronto, Ont. Rhodes, Mrs. H. A., The Warren, Cowichan Station, Vancouver Island, B.C. Phone Cobble Hill, 1X2.
- Smith, G. F., 466 Summerhill Ave., Toronto, Ont.
- "Thistle Grove" Kennels. J. B. Forsyth, Prop., 550 Jane St., Toronto, Ont. Phone Lyndhurst 2404.

COLLIES

- Henderson, Wm., 392 Balliol St., Toronto, Ont. 'Phone Hudson 7870.
- Mayfair Kennels (Reg'd) George J.
 Hewson, 320 Erie Ave., Brantford, Ont.
 Stylish Kennels. Wm. Lockhart 345 Ossington Ave., Toronto. Phone Lombard 5354.
 - DASCHUNDES
- Gravce and Mike Greenburg, Camarillo, Calif., U.S.A.

PINSCHERS (DOBERMAN)

Vivadora Kennels (Reg'd). Mrs. J. R. Kennedy, 1673 Kingston Road, Toronto,

SETTERS (ENGLISH)

McConnell, N., 220 Cambie St., Vancouver,

SPANIELS (ENGLISH TOY)

Celamo Kennels, 59 Clifton St., Rochester,

ESKIMO

White Mountain Eskimo Sled Dog Kennels. E. O. Clark, Owner and Breeder, West Milan, N.H. (on the Grand Trunk Rail-road).

FOXHOUNDS (AMERICAN)

Baldwin, W. C., 187 Patterson Ave., Ottawa, Ont.

FOX TERRIERS

(Smooth and Wire-Haired) Mewburn, Chas. L., 65 Markland Street, Hamilton, Ont.

FOX TERRIERS (WIRE)

- Aitken & Silver Kennels, 3830 Lafontaine Park, Montreal, P.Q.
- Corinthian Kennels. F. F. Small, 98 Sellers Ave., Toronto, Ont. 'Phone Kenwood 7066-W.
- Wainright Kennels (Reg'd). R. L. Wain-right, 248 Glendale Ave., Hamilton, Ont.
- Warrior Kennels (Reg'd). Mr. Jack Steer, Prop., 3263 Stuart Ave., Montreal, Que.
 - GREAT DANES
- Brother Wilfrid, P.O. Box 20, La Trappe, Oue.

SETTERS (GORDON)

Inglehurst Kennels. Charles T. Inglee Office, 155 Montague St., Brooklyn, N.Y. Kennels, Dunellen, New Jersey.

NEWFOUNDLANDS

- Donnelly, James H. P.O. Box 255, St. John, N.B. 'Phone Main 4586.
- Gillespie, R. A., Abbotsford, Quebec.
- Hearn, F. G., 908 Excelsior Life Building, Toronto, Ont.
- Smith, G. F., 466 Summerhill Ave., Toronto, Ont.

PEKINGESE

- Balcroft Kennels (Reg'd). Treleaven & Hatcher, 60 Balmoral Ave., Toronto. Ont. Phone Randolph 4060.
- Fu Chien Pekingese (Reg'd). Mrs. L. Hughes, 264 Christie St., Toronto, Ont. Phone Lombard 9813.
- Shensi Kennels (Reg'd). A. Roberts, 115 Lake Shore Road, Humber Bay, Toronto, Ont. Lakeside 3373-W.
- Sunny Pekingese Kennels (Reg'd). Mrs. M. Potter, 70 Shuter St., Toronto, Ont. Phone Elgin 4714.

POMERANIANS

Millicent Kennels (Reg'd). Mr. and Mrs. G. West, 100 Millicent St., Toronto, Ont. Phone Kenwood 4011W.

WOLFHOUNDS (RUSSIAN)

47

Tyrrell, R. S., Cossack Kennels, Bottrel, via Cochrane, Alta.

SCHIPPERKES

- O' The North Kennels (Reg'd). Mrs. E. Brown, 1671 Kingston Rd., Birchcliff, Toronto 13, Ont.
 - SCHNAUZERS
- Vivadora Kennels (Reg'd). Mrs. J. R. Kennedy, 1673 Kingston Road, Toronto, Ont.

TERRIERS (SCOTTISH)

- "Airdrie" Scotties. Bellevue Kennels. P. E. Aird, 5331 Clark St., Montreal, Que. 'Phone Crescent 4842.
- Ashburnham Kennels. K. A. Greene, Prop., 58 Primrose Ave., Ottawa, Canada. TERRIERS (SCOTTISH)
- Craigellachie Kennels. Fred La Rue, Prop., Cap St. Martin, Ouebec. 'Phons Labord A. Plouffe 607, R. 11.
- Drumclamph Kennels. Mrs. R. A. Rose, 95 Sixth Ave., Ville St. Pierre (near Montreal), Que.
- Kerr, Albert (Brentholme Kennels), 935 23rd Ave. W., Vancouver, B.C.
- Scotch and West White Highland Terriers. D. McKellar, Brant St., Oakville, Ont. TERRIERS (SEALYHAM)
- Edgewater Kennels (Reg'd). Major Ward Wright, Owner. Correspondence to Matt. Gracey, 343 Huron St., Toronto.
- SPANIELS (SPRINGER) Avandale Kennels (Reg'd). E. Chevrier, Prop., 271-273 Portage Ave., Winnipeg, Man.
- Belmoss Kennels (Reg'd). H. J. Placey, Prop., 10 Gordon St., Sherbrooke, Que.
- Chrisdale Kennels. E. J. Madill, Prop., Prescott, Ontario.
- Cloverdale Kennels (Reg'd). G. H. Miller, Prop., Cloverdale, B.C. Phone 21-X.
- Inveresk Kennels. A. McNab Chassels, Inveresk, Coatbridge, Scotland.
- Orford Kennels (Reg'd). S. G. Newton, Prop., 165 Portland Ave., Sherbrooke, Que.
- Trent Valley Kennels (Reg'd). Her Routley, Prop., Peterboro, Ontario. Herbert S.

ST. BERNARDS

- Brockington, Felix R., 181-K McKenna Ave., Montreal, Que. 'Phone Atlantic 0482. VARIETY KENNELS
- Airedales and Bulldogs. Geo. Kynoch, Prop., 50 Whitehall Ave., Winnipeg, Man.
- Marvel Kennels. Pekingese and Toy Pomer-anians. Mrs. C. G. Budd, 9541-102 A. Ave., Edmonton, Alta.
- Rivercourt Kennels. English Toy Spaniels and Pekingese. Mrs. Denyer Morris, 42 Hopedale Ave., Toronto 6, Ont. 'Phone GErrard 7287.
- X-10-U-8 Kennels. Toy Black and Tan Terriers, (Manchester), and Smooth Fox Terriers. J. E. Dickert, 519 Mount Pleasant Road, Toronto, Ont. WHIPPETS

Booth, J. T., 403 Vaughan St., Moose Jaw, Sask.

TERRIERS (WEST HIGHLAND WHITE)

Wilson, Miss M., The Cliffs, Duncan, Van-couver Island, B.C.

Walkley Kennels (Reg'd). Harry Draper, Prop., 189 Ennerdale Road, Toronto, Can. Kenwood 6220J.

TERRIERS (YORKSHIRE) Newton Heath Kennels. Jos. Edgar, Owner, 497 Ossington Ave., Toronto, Ont. Phone Lombard 8434.

What About Your Shows This Year?

As we begin the year 1929 in the hope that it may prove itself to be Canada's greatest dog show year of all time, and realizing as we do that it will be such, it must be a good time to take stock right now with a view to the elimination of such habits as may have grown up with us, habits that we may have cherished, but still, when looked at in the light of modern show management, may have become obsolete.

It is quite true that in Canada we tolerate slipshod methods at our dog shows that cannot be duplicated anywhere else, and the time is now ripe for such improvements to be adopted generally as the progress of dog showing has developed and established to date.

When a dog show is run along the most modern business methods, what a very definite pleasure it actually becomes, commanding our respect and support!

Let us take some outstanding clubs, such as the following: Halifax, St. John, Sherbrooke, Montreal Kennel Club, or "The Ladies" at Montreal, Ottawa, Toronto Kennel Club, Canadian National Exhibition (Toronto), Hamilton, Brantford, London. Any one of the above have many years of experience to their credit, and their shows are undoubtedly accepted as examples by the younger clubs, or by first year clubs starting up, but are the examples just what they should be?

A club to be functioning properly should be always active. A year's thought and activity should be represented in each fixture, but do we find this to be the case in actual practice? It is remarkable how often headquarters are asked to grant show dates by telegram-"time is so short." We are requested to approve of prize lists and classifications that show no prize list. Time is so short. We are asked-in confidence-to name the judges. Time is so short, and so on, but always it is a question of time. Now, we submit that there is no excuse for all this unseemly rush, and it only indicates that a club has been practically asleep and has just woke up at the very last minute. Think, how can such a show ever be a success, or is it possible that it can be a success? We will not attempt to answer our own questions. When dates have to be allocated by telegraphic request; when premium lists have to be approved of, that show a classification and no prize list, it is

contrary to the dog show regulations, and when prizes that do not appear in the premium list seek a prace in the catalogue, it is contrary to dog show rules, but we have these conditions appearing all along the line, simply because time is so short.

The only logical answer is, "Take more time," and one way to get the necessary time is to unload procrastinations and to be active from January until December in each year. Take plenty of time to select the judges, and make sure that your selection will mean everything to your exhibitors, and in this respect the professional handler must also be viewed in the light of being an exhibitor as well. The day has gone by when the handler could claim ability to "make or break a show," or in any way seek to usurp any show-giving club's privileges. A dependable judge, who has the reputation of "knowing how" and acting accordingly, will always bring the handlers and their best dogs to your shows. In the United States there is an organization known as "The Professional Handlers' Association," and I believe that some of the Association's members are to be found in Canada too. This Association's members seek no greater privilege than that of supporting to the best of their ability everything pertaining to the welfare of dog shows in America, and we feel sure that the Canadian handler asks for no more than that. Give the handler the judge that will give him a square deal, a premium list that will appeal to his clients-all exhibitors-and he will be with you all the way through your show. It is to be feared that the handlers are credited with having powers that they do not possess, with powers that they themselves do not wish to possess, but, like the average exhibitor, they are always content when given good, straight, honest judging.

When an exhibitor feels this imaginary "handler" evil "burning him up," if he would remember that a handler's dogs are not the handler's own personal property, but rather that each dog on the handler's string was the property of someone else, and that someone else, realizing that he had a good dog, was willing to pay for a professional handler's services, shipping charges, entry fees, and being somebody with common judgment, he figured out this expenditure -in many cases the price of a good dog-and only backed his dog's chances by that amount, the exhibitor

would not have so much to worry about.

Oftentimes it is the handler's string that represent the "high lights" of the show's quality, and he should not be "shot at sunrise" because he has won so many prizes with his dogs at any show. Be fair to the handler; if he is not working for you, he is working for someone else. He knows his job, likes it, desires to keep it, and he is generally well satisfied when things are done on the level.

Take more time. Your show is going to be held-you know that-so make all necessary preparations for it. Have your judges well in mind. If it is your desire to have a "great show," your judge will be the magnet to draw its measure of greatness. Have your premium list in mind too, for next to your judge it will have the greatest drawing power. The day of the 50-cent entry fee has gone past. No exhibitor will expect much from a "four bit" entry fee, and if you are considering the exhibitor by the low entry fee, it is a consideration that will fail in its appeal. The average exhibitor realizes that if he expects to get anything he will have to pay something-and he will. We wonder if anyone can point to any one successful show where the lowness of its entry fee was featured as its chief attraction.

Give the benching a coat of paint. Have plenty of nice clean straw. Have half a dozen brooms, and half a dozen fellows who do not think it beneath their dignity to have their show looking at its best. Arrange with Spratts Patent Limited for their service in full. Have spacious rings. Make sure of good light. Do not overlook disinfection. Have the blackboards in place-and use them as they are intended to be used. Arrange for your catalogue sellers; for your "gate' man; the prize ribbons with an appeal. Get your specials ready for handing out at the logical moment, and that logical moment arrives just as soon as the specials are won. Don't send a detective to watch the committee that has been appointed to meet the judge; that they have been selected to meet him should be sufficient for anybody.

You have done well, and the show is near at hand. Attendants have been advised that there will only be one door to the building from one stated hour to another stated hour. At this door your veterinary will be stationed, and only such dogs as he will pass can be admitted into the building. Exhibitors arriving late should be routed via the superintendent's office for his attention.

No under-aged puppies having been admitted, and no unhealthy dogs passed, the show should now be an actuality, and the doors thrown open to the public. Your efforts will be judged just as critically by this same public, and by your exhibitors, as any dog that may come into the ring at your show will be judged by the judge in charge.

Here the real test of the success of any show looms up largely-the ring stewards. Your club-if it has any initiative worth mentioning-will have discovered the "peacock" type of fellow who loves to strut around for an hour or so bedecked with a badge that tells the world that he is a "steward," and so he has been discarded, kindly or otherwise, nevertheless discarded. You will know the type of fellow that spends his time in the aisles looking for dogs that are already in the ring, and so you will have appointed a reliable man as your chief steward, and you will have selected other men who can be trusted to work with "the chief" and take their orders from him. A good set of stewards is more than half of any show's success. The "chief" will see that every exhibitor entering the ring gets the proper armband showing the dog's number. He will check the number off in his catalogue. He is held responsible to see that all the exhibitors and their dogs are in the ring. report the absentees to the judge, and superintend the marking absent of such in the judge's book. A subordinate steward will mark the blackboard as the classes are judged, so that interested exhibitors or press representatives may mark their catalogues, etc. Other subordinate stewards will get the dogs lined up for their proper classes, so that the work of the judges will not be retarded. As the classes come into the ring, the chief steward -who knows his job-will check the new dogs as they come into the ring, and draw the judge's attention to them. If he really and truly is on to his job, he will keep the first, second and third dogs of a previous class together and in that alignment-if they are still in the ring-from the previous class, so that the judge may concentrate on such dogs and whatever may have come in for the class now before him. A good steward who will follow his book closely is an invaluable asset to any judge, and his help will reduce "reversals" to a minimum. Just as "too many cooks spoil the broth," so will too many stewards become a nuisance, so that this department must be thoroughly considered and the proper arrangements as thoroughly made. Give each steward his allotment of work, and expect him to do it by holding him responsible for it. Honestly, though, a steward's job is no sinecure, and it is a thankless job at best, but it has to be done, and there are always those amongst us who for years have served and looked in vain for that measure of praise that never was forthcoming. so have satisfied themselves that "he who serves most serves best," and are ready and willing to do this very kind of work. It is a responsible though thankless position, and in view of that peculiar combination, there are many peculiarly fitted for the task, and it is to such that the work should be given.

The dogs have been judged, and the show is drawing to a close; you know now whether it has been a success or a failure. If you have anticipated success where only failure could be expected, you may be unwarrantably disappointed, but on the other hand, if failure has come to you when success was undoubtedly deserved, then your reward may be termed a calamity, and you will have the sympathy of all right-thinking men and their promise of their continued support.

The doors are closed, and the show is in process of making another link to the many links already forged by former years. Make sure that your exhibitors have got everything that was offered to them; this is more important than you can well imagine. "I won a special at ----- show, but have never received it. I wrote Mr. -. the secretary about it, but he has never replied to my letter." Can you realize just how much harm such a condition as that expression represents is capable of creating? It is quite destructive, and it has a most disastrous effect.

Send your returns to headquarters promptly, not because of the \$25.00 inducement, attractive as that "handy little cheque" may be, but rather that a record of your show may be made, and that a report of it may be published in the interests of your exhibitors and those of the general public who have been interested in your show. When you are satisfied that you have done your duty as it should have been done, then start all over again and make ready for another year. Friends have undoubtedly been made for the dogs that you love so well, and who love you so much in return. Your club's reputation has been reinforced, and success will fol-

low success, just as naturally as day follows in the wake of night. You are proud of your club; make your club proud of you. Your club exists for the "promotion of the welfare of dogs and their owners." When you function properly and feature this "promotion" and "welfare," your 1929 show must of necessity be a show that we will all be proud of.

ALBERT PAYSON TERHUNE GETS BUMPED.

From the daily papers we gather that whilst the master of the Sunnybank Collie Kennels was taking his constitutional walk on the State Highway about a mile from his home at Pompton Lakes, N.J. he was struck by an automobile, and according to Mrs. Terhune, Albert was hurled 20 feet by the impact. However, we are pleased to notice that Dr. Wm. S. Colfax believed that popular "Bert" was not seriously injured, and knowing him as we do, the wonder is, how the auto was not knocked out of business instead. As it was, however, it appears that the auto came out best and its Sporting owner sped away from the scene of the accident. Here's hoping a speedy recovery for the talented author of "The Black Eagle" and numerous other literary epics that have been woven around Mr. Terhune's Canine friends from time to time.

YE EDITOR'S XMAS MAIL

(Continued from page 3.) pretty little subject, too—a pen and ink sketch of a couple of Spaniels that were holding each other in obvious mutual support.

Ben Lewis, Philadelphia, sent a beautiful picture of the great Pointer, J. P., and, of course, that will be more work for the picture framer.

A. Clinton Wilderming, New York, the "Daddie" of the "Old Guard of the Kennel World," sent one of his rare combination pictures that is a treat to look at.

The whole may be found embraced in the following lines which we have culled from a card that came in an envelope marked "Toronto," but with no name of sender showing:

"Good luck to you, good health, good cheer,

And many friends, both near and dear; And may this Christmas bring to you The best of all things glad and true."

Thanks a lot, everybody. Your good wishes are reciprocated, and may God bless you all. 50

OUR FRONTISPIECE.

Our front cover feature for the first month of the new year is rather a pleasant combination of human and canine, with the latter element predominating. Most of our eastern fanciers will readily recognize the cheerful features to be those of Mrs. M. Potter, Toronto, with two of her beloved Peke puppies. On the right, close to her heart, is Teddy Lo Chi, and on the left Teddy's little sister, the only female in an unusually large litter of seven puppies, most of whom, including Teddy, are already in the homes of satisfied owners, and Mrs. Potter's bank account shows that good prices prevailed at the time of selling this fine bunch of youngsters.

The sire of the litter was Li of Balcroft, an extraordinarily well bred Peke, being a son of Shimerh of Chinatown (imp.), and he was a son of Ch. Peacock of Hesketh. The dam of Li of Balcroft was Ch. Dahling of Forton (imp.), and she was a daughter of Ch. Wundah of Chinatown. Mother of the litter was To To Nee Chi, and she carried her own quota of quality to her family from her rich triple crossings of that noted producer, Ch. Lo Hai Chi.

An exceptionally busy woman, Mrs. Potter never tries to retain any particular puppy from any mating. She feels happy when someone else enjoys winning with Pekes. She has bred, and she invariably breeds the best, for an old established reason of hers—"You always get good prices when they are bred right."—and Mrs. Potter is right.

At the National Kennel Club show, 1927. Mrs. Potter brought out her biscuit colored Sunny Pansy (Pansy was by a son of Ch. Sunny of Somne (imp.), out of a daughter of Roddy of Hartlebury (imp.), and at the first asking this classy young lady won 4 points towards her championship. This fine start led on to Hamilton Kennel Club and the Canadian National Exhibition shows in 1928, and lo and behold, Mrs. Potter had her first champion Peke, with the additional honor of having bred it herself. The show record reading, 8 firsts, 3 winners and 11 points-a splendid showing.

Mrs. Potter claims to have been active as a breeder for the last ten years, and a check on her statement reveals that at the Canadian National Exhibition of 1919 she brought out the Boston Terrier, Lady Etna, a female puppy by Count Dee Cee, and at all the shows of that and the four following years Mrs. Potter and her Lady Etna were to be found together. Then the Pekes came, and since then "The Little Dog of China" has held the Potter throne, and it is Mrs. Potter's intention to prolong the thrill of making champions. Her champion, Sunny Pansy, is only one of many that will follow on in good time.

BREEDING BETTER BOSTONS.

Mrs. Sarah Dowser, of Detroit, whose Int. Ch. Dowser's I'm Alone was the sensation of the shows last season, is rather keen about the progeny of this young aristocrat. At the recent puppy match she won with Mrs. P. V. Fearn's three-months-old female, Miss I'm Alone, and with Mrs. A. Nuffke's seven-months-old Timbuctoo I'm Alone. Also she put over her own male puppy, whelped August 12, Sonny Boy, by Dowser's Detroit Times.

The veteran Dan Thody, of Ferndale, Mich., has a litter of five by Dowser's I'm Alone from a Ravenroyd Rockefeller female, all good with one outstanding female. A. C. Fastender, of Detroit, has two males, 10 weeks old, by I'm Alone, that the fanciers think will go far.

TOM GRIMSHAW IMPROVING

We are advised (Sunday, December 30th) that Mr. Grimshaw is going home to-day. He has had a thorough examination and it is believed that he will soon be back into harness again. Anyway Tom would rather be at home.

MRS. A. PATERSON INJURED

The mistress of the "Romanoff" Wolfhounds had a nasty spill at the "Royal" show. She had her dogs in the exercising, and always interested in their comfort and well-being, she imagined that a drink of water would do them no harm, and in order to get

English Bull Terrier LIMESTONE LINDBERG (C.K.C. 64417)

Born June, 1926. Color: white

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Absolutely house broken. Kind and affectionate to children.

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5612 Eighth Ave. ROSEMOUNT - MONTREAL the refreshment by the most direct route she scaled the enclosure, and on the outside put her foot on a crate that looked inviting. However, it tilted and sent Mrs. Paterson heavily on the rail. At once it was noticed that she was badly hurt, and a visit to the hospital proved that she had broken three of her ribs.

The mending has been a slow process, and from the latest information to hand we gather that she will not be quite herself for some time yet. However, New York show has always a "strong appeal" for the versatile "Janet" and we hope that this inducement will hasten her complete recovery.

"DOG WORLD" CHRISTMAS ANNUAL

It takes Great Britain to "make the trail" and "set the pace" when it comes to the marvellous in doggie affairs generally, and particularly is this the case when we are considering "Christmas numbers of dog magazines." The latest to arrive, 150page treasure of meaty information given in word and picture, with a section given over to trade advertising that makes the book larger by 36 pages, that is 186 pages in all.

The 1928 retrospect in itself is worth the price of the book. The colored plate in itself is worth the price of the book. "The Humours of Dog Shows," "Some Aspects of Greyhound Racing," "Hints for Novices on Showing," "Canine Colouring," "Billy's Supper," "The Barracks Dogs' Supper," "Reminiscences of the Dog World" (by that old master, Walter S. Glynn), "A Dog Show Romance," "Dogs of St. Bernard," etc., etc., are highlights that make your hand go into your pocket for the price. Kennel & Bench has 5 copies on hand for its readers and first come first served. Price, at the office, 75 cents, when mailed, \$1.00.

OUR NEW CHAMPIONS.

"HIGGIN'S RED PAT" (unregistered), Irish Setter. W. W. Higgins, Caldwell, N.J., U.S.A. Canadian National Exhibition, 1927, 5 points; Canadian National Exhibition, 1928, 5 points; National Kennel Club, 1928, 5 points.

"LORD SKIPPY OF AMO" (74089), English Toy Spaniel, Mrs. Denyer Morris, Toronto, Ont., Hamilton Kennel Club, 1928, 2 points; London Canine Association, September, 1928, 1 point; Western Fair, London, 1928, 2 points; National Kennel Club, 1928, 5 points. 1928 Was a great year for dogs and naturally the best conditioned dogs corralled the best prizes. 1929 Will favor the proper conditioned dog in the same manner, and good food is the foundation of condition.

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