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AND A. I. V. A. & B. V. M. A. CONFERENCE NUMBER**

THE **INDIAN VETERINARY JOURNAL**
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(THE JOURNAL OF THE ALL-INDIA VETERINARY ASSOCIATION)

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JANUARY, 1952

No. 4

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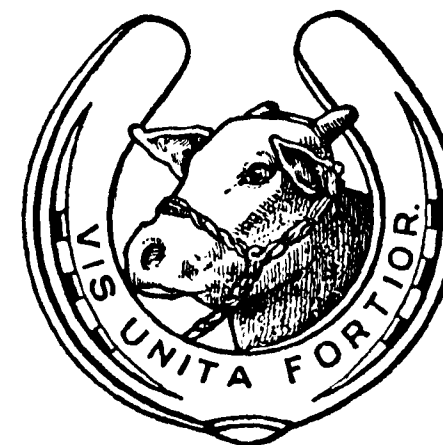
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THE INDIAN VETERINARY JOURNAL

[THE JOURNAL OF THE ALL-INDIA VETERINARY ASSOCIATION]

PUBLISHED ON ALTERNATE MONTHS

A BI-MONTHLY
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DEVOTED TO THE
CAUSE OF THE
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(ESTD. 1924)

EDITOR

P. SRINIVASA RAO, G.M.V.C., Madras.

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The Hon. Shri K. M. MUNSHI, M.A., LL.B.,
Union Minister, Food and Agriculture,

Inaugurated the Bombay Veterinary College Diamond Jubilee Celebrations and the Joint Session of the XIth All-India Veterinary Conference and the 29th Conference of the Bombay Veterinary Medical Association on the 25th December 1951.

The Bombay Veterinary College Diamond Jubilee Celebrations and the Joint Session of the A.I.V.A. & B.V.M.A. held at Bombay from 25th to 28th December 1951.

Plate No. 17



Dr. S. C. A. Datta, D.Sc., M.R.C.V.S., D.V.M., F.R.S. (Edin.), F.R.S.,
Director of the Indian Veterinary Research Institute, Muktesar,
who presided on the occasion.



Rao Bahadur V. R. Phadke, G.B.V.C., J.P.,
President, Bombay Veterinary Medical Association,
and the First Vice-President of the All-India Veterinary
Association.

THE INDIAN VETERINARY JOURNAL

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THE DIAMOND JUBILEE CELEBRATIONS OF THE
BOMBAY VETERINARY COLLEGE
AND THE JOINT SESSION OF THE ELEVENTH CONFERENCE
OF THE ALL-INDIA VETERINARY ASSOCIATION
AND THE 29th ANNUAL CONFERENCE
OF THE BOMBAY VETERINARY MEDICAL ASSOCIATION

INAUGURAL ADDRESS

By

THE HON'BLE SHRI K. M. MUNSHI,
Minister for Food and Agriculture, Government of India.

[Delivered at Bombay on the 25th December, 1951.]

I am indebted to the Diamond Jubilee Committee for inviting me to be the chief guest on this occasion when the grand parent of all our veterinary institutes in India, though reaching the age of 65, is still young enough to celebrate its 60th anniversary.

Incidentally this reminds me of my own case. Five days hence, as the calendar has it, I will be 64 years complete. Bombay friends celebrated the jubilee four years ago; Delhi friends celebrated it two years ago; Ahmedabad friends who are ready with a jubilee souvenir still sturdily maintain that I am not sixty yet.

I wonder what my qualifications are to be interested in animal husbandry. To adapt a well-known phrase from our sacred books, I know the cow but little—no more than a moving picture; than the milk that I take, unless the *bhaiyya* has put in more than the usual proportion of water. My further knowledge is only derived from the memory of a cruel wound she inflicted me once when I was young; from the schemes on paper when sitting in Bombay I planned the development of the Kankrej herd at Anand; from her tremendous problems, again on paper, which are to me, as a minister, a nightmare. But, perhaps, that is the way I have to repay the debt to her; for, I am told, from the moment of my birth I preferred the milk of the Mother cow. And have loved here since.

The horse—another branch of my little knowledge of animal husbandry—has been for me a very disappointing animal. When, as a lonely young boy, I sat alone in an empty carriage which my father kept, dreaming of grandour, my only companion then was the horse in the stable. I told him of my dreams; and he, in the manner of the worldly-wise, snorted in contempt. When I rode him in the golden garments of a bridegroom in 1901 the wretched thing walked so slow in the procession which went over half our town and he would not let me meet my bride for over four hours. Whenever I tried to woo him by riding him, that was thirty years ago, he would never let me sit on the saddle without my clutching it or having a severe backache. I recall the days of poverty, when I yearned to possess a fine coach and two prancing steeds; but alas! when money came, the horse again gave me the slip and I had to buy the rattling tin-car, which you glorify by the name of motor car.

This early friendship perhaps was the root of my depicting the horse in glowing colours in most of my novels, except once only, when I fell out of love with the horse and fell in love with a she-camel of the desert, i.e., in my 'Jaya Somnath' she ran through the burning desert to apprise the Rajput warriors of the approach of Mahmud Ghazni and laid down her life in defence of the mother land and the guardian God of India—Somnath. But he lives in my heart—the ungrateful creature—as the most beautiful living symbol of strength and speed and power. When Richard III said "a kingdom for a horse" he was more right than what he thought. The horse is a kingdom in himself.

The career of your Institute has been fully described by the previous speakers. It has trained 1,100 veterinarians, some of whom have served foreign countries like Malaya and Brazil; it influences 258 dispensaries in the State of Bombay; it possesses an efficient biological product section which is going to be housed in its own buildings at Poona.

Within the limited means at its disposal the Institute has had a very long and useful career. With enthusiastic experts like Mr. Phadke and Director Chadha it would be a great centre, if more funds had been provided. I do not believe that stringency is the real cause of our inattention to animal husbandry. Having to build up India as a great welfare State, money will always be scarce for half a century or so. But the real reason is deeper. Love of animals with us is a sloppy, sickly sentiment. As a race we have no genuine appreciation of the value of our animals in the economy of the country and we certainly have not the love which cherishes, protects and enters into the life of the animal. To our ancestors, Nandi was a god whose upkeep was a matter of high religious importance; mother cow was a living goddess of plenty, living in the same house, surrounded by the affection and devotion of the family. We had the national festivals—Gopashtami—sacred to the bull and the cow; Dasshera, sacred to the horse who was to be worshipped as a symbol of

victory. We have degraded them; they are just animals; and our sin will be visited on our own heads till we repair the wrong.

India is an agricultural country first and foremost; it is going to remain so in the foreseeable future; it must be developed as such; and whoever fails to see it invites sin. And of its life forests, agriculture and animal husbandry are inseparable and inalienable factors, all of equal importance.

Our problems closely associated with veterinary science are many and complicated. We have 174 millions of bovine cattle—a quarter of the globe's total; 80 million goats and sheep; and a meagre 1.4 million horses, 0.3 million of which are donkeys and mules. Our national sentiment forbids the slaughter of bulls and cows; and our horror of taking animal life and our deep seated conviction that animals like men are but different stages of the Divine essence provide irresistible subconscious urges. It makes the animals an integral part of the living cells of India's organisms constituted of humans, animals and trees and our soil, sunshine and water. Any solution to the problem of life in India, therefore, must take into account the peremptory need of restoring the life's cycle—not in terms of killing off superfluous animals as the West would do—but a planned increase of their quality, utilisation of their products and wastes and bullock power are most important factors in agriculture.

Our first problem is pasture. Our cattle wealth requires 1,000 million tons of roughage; we have only 750 million. In 1961, we will require 1,100 million tons of roughage. But pasture lands are encroached upon or neglected. We produce roughage sufficient only for about 70% and concentrates sufficient for only 20%. Wild animals, a menace to agriculture, share what we should keep for useful animals, because again we are too sentimental to kill them outright.

Our existing breeds of cattle and other useful animals are degenerating. There are a few first class stud farms for horses, but the race of pedigree horses has not yet influenced the miserable, puny breed of country horses; we have only a few thousand good stud-bulls against the requirement of millions; no country-wide attempt is made to consider the problems of camels, sheep, goats and poultry.

A large percentage of our animals are affected by fatal or decay-inducing diseases like rinderpest, ranikhet diseases in poultry, pleuro-pneumonia in sheep and goats. The total mortality from these diseases, as from parasite and other contagious diseases, is enormous. Rinderpest alone accounts for 60% of their deaths and, where it does not, it leads to growing deterioration in milk-yield and draft-power. The lack of organisation in the matter of food resources has drawn the intelligent attention of the country; not so the lack of organisation in matters relating to useful animals for the burden is invisible and the pace of deterioration is too slow to attract notice, much less panic.

Some of the earlier speakers have been good enough to give me some words of praise for what I have done; my regret is that I have not been able to do what I intended. I blame my luck that the term of my ministry synchronised with two very bad years when nature, locusts and panicky men combined to provide a very serious distraction.

A solution, however, has been found in the Key Village Scheme for the serious and urgent problem of useless surplus cattle which we would not slaughter. It has a provision for go-sadans—asylums of useless cattle. Six hundred of them would be required for the whole country; but they cannot be brought into existence all at once; their country-wide organisation requires vast uncultivable areas and money. Only three of them, as models, have been established, and 169 go-sadans have been planned to be established in a few years. As a preliminary step, however, the All-India Goshala Council of the Government of India has been reconstituted as the Gosamvardhan Council, which in addition to looking after the development of goshalas will look after the whole problem.

Two items connected with animal husbandry which find place in the Ten Year Land Transformation Programme are the production of 60,000 stud-bulls a year through Key Farms and the complete eradication of rinderpest.

The Key Farm Scheme with its emphasis on artificial insemination has already been brought into operation. By the end of March, 100 Key Farms covering 2,00,000 cows or she-buffaloes will begin work yielding about 20,000 stud bulls next year. In the multiplication areas of the Key Farms, steps will be taken to eradicate the diseases at once by the enforcement of the Livestock Improvement Act and the Control of Contagious Diseases Act. The two centres at Arey and Anand, which provide milk to Bombay, will be two of the biggest such farms in Bombay.

Five Extension Schools which are to be established to train officers for Land Transformation including Land Army in the country will also have Key Farms. The Anand Training School which will serve the western zone comprising the States of Bombay, Saurashtra, Cutch and Rajasthan will be opened on 30th January 1952. We should aim at establishing at least one Key Farm in each of our 250 odd districts in the country in ten years; for the present, these centres will begin with a breeding plan and disease control and will be associated with the extension activities which are projected for early start in at least 30 centres.

Disease control, which falls within your sphere, has also received attention. B and C States, which have under-developed departments of animal husbandry, are being helped to reorganise their set-up. A target of 7,000 veterinary assistant surgeons, one for every 25,000 heads of cattle is aimed at.

As you know, the I.C.A.R., pursuant to the suggestion made by the Vice-Chancellors' Conference, have set up a Council of Agricultural Education. A sub-committee with Dr. Datta as the chairman has been appointed to make proposals for bringing the syllabus of veterinary studies in the country to the proper standard. I have also invited some leading veterinary surgeons to form themselves into a committee for advising Government as regards the regulation of the profession of veterinary surgeons. Arrangements are being made to impart necessary training for higher studies at the Veterinary Colleges and for founding scholarships in connection with it.

The I.V.R.I., including the Institute at Mukteshwar, which I visited personally, has been reorganised. The construction of the proposed motor-road from Ramgadh to Mukteshwar which was under discussion for half a century has already started.

I attach great importance to eradicating rinderpest in the country; it is not a difficult thing, if all the States co-operated with the Centre. If achieved, it will be one of the greatest single step taken by Free India to save its cattle wealth from deterioration. As a preliminary step, the Biological Product Section of the I.V.R.I. is going to be expanded to produce lapinised vaccine enough to carry out a country-wide programme. The I.V.R.I. will also soon be an international centre recognised by the F.A.O. for South East Asian countries.

The Indian Council of Agricultural Research, reorganised last year, has emerged as an All India Organisation conducting and helping research, bringing its results to practical use and initiating an elaborate programme. Animal husbandry, including veterinary institutes, will receive greater attention. If the work is carried on with sustained enthusiasm rapid progress may be expected.

I had some ideas, to which, however, I could not give practical shape.

I intended to have a camel-breeding farm in Rajasthan; for camel, in spite of its inartistic shape, is a very useful animal for our desert areas and needs to be looked after.

Another important activity is poultry which is a potential source of increasing our food resource. Recently the neglected poultry section of I.V.R.I. has received some attention.

Another matter of great national importance, about which I feel very concerned, is the future of my friend, the horse, with whom also the development of veterinary science is closely connected. The Indian horse is a valuable means of transport in a vast country of uneven distances like ours. He is the inseparable companion of man in manly sport and adventure where stamina, courage and enterprise are involved; an indispensable aid in maintaining internal peace and order and developing national defence. We require at least 600 first class horses for the Army every year; and for want

of Indian horses we had to import a large number of good horses. He is invaluable for manufacturing protective sera, a priceless commodity for export. But he is neglected; horse-breeding industry is degenerating; our good breeds have gone to Pakistan. And we are so far not only indifferent to him, but we are taking steps to ruin his future.

The reforms which I introduced in the Western India Turf Club gave a great impetus to horse-breeding industry. As a result, stud-farms increased from 10 to 41; about five crores of rupees came to be invested in the horse-breeding; some of our horses won races in the highest class against keen foreign competition; our horses fetched prices upto Rs. 91000/- from Rs. 3,500/- in 1938 and in a few years our horses would have been a very valuable export commodity—an asset to national finance. I had also a scheme—only possible with a flourishing horse-breeding industry—to establish a network of horse-breeding stations, riding clubs and travelling veterinary dispensaries associated with our race courses.

Since the Vedic times, race courses have been the only cradle of high-stepping horses. Indra himself was *Ajipati*, the Lord of the Race Course. But with the birth of freedom we entered into an age of transition, when, as historical experience shows, the line between moral wrong and legal wrong tends to be blurred. At such times schemes of swift redemption of human weakness by the seemingly easy method of legislative coercion find favour with zealous temperaments, and racing sometimes becomes an easy prey. It was, therefore, not possible for me, as in charge of animal husbandry, to make any organised attempt at horse-breeding.

I feel sad, very sad indeed, that the country has neglected the horse in the scheme of general national well-being. But my sadness is relieved by my certain knowledge that the attempt, enforcing sinlessness by legislative coercion, is sure to run-out, as it has always done in past ages. The horse will come into his own; the race course will flourish unafraid. A new race, as of the immortal Chetak, the heroic companion of the dauntless Rana Pratap, will be born in India. The Konarak Horse will not only be admired in stone, but in life. Indian poets will sing passionate hymns to the new horse as did the Vedic Rishis to the divine Dadhikravas.

Dadhikravas, fleet footed and true,
Flies over his beloved course like a bird;
He speeds with strength,
Swift like the falcon gliding through the air,
He speeds on lending new swiftness to each step,
He, Dadhikravas, draws himself together;
He runs along the winding course;
With vigour, he overspreads the five-fold peoples,
Like into the Sun, lightening up the waves.

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By

DR. S. DATTA, D.Sc., M.R.C.V.S.,

Director, I.V.R.I., Mukteswar.

On this memorable occasion of the Diamond Jubilee of the Bombay Veterinary College, I deem it a great honour to be called upon to preside over its celebrations. To Bombay State belongs the credit of initiating for the first time in India veterinary education in English in 1886, and also veterinary research in 1890 through the establishment at Poona of the Indian Veterinary Research Institute. It is a matter of satisfaction that the Diamond Jubilee celebrations of the Indian Veterinary Research Institute as well as of the Bombay Veterinary College should both be held in 1951 and that we should be fortunate in having the Honourable Minister for Food and Agriculture of the Government of India to inaugurate to-day's function, as he had already done the other earlier on 11th March. It is appropriate that Shri K. M. Munshi should be here amongst us in spite of his many engagements, for, if I may be allowed to state, there is no other man in the country who has done as much to raise the cow to the national level, and to emphasise the basic fact that land, cattle and human beings are inseparable and the development of one is not possible without an integrated plan for the development of all the three. The insight that organised livestock work must start with the cultivator's cattle in the villages and that planning should be more fundamental and realistic, has taken practical shape in his ten years' land transformation programme. He has been responsible for speedily advancing arrangements for the launching of the two largest projects ever undertaken of harnessing the potentialities of our livestock—the *Key Village Scheme* and the *Rinderpest Eradication Programme*—as also to enlist the blessings of the Planning Commission for these. National attention has thus been focussed for the first time on livestock providing a key to the colossal task of achieving self-sufficiency on an integrated basis for the betterment of the whole economic structure of India, of rural life and the welfare of its masses. Drawing inspiration from the ancient heritage of the country and fully alive to the rapid development in human welfare all over the world, his dynamic personality has energised work on all sides.

In surveying the long history of this College, one observes how fortunate it had been for it to have Professor J. H. Steele as its first Principal, for not only he organised it but took definite steps to raise its educational level to a very high standard even as early as 1886. He was a member of the Committee which recommended the establishment of a veterinary research laboratory in India to investigate into diseases of livestock and to carry out survey work in the provinces. As a result of this report, the Indian Veterinary Research Institute was established. This Veterinary College and the Indian Veterinary

Research Institute had another common link at the very inception in that both owed a great deal for their establishment to the munificence of Sir Dinshaw Maneckji Petit.

I should be failing in my duty if I did not mention here Shri V. R. Phadke who is happily present with us this afternoon. He represents another of the unforgettable links that the Indian Veterinary Research Institute has had with this college. Not only was Shri Phadke a distinguished alumni of this College but it was he who as the first Veterinary Inspector of the Indian Veterinary Research Institute carried the torch of Dr. Lingard's rinderpest immunisation to the villages of India for the first time. Besides, he was the first Indian to become not only the Principal of the College but, later, also the Director of Veterinary Services, Bombay and Sind.

The College had produced other illustrious men of whom Khan Sahib N. D. Dhakmarvala, Mr. M. S. Shastri, Mr. D. S. Laud, the late Kylasam Iyer and Mr. D'costa must be named, besides many others who had contributed so much to the building up of the profession even in countries outside India, such as Ceylon—and we are happy to welcome an old student of the College Mr. Mahamooth of Ceylon—Federated Malay States, Aden, Zanzibar, East Africa and even distant Brazil and West Indies. In spite of this brilliant record, the College had to pass through many vicissitudes due to administrative changes and denials of financial support, the chief one being the proposal in 1932 to abolish the College altogether. Fortunately, the College has managed to survive and also to expand its activities in certain directions.

It may be noted that Veterinary or Animal Sciences do not form fields of narrow and obtruse specialism but are, in fact, socio-economic in implication and productivity of both land and animals. Specialised skills and techniques of livestock improvement have formed land marks in the progress of civilisation as in other activities. The objective in veterinary education is to produce forward-looking men able to apply a broad-based general education and specialised knowledge for the improvement of our unique livestock wealth for the betterment of rural life and economy. The Colleges are to play greater role in producing men of this type, in future in larger numbers, as the developmental work in the States is bound to be speeded up and expanded tremendously as time goes on. Steele started the Bombay Veterinary College with the assistance of three medical officers and a farrier. To-day the College is provided with a complement of 29 scientific staff for teaching and research. During the last 65 years, the College has produced about 1,100 graduates. Compared to the minimum requirement laid down by Royal Commission on Agriculture, of one Veterinary Assistant Surgeon per 25,000 heads of livestock, this number must be considered altogether insufficient for the needs of this large State. In the past, the inducement necessary for attracting better quality students in sufficient numbers to this College had been lacking. The more attractive pay scales existing in other departments were responsible for diverting

students of the highest calibre and soundest basic education to other fields which the veterinary services could ill-afford to lose. The unrealistic urban consciousness of the intelligensia does not generally appreciate that veterinary education is of as high a status and refinement as any other scholastic endeavour in Universities. Unless this outlook is changed, it is feared that it may be difficult to realise the ambitious programme of livestock development, and food drive may lag behind due to the scarcity of well-trained personnel.

It may be noted that in the past unforeseen setbacks in the standard of education imparted by the Bombay Veterinary College have resulted due to this College being considered too advanced. Firstly, the advanced course started in 1890 was stopped with the death of Mr. Steele; and again in 1900, the written examinations were abolished to bring uniformity with other Veterinary Colleges. A fresh setback followed in 1912 with the abolition of the post of Inspector-General, Indian Civil Veterinary Department. From then, each Province decided the curriculum for its own Veterinary College without reference to that of the others in the country. This has led to a multiplicity of qualifications and the confusion that has thus developed can well be imagined. India is one country and the requirements of her livestock welfare in different parts are similar, while the interests of the animal industry of the whole country are one and indivisible. It is, therefore, highly desirable that a certain uniform standard is enforced in all the Veterinary Colleges. Let us hope that the Veterinary Wing of the Agricultural Education Council of the Indian Council of Agricultural Research which has been established by our chief guest, Mr. Munshi, will bring about the desired uniformity and raising of standards, while at the same time reorient veterinary education so that the qualified graduate would become an extension officer or a highly trained practical farmer on the animal husbandry side. It is hoped that the Bombay Veterinary College would take up animal improvement work in the surrounding villages so that the professors and students alike may acquire direct acquaintance with rural problems, as also be able to conduce to a psychological adjustment between themselves and the traditional farmers.

Education forms the very root of improvement, and highly qualified and experienced teachers, who are specialists engaging themselves in research in their own lines, are required to enthuse their students with the zeal and dedication for undertaking work to bring the underdeveloped animal industry to its proper status in the programme of national reconstruction. Time has come when India will have to prepare for self-sufficiency in higher veterinary education as far as possible. There has been considerable wastage in the past of young Indians going abroad without prior assessment of their capabilities to benefit thereby, or to fill the definite gap in the technical manpower of the country. Many young men have returned back with doubtful embellishments claiming privileges over others on extremely poor grounds. It is well-known that the conditions under which livestock industry has attained prosperity in

foreign countries are often not readily comparable to those prevailing at present in India, and, therefore, they require considerable intellectual resources in the individual to be able to apply the acquired knowledge by suitable adaptation demanded by Indian conditions. The greatest benefit of foreign training can be derived only by the man who has utilised, to start with, all the facilities available within the country to specialise in a particular line. Central Colleges for Agriculture and Forestry exist in India and a similar proposal for the establishment of a Central Veterinary College was mooted sometime ago. The Indian Veterinary Research Institute through its associateship diploma, university post-graduate degrees, as well as the contemplated D.F.V.Sc. course is trying to help the States in training up persons for such jobs. But it is felt that the number usually trained each year is insufficient to meet the existing and ever-increasing demand. Now that practically all the Veterinary Colleges are affiliated with their respective Universities which grant the B.V.Sc. degree, they should be able now to develop themselves to give training for higher degrees like M.V.Sc. and doctorates in veterinary science. In addition to the specialists produced from the Indian Veterinary Research Institute, holders of such higher degrees coming out in increasing numbers from the State Colleges can fill up the existing deficiency in teaching staff. If fellowships could be founded, promising young men could be encouraged to go in for these higher degrees and the progress in veterinary education much accelerated thereby.

Experience has shown that one of the potent causes for the neglect of livestock work and the failure to receive proper support and encouragement has been the absence of reliable statistics to enable assessment of the importance of livestock to agriculture, the financial return in livestock products, and the wastages due to death and disability of diseased animals. Such figures, when collected, will reveal clearly the economic potentiality of our livestock. In the numerous statistical conferences and symposia being held in recent times in the country, livestock has practically remained out of the picture, although rough estimates show that the annual contribution by livestock each year is not less than 3000 crores and, according to the present price structure, may even be as high as 5000 crores. The fact though not valued is that no industrial or other commodity can certainly attain such status of economic importance, however vital each one of them may be in national economy. I therefore feel that livestock statistics in all its aspects should form a subject in the curriculum of every Veterinary College in this country.

Summing up, we see that the trend of veterinary education in this country has been from army animals particularly horse, mule and camel to the agricultural animals. Steele was one of the first veterinarians to interest himself in bovine and ovine ailments. The main emphasis in the world to-day is on the animal as a means of raising agricultural production and of improving the health and standard of living of the people. The education in

the Veterinary College should no longer be on the old stereotyped system of concentrating on disease and parasites but should be on the normal physiological aspect of health and productivity. It must be realised that the animal is a complex biological entity which results from its own heredity and factors of management like nutrition and environmental conditions. The best account can be given by an animal only by the co-ordinated function of all its organs and tissues and by a proper adjustment to factors characterising each environment. Veterinary education should be re-oriented from this angle as also for the requirements of the major projects of Key Village and Rinderpest Eradication which will increasingly engage larger and larger numbers of people imbued with the faith and philosophy of land transformation, as pointed out by the Hon'ble chief guest, through better animal husbandry.

I cannot close better than by striking poetic vein and quote few lines of inspiration :

" Not gold, but only men can make
A nation great and strong
Men who for truth and justice-sake
Stand fast and suffer long
Brave men who work while others sleep
Who stand when others fly
They plant the nations' pillar deep
And raise them to the sky."

- Proceedings of the Diamond Jubilee Celebrations
of the Bombay Veterinary College and the Joint Session of
The Eleventh All-India Veterinary Conference
and the 29th Conference of the
Bombay Veterinary Medical Association,
held at Bombay from the 25th to 28th December 1951.

First Day - Tuesday, the 25th December 1951.

The long overdue and the eagerly-expected Diamond Jubilee Celebrations of the Bombay Veterinary College came off on the 25th December 1951 in an atmosphere of joy and splendour. The premises of the College had been tastefully decorated and a special shamiana had been put up in the open space in front of the main hostel which was mainly the handiwork of the students. The celebrations committee with Dr. S. R. Chadha, the Principal of the College, as its Chairman had put in an enormous amount of labour to make the show a great success from all aspects. It had sent out invitations all over the country and, although many people from far-off places could not possibly come and attend the function owing to difficulties of journey, still it had created a lot of enthusiasm and moral support for the entire function. The messages that had been received and the large attendance on the occasion

clearly indicated how eagerly everyone had been expecting this function. Added importance to the function was derived from the presence of the Union Minister for Food and Agriculture, the Hon'ble Shri K. M. Munshi, who came all the way to inaugurate the function.

The proceedings commenced in the afternoon but the guests began to arrive sufficiently early so as to have a good look at the various sections of the institution. The Hon'ble Shri Munshi arrived punctually at 4-30 P.M. accompanied by Srimathy Lilavathi Munshi and was received at the College porch by Rao Bahadur V. R. Phadke, President of the Diamond Jubilee Celebrations Committee who then introduced Dr. S. C. A. Datta, the President-elect of the Celebrations and the Joint Sessions, Dr. L. Sahai, Director of Animal Husbandry and Veterinary Science, Bombay, and Dr. S. R. Chadha, Principal of the College and Chairman of the Reception Committee to the Hon'ble Minister. Introductions over, the party moved on to the College Hall where an Arts Exhibition had been arranged by the students and which the Hon'ble Minister declared open. After viewing the Exhibition, the party moved on to the lawns where the members of the Reception Committee were introduced to the Hon'ble Minister by the Chairman of the Reception Committee. A group photograph of the Reception Committee with the Hon'ble Chief guest was then taken and the Hon'ble Minister was led to the specially erected shamiana.

The function then began with the singing of a welcome song in chorus by young girls—children of the members of the College staff. Dr. S. R. Chadha, Chairman of the Reception Committee, then welcomed the gathering in the following short speech :—

Hon'ble Shri K. M. Munshi, Ladies and Gentlemen,

As Chairman of the Reception Committee and Principal of the Bombay Veterinary College, I have very great pleasure in extending to you all a very warm welcome to this institution, on this auspicious occasion of its Diamond Jubilee Celebrations, the Eleventh All-India Veterinary Conference and the 29th Annual Conference of the Bombay Veterinary Medical Association.

The presence of many distinguished guests from different walks of life and a large number of Veterinarians from various parts of the country and Ceylon, who have travelled long distances to participate in the deliberations of the Joint session, gives us immense joy and encouragement.

Above all, we are fortunate to have the Hon'ble Shri K. M. Munshi, Union Minister for Food and Agriculture, as our Chief guest, who has kindly consented to inaugurate the celebrations of the College and the Joint session of the Veterinary Associations.

It is well known not only in this State, but all over the country, that Shri Munshi has had a very distinguished record of public service, both in the field of the country's politics, and also as an administrator, not to say of his literary achievements.



Prof. S. R. Chadha, B.Sc., M.R.C.V.S.,
Principal, Bombay Veterinary College,
and Chairman Reception Committee of the Bombay Veterinary
College Diamond Jubilee Celebration.



Dr. Laxmi Sahai, M.Sc., M.R.C.V.S.,
Director of Animal Husbandry and Veterinary Science,
Bombay State.



Rao Bahadur R. Swaminathan, B.A., G.M.V.C.,
General Secretary,
The All-India Veterinary Association.



Dr. M. S. Sastry, C.B.V.C.,
President,
The All-India Veterinary Association.



Rao Sahib T. Vinayaka Mudaliar, G.M.V.C.,
The First Joint Secretary and Treasurer,
The All-India Veterinary Association.

D. J. C. SECRETARY'S REPORT

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Coming to the field of improvement of livestock, the Anand Institute is a living monument of his accomplishment, which he had the honour to share with the revered late Sardar Patel. Besides the fillip he gave to the Horse-breeding in India, in asking the R.W.I.T.C. to allot a substantial percentage of the stake money to the Indian breeds, and by the Munshi Gold Cup, as his personal contribution, has borne substantial results. Veterinarians owe him a deep gratitude, for he has been able not only to put before the country, the over-riding importance of livestock, but also for evolving the Ten year land transformation programme, with Gosawardhan, Key Village scheme, and Rinderpest eradication as the main planks of development.

Shri V. R. Phadke who had been closely associated with the College, and the Department for a very long time, and Shri Lakshmi Sahai, our Director, will no doubt refer to the activities of the College and the Department. Time is short and I must close here.

Ladies and Gentlemen, on behalf of the Reception Committee, and on my own behalf, I thank you all for the trouble you have taken in coming here, and to you, Sir, I will say, "we are greatly honoured by your presence to day". Jai Hind.

The Secretary, Diamond Jubilee Celebrations Committee, Dr. S. R. Nadgir, then read the messages he had so far received and submitted the following report on the working of the Diamond Jubilee Celebrations Committee.

The Diamond Jubilee Celebrations Committee was elected as an autonomous body with its own constitution and responsible to the Managing Committee of the Bombay Veterinary Medical Association, on 15th April 1951. Rao Bahadur V. R. Phadke was elected as President, Drs. P. G. Date, C. S. Balakrishnan and S. R. Nadgir, as Secretaries and Dr. K. K. S. Aiyar as Treasurer and 29 other members including Dr. S. R. Chadha, Principal of the College, 10 members of the profession, a student representative and 13 distinguished members of the public. Sub-committees for different tasks such as collection of funds, reception of guests, entertainments, exhibition, commemoration volumes, propaganda etc. were formed and worked independently, reporting their progress from time to time to the celebrations committee.

The committee held 8 meetings, but the members met several times for private consultations. The Hon'ble Shri K. M. Munshi, readily agreed to inaugurate our functions. Dr. Datta, our President, very kindly agreed at short notice to direct the deliberations. We were of course quite confident that this would be the case in view of the abiding and willing interest he has showed in the welfare of the profession, when he was with us during the last joint session.

The previous committee handed over to us an amount of Rs. 2800/-. Our own collections amounted to Rs. 16,270/- up to date. Out of this, an amount of Rs. 9,500/- is earmarked for prizes and medals in commemoration of the Diamond Jubilee. These are as follows:—

The Royal Western India Turf Club Gold medal Rs. 7000/- The Poona Stud Farm medal Rs. 1000/-, Dr. N. D. Dhakmarwalla silver medal Rs. 500/-, Dr. V. R. Phadke silver medal Rs. 500/-, the late Dr. Batliwalla medal Rs. 500/-. We take this opportunity of thanking all donors irrespective of their contributions.

The estimated expenditure of the celebrations is Rs. 6000/-, the major part of which is due to printing, stationery and postage. We may mention that about eight appeals were sent out, mostly to veterinarians, since this was necessary to reach the veterinary surgeon in every nook and corner of the country, each time 2000 in number. We have also attempted to invite every veterinary surgeon in the country, not with a hope that they would all attend, but as a mark of appreciation of the interest shown by them for the celebrations during the past five years, when the celebrations were being put off for one reason or another.

Our expenses for entertainment are nominal, as the programmes are conducted mostly by the students themselves, entailing only the cost of material and incidental expenses. Our catering expenses are also reduced to the minimum, in consonance with the food conditions obtaining in the country, and I have to warn you to accept only a humble fare, when we adjourn for refreshments.

The collection of funds for the commemoration of the Jubilee is not closed. Further donations will be gratefully accepted and will go to form the Diamond Jubilee Commemoration Fund, out of which suitable prizes and medals would be offered to distinguished students.

Today's enthusiasm has shown beyond doubt how much disappointment and sorrow there would have been, had these celebrations been abandoned. The attendance to day is a record for any attendance at any place when a Veterinary College celebration has taken place.

Long Live the Bombay Veterinary College.

Rao Bahadur V. R. Phadke, President of the Diamond Jubilee Celebrations Committee, rose amidst cheers and spoke as follows:
Hon'ble Shri. K. M. Munshi, Ladies, Gentlemen and Friends,

It is indeed a great pleasure and privilege to me to welcome you all on this very happy occasion as the President of the Bombay Veterinary College Diamond Jubilee Celebrations Committee. This occasion, the celebration of the Diamond Jubilee of the pioneer institution of Veterinary education in the

country, is of special importance to the veterinary profession in general, as it marks a new era in its service to the country and to me in particular, as I had the proud privilege of being associated with its Golden Jubilee celebrations, in the year 1936, as the Principal of this College, when we had His Excellency the late Lord Brabourne, the then Governor of Bombay, to inaugurate the function. This Diamond Jubilee was due to be celebrated in the year 1946, when it completed 60 years of valuable work, but was delayed so far due to unforeseen circumstances beyond our control. We, however, feel consoled that we are destined to have the honour of celebrating it in Free India, under the patronage of our own Minister for Food and Agriculture, Shri. Munshi.

We are fortunate in having as our Chief Guest today, a man of action, of inexhaustible energy. As an eminent advocate of the Bombay High Court, a joint Editor of the famous *Young India*, a very active member of the Syndicate of the Bombay University, a follower of Mahatma Gandhi in his Satyagraha and the consequent imprisonment, as one of the foremost Gujarathi authors, as a member of the first Congress Cabinet in Bombay and now as a member of the Union Cabinet, he has dynamic action written all over his face. The last communal riots in Bombay in 1937 and the present food situation in the country are too fresh in our memory to forget his Herculean achievements. The present Union Food and Agricultural Minister's place is a veritable bed of thorns. He is in an impossible situation and the immediate future is equally impossible. He has succeeded in managing the food situation in the country so far with his untiring efforts and supreme optimism. I am sure he will bravely weather the storm and safely land us into normal prosperous conditions provided we live up to his optimism and give him full support in all his efforts. I am repeating with some purpose what my friend Dr. Chadha has already fully referred to. In what I shall tell you hereafter, I shall be emphasising the lack of activity shown by the profession, the people and the Government of the country, during the past several decades and its sad results. I want you all to realise that Shri. Munshi is not only an asset to us at the present juncture, but also an example for every one of our profession to emulate. We want more activity in this great aspect of nation building, namely, Veterinary effort, or, to use a more popular though less comprehensive term, Animal Husbandry. I want, the country wants, every one of you to be an embodiment of activity—dynamic, purposive activity.

That we are woefully lagging behind all civilised countries in our veterinary activity, is only too well known. We are still living in our old days, when the only job of the Veterinarian was to treat the sick animals. I have heard of a statement by a State Minister for Agriculture that he could run his Veterinary Department entirely by stockmen—a stockman is a young man of elementary knowledge with a nine months' training. I am not talking in a lighter vein. I am quite serious. Veterinary education in other countries is on a par to-day with Medical, Legal, and Engineering education; with the same

university standard of basic education, the same high standard of technical education and training leading to a university degree, and with the same scope for advanced training and specialisation in one of its various branches. Treating sick animals is the least part of a Veterinarian's duties. Actually his ideal is to have no sick animals at all to be treated. His field is co-extensive with, and complementary to the field of the medical scientist and the agricultural scientist. In the fields of public health, disease control and research, he works shoulder to shoulder with the medical man. In the field of the treatment of the sick, maintenance of health and efficiency and control over nutrition, they work complementarily, each in his own sphere. In the sphere of livestock breeding and management and food production, the Veterinarian and the agriculturist work shoulder to shoulder, each concentrating more on his field, i.e. plant or animal, and thus complementing the efforts of the other. Members of this profession have as much right to honour, respect and obligations from the people at large as members of every other profession, only in as much as they serve the country as extensively and as intensively as members of the other professions do. If we had our rightful place in the country's life, some of us should be occupying the highest positions socially, economically, academically and politically, being Veterinary Surgeons. Instead, we are in a position to be replaced by 'Stockmen'. Why? Because, we ourselves, the people at large and the Government have all combined to sleep over and fail to exploit to the full, the potentialities of the profession, unlike as they have done with the other professions. It is time for us to wake up to our responsibilities and to stir the people and the Government to a recognition of the same. Now that we are a free country with our future in our own hands, we should easily get all the co-operation from our country and our Government if we make the necessary effort. It is for the profession to make a start. It is for us to cut the Gordian Knot and break the vicious circle.

Now to come to brass tacks. *Veterinary Education* :—We have so many different standards of education and qualification in the country to-day. Some are equal to the highest standards in any country, while others are, I shall be content to call, poor. We are actively creating Rajahs and untouchables in our profession, while the country is committed to removing such distinctions from all walks of life. It does not need a Solomon to come and tell us that we must have one uniform high standard of Veterinary education in the country, equal to the best in any other country. Practical difficulties are paraded, but it is up to us to overcome them. We have the spectacle of one institution with very high standards being over-crowded and working double shift, while another is languishing for want of students. All concerned badly need sound advice. If I say 'You should pay a good price if you want good stuff', my friend may retort 'You should supply good stuff if you want good price'. I agree, but it is a vicious circle. Our Hon'ble Chief Guest, with his extensive practical and administrative experience, will support me when I say that under such a dilemma, the correct view

The Bombay Veterinary College Diamond Jubilee Celebrations and the Joint Session of A.I.V.A. & B.V.M.A. held at Bombay from 25th to 28th December 1951.



Seated on the dais :—Rao Bahadur V. R. Phadke, Smt. Leelavathi Munshi, Hon'ble Shri K. M. Munshi, Dr. S. C. A. Datta and Dr. M. S. Sastry, Dr. S. R. CHADHA, Chairman, Reception Committee, reading the welcome address.

The Bombay Veterinary College Diamond Jubilee Celebrations and the Joint Session of the A.I.V.A. & B.V.M.A. held at Bombay from 25th to 28th December 1951.



Members of the Reception Committee with the Hon'ble Shri K. M. Munshi, Mrs. Munshi and Dr. Datta.

to take is, 'Pay a good price and very soon you will get good stuff'. I recollect an important incident in this connection. When the first Congress Government decided to encourage Indian Horse Breeding, they insisted on Indianising Horse Racing. A cry was raised, 'When there is no Indian Race Horse worth the name, how can we give lakhs of rupees away as prizes to these pitiable specimens?' The then Home Minister, our Chief Guest, replied, "You give the prizes; the race horses will come soon enough". He was right. The prizes were given. The race horses were there in full complement in five years and, what is more, in 10 years, they were beating the foreign race horses hollow in the biggest races. The same holds good for Veterinarians. We certainly cannot hope for any progress or improvement, when the Veterinarian is getting, what the Hon'ble Justice Chagla characterised as a wage that is not sufficient to provide even a starvation ration.

Professional Control:—It is a shame on the profession that we do not yet have a Statutory Body controlling the profession. The Medical Councils and the Bar Councils are in existence for decades now. Even the Dentists and Nurses have their Councils. Not we. I am not going into the reasons nor shall I apportion blame. I know the matter is under the active consideration of the Union Government and some State Governments. But that active consideration has been going on for years. I am only pointing out that delay is dangerous both for the profession and for the Government to see. We have to-day this sorry spectacle, after 3 years of Independence. The Director of Veterinary Services of a State is not deemed to have the necessary qualifications to identify a horse or certify about its soundness, simple because he does not possess a foreign qualification. I don't want to dilate more on the subject, but stop with saying that the formation of the Indian Veterinary Council should not be delayed one minute more.

Professional Representations:—It is a matter of regret that our profession is not as well organised as it should be. India has whole-heartedly accepted the democratic spirit in all branches of public life. It has therefore become imperative that every one of us fully recognises his status as a free individual and associated himself with representative bodies, bearing in mind his duties and responsibilities. If we neglect this, our associations will not only become worse than useless but they will become dangerous because while they will have the status of representing the profession, in reality they will not be so. To prevent this state of affairs, it is necessary that every member of the profession in every State of the Union takes an intelligent interest in the conduct of the State Veterinary Association and makes it truly representative. It is only then that the All-India Veterinary Association embracing all the State Associations, can speak with real authority and carry weight and conviction with its views, recommendations and decisions. We will not be able to give of our best to the country and to do justice to ourselves, if we do not succeed in having an effective say at the highest levels, in all matters

primarily our domain. We should therefore fully vitalise all our organisations without any more delay. In the wider field of world organisation we have yet to form our National Committee of the International Veterinary Congress and our seat in the World organisation has remained vacant for several years. I am sure this condition would be remedied in our Joint Sessions, due to be conducted during the coming few days.

Animal Husbandry:—Modern Science has no water-tight compartments, not even broad lines of complete demarcation. Every branch of science has deep ramifications into every other branch. Mathematics, Physics, Chemistry on the one hand, and Medicine, Engineering and Agriculture on the other, are all indispensable for the other. Coming lower down, Veterinary Science is inextricably mixed up with Medical Science on the one hand and Agriculture on the other. The popular subject of Animal Husbandry is one that is much misunderstood. In fact it is one branch of Veterinary Science and certainly a part and parcel of it. It is true that it is a field over which the Veterinary and Agricultural Sciences meet and mix. All the same, there is no gainsaying the fact that it is primarily a branch of Veterinary Science. The idea that there are three different sciences—Veterinary, Animal Husbandry and Agriculture—and that one is subordinate to the other according to each man's fancy is comically brought out by the way the different State Governments tack these three departments together in various permutations and combinations. It is high time that the correct position is clarified and understood and adopted by all State Governments. There are only two sciences Veterinary and Agriculture and areas of common ground between the two should be viewed purely from a scientific angle and not from an isolationist political angle.

These are the few important matters that the profession, to my mind, should ponder over seriously. Let this very auspicious event—the Diamond Jubilee of an institution that has the pride of place in the profession's heart—as well as the honourable person inaugurating it, stimulate us, encourage us to go on to do our duty selflessly towards our profession, and towards our country. I think I have said enough. Lastly I have great pleasure in acknowledging the cordial and whole-hearted co-operation I have received from the members of the Diamond Jubilee Celebration Committee, College Staff and Students.

Let the spirit of co-operation and understanding on all hands, that has made this celebration the success that it is, be the fore-runner of the same spirit on a wider and deeper scale that will enable us to play our part in taking our country on to greater and greater prosperity. Jai Hind.

After Rao Bahadur V. R. Phadke's speech was over, Dr. Lakshmi Sahai, Director of Animal Husbandry and Veterinary Science, Bombay State, gave a short historical review of the Bombay Veterinary College and its present position and also the activities of the Veterinary section of his department in the following speech which was punctuated by cheers.

Hon'ble Shri Munshi, Ladies and Gentlemen,

It is a source of utmost gratification to us that you, Sir, in the midst of your multifarious duties have found it possible to inaugurate the Diamond Jubilee Celebrations of the Bombay Veterinary College, and I, on behalf of the staff and students of the College and of the Animal Husbandry Department, express to you our grateful thanks for being able to find time to be in our midst to-day.

Sir, the institution, of which we are celebrating the Diamond Jubilee, is the oldest of its kind in the country. It came into being in 1886 with the offer of the Society for the Prevention of Cruelty to Animals, Bombay, to place at the disposal of the Government for instructional purposes in veterinary science the extensive clinical facilities available at their hospital established earlier in 1883, through the munificence of Sir D. M. Petit, Bart. on the condition that, while the treatment of cases at the hospital would be entrusted to the staff of the College, the internal management of the same would continue to vest in the Society. This kind and very generous offer of the Society was accepted by the Government, and, simultaneously, as a further mark of their generosity, the Society placed at the disposal of the Government for establishing the college some buildings in the hospital compound including a very large bungalow which, after certain additions and alterations had been carried out, served as the main college building, while the Government on their part constructed some buildings at their own cost. However, as there was some objection from certain members of the Society to dissection and post-mortem examination being performed within the hospital compound, the Government put up separate buildings for this purpose on a small piece of land away from the hospital compound. Other buildings such as a chemical laboratory, students' quarters, shoeing forge, etc., were added from time to time, and, in the year 1891, Sir D. M. Petit built and donated to the Government a large building to be used as a Patho-Bacteriological laboratory. While the accommodation thus provided met the needs of the College in the beginning, as the institution grew it was found to be inadequate. At the same time the need for more up-to-date buildings was also felt. The Government, therefore, in the year 1908 acquired, at a cost of rupees one lakh, about 8½ acres of land next to the Hospital compound and on this was constructed the present College building containing a lecture room, a museum, a library and a chemical laboratory besides office rooms for the Principal and his staff. A hostel to accommodate 76 students was also erected at a cost of Rs. 81,000 on this site. The strength of the College having further increased during recent years, three additional hostel blocks were constructed in the college compound in 1946-47.

A Lazaretto for animals affected with contagious diseases and an incinerator were put up at Sewri in 1894, but were later transferred to a site next to the College.

The course of instruction at the College was of 3 years' duration and the teaching was done in English, but the standard varied from time to time. A diploma course based on matriculation and covering a period of 3 years remained in force until 1940 when it was replaced by a revised diploma course of the same duration but based on Intermediate-Science (B Group) as the admission qualification. The year 1945 was a great land-mark in the history of the college, as in that year it was affiliated to the Bombay University and the diploma course replaced by a four years' degree course based on Intermediate-Science (B Group) and leading to the Degree of B. Sc. (Vet.). The first batch under this course passed out in 1949 and since then two more batches have completed their training. The affiliation of the College to the University has placed veterinary education on par with education in other sciences such as Agriculture, Medicine, Engineering, etc., and raised the status of the Veterinary graduate.

Until its affiliation to the University the teaching staff at the College was comparatively meagre consisting of the Principal and a few other officers. With the affiliation of the College many new posts were created and the status of some of the others was raised. Now the technical staff consists, besides the Principal, of 5 Professors, 7 Assistant Professors and eight Lecturers and a House Surgeon.

The first Principal of the College was Prof. J. H. Steele, M.R.C.V.S., and he was succeeded by Col. J. B. Mills who was responsible for the creation of the Glanders and Farcy Department which deals with diseases scheduled under the Glanders and Farcy Act. Col. Mills was succeeded by Major F. Joslen, who in turn was succeeded by Mr. K. Hewlett who held the post for 22 years. During Mr. Hewlett's time the College passed through many vicissitudes, but he successfully steered it clear of all difficulties and put it on a firm and enduring foundation. Mr. Hewlett retired in 1932, and he was succeeded by Shri V. R. Phadke, an alumnus of the College, the first Indian Principal, and now President of the Bombay Veterinary Medical Association which is celebrating the Diamond Jubilee of the College. He was followed by Shri Mohey Deen and the present Principal, as you know, Sir, is Shri S. R. Chadha.

Being the first veterinary teaching institution to be started in the country, there was a time when the Bombay Veterinary College used to attract students from all over the country. However, as Colleges were established in other States, the admissions from other parts of the country gradually fell, but even now this College receives students from States like Orissa, Mysore, Saurashtra, Kashmir, etc., which have no Veterinary Colleges of their own.

Since its establishment in 1886, the College has trained over 1100 Veterinarians. Graduates of this College are scattered all over India and some have gone as far as Malaya, Aden, Mauritius and even Brazil. Some have risen to

important and responsible positions like Principal-ships of Veterinary Colleges and Directorships of State Veterinary Departments. However, it must be said with regret that, despite the undoubted importance of veterinary education from the point of view of the health of the livestock of this vast agricultural country, a time came when the College failed to attract sufficient students from within the Bombay State itself. In fact, Sir, towards the early forties, the admissions had fallen to such a low level that Government decided to grant scholarships and other concessions such as the payment of tuition fees, free supply of books, etc., with a view to inducing students to join the college. The number of scholarships available at present is 60 of the value of Rs. 40/-each. These scholarships and other concessions have materially improved the admissions to the College, but even now the full number of the former is not being utilized and a number remain unavailed of every year. Due to the low out-put from the College during the last many years, the position at present is that nearly 70 posts of Veterinary Officers in the Department are lying vacant. However, since last year the position has been showing signs of improvement and we expect get nearly 20 graduates every year over the next few years. The number of students at present on the rolls of the College is 157, of whom 129 are from this State and 28 from outside.

In connection with the admission position at the College, I cannot help remarking that unless the profession is able to attract promising young men because of their love for animals and desire to alleviate suffering among them without artificial inducements, we cannot lay well and truly the foundation of an efficient and progressive veterinary service. Now that India has attained independence, the need to train whatever technical personnel we require, as far as possible, within the country itself is all greater, and, therefore, the sound and healthy development of this institution to meet the needs of the State is of paramount importance.

The Department realises, Sir, that research is indispensable to efficient teaching, and it is in that realisation that Government have sanctioned a special research staff under the Professor of Bacteriology to undertake research on many problems connected with the health of the livestock. However, mainly for want of space, we have not been able to provide research facilities to other members of the College staff. We are urgently in need, Sir, of more lecture rooms, more office accommodation for the staff, more extended laboratory facilities. Even such laboratories as exist are mostly out-of-date and need to be replaced by more up-to-date ones. It is hoped that when the financial position improves, our Government will be good enough to provide them.

I would not say anything more about the College. Now, with your permission, Sir, I would say a few words about our activities in the Department, to the needs of which this College exists to cater.

With the transfer in 1947 of the livestock work to the control of the Director of the Veterinary Services, the Veterinary Department, as it then

was, was converted into the Department of Animal Husbandry and Veterinary Science. It consists of two Sections, Livestock and Veterinary. I shall confine my remarks only to the Veterinary Section.

Our main work under the Veterinary Section, as is to be expected, consists of treatment and prevention of disease. Until the merger of the Indian States in 1948 there were about 170 hospitals and dispensaries in this State. The merger added considerably to the area under our charge and brought under the control of the Department another 81 dispensaries. Some more dispensaries having been opened within recent years, the total number of dispensaries now is 253. Of them 141 are Government-owned and 112 are run by local bodies with assistance from Government in the shape of free services of Veterinary Officers and some grant-in-aid. They are distributed in 29 districts comprising 302 talukas. They are not uniformly distributed, certain of the merged areas especially being comparatively poorly provided with them. On an average they treat every year nearly $4\frac{1}{2}$ lakhs of animals of all kinds. Considering that the cattle population of this State is nearly $1\frac{1}{2}$ crores besides goats, sheep, and other animals, this does not make a very impressive figure, but of the 302 talukas in the State, 76 are still without any dispensaries and the Veterinary Officers have to look after extensive, and, in some cases, unwieldy jurisdictions. According to the Royal Commission on Agriculture which examined very carefully the organization of Veterinary Services in this country, the standard laid down is 1 Veterinary dispensary per 25,000 head of cattle. On this basis we shall require nearly 600 dispensaries which would take a very long time to set up even if the State could afford the necessary expenditure. Our present target is, therefore, only one dispensary per taluka, but, unfortunately, due to the present financial stringency our programme in this direction has been held up for the time being, but we hope that when the financial position improves we shall be able to resume our work of opening more dispensaries. In this connection the assistance of the local bodies which are running so many dispensaries and are opening some more with assistance from Government must be gratefully acknowledged. Owing to the shortage of Veterinary Officers some of our dispensaries have been placed temporarily in charge of Stockmen.

An important function of the dispensaries, besides treatment of cases received at the dispensaries themselves, is the control of contagious diseases in the surrounding areas by carrying out prophylactic vaccinations. At present the total number of inoculations performed per year by the Department against all diseases is about 13-14 lakhs. To enable the Department to take effective steps to control contagious diseases and to supplement the efforts of the Veterinary Officers, the Department has trained and employed 219 Stockmen.

For the control of contagious diseases the Department needs large quantities of Vaccines and Sera. These until recently used to be obtained from the Indian Veterinary Research Institute. However, Sir, to be self-sufficient in the matter of these very essential products—a very legitimate

ambition which the Indian Veterinary Research Institute would, I am sure, appreciate—the Department has established a Biological Products Station of its own, which is temporarily located at the Lazaretto attached to this College, but which will ultimately be shifted to Poona, where land has already been acquired for its location. Even with the limited facilities available to it at present, it has been able to meet the major portion of our requirements of Black-Quarter and Haemorrhagic Septicaemia Vaccines and it is hoped that when it is fully established, after being shifted to Poona, it will be able to meet in full all our requirements of the more important biological products.

So far as contagious diseases are concerned, our main problems are Black Quarter, Haemorrhagic Septicaemia and Rinderpest. The last-named disease continues to levy a heavy toll. The Department has opened three centres for manufacturing goat-virus, the product at present employed for the control of the disease, but may I express the hope that the scheme for the eradication of Rinderpest from this country by the use of lapinized virus drawn up by the Director, Indian Veterinary Research Institute, who is present here to-day, will be implemented soon so that this great scourge may be eliminated from this country altogether? On behalf of the Animal Husbandry Department in this State I can hold out the assurance that we shall do our best to play our part and fulfil any task that may be assigned to us under the scheme to make it a success.

A condition precedent to the launching of the scheme is the enactment of special legislation to control contagious diseases. May I mention here for your information, Sir, that this State has already put on the statute book an Act called the Animal Contagious Diseases (Control) Act, (1948), which vests the Department with very wide powers to take effective steps to suppress contagious diseases when they break out and to prevent their spread?

In connection with control of diseases many problems arise which require proper investigation. For the investigation of these problems, the Department has a Disease Investigation unit consisting of a Disease Investigation Officer for investigation mainly of cattle diseases, and 2 Assistant Disease Investigation Officers for investigation of Poultry and Sheep and Goat diseases, respectively. All these officers were appointed under the auspices of the Indian Council of Agricultural Research. Two of them, viz., the Disease Investigation Officer, and the Assistant Disease Investigation Officer (Poultry), have now come entirely under the control of the State Government, but the third one, the Asstt. Disease Investigation Officer (Sheep & Goats), still continues to be financed by the State Government and the Indian Council of Agricultural Research jointly. These officers have rendered valuable assistance in the investigation of diseases and we are grateful to the Indian Council of Agricultural Research for providing them in the first instance. There is also a Parasitologist for investigation of diseases of parasitic origin.

Measures to conserve the existing livestock wealth of the State by preventing the slaughter of useful animals are not being over-looked. Towards this the Orders promulgated by the Government of India under the Defence of India Rules contributed materially. They were replaced later by Orders issued under the Bombay Essential Commodities and Cattle Control Act, 1946, which will soon be supplanted over a part of the State by the Animal Preservation Act enacted by the Bombay Government in 1948 on the lines of the model draft bill drawn up by the Government of India. Besides this a system of quotas has been laid down restricting slaughter to the numbers allotted to each slaughter house.

As to the slaughter houses themselves, it need not be pointed out that many of them are not in a satisfactory condition and need to be re-organised. The Bombay Government had appointed early this year a Committee to suggest ways and means of improving them. The Committee has submitted its report and it is hoped its recommendations will be implemented soon. Their implementation will place additional responsibilities on Veterinary Officers, especially in connection with meat inspection, which has not received sufficient attention in this country.

The above is a brief account of what this College and the Veterinary Section of the Department are doing. For many of our existing activities and for others that are planned or may be entrusted to us, we require and shall require a large number of trained men. The fundamental role of the College in training and supplying the right type of material cannot be over-emphasised.

The Hon'ble Minister K. M. Munshi then inaugurated the Conference in a very learned address which was listened to with rapt attention (The speech is published earlier in this issue). At the conclusion of his speech the Hon'ble Minister announced two prizes for the best cow in India, one offered by Shri Ardeshir of the Western India Turf Club and the other by the Bombay Humanitarian League. At the request of the Hon'ble Minister, Shri Ardeshir and Rao Bahadur J. N. Mankar, the latter on behalf of the Bombay Humanitarian League, addressed the gathering and confirmed their donations.

Dr. Datta, the President of the Celebrations and the Joint Sessions then delivered his Presidential Address in his well known oratorical style. This is also published earlier in this issue.

Dr. D. S. Laud, Retired Superintendent of Markets, Bombay, then proposed a vote of thanks in the following words :—

Friends,

The pleasant task of proposing a vote of thanks has been entrusted to me, and I indulge in no form of convention, when I say how grateful how elated and how honoured the whole Veterinary profession in the

Bombay State feels by the presence of the Honourable Mr. Kanaiyalal Maneklal Munshi, M.A., L.L.B., Union Minister for Food and Agriculture, and Mrs. Munshi in our midst today.

We particularly feel proud in view of the fact that a prominent citizen of Bombay City should inaugurate the Diamond Jubilee of the Bombay Veterinary College. Started in the year 1886 by that eminent Veterinary Surgeon, the late Mr. John Henry Steel, the Bombay Veterinary College is considered to be the pioneer of Veterinary education in India. From out of its portals have emerged a galaxy of Veterinary talents who have held up high the torch of the profession and have built up Veterinary organisations in different parts of India at a time when scientific treatment of animals, as known in modern times, was non-existing in the country. The Alumni of this College, some of whom have ventured to far distant places like Brazil, Zanzibar and the West Indies, and to Burmah and Ceylon, have built up a name for themselves and fame to their Alma-Mater. Many of our graduates have made their mark in the services of the then existing native states like Baroda, Gwalior, Mysore, Travancore, Hyderabad, Cochin and other native states, while some have rendered useful service to different institutions, local bodies, and Municipal Corporations, in which they have sought employment.

Both Mr. and Mrs. Munshi are well known to us in Bombay. They hold very prominent position in the social life and welfare of our City. Mr. Munshi is a proud product of our Bombay University to which our College is affiliated. He is an eminent lawyer and outstanding figure of the Bombay Bar. He is an author of great repute, a dramatist and critic of no mean calibre and has several publications to his credit. He has proved himself to be a capable administrator from the manner in which he carried out the administration of Hyderabad State during troublesome times.

The Bharatiya Vidya Bhuwan with its fine edifice is a lasting monument to his great work in the field of culture, literature and art. In these efforts of his, Mrs. Lilawati Ben, his wife has played no small part in the achievement of these objects. Mr. Munshi is a firm believer and advocate of the Annual Vanamahotsava Programme. This has certainly a true scientific aspect. Trees not only attract moisture and give us rain, but they play an important part in giving humus to the soil, while the plants of the Leguminosae order contribute nitrogen, which is a very important element for the production and growth of our food and fodder crops.

But, apart from all this, trees play a very important part in the city, in the development of modern civic ideals. Their aesthetic value cannot be denied, their sanitary value is far more important from the point of health and comfort while the last but not the least important is their

economic value, giving a real value to the estate, and useful dividends to the land-owners. I do not wish to enter into the details of the different values which I have just mentioned as this would take a long time, probably it may be tiresome to some of you and may probably be beyond the interest of the Veterinary profession also.

However, it may be mentioned that the Vanamahotsava is of national importance and therefore the policy of Minister Munshi in pushing forward these ideals should be greatly appreciated.

Friends, it is extremely kind of the Honourable Minister Munshi to be present for inaugurating the Diamond Jubilee of the College and spare us so much time in these hard days of stress and anxiety, when Man and Nature appear to have conspired together to bring about famine conditions, against which the Ministry as a whole is putting up such a brave fight. All honour to them. On behalf of the Reception Committee, I most heartily and sincerely thank our Honourable guest for his presence to-day. There is yet time to felicitate the President of our Conference. Dr. Datta is a high priest of the Veterinary profession in India. His able and mature guidance is a tower of strength to us. We thank him for having accepted the Presidential chair on this important occasion.

We are inspired with hope and confidence at the presence of Dr. Lakshmi Sahai, the Director of Animal Husbandry and Veterinary Services of the Bombay State, for without his co-operation and goodwill, the Veterinary profession in Bombay State cannot make any headway. We thank him for his presence at to-day's function. Equally are our thanks due to Dr. Chadha, the Principal, and the staff of the Bombay Veterinary College for ready co-operation and help for allowing us the use of the College ground. Finally, on behalf of the Reception Committee, I thank you all friends for so kindly accepting our invitation and honouring us with your presence, and the students of the College for assistance and Raj Kamals for decorations.

I thank you once more all of you. *Jai Hind, Jai Bharat.*

After Dr. D. S. Laud had resumed his seat, Dr. M. S. Sastry rose and spoke as follows:—

Hon'ble Shri K. M. Munshi, Smt. Leelavathi Munshi, Dr. Datta, Khan Sahab Dhakmarwala and Friends,

As President of the All-India Veterinary Association, I stand before you with the permission of the Chair, to do the pleasant duty of thanking the Hon'ble Shri Munshi for having formed the Advisory Committee to tender advice to the concerned authorities on Veterinary matters and for having announced this fact here today in his speech inaugurating the functions. All

these years, we have struggled hard to reach the ears of the Government of India. In Free India we have been able to succeed in some measure in that direction. There is yet very much to be done and it has been my contention that the considered views of this responsible body, the All-India Veterinary Association, should receive the careful consideration of the Government without any reservation.

Since we last met, the Government of India have been pleased to grant us representation at some of the gatherings of the Indian Council of Agricultural Research. We sent our representative, Rao Sahib T. Vinayaka Mudaliar, who is happily present here to day, to attend the Conference of Veterinary Investigation Officers, Animal Husbandry Wing Meeting and the Diamond Jubilee Celebration of the Indian Veterinary Research Institute. We are grateful to the Central Government for this gracious act and we hope we will receive more and more of such recognition in the years to come. The Diamond Jubilee celebration of the Mukteswar Institute was a great historic event and it was, indeed, a great pleasure that the celebrations were done under the immediate presence of our Minister Shri K. M. Munshi. We took the opportunity to present on behalf of the All-India Veterinary Association, a Silver Shield to that great institution as a token of our love and appreciation of the good work it has been doing. And it is a pride to us all that this institution is presided over today by no less a person than the distinguished President of this Conference, Dr. S. C. A. Datta.

It is a source of pleasure that we heard reference to the Vedas and other holy hymns of our country in the course of his address by the Hon'ble Shri K. M. Munshi, in connection with the horse and horse racing. It is really refreshing such references should have come from the Hon'ble Minister of a Secular State.

I once again thank the Hon'ble Minister very heartily for the announcement he made. Before I resume my seat, I recite an appropriate portion of the Vedic scriptures which wishes well not only of the man but also of the bi-peds and quadrupeds:—

दैवी स्वस्तिस्तु नः ।	May there be divine happiness to us,
स्वस्तिर्मानुषेभ्यः ।	Happiness to (all) men.
ऊर्ध्वं जिगातु मेघजम् ।	May prosperity go up!
शं नो अस्तु द्विपदे ।	May there be happiness to the bi-peds,
शं चतुष्पदे ॥	May there be happiness to the quadrupeds!
तै । उ । २-२-४०	
ओं शान्तिः शान्तिः शान्तिः	Om! Shanti: Shanti: Shanti.

The proceedings then came to a close with the singing of Jana Gana Mana by Sri Anjaria, a student of the College.

The guests and all those that had assembled had light refreshments in the lawns of the College before they finally dispersed for the evening.

The following delegates attended the Celebrations and the Joint Session of the A.I.V.A. and B.V.M.A.

Dr. K. R. Alur, Dr. K. R. S. Aiyar, Dr. S. M. Ajinkya, Dr. A. G. Bhagwat, Dr. Bhagwat of Poona, Dr. S. S. Bhonsale, Dr. J. N. Barua, Dr. N. C. Buch, Dr. C. S. Balakrishnan, Dr. D. R. Chavan, Dr. S. R. Chadha, Dr. H. A. Chayya, Dr. G. G. Chebbi, Dr. W. K. Chatuphale, Dr. S. G. Dixit, Dr. N. R. Adkar, Dr. L. D. Digrajkar, Dr. S. P. Deshpande, Dr. P. R. Dhake, Dr. N. N. Desai, Dr. S. C. A. Datta, Dr. P. G. Date, Dr. T. G. Desai, Dr. A. A. Dave, Dr. S. L. Deshpande, Dr. K. V. Divekar, Dr. B. A. Deorukhkar, Dr. M. K. Desai, Dr. R. G. Dharwadkar, Dr. N. D. Dhakmarwalla, Dr. S. B. Ghaligi, Dr. V. V. Ganu, Dr. S. N. Gadag, Dr. M. K. Garudachar, Dr. D. R. Gokhale, Dr. M. B. Gupte, Dr. H. R. Iraddi, Dr. P. D. Joshi, Dr. R. S. Joshi, Dr. G. H. Joshi, Dr. D. Jayaraman, Dr. H. V. Jahagirdar, Dr. G. A. Hardikar, Dr. S. B. Hanchlikar, Dr. S. R. Hattangady, Dr. L. S. Hiregoudar, Dr. M. K. Hawaldar, Dr. J. B. Kathuria, Dr. A. M. Kazy, Dr. H. V. Kulkarni, Dr. N. G. Kulkarni, Dr. S. R. Kulkarni, Dr. V. B. Kulkarni, Dr. A. E. Kulkarni, Dr. E. R. Kulkarni, Dr. K. K. Kariappa, Dr. V. M. Kotabagi, Dr. R. M. Kalapeshi, Dr. G. R. Kulkarni, Dr. H. P. Kapur, Dr. M. V. Kulkarni, Dr. S. B. Kodagali, Dr. R. K. Kalaswad, Dr. V. G. Khare, Dr. T. R. Khaladkar, Dr. D. B. Khole, Dr. A. S. Kaikini, Dr. F. S. Khambatta, Dr. S. J. Khambette, Dr. V. N. Kulkarni, Dr. D. S. Laud, Dr. P. D. Lele, Dr. D. R. Mudholkar, Dr. S. L. Manjrekar, Dr. T. M. Z. Mahamooth, Dr. A. C. Malkani, Dr. R. G. Moghe, Dr. G. R. Murkhibhavi, Dr. M. R. Marathe, Dr. P. N. Malhotra, Dr. S. D. Lingayat, Dr. V. R. Natu, Dr. M. H. Nagamia, Dr. K. N. Naidu, Dr. K. S. Nair, Dr. S. M. Nimbalkar, Dr. N. B. Naik, Dr. R. C. Nathani, Dr. V. N. Navangul, Dr. I. I. Nagamia, Dr. R. H. Naik, Dr. S. R. Nadgir, Dr. S. R. Rao, Dr. G. B. Raichur, Dr. B. S. Raichur, Dr. M. N. Ronghe, Dr. M. R. Redkar, Dr. S. R. Rao (Tardao), Dr. V. G. Revadikar, Dr. R. K. Raikar, Dr. Laxmi Sahai, Dr. M. B. Subedar, Dr. M. S. Sastry, Dr. R. Swaminathan, Dr. S. B. Shinde, Dr. M. K. Shingatgeri, Dr. A. G. Shende, Dr. M. S. Salvi, Dr. S. N. Sapre, Dr. B. L. Purohit, Dr. S. P. Phadke, Dr. A. H. Potnis, Dr. J. P. Pereira, Dr. W. H. Patwardhan, Dr. S. V. Parvatikar, Dr. S. S. Patkar, Dr. V. R. Phadke, Dr. C. R. Patel, Dr. D. T. Parnaik, Dr. L. R. Patankar, Dr. A. P. Patravali, Dr. N. B. Tatwadkar, Dr. T. R. Talwalkar, Dr. Wakankar, Dr. M. S. Vaidya, Dr. K. B. Vyas, Dr. M. D. Vaishnav, Dr. H. T. Vyas, Dr. T. Vinayaka Mudaliar, Dr. G. Waghmare, Dr. I. H. Unerkar, Dr. D. H. Velankar, Dr. C. R. Sane, Dr. V. S. Deo, Dr. D. Ramarao.

The following members had sent messages wishing success to the Celebrations and Conferences:—

Hon. Shri B. G. Kher, Hon. Shri Malojirao M. Naik Nimbalkar, Shri and Shrimati M. D. Bhat, Shri D. S. Joshi, Shri D. N. Mahta, Shri B. J. Patel, Mr. V. Mesario Consul-General for Yugoslavia, Sir Behrama N. Karanjia, Mr. A. C. Ardershir, Shri. B. N. Sahoo of Cuttack, Shri. M. S. Telang, Shri. K. N. Ramchandran of Poona, M/S Raptakes, Brest and Co. Ltd, Pandit M. P. Yogananda Shastri of Muttur, Dr. R. G. Dhayagude, G. S. Medical College, Bombay, Dr. D. D. Karve of the Fergusson College, Poona, Principal Kellock of the Wilson College, Bombay, Principal D. W. Kerkar of the S. P. College, Poona, Principal N. G. Suru of the Wadia College, Poona, Principal K. D. Gumaste of the Agril. College, Dharwar, Principal, D & H. National College and

W. A. Science College, Bandra, Principal S. K. Muranjan of the Sydenham College of Commerce and Economics, Bombay, Dr. M. Mohey Deen, Director C. V. D. Sind, Karachi, Dr. G. B. Singh, Director, A. H. and V. S. Orissa, Dr. B. N. Handa, Principal, Punjab Vety. College, Hissar, Dr. M. Anant Narayan Rao of Madras, Dr. K. N. Nag Chowdhary, Dhubri, Assam, Major W. V. Soman, Dhulia, Dr. M. J. John, Ootacamund, Dr. R. P. Misra, Sagar (M. P.) The Animal Geneticist, Nagpur, Dr. J. A. Idnani, Jabalpur, Dr. U. Y. Gadag, Dharwar, Dr. J. R. Bordalai Shillong, Dr. H. B. Kulkarni, Hassan, Mysore, Dr. K. L. Shiggaon, Dharwar, Dr. K. Vanchinathan, Ootacamund, Veterinary Asst. Surgeon, Palanghat, Assam, Dr. P. B. Mukarjee, Bhandara, M. P., Dr. I. J. Rohekar, Broach, Dr. M. Hanumantha Rao, Peddapur, Madras, Dr. R. R. Agarwal, Sagar (M. P.) Dr. A. B. Agte, Wai, Bombay, Dr. A. Venkat Ratnam, Vijayawada, Madras, Dr. S. S. Ramaswamy, Yeragondapalam, Madras, Dr. S. G. Kshirasagar, I. V. R. I. Izatnagar, Dr. Gupta, Alirajpur.

Proceedings of the Eleventh Conference of the All-India Veterinary Association, held at Bombay on 26-12-51.

The Eleventh Conference of the All-India Veterinary Association was held at Bombay on the 26th December 1951 as a Joint Session with the 29th Conference of the Bombay Veterinary Medical Association and in conjunction with the Diamond Jubilee Celebrations of the Bombay Veterinary College.

The proceedings commenced at 9-30 A. M. with a prayer recited by Shri M. K. Garudachariar, one of the oldest members of the All-India Veterinary Association now enjoying a retired life.

Dr. M. S. Sastry, the President of the All-India Veterinary Association, welcomed the gathering and requested Dr. Datta to preside over the deliberations in the following words:

Dr. Datta, Rao Bahadur Phadke and Brother Delegates,

It has pleased Providence to grant me one more opportunity to welcome you all to this Eleventh Conference of the All-India Veterinary Association. I do so with all the warmth of feelings I could command. My eye-sight continues to be poor this year also. Unfortunately, the operation for cataract is being postponed for no fault of mine. All the same it pleases me to see so many of the old and familiar faces and my mind naturally brings up to my memory the faces of so many other workers who are not here today physically but who, I feel certain, are with us in their thoughts. I look upon you all as soldiers who have fought hard in the

cause of our profession. Brothers! I invoke the blessings of the Lord on you all.

The term Eleventh Conference is a little misleading. Not that the All-India Veterinary Association has been in existence only for 11 years now, but it has been possible for it to meet only 11 times on an All-India platform, though that august body has been in existence for three decades now. As a Founder-Member of that body, I feel proud to watch the progress of our institution from day to day. To those who could read the writing on the wall, it should not be difficult to discern the high destiny of the profession and the sustained and steady march it is making towards its realisation.

As I said last night, we have been struggling hard all these years to get the ear of the Government. In Free India we have been able to succeed in some measure in that direction. Last night, we heard of the appointment of the Advisory Committee announced by the Hon'ble Shri K. M. Munshi, the Committee mainly consisting of the representatives of the Association. We thank the Government for the same. There is yet so much to be done and my contention is that the considered views of this responsible body, the All-India Veterinary Association, should receive the careful consideration of the Government without any reservation.

While thanking the Hon'ble Shri K. M. Munshi last night, I also said that since the Conference met last, the Government of India have been pleased to grant us representation at some of the gatherings of the Indian Council of Agricultural Research. We sent our representative for the Veterinary Investigation Officers' Conference, Animal Husbandry Wing Meeting and the Diamond Jubilee of the Indian Veterinary Research Institute. We are grateful to the Central Government for this gracious act and we hope we will receive more and more of such recognition in the years to come. The Diamond Jubilee Celebration of the Mukteswar Institute was a great historic event and it was indeed a great pleasure that the celebrations were done under the immediate presence of our Minister, the Hon'ble Shri Munshi. We took that opportunity to present on behalf of the All-India Veterinary Association a Silver Shield to that great institution as a token of our love and appreciation of the good work it has been doing and it is a pride to us that it is presided over to day by no less a person than the distinguished President-elect of this Conference, Dr. S. C. A. Datta of international repute.

Two items of great importance claim your attention since we last met in this very same city of Bombay. One is the report of the Planning Commission and the other is the formation of the National Veterinary

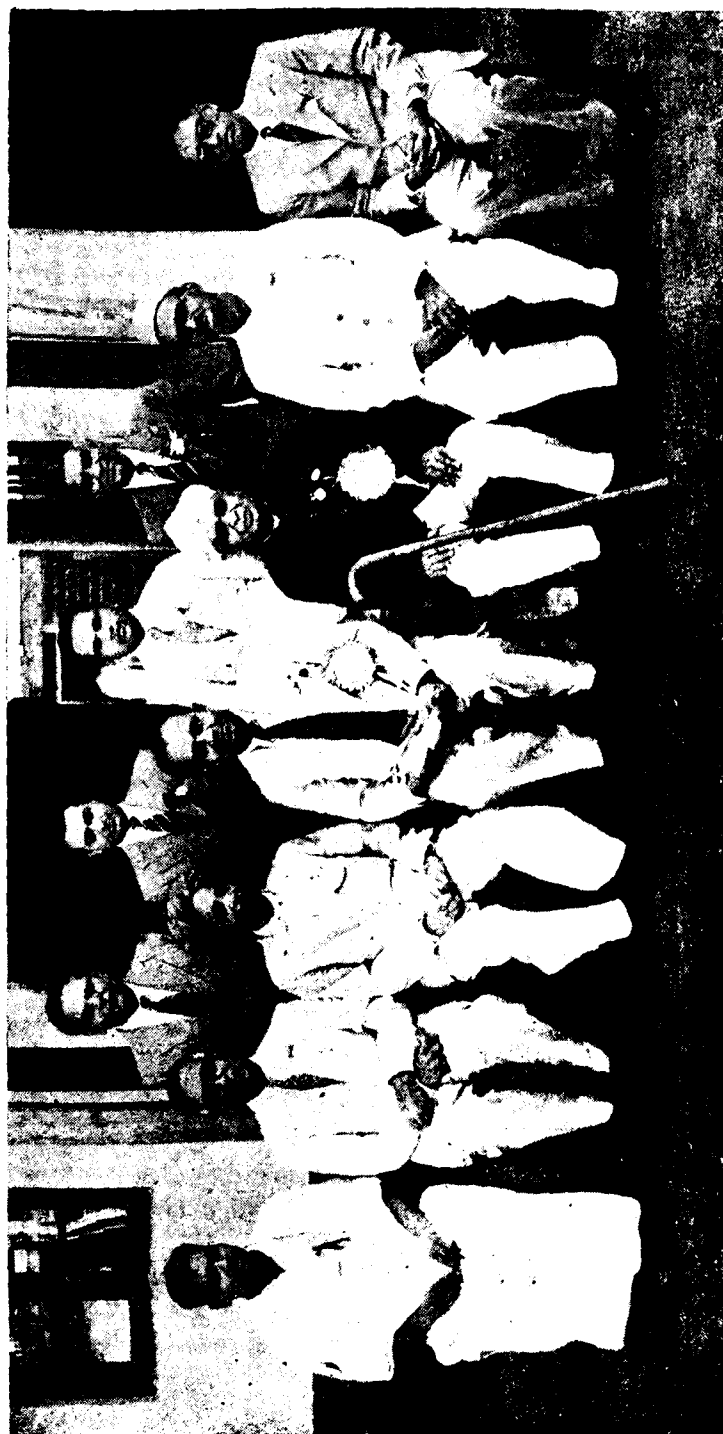
The Bombay Veterinary College Diamond Jubilee Celebrations and the Joint Session of the A. I. V. A. & B. V. M. A. held at Bombay from 25th to 28th December 1951.



Group Photo of the Delegates.

The Joint Session of the XIth All-India Veterinary Association and the
29th Bombay Veterinary Medical Association.
26th December 1951.

Plate No. 23



MEMBERS OF THE MANAGING COMMITTEE

Seated (L. to R.):—Drs. C. S. Balkrishnan (Secy. B.V.M.A.), R. Swaminathan (Gen. Secy. A.I.V.A.), V. R. Phadke (President B.V.M.A.),
S. C. A. Datta (President Joint Session), M. S. Sastry (President A.I.V.A.), T. R. Khaldokar (Treasurer B.V.M.A.),
S. R. Nadgir (Secy. B.V.M.A.).
Standing (L. to R.):—Drs. S. N. Gadag, R. H. Naik, D. R. Mudholkar, D. R. Chavan (Members, Managing Committee B.V.M.A.)

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WELCOME ADDRESS BY DR. V. R. PHADKE

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Council for India. Both these items demand your closest attention and I hope you will do your best and submit to the Government your considered views on both these matters.

The Indian Veterinary Journal has tried to give us some lead in this regard but there is safety in the multitude of counsel in all such matters and I appeal to you to thrash out well these two subjects and come to some definite decisions.

I do not want to take up your time much as you have a lot to do and these are days of action and not of talk. I, therefore, extend to you once again a hearty welcome.

I have great pleasure in proposing Major S. C. A. Datta, the Director of the Indian Veterinary Research Institute, Mukteswar, to preside over the joint celebrations. I have freely expressed myself last year in proposing him for our presential chair and I have dealt at great length on the qualities of his head and heart which fit him admirably for our Presidential gadi. I do not want to go over them again this year. I shall only say that we are fortunate in getting him here this year also. I request him to preside over the sessions and conduct our deliberations.

Rao Bahadur V. R. Phadke, the President of the Bombay Veterinary Medical Association, then extended a cordial welcome to the Joint Session and spoke as follows:—

Dr. Datta, Dr. Shastri, Brother Delegates and Students,

I extend to you all a most cordial and hearty welcome, on behalf of the Bombay Veterinary Medical Association, for attending this Joint Session of the Eleventh All-India Veterinary Association Annual Conference and the 29th Bombay Veterinary Medical Association Annual Conference. We are very fortunate in having a distinguished Veterinarian of international repute, Dr. Datta, D.Sc. M.R.C.V.S., F.N.I., Director, Indian Veterinary Research Institute, to preside over our Session for the second year in succession. We are grateful to him for having readily consented to preside although we approached him late. The enthusiastic way in which he conducted our last Session is still fresh in our memory.

This is the fifth time we are inviting the All-India Veterinary Association to hold their Annual Session in Bombay—a Session that is going to be a momentous one in as much as such very important matters as the formation of the National Committee of the International Veterinary Congress and the remodelling of the Constitutions of the All-India Veterinary Association and the Bombay Veterinary Medical Association, are going to be considered. For this purpose, we are happy to have Dr. Shastri, my old student, and President of the All-India Veterinary Association, with us. It is really very good of him to have come all the way from Bangalore in spite of the serious

temporary handicap of cataract in both eyes. This shows his great enthusiasm and the earnestness in our cause, as like Dr. Datta, he was also present with us during our last Session. We are fortunate in having this Joint Session held in Bombay, because, we of the profession in Bombay are in a position to have a major say in shaping the destiny of the All-India Veterinary Association. I hope they will appreciate our efforts to consolidate the position of the profession in the whole country by playing our part in the parent organisation.

The general theme of my presidential addresses of 1939, 1944 and 1945 and those of other Veterinary Conferences in the several States for the past many years, has remained the same, because the conditions and matters referred to in them have changed very little for the better. With all that, I am afraid I shall have to reiterate several points that continue to agitate our minds in our province.

Education :—We are all agreed that there should be a uniform curriculum of a high standard in all Veterinary Colleges in the country. But unfortunately it is not so. We are sorry to hear that there is a move to reduce the minimum qualification for admission to Matriculation and also waste part of the four years' course in teaching English and the basic sciences, physics, chemistry, etc. If true, this is a serious retrograde step and we must raise our voice and make it heard in the highest quarters.

Higher Training :—I quote below our suggestion in our joint memorandum which Dr. Marathe and I submitted to our Government in January 1947: "In view of the requirements of the College it will be advisable to select men, well in advance, to specialise themselves in the subjects they would be called upon to teach. Similarly to fill up vacancies in higher posts in the Department, selected graduates with a clean record, with post-graduate training and administrative capacity will have to be kept in view". Nothing has been done about this and the position remains to-day the same as it was then. At this rate it is a sad prospect that all responsible and specialised posts in our Province should, for years to come, be manned by graduates of other Colleges and be denied to our own *alumni*. What is more, even most of those on whom Government has spent thousands of rupees for specialised training in India and abroad, are being wasted on other duties unconnected with their training. We have a Biological Products Station which is hardly supplying a fraction of the demand of our State, though it can easily supply the full demands if it is sufficiently manned and equipped.

Animal Husbandry :—Former Animal Husbandry Commissioners to the Government of India like Col. Sir A. Olver and Sir F. Ware have given as their considered opinion that Animal Husbandry forms part and parcel of Veterinary Science and that there is no better person than a Veterinarian to carry on the functions of Animal Husbandry operations and Livestock Management,

Animal Husbandry experts to the Government of India like Wright and Phillips — men of international repute — have strongly recommended the same. As a matter of fact it is now adopted by almost all the States in the Union, like Madras, Punjab, U. P., M. P., Hyderabad, Mysore, Bengal, Madhya Bharat, etc. Assam has decided on the same and the State Government is awaiting the selection of a suitable person. In Bihar, the Animal Husbandry Department is independent, but is headed and manned by Veterinary Surgeons. In Saurashtra alone is the Animal Husbandry Department a part of the Agriculture Department.

In the years 1944 and 1945 I was associated with the Bombay Veterinary Medical Association as President when we demanded the transfer of the Animal Husbandry Department to the Veterinary Department, and I am glad to say that our suggestion was accepted in so many words, by the Government in 1946 and was given effect to in 1947. But this position has been maintained only in name, our Director remaining a mere Post Office. Now we understand that the Animal Husbandry Department may be transferred back to the Agriculture Department, which should concentrate all its resources to grow more food rather than be burdened with livestock. This would be another retrograde step, which surprises us. We hope better counsels will prevail and that we will line up with the rest of the country in this matter.

Disease Prevention :—Pleading financial stringency, the Government have abolished routine touring and the consequent travelling expenditure, with the result that Veterinary Surgeons are permitted to attend villages only after an actual outbreak has occurred. This is evidently a penny-wise and pound-foolish policy. Disease prevention is accepted throughout the world as the correct approach to control epidemics. We know that these epidemics occur during particular seasons, and so, if animals can be protected before the season starts, there will be effective prevention. But if we wait till outbreaks have actually occurred, we lose valuable time, entailing loss of all affected animals and those infected. You can well imagine and compare the relative value of the loss sustained and the amount saved by this cut on travelling expenditure. In this adverse circumstance, we all know, how intelligent owners, with a view to protect their animals, dishonestly report deaths and gain their object while the ignorant man suffers heavy losses.

Our Association :—My Secretaries have already narrated to you the working of our Association during the period April 1950 to December 1951. It is a good sign that our membership has improved in this period and we are happy about being able to celebrate the Diamond Jubilee of our College as we did the Golden Jubilee, in 1936. You will all agree that it has been a great success. At this point I must mention that this Celebration owes its success entirely to the hearty co-operation on the part of our friends outside our Association, such as the generous public, the Diamond Jubilee Celebration Committee, and the students of the College. I heartily thank one and all of them on

behalf of our Association. Though our membership has increased, I find a majority of the profession in the State are either in arrears or are not yet members. I therefore earnestly request of such a few to ponder over the axiom "United we stand, divided we fall", and become members forthwith. You will all agree that our profession in this Province has been receiving step-motherly treatment from the Government, the people and even from our educated young men who prefer the other professions to ours. It is up to us to make them all realise their mistake and secure our rightful place in their hearts by our united voice, sincere efforts and superior abilities.

Lastly, a word of advice to our young friends. You have taken to a noble profession — a profession intimately connected with the well-being of 80% of our countrymen, viz. agriculturists, and with the immense cattle wealth of the country, and as such your duty is not only to alleviate their suffering but also to prevent various diseases among them including those communicable to man. What I want to impress on your minds is that the different branches of science are rapidly advancing and Veterinary science is no exception to it. You must keep yourselves abreast of the times by being in touch not with the latest books but also the day to day literature pertaining to livestock and our profession. You must know that knowledge is power. In short, you must know your job and do it well. In other words, "Deserve and then desire". This reminds me of another saying, "Learn to obey before you can command". There is a common cry that present day students have misunderstood freedom to be indiscipline. My own experience in this College has been a happy memory of well behaved boys and I am sure this state of affairs has continued and will always continue in this Institution.

I am very thankful to my Committee for their sincere and hearty co-operation.

Dr. Datta then took the Chair amidst loud applause.

The General Secretary of the All-India Veterinary Association then presented the following report on the working of the Association :—

Mr. President and Friends,

I have great pleasure in presenting this Annual Report on the working of the Association for the period from May 1950 to December 1951.

I was elected as the General Secretary of the Association during the Tenth Annual General Body Meeting of the All-India Veterinary Association held at Bombay on the 27th April 1950. Immediately thereafter, the completion of the formation of the Council of the Association was taken up and all the State Associations were requested to send in the names of their representatives to the Council at an early date. This took some time, as many of the State Associations had raised doubts about their affiliation to the All-India Veterinary Association. These had to be cleared and they were all assured that they were affiliated bodies from the earliest formation

of the All-India Veterinary Association and that, in fact, they had contributed to the creation of that Central body. Finally, the following State Associations have, so far, sent in their representatives:—

1. Bihar,
2. Bombay,
3. Madras,
4. Mysore,
5. Orissa,
6. Travancore-Cochin, and
7. Uttar Pradesh.

Assam and Bengal have expressed their willingness to send in their representatives but they have not done so yet. Punjab and Madhya Pradesh have not replied to any of my letters while the other States have not got any organised Veterinary Associations. I have, however, been assured by the Heads of the Departments and other members of the profession in those places that early steps would be taken in forming Associations there.

The next thing that was done was to take steps to implement the Resolutions that had been passed at the last Veterinary Conference.

I give below the details of action taken on them seriatim.

The first resolution that had been passed was on the subject of the formation of an Indian Veterinary Council. This subject has occupied the main attention of the Association since then and it is being dealt with later on in this report in some detail.

The 2nd Resolution requesting the Government of Bengal and Assam to raise the standard of Education was taken up with the respective Governments but I have not been able to get any reply from them at all.

The 3rd Resolution regarding the export of oil-cakes was communicated to Government of India for necessary action but no reply has so far been received from them on the subject. But from the available statistics it is seen that there is very little of export of this article.

The 4th Resolution was a request to the Government of India to encourage Horse-Breeding Industry and also to instruct the State Governments not to ban Racing in their respective States. The Government of India, on receipt of this resolution, wanted this Association to take the matter up with the respective State Governments. The matter was, however, not proceeded with further knowing fully well the views of those Governments and their disinclination to fall in line with the views of this Association.

The 5th Resolution was in regard to the designation of the Departments in charge of Livestock and the Government of India have informed us that they have taken up the matter with the States.

The 6th Resolution was on the subject of encouraging Ancient Veterinary Literature and the Government of India have said that they were already seized of the matter and that they had two Officers working in collecting and collaborating the available Ancient Veterinary Literature under schemes sponsored by the I. C. A. R.

The 7th Resolution was a request to the President of the Union and the Governors of States to be pleased to appoint at least one Veterinarian to the Council of States and Legislative Assemblies in the States. Copies of the Resolutions were submitted to the authorities concerned and they were duly acknowledged.

The 8th Resolution was a request to all the State Veterinary Associations to get themselves affiliated to the All-India Veterinary Association wherever they had not done. In response to this resolution, it is gratifying to note that the State Associations are taking steps to get themselves affiliated to the parent body wherever they have not done. It is also found that, wherever there are no Associations, endeavours are being made to form them.

The 9th Resolution related to Veterinary Education and contained a request to the Universities to set up an uniform standard of Veterinary Education all over India. This subject was taken up with the Universities as well as with the Inter-University Board. It was found that the only agency that could implement this Resolution effectively was the creation of an Indian Veterinary Council about which mention is made later on.

The 10th Resolution desired that the Universities should offer facilities for Diploma Holders to take up the Degree. The Madras University has already a provision to this effect; the Faculty of Veterinary Science in Agra University has recommended this to the University authorities while the other Universities have not taken any action in the matter. It, however, appears that even when facilities are offered, the Diploma holders are not coming forward to avail of these facilities.

The 11th Resolution was a request to the State authorities to depute Representatives for All-India Veterinary Conference. In spite of reminders, the Association has not been able to get any replies from them.

The 12th and last of the Resolutions was the appointment of a Sub-Committee for framing a Code of Veterinary Jurisprudence. The Sub-Committee is still at this work.

Reverting back to the subject of formation of an Indian Veterinary Council, the Government of India on receipt of the copy of the Resolution

of the Association, replied that the setting up of an Agricultural Education Council was under consideration and that, when it was formed, it could look to the standard and general interest of the Veterinary Profession. This reply was not in accord with our approach to the subject; but, before I could make a further representation, a reference was received from the Government of India, Ministry of Agriculture, that this Association may take up the subject of the formation of a National Veterinary Committee as recommended by the Permanent Committee for the International Veterinary Congresses so that the National Committee may act as a liaison body between the Veterinary Profession, the Government of India and the International Veterinary bodies. The subject was immediately taken up with all the State Associations and with prominent members of the profession. There was a frank and free expression of views on this subject. The creation of a National Veterinary Committee was welcomed all round and, in pursuance of the suggestions that had been received for the creation of this Committee, it was proposed to form, in the first instance, a General Council of Veterinary Surgeons in the country to be called the Indian Veterinary Council which will function as an electoral body for bringing into existence the above mentioned National Veterinary Committee. This subject is coming up before you all later on today for consideration and discussion.

Another subject which was taken up at the last year's Conference was the consideration of the revision of the rules and bye-laws of the Association. This was referred to a Sub-Committee consisting of Drs. M. S. Sastry, D. S. Laud, C. S. Balakrishnan, T. Vinayaka Mudaliar, P. Srinivasa Rao, and R. Swaminathan. The draft rules, as considered and drafted by the Sub-Committee, have been published in the November 1951 issue of the *Indian Veterinary Journal* for general information. They will be placed before you during this Conference for your consideration and, if found acceptable, for adoption.

This much for the action taken on the Resolutions of last year.

Coming next to the activities of the period under report, the most important to be mentioned at the outset was the narrowing of the gulf between the Association and the Government and the beginning of a desire to come nearer each other. From the very beginning, it has been the aim and policy of this Association to work in close co-operation with the Government but, unfortunately, the Government of those days viewed the working of this Association with suspicion. Its activities were noted down as those of agitators and every well-intentioned approach was brushed aside. Fortunately, with the advent of our Freedom, the outlook has greatly changed. It has now been my pleasant experience to note the desire for a close liaison between the Association and the Government and I do hope that this desire will ripen in due course and that the relationship between the Association and the Government will be one of close intimacy and friendliness. After all, both the

Association and the Government have the same objects in view, the former mirroring to the latter the views and opinions of the rank and file of the profession, and consequently there is no room for antagonism at all between the two.

It is therefore very pleasing to record that for the first time in its existence, the Association was given a representation in Government bodies like the Indian Council of Agricultural Research. The representative of this Association was Rao Sahib T. Vinayaka Mudaliar, Retired Livestock Development Officer, Madras. He attended as a representative of this Association the Conference of Veterinary Investigation Officers and Veterinary Research Workers held at Izatnagar during the 2nd week of March 1951 and also the Ninth Meeting of the Animal Husbandry Wing held in the same place as a Visitor. In addition to attending the aforesaid meetings, the representative of this Association participated in the Diamond Jubilee Celebration of the Indian Veterinary Research Institute, Mukteswar, and, on behalf of this Association, presented a Silver Shield to the Institute as a token of appreciation of the services by the Institute to the cause of Veterinary Science during the last 60 years. The occasion was a great event in the history of our profession and naturally the Association, as its representative, took a legitimate pride in the event and participated in the celebrations. The presentation was very kindly made by the Hon'ble Shri Munshi, the Minister for Food and Agriculture in the Central Government, to the Director of the Institute, Dr. S. Datta. The account of the event of these celebrations was given a prominent mention in the *Indian Veterinary Journal*.

One of our affiliated Associations—the Madras Veterinary Association—has got representation in the Livestock Development Board of that State.

From all accounts, the association of the representative of this Association or its affiliated Branches with Government organisations has been of mutual benefit and advantage and it is our fervent wish that this will become evident in more abundant measure in future years.

Another event of great importance to the profession was the co-operation of this Association with the Pharmaceutical Society of Great Britain in the compilation of the British Veterinary Codex. It was suggested to this Association by the National Veterinary Medical Association of Great Britain and Ireland that it may nominate a corresponding member to each of the two Sub-Committees that had been formed by the Pharmaceutical Society, one to deal with Action and Uses of Drugs and the other with Biological Products. Agreeably to this suggestion, the Association nominated Sardar Balwant Singh Bahadur of the Indian Veterinary Research Institute, Mukteswar, for the sub-committee on Biological Products and Shri M. R. Subramania Shastri, Retired Lecturer in Pharmacology, Madras Veterinary College, for the sub-committee on Action and Uses of Drugs. The latter Committee has been sending its

monographs to our representative for his remarks and he is attending to the same.

A yet another matter of importance. During the period under report, as one and all of us know, for the first time in the history of our country, a definite step was taken in the matter of planning for the development of the resources of the country and the Planning Commission presented its preliminary report for the general consideration of the people. This Association, as the custodian of the livestock wealth of the country, reviewed the report and presented its views to the Commission. These views were formulated by the Council of the Association after a preliminary consultation with the State Associations and they have been published in the November 1951 issue of the *Indian Veterinary Journal*. It is desirable that this Conference as a bigger representative body of the profession considers them and offers its remarks on them.

Lastly it has been my endeavour to help during the period under report the working of the *Indian Veterinary Journal* and contribute what little I could to the running of the *Journal*. The report of the Editor of our Official Organ is being presented to you separately for your consideration. You will see therefrom that the *Journal* has been progressing steadily from year to year.

Before I close, I should like to bring to your notice very prominently the precarious financial position of the Association. During the period under report, the parent body has not received any financial contribution from any of the affiliated Associations. This is mainly due, I believe, to the past inactivity of this Association and I do hope that, from next year onwards, the contributions of the affiliated branches would be pouring in very freely. The revival of the activities of the Association entailed a good deal of correspondence and it would have been quite impossible to carry on even a tithe of them but for the helping hand and the accommodating nature of the Editor of the *I. V. J.* He himself was not happy about his own financial position. Still, he cheerfully advanced me the monies I needed. I hereby publicly acknowledge my grateful thanks to him and also my indebtedness to him. It is my earnest hope that as a result of your deliberations, the finances of the Association would be placed on a sound basis.

In conclusion, it is my very pleasant duty to place on record the extremely kind and hearty co-operation I had from the President of the Association, from the Members of the Council and from the State Associations. I must also publicly acknowledge the valuable help and advice I have constantly received from prominent members of the profession, in particular, Shri P. N. Nanda, Dr. Datta, Shri M. R. Mahajan and Shri R. L. Kaura. These have been a source of great strength and support to me in all my actions and my constant prayer is that this *entente cordiale* should continue for ever and the General Secretary of the Association, whoever it may be, would be enabled to carry on

his allotted duties fortified by this spirit of cordiality. The revival of the activities of the Association has only just begun and, with changed conditions in the country, it takes time to gather the strings and tighten the organisation into a well-knit whole. This work of consolidating the profession can become possible only by the earnestness and willing co-operation of the members of the profession and I appeal to you all to continue your co-operation and make the Association and profession a living vital force in the land. I need hardly add that only then can the profession contribute its share for the rebuilding of our dear Motherland and bring name and fame to her.

This was followed by the reading of the following report on the working of the *Indian Veterinary Journal* by Rao Sahib T. Vinayaka Mudaliar in the unavoidable absence of the Editor :—

Mr. President and Friends,

I must first apologise to you for my inability to present this report to you in person. My health has been indifferent and my doctors have strongly advised me against undertaking a long railway journey to Bombay. Much to my intense regret, I have to bow to their advice. I had been eagerly looking forward to meeting you all on this historic occasion at Bombay and renew my old friendships and acquire new acquaintances. But this has not been possible and I request you to kindly excuse my absence and accept this report of mine as if it had been presented by myself in person.

Since presenting my last report to you at the time of the Tenth All-India Veterinary Conference held at Bombay in April 1950, the progress of the *Journal* has been steady and sustained, although not very spectacular. It has continued to reflect the views of the profession on all important events and topics of the day. Two events of outstanding importance have taken place during the period under report. The first one was the celebration of the Diamond Jubilee of the Indian Veterinary Research Institute, Mukteswar, whose Director is now guiding our deliberations at this Conference. It was indeed a great historic event and the All-India Veterinary Association made a grand gesture in perpetuating this event by presenting a Silver Shield as a token of affectionate greetings from the profession and as its appreciation of the inestimable work the Institute had done during the Sixty Years of its existence. This event was recorded at length in the pages of the *Indian Veterinary Journal*. The other was the publication of the draft report of the Planning Commission. This report contains some valuable suggestions concerning our livestock. At the same time, it also contains some vital omissions. These omissions have been clearly pointed out and suggestions have been made for bringing out the potentialities of the profession for the welfare of the country. The reprints of these comments have been forwarded to the Members of the Planning Commission and other important personages and it is our fervent hope that the suggestions would find acceptance in the final draft of the Commission.

The *Journal* continued to concentrate its main attention on the advancement of professional knowledge by publishing matters of scientific interest and clinical reports. It is gratifying to note the steady improvement in the materials received for publication. The Mukteswar Institute, I am glad to say, continues to be our main contributor and I cannot thank adequately the Director of the Institute, Dr. S. Datta, for the sustained interest he has been evincing in the welfare of the *Journal*. I am sure his support will continue to come in more abundant measure in times hereafter. There is, however, very great scope for improvement in other places. Paucity of news from other States still persists and my endeavours to improve this condition has, unfortunately, not been successful. It is my earnest hope that, with the revival of the activities of the All-India Veterinary Association, the State Associations would hereafter begin to function more vigorously and efficiently.

Coming to the circulation and finance of the *Journal*, I am glad to say that there has been a slight increase in the circulation. It is about 25% over the previous figures. But it has not materially compensated for the mounting increase in the cost of paper and printing charges. Consequently, the finances of the journal continue to be my great anxiety. As will be seen from the annexed audited report, the Bank balance is very low and scarcely enough even to meet ordinary contingencies. And, therefore, I request you to find out ways and means of improving the finances of the *Journal* and putting them on a very firm basis. One method which appeals to me, and which, I am sure, will appeal to you also, is to request the States in the Indian Union to supply a copy of this *Journal* to each and every veterinary billet under their control. This will ensure a steady and sure income to the *Journal* but, what is more, and this is what I would like to stress, it will help to keep the veterinary officers up-to-date. Many of these officers, when they leave their *alma mater* and get posted in interior tracts, or for the matter of that when they get into services, loose touch with their profession and very soon tend to become back members. The supply of this *Journal* to them regularly will go a long way to refresh their knowledge and also to keep them informed of the latest trends in the profession. Ultimately, these *Journals* may form a nucleus for a Library in their billets. A step in this direction has already been taken by the Director of the Orissa State, Mr. G. B. Singh. He has set a good example in this and has further set another example by his own professional contributions to the *Journal*. I am indeed very grateful to him. His example has been followed by Madras where also the Government have ordered the supply of a copy of this *Journal* to every veterinary billet in the State. Uttar Pradesh also has done this to a great extent. My only wish is that all the other States in the Indian Union should take similar steps in their jurisdiction. May I suggest to this Conference to consider this suggestion and, if found acceptable, adopt a resolution requesting the States to supply a copy of this *Journal* to all the Veterinary Billets in their States?

Statement of Receipts and Payments for the two years ending 30-6-51
[Volumes 26 and 27]

		THE INDIAN VETERINARY JOURNAL	
To balance on 1-7-49:			
on hand	238 10 0		2235 0 0
with Bank	140 10 6		59 4 0
F. Deposit	1000 0 0		960 0 0
Subscriptions.		1439 4 6	3529 0 0
Advertisements.		22073 2 9	21114 5 8
Reprints.		7901 8 10	788 12 0
Government contributions.		389 14 0	29 14 0
Interest.		1500 0 0	35 8 0
Sale proceeds of old Typewriter.		93 8 0	362 0 0
		150 0 0	1500 0 0
			1000 0 0
			121 10 9
			450 0 0
			193 8 0
			1163 7 8
			33547 6 1
By Expenses:			
Establishment.			
Insurance premium.			
Rent.			
Postage.			
Printing and Stationery.			
Advertisement Commission.			
Bank Charges.			
Repairs to Typewriter.			
Deputation Charges.			
Honorarium for Editors, 26th Vol.			
do. (part payment) for 27th volume.			
*Cost of Shield presented to Mukteswar Institute.			
Purchase of Typewriter.			
Miscellaneous.			
Balance on 30th June 1951:			
on hand	Rs. 150 6 5		
with Bank	18 1 3		
F. Deposit	1000 0 0		
		33547 6 1	
Examined and found correct.			
A. GOPALAKRISHNA RAO, B.Sc., A.C.A., Chartered Accountant.			
*The amount is a loan to the A.I.V.A. Madras, 2nd July, 1951.			

Lastly, the arrears of the *Journal* continue to be heavy and I appeal through you to all subscribers to clear these arrears at an early date.

Before concluding, I wish to publicly acknowledge the valuable help I have been constantly receiving from my close and intimate associates, Messrs. M. S. Sastry and T. Vinayaka Mudaliar. Their support and advice have been of inestimable value and I cannot thank them adequately. My thanks are also due to you all, Gentlemen, for the uniform encouragement and patronage you have extended to me and all that I ask for is only for a continuation of such patronage in still more abundant measure. This *Journal* was started nearly thirty years ago as a quarterly. It was converted into a bi-monthly from July 1939 and published every alternate months. It is high time that it is converted into a monthly *Journal*. This is not at all difficult in a vast sub-continent like our Indian Union. You have only to wish it and work for it and the thing is done. I beg you to think about this point in the course of your deliberations.

I thank you all for your patient hearing and I wish you all a very happy and prosperous new year with plenty to eat and clothe. *Jai Hind*.

The President of the Conference in commending the report to the gathering observed that the activities of the Association should be intensified by more personal contacts and suggested the desirability of the General Secretary undertaking a tour to the different States and increase the membership of the Association and its finances. He pleaded at length for a realistic approach to our various activities and appealed to every member of the profession to give his very best to the building up of a welfare State for our dear Mother land.

Shri C. S. Balakrishnan (Bombay) moved the adoption of the report. Shri H. P. Kapoor (U.P.) seconded it. The report was adopted unanimously.

Shri K. S. Nair (Hyderabad) suggested the consideration of an increase in the subscription of the *Indian Veterinary Journal*. Shri V. G. Khare (Bombay) suggested the enlistment of life subscribers. He said he had offered to the Editor of the *Indian Veterinary Journal* to become a life subscriber by paying a sum of Rs. 150/- but the Editor was not agreeable to it and treated it as an advance subscription for 25 years. Other members took part in this discussion. The General Secretary of the All-India Veterinary Association then explained the position and said that the enlistment of life subscribers would lead to some complications and that it is not desirable to accept this suggestion. He pointed out that the present subscription was for a *Journal* which was bi-monthly. If they were to convert it into a monthly, as they all eagerly desired to, then the subscription rate will necessarily have to be revised. In such a case, the enlistment of life subscribers at the present rate of subscription will lead to heavy financial loss later on. Thereupon the suggestion to enlist life subscribers was dropped.

Discussing the suggestion for the increase in subscription, Shri C. S. Balakrishnan and Shri K. R. S. Aiyar made some suggestions for further improvement of the *Journal*. Shri K. S. Nair appealed to the members of the profession for contributing more articles to the journal and stressed the point that the journal depended on its readers for its articles. He, however, felt glad that the public had a good opinion of the *Journal*. The General Secretary of the All-India Veterinary Association suggested that the Correspondents' column in the *Journal* may profitably be used by the readers for offering their views. The President of the Conference, Dr. Datta, concluded the discussion with the observation that it was up to the members of the profession to contribute good articles to the *Journal* in much the same way as the Indian Veterinary Research Institute was doing.

On the suggestion of the General Secretary of the All-India Veterinary Association, the President put the following resolution as desired by the Editor of the Indian Veterinary Journal to the Conference and declared it passed unanimously.

Resolution No. I

This Conference requests the State Governments to subscribe to the Indian Veterinary Journal and supply a copy of it to all the Veterinary billets in their jurisdiction.

The Conference then took up for consideration the letter from the Government of India to the All-India Veterinary Association suggesting the desirability of the formation of a National Veterinary Committee for India which will act as a liaison body between the profession, the Government of India and the International Veterinary Congress.

The General Secretary of the All-India Veterinary Association read the communication from the Government of India and also gave a brief resume of the correspondence he had with important members of the profession and the State Veterinary Associations on the subject. He further drew the attention of the house to the announcement made the previous evening by the Hon'ble Shri K. M. Munshi, the Minister for Food and Agriculture, about the formation of a Committee for organising the profession. He then requested that the following resolution may be adopted by the Conference.

Resolution No. II

This Conference of the Joint Session of the All-Indian Veterinary Association and the Bombay Veterinary Medical Association has considered the letter of the Government of India regarding the formation of a National Veterinary Committee for India and resolves, with a view to implement this suggestion, to recommend to the Government of India the formation of a National Veterinary Council (or Indian Veterinary Council) with statutory powers on the lines indicated in the annexed draft.

This Conference welcomes the formation of a Veterinary Committee to consider this subject and, while conveying its thanks to the Hon'ble Minister for Food and Agriculture for forming this Committee, it requests the Government to convene the first meeting of this Committee at an early date so that the representative or representatives to the International Veterinary Congress to be held at Stockholm from August 9th-15th, 1953, may be decided upon.

Annexure to the above Resolution. National Veterinary Council for India.

Draft Rules

1. *Name and Headquarters.*—The Name of the Organisation shall be "The National Veterinary Council of India" with jurisdiction over the whole of the Indian Union, and Headquarters at New Delhi or at any other place as may be decided upon from time to time.

2. *Objects.*—The objects of the Council shall be :—

- (a) To promote and advance the development of Veterinary Science in all its aspects in this country.
- (b) To establish an uniform standard of Veterinary Education on an University basis and
- (c) To arrange with similar organisations in other countries for a scheme of reciprocity for the recognition of Veterinary qualifications.

In order to achieve the above objects, the Council shall take steps (1) to organise State Veterinary Councils in all the States of the Indian Union which shall maintain a Register of all qualified Veterinary Surgeons within their jurisdiction (2) to draw up a code of ethics to regulate and control the professional conduct of its members in this country and (3) to act as a liaison body between the Veterinary profession in India, the Government of India and the International Veterinary Organisation on all matters affecting the Veterinary profession.

In order to implement the above-mentioned objects with authority, the Council shall take early steps to acquire Statutory powers through necessary legislation.

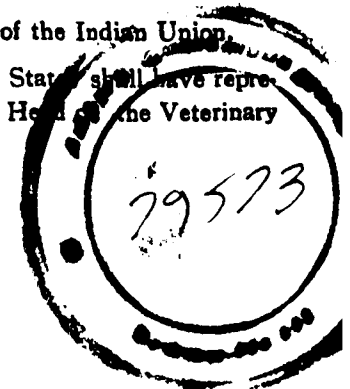
3. *Membership and Constitution.*—Membership to the Council shall be confined only to persons possessing recognised Veterinary qualifications and the Council shall consist of the following categories of members with the Animal Husbandry Commissioner to the Government of India as its President for the first five years.

- i. Members representing the constituent States of the Indian Union.

All the States except those classified as Part-C States shall have representatives on the Council. One of these shall be the Head of the Veterinary

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Services as ex-officio. The others shall be elected by the State Veterinary Associations (provided they are affiliated to the All-India Veterinary Association) on a scale of one representative for every hundred members or part thereof on their rolls.

ii. Members representing the Government of India.

These will be (a) The Animal Husbandry Commissioner with the Government of India and (b) The Director of the Indian Veterinary Research Institute, Mukteswar.

iii. Members representing Veterinary Education.

The Principals of all Colleges or representatives of the Faculties in Veterinary Science of Universities wherever they exist.

iv. Members representing the Army Veterinary Services.

The Director of the Remount, Veterinary and Farms.

v. Members representing the All-India Veterinary Association.

The President and the General Secretary of the All-India Veterinary Association.

vi. Members representing Veterinary Journalism.

The Editor of the Indian Veterinary Journal or his nominee.

All the elected members shall hold office for a period of three years from the date of their election or until their successors are appointed.

4. *The National Veterinary Committee.*—The management of the Council shall be vested in a committee of 14 members, called the National Veterinary Committee, constituted as follows:—A President, a Vice-President, a Secretary and Treasurer and 11 members. All these except the President shall be elected once in three years. This Committee shall have power to co-opt for any one meeting up to 3 members and also to fill up interim vacancies. This Committee will nominate from time to time suitable delegate or delegates for the International Veterinary Congresses to represent this country.

The Secretary shall work in close collaboration with the President and be the custodian of all the records and properties of the Council. He will be in charge of all the business of the Council and shall be responsible for maintaining a correct record of the proceedings of the meetings of both the Council and the Committee.

5. *The Official year.*—The Official Year of the Council shall be the calendar year.

6. *Meetings.*—The Council shall hold its first meeting at such time and place as may be decided by the President of the Council and thereafter at least once a year as may be decided upon by the Council.

7. The quorum for the meetings of the Council and the Committee shall be one-third of the members on the rolls.

Shri M. S. Sastry formally moved the resolution. Shri V. G. Khare seconded it and the proposition was adopted unanimously.

The next subject that was taken up was the consideration of the Planning Commission's Report. The General Secretary of the All-India Veterinary Association then explained the salient points in the report and also in the memorandum that had been sent by the Council of the A.I.V. Association. After a brief discussion, the following resolution was passed.

Resolution No. III

This Conference ratifies the memorandum that had been submitted by the Council of the All-India Veterinary Association on the Planning Commission's Report and resolves to constitute a sub-committee to amplify that memorandum by giving greater details on the various points with, wherever possible, full statistical data.

Thereafter, the consideration of the revised rules and bye-laws of the All-India Veterinary Association as prepared by the Sub-Committee of the Association and as published in the November 1951 issue of the *Indian Veterinary Journal* was taken up. Shri K. S. Nair moved an amendment for designating the Secretary of the Association as the General Secretary and for making the necessary alterations wherever required in the rules. This was accepted. There being no further amendments, the revised rules and bye-laws were adopted on a motion from the Chair.

The Conference then considered the question of getting representation for the Veterinary profession in the new Legislative Councils and adopted the following Resolution.

Resolution No. IV

This Conference of the Joint Session of the Eleventh Conference of the All-India Veterinary Association and 29th Conference of the Bombay Veterinary Medical Association reiterates the Resolution No 7 passed at the last year's Conference which ran as follows:—

This Conference is of opinion that, on account of the importance of livestock development in India, it is imperative that Veterinarians should be nominated to the Legislature of the Centre and States. And, therefore, it humbly requests the President of the Indian Union and the Governors of the States to be pleased to appoint at least one Veterinarian to the Councils of States (The Raja Sabha) and to the Legislative Councils in the States, wherever they are, in consultation with the All-India Veterinary Association.

The election of the office-bearers for the All-India Veterinary Association was then taken up. Proposed Dr. D. S. Laud, seconded by Dr. C. S. Balakrishnan and supported by Drs K. R. Alur and Kapoor, the following were unanimously elected.

Shri M. S. Sastry	... President.
Rao Bahadur V. R. Phadke	... Vice-President.
Rao Bahadur R. Swaminathan	... General Secretary.
Rao Sahib T. Vinayaka Mudaliar	... Joint Secretary and Treasurer.

The 3 representatives for the Managing Council will be elected later on as soon as the affiliated State Associations report the names of their representatives to the All-India Veterinary Association.

In the night, there was a dramatic performance by the students of the Bombay Veterinary College which was very much appreciated.

Third Day, 27th December 1951.

The whole day was spent in excursions. In the morning, the delegates visited the Aarey Milk Colony, about 20 miles from Bombay. The visitors were received by Shri Khurody, the Milk Commissioner, at the Observation Tower who then explained with the aid of large-scale maps and sketches the whole lay out of the Colony and its working in a clear and lucid style. He touched on all the points of the milk problem of the Bombay City, retrospectively and prospectively, and presented a clear-cut picture of the large organisation which he had brought into being. The members were then taken to a typical Milk Unit for a view of the animals and the way in which they were kept. It was a really grand sight to see the animals in such fine condition with sleek coats and healthy looks. The Artificial Insemination Unit was next visited. There were some very good breeding bulls kept for service which will leave their marks in the subsequent progeny. The Pasteurisation plant was then visited. It was indeed a gigantic one with every thing mechanised. Its capacity was 40,000 lbs. an hour—pasteurising and bottling—and is by far the best of its kind in this country. With a bottle of milk to each of the members, the visit ended and, before dispersing, Rao Sahib T. Vinayaka Mudaliar thanked the Milk Commissioner in the following words on behalf of the Delegates:—

Mrs. Mammoth, Mr. Khurody, Ladies and Gentlemen,

Given time, I am sure every one of you would like to express your heart-felt thanks to Mr. Khurody, for the magnificent work he is doing here. I wish the President of our Conference, Dr. Datta, was present here today to thank Mr. Khurody in his own inimitable way. But it is not words that count, Mr. Khurody, but it is our heart-offerings that we tender for this great piece of National work that you are doing here.

Gentlemen, Mr. Khurody has given us a complete survey of this scheme in a very lucid and descriptive manner and it has given us a mental picture of the entire scheme, which is hard to forget. He has been building up the fame, not so much of himself as that of Bharat, in his own humble sphere of work.

It is easy for us to pose questions. I overheard some one remarking "the main prop for the success of this scheme seems to be the huge profit that he gets from the milk powder supply. What happens if that supply is cut off due to a third World War?" Well, Gentlemen, the geniuses who have conceived, planned and carried out such a gigantic scheme are not going to falter and founder at the onset of a first major encounter. We can depend upon them to solve the difficulty.

We find in the history of all human endeavour born of faith, sincerity and honesty, the human genius never runs out dry at times of crisis. What then is our duty as a profession? Let us help all such endeavour wholeheartedly and put no spokes in their way of success.

It will indeed be a proud day for India, when this institution becomes an International centre for training students from abroad even, as has been hinted by Mr. Khurody in his speech.

On behalf of you all, Gentlemen, I thank Mr. Khurody for the excellent work he is doing here and the trouble he has taken to take us round. I wish him God-speed in his work! (*Prolonged cheers.*)

Returning to the hostel for lunch, the delegates visited, in the afternoon, the Haffkine Institute—the well-known Biological and Research station in Bombay. Although it was a holiday, still the Director of the Institute and his staff were there specially to take the members round and explain the work that was being done in every department. Every section was interesting and the members evinced keen interest in everything they saw. Col. Dogra explained the new prophylactic Anti-rabic vaccine he had prepared and requested the members to give a trial to this vaccine in their war against rabies. Dr. Dixit explained the preparation of Anti-venin and arranged a demonstration of the collection of venom from a cobra. He appealed to the members of the Veterinary profession to send him live specimens of poisonous snakes like Cobra and Rattle-snake as they were very badly needed for his experiments and offered even to pay for them, if necessary. He said that these snakes can be put into an empty kerosene oil tin and sealed leaving a few air holes, before despatching them to the Institute. The Pharmacological section, the bio-chemical section and the serum section were all in turn visited by the delegates who were greatly benefited by the visit. The gathering finally dispersed after thanking the officers for their courtesy and kindness.

On this day also during the night, there was a dramatic performance in Kannada by the students which was very largely attended and applauded.

Fourth Day — 28th December 1951.

The day's proceedings were mainly devoted to the Bombay Veterinary Medical Association.

Members assembled in the amphitheatre of the Bombay Veterinary College and the proceedings began at 9-30 A.M. The President of the B. V. M. A. Rao Bahadur V. R. Phadke addressed the Conference and proposed Dr. L. Sahai to the Chair for the rest of the proceedings of the joint session, due to the unavoidable absence of Dr. S. Datta, who had to leave Bombay urgently. The proposal was received with acclamation and Dr. Sahai took the chair.

Dr. Sahai started the proceedings in a very businesslike manner, explaining that there was a very heavy business to transact and a very little time at his disposal. There was a long agenda of twelve items including professional papers and resolutions and election of office bearers and representatives of the B.V.M.A. to the A.I.V.A. council. He changed the order of the proceedings in view of some of the out station delegates being obliged to leave early and took up the item of delegates felicitations first.

Rao Sahib Dr. T. Vinayaka Mudaliar then addressed the gathering in the following words:—

Mr. President and Gentlemen,

I have come to play the humble role of a messenger from far-off Madras. My task would have been far easier if Madras had given me a written message. In justice to her, I hasten to tell you that she did try to reduce her message to writing. Having done that, she read and re-read it but she felt that something was lacking. She found her written message was too cold to adequately convey her warmth of feelings towards you. She felt the message was not pulsating with that exuberance of life so very necessary to impress on you her feelings of gratitude, of thankfulness and of good wishes. In short, she thought the message was not complete without the necessary human touch. The result was, I was packed in a hurry to convey her message to you in person.

I say all these, just to impress on you the great affection which Madras bears towards you, as pioneers in the field of Veterinary Science in this land. For, have we not learnt the A. B. C. of our science at the hands of the several *alumni* of this ancient College? Has not this dear old College sent out her sons to open and run similar colleges in other parts of this vast country? The very institution over which the distinguished President of our Conference has the privilege and honour of directing its destiny today in Free-India, has had its birth only in Bombay State. She gave birth to her, reared her for two years and then entrusted her to the confines of the Great Himalayas where he is holding the baby today. Yes, Gentlemen, Madras learnt her Veterinary Science at the hands of such savants of your College, as Mr. G. T. D'Silva, Rao Sahib H. C. Sampath Iyengar, Rao Sahib K. Kylasamier, Rao Sahib

V. P. Subramania Mudaliar, Mr. Padmanabha Pillai, Mr. Valadaris, Mr. K. S. Nair and a host of others. What more, Gentlemen? How can Madras ever forget the greatest of all gifts which Bombay has bestowed on her in the person of the venerable President of the All-India Veterinary Association?

His failing eye-sight due to a developing cataract is no barrier to him for work; his increasing dotage is no concern to him where the work for the profession is involved; his meagre and slender purse causes him no anxiety when he has to attend a Conference, be it at Delhi, Bombay or Timbuctoo! I say all these, even at the risk of causing him some embarrassment, some annoyance, giving him sufficient provocation for a domestic quarrel in train on our way back to Madras. I say all these with a purpose, so that the younger generation of Veterinary Surgeons, of whom I see quite a sprinkling today, may know such men and emulate their good example.

Friends, Madras therefore has sufficient reason to be grateful to the Bombay Veterinary College, which has been celebrating its Diamond Jubilee Celebrations these 2 or 3 days. She shares with you, your feelings of joy and a sense of thankfulness to Providence for having made you survive many a Thomas's report. You have far exceeded the enviable target of putting out 1000 Veterinary Surgeons from this College. That is your contribution to the *Bhoomi Sena* of the recent times, to work in rural areas.

It is irony of fate that such an useful institution, with such a glorious record of work, should be threatened with extinction from time to time. When the report of the Thomas Committee appeared about the year 1932 or 1933, recommending the abolition of this College, after an existence then of over 40 years, it virtually, literally, wrung our hearts in Madras; and the *Indian Veterinary Journal*, that champion of our rights and privileges, immediately came out with an editorial under the caption "Bombay's hour of trial" and issued thousands of advance reprints and got them widely circulated amongst the Legislators of Bombay. The Bombay Legislative Council was then in session and this Thomas report was due to be discussed then. Well, Gentlemen, the *Indian Veterinary Journal* bears many a scar on her body-politic in her fight with the Bureaucracy on behalf of our profession; but I assure you no scar is sweeter to her memory than the Bombay scar, wherein she feels that, in combination with our efforts, she was able to retain this dear old College for India. (*Loud cheers*). Well, it is all ancient history now and God be thanked that this institution has lived to celebrate its Diamond Jubilee.

Sir, Mr. President, let me say here and now without any fear of contradiction that it would be a first rate National calamity if this glorious institution is ever to be closed. It would then be high time for the profession in India to go in sack cloth and ashes. It is not this man or that, this Department or that, this institution or that, that will suffer, but it is the entire country that will stand to lose.

If people concerned lack in imagination, let them take lesson from what happened in the neighbouring state of Madras. The Forest College at Coimbatore was hurriedly closed one fine morning on grounds of retrenchment, economy and all the rest of it. With what result? All the good work that was being done there for decades, both on the research side and on the general side, came to a stand still. The science of Forestry suffered much. Soon came the difficulty of not finding enough men to man their posts even. They started to recruit second rate and third rate men with or without the required qualification and the Service suffered much in quality. So they had to re-open that College as hurriedly as they had closed it. Does not that one instance tell us a tale and point a moral?

May the angels that guarded you all these years continue to bestow their fostering care and enable you to celebrate the Centenary of this institution!

On behalf of all the Delegates that had gathered here, I thank the Reception Committee for the excellent arrangements made here for our creature comforts. (*Prolonged cheers*).

Dr. M. S. Sastri, President A.I.V.A. on behalf of the profession in Mysore expressed sincere felicitations and exhorted every one present to work selflessly for the profession to the best of one's own abilities. He also thanked the Bombay State on behalf of the A.I.V.A. for being a staunch supporter and for inviting them five times out of a total of eleven conferences in which they had met. He hoped Bombay will continue to be a champion and be in the fore front for rallying the profession into unity and strength.

Dr. D. S. Laud followed and generally endorsed the feelings and sentiments expressed by the two previous speakers and thanked them for their kind and sincere felicitations.

The proceedings at this stage were interrupted by a sad item. The Chairman moved a condolence resolution on the demise of 1. Dr. P. B. Cardmaster, 2. Dr. V. B. Dinkar, 3. Dr. N. C. Chikmath, 4. Dr. C. W. Fernandez, 5. Dr. M. G. Kulkarni and Dr. J. M. Bhat of Junagadh, Dr. H. H. Vittalwala, Dr. N. K. Bursikar. This was solemnly passed, all members standing silent for a minute.

The Secretary of the B.V.M.A. was then called upon to present his report and accounts for the previous year. Thereupon Shri Nadgir, the Secretary, presented the following report:—

It is with satisfaction that we lay before the house the report on the working of the the Bombay Veterinary Medical Association during the period April 1950 to December 1951. It was during the Joint Session held in the month of April 1950 under the presidentship of the very President of to-day that the Office-bearers of the Association were unanimously elected.

The very first thing that we did after taking charge, was the issue of a circular letter to all the Veterinarians in this State, about the unsound position

of the Association and exhorting them to enrol as members. In response to this appeal, many Veterinarians enrolled themselves as members, especially people from the Merged States. During this period we enrolled 10 new members and 7 new life-members and 7 of our old members were converted into life-members. We have at present 74 members on our rolls, out of whom 48 are life-members and only 26 are ordinary members. There are 98 people who are in arrears for a period of 4 years or less. There are many others who are in arrears for more than 4 years, whom we have not cared to count. It will be worth while to point out at this stage that those who have not paid their subscription are not members and have no right to take part in the proceedings, to vote on any matter, or to be elected as Office-bearers.

The following important items were attended to by the B.V.M.A. during the period under review:

1. *Diamond Jubilee Celebrations*:—The Golden Jubilee of the Bombay Veterinary College had been celebrated by us with unprecedented success in 1936 and so in 1945 we moved to celebrate the Diamond Jubilee. The College Staff was approached as usual and they gave promise of all co-operation. However, in February 1946 the College Staff moved to celebrate the Jubilee themselves and we therefore withdrew in their favour. The efforts of the College in celebrating the Jubilee were however unsuccessful due to various circumstances culminating in the suspension of its activities by Government in July 1946. In January 1949 again, Government permitted resumption of their activities. No headway could be made by that body from January, 1949 until April 1950, when at the time of the last Joint Session, it was decided their Association celebrate the function. Accordingly, we were requested to take over and carry on with our efforts to celebrate the Jubilee, to which we gladly agreed.

Again, reactionary forces set to work and succeeded in September 1950, when the Government decided to prohibit the Celebration and moved to dispose off the funds that had been collected. The Association appealed to the Minister for Agriculture and Forests in June 1950 and the President and one of the Secretaries interviewed him. The President appealed to the Director of Animal Husbandry and Veterinary Science and the same two people interviewed him also in July 1950. As all this was of no avail, the matter was put before the Managing Committee for action. The Committee was of the opinion that in view of the final decision of the Government, it would not be proper to make any further move in the matter and the matter came to a stop. One of our members, however, took it on himself in his personal capacity to appeal to the Chief Minister and the Cabinet against the decision of the Minister concerned. The outcome of this appeal was that the member interviewed several times and was finally informed on 20th February 1951 that Government were pleased to permit the Bombay Veterinary Medical Association to celebrate the Diamond Jubilee of the Bombay Veterinary College. Our Association was overjoyed at

this new turn and proceeded to make arrangements for the Celebrations. You will notice that hardly a few months were left and the whole job had to be done from the beginning. Our Managing Committee met on the 18th March 1951 and elected a Diamond Jubilee Celebrations Committee, of which you are all aware, and entrusted this Committee with the entire responsibility for the Celebrations. This Committee set about its business seriously and worked with amazing team spirit. As you all witness they have succeeded in celebrating on our behalf the Diamond Jubilee of the College in the most successful manner, and we take the opportunity of most heartily thanking them one and all for this splendid effort.

During the past years recommendations to Government were made by our Association to designate Veterinary Assistant Surgeons as Veterinary Officers, in analogy to Medical Officers and Agricultural Officers; and Government agreed to our recommendations and issued orders during this year changing the designation of Veterinary Assistant Surgeons to Veterinary Officers. This is perhaps the first time in the history of the Veterinary profession that all its subordinate staff is designated as officers and we are proud our State has led the way in this matter.

The Association took up the question of scales of pay of Veterinary Officers. The President represented to Government to increase the scales of pay of Veterinary Officers and Government has given an assurance that the question of increasing the scales of pay is being considered.

During the period under review rumours were afloat that the Livestock Section of the Department would go back to the Agricultural Department. The Association took up this important matter and our President sent a telegram to the Chief Secretary to Government, urging the necessity of reconsidering the issue, before final decision was taken in the matter. No reply to this telegram was received.

We came to know that the question of a uniform standard of Veterinary Education was likely to be considered at a Conference in New Delhi, presided over by the Union Minister for Food and Agriculture. Our President thereupon addressed the Union Minister for Food and Agriculture on the subject and stressed the need for a uniform high standard of Veterinary Education throughout the country and also as a closely connected point that the minimum scale of pay of a Veterinary Officer should be Rs. 150 to Rs. 300. The Hon'ble Minister was good enough to send a prompt reply that he would consider the points raised.

The All-India Veterinary Association asked us to nominate two members to represent the Association in the forthcoming meeting for the formation of the Indian Veterinary Council and the President has nominated Rao Bahadur V. R. Phadke and Dr. C. S. Balakrishnan as representatives of this Association, in anticipation of the approval of the Managing Committee.

Statement of Accounts of the B.V.M.A. for the 1949—50.

RECEIPTS			EXPENDITURE				
	Rs. A. P.				Rs. A. P.		
Opening balance	1955	7	7	Postage	86	12	0
Interest	102	3	0	Stationery and Printing	74	10	6
Receipts	416	0	0	Donations	101	0	0
				Conveyance and Travelling allowance	68	0	0
				Clerical expenses	65	0	0
				Expenses of the Joint session	464	6	0
				Miscellaneous	124	2	0
					983	14	6
				Spent by the bank for postage	0	6	0
				Closing balance	1489	6	1
Grand Total	2473	10	7		2473	10	7
Details of closing balance:—							
In the Bank	Rs.	1271	1	7			
Cash handed over	Rs.	218	4	6			
		1489	6	1			

S. R. CHADHA,
Hon. Treasurer.

L. SAHAI,
Chairman.

Dr. S. G. Dixit proposed that the Secretary's report and accounts be adopted. Dr. D. S. Laud seconded. Carried *nem com.*

The next item on the agenda viz. Resolutions were then taken up.

1. Dr. R. H. Naick moved that the B.V.M.A. resolves to affiliate itself to the A.I.V.A. according to the new rules passed on the 26th December 1951 and directs the Secretary to carry out the formalities.

Dr. V. H. Khare seconded. Carried *nem com.*

2. Dr. S. R. Nadgir moved that the B.V.M.A. appoints a sub-committee to draft a revised constitution of the B.V.M.A. to suit present conditions, consisting of Drs. K. R. Alur, D. S. Laud and C. S. Balakrishnan, with Dr. C. S. Balakrishnan as the convener, with a request to submit its report to the Managing Committee by 1st April 1952.

Dr. R. H. Naik seconded. Carried *nem com.*

3. Dr. C. S. Balakrishnan moved that this conference resolves that the Government of all the States be requested to recognise the use of the contraction Dr. before their names by qualified Veterinary Surgeons, as recognised by the Madras Government.

Dr. Chadha speaking against the resolution cautioned the house to think seriously about the implications of the resolution especially in the Bombay State. In his opinion it would affect them adversely in respect of the opinion of the Minister about the Veterinary Surgeon. Dr. Sahai remarked that there were two distinct schools of thought regarding the use of the contraction 'Dr'.

in respect of people qualified in Medicine, human or veterinary, even in England, America and Canada. He however felt that this would be a matter to be thoroughly examined and a particular point of view decided upon and accepted by an expert and authoritative body. He would prefer to leave this matter to the Indian Veterinary Council or the National Veterinary Committee, that is due to be formed and would therefore request the mover of the resolution to withdraw the same. The resolution was accordingly withdrawn.

4. Dr. S. R. Nadgir moved the B.V.M.A. resolved that the annual subscription to membership be raised from Rs. 2/- to Rs. 5/- and of life membership from Rs. 25/- to Rs. 100/-. Dr. S. R. Chadha seconded the proposal.

This resolution invited a large number of speakers many of whom only vented their personal opinion for or against the increase. Dr. Chadha, strongly supporting the resolution went to some length in explaining that the Association could do nothing at all with the present funds and unless there are more funds there can be no meetings and no conferences even. Dr. P. G. Date, a veteran officer of the Association also spoke explaining the difficulties of the Association due to lack of funds. Dr. K. R. Alur and Dr. D. B. Khole opposed the resolution on the ground that when the membership was so poor on the low subscription, any increase in the subscription would result in still less membership and defeat the objects of the Association with many others. Dr. T. R. Khaladkar suggested Re. 1 as subscription, adding that every Veterinary Surgeon should be compelled to pay. Dr. Kazy suggested Rs. 3/.

At this stage Dr. Sahai, the Chairman split the resolution into two parts, first whether to raise the subscription and next to decide the amount. He said that enough has been spoken for the purpose of the first part and put the matter to vote. On a show of hands he declared in favour of the increase by a practically unanimous vote, only two people voting against the move. When the second half of the resolution was put before the house Dr. C. S. Balakrishnan and Dr. Sahai spoke in detail about the financial needs of the Association and recommending the amounts stated in the resolution, as the minimum that could be thought of.

The resolution was carried unanimously.

5. C. S. Balakrishnan moved a resolution that this Conference takes a serious notice of the pamphlet entitled 'Ryndercura' printed by Shri Shashital and distributed to some delegates and declares that the claim that it was read before this Conference is false and untrue. It is further of the opinion that this pamphlet contains nothing of scientific or professional interest to the Veterinary Surgeon but is only a trade advertisement of a secret panacea. It strongly condemns the attempt of the author to pass it on as scientific or professional paper.

In moving the resolution Dr. C. S. Balakrishnan referred to the pamphlet in detail and showed how it contained reports from Veterinary Surgeons who

had clearly expressed the view that the experiments on the drug were inconclusive. The statement in the pamphlet that it was a paper read before the Joint Session of the B.V.M.A. and the A.I.V.A. was false and untrue because neither of these Associations knew anything about the paper up to that very moment. In addition, out of twenty pages of printed matter there was hardly half a page relating to the drug which was also kept a secret.

The Chairman intervening dwelt at very great length on this drug to be fair to Shri Shashital and to acquaint the house with many facts about the matter of this pamphlet. He gave a history of his correspondence in this connection with the gentlemen and the authorities including Central Government Ministers. He expressed his inability to help Shri Shashital as a scientist more than by offering to conduct a controlled experiment which has never been done before. This offer has not so far been accepted and, in view of that, Shri Shashital was not justified in making his exaggerated claim. As Shri Shashital was present at the Conference by invitation he would request him to apologise for printing the pamphlet and Dr. Balakrishnan to withdraw the resolution. Shri Shashital gave a written apology and the resolution was withdrawn.

There were a few resolutions sent by post by a number of Veterinary Surgeons. As these gentlemen were not members of the Association, the resolutions were read out to the house and the Chairman asked if any of the members of the Association were prepared to move them. As there was no response, these resolutions were not taken up for consideration.

The next item was the election of office bearers to the B.V.M.A.

An attempt to re-elect the outgoing office-bearers *enbloc* failed as a few of them declined to continue.

The following office bearers were elected unanimously:—

- | | |
|---------------------------------|------------------|
| 1. Rao Bahadur V. R. Phadke ... | President. |
| 2. Dr. C. S. Balakrishnan ... | Secretary. |
| 3. Dr. R. H. Naik ... | Joint Secretary. |
| 4. Dr. P. G. Date ... | Treasurer. |
| 5. Drs. H. V. Kulkarni | } ... Members. |
| " V. G. Khare | |
| " A. E. Kulkarni | |
| " S. B. Kodagali | |
| " K. R. Alur | } ... Auditors. |
| 6. Drs. J. P. Ghogale | |
| " G. A. Hardikar | |

Election of representatives of the B.V.M.A. on the A.I.V.A. Council:—

Drs. C.S. Balakrishnan and D. S. Laud were elected as representatives of the B.V.M.A., on A.I.V.A. Council.

At this stage the meeting adjourned for lunch and reassembled at 2-30 P.M.

The following papers were read and discussed:—

1. An Undiagnosed Disease in Kanara by Dr. H. V. Kulkarni.

Drs. K. R. S. Aiyar, Parnaik, Deshpande, Khare, Ghaligi and Manjrekar took part in the discussion.

Dr. Sahai winding up the discussions mentioned that the latest theory was that H. S. is normally present in the naso-pharynx. However the etiology should be demonstrated by reproduction of the disease.

2. "Observations on Rinderpest amongst Sheep and Goats in the State of Bombay" by Dr. S. L. Manjrekar.

The paper was written in collaboration with Dr. M. R. Dhanda of the I.V.R.I. Mukteswar.

Dr. Aiyar asked why a-priori work was not done and only a-posteriori work was done.

Dr. Sahai said that it was not usual to do a-priori work under such circumstances, except for academic purposes. He mentioned that care should be taken to remember the newly established fact that viruses can adapt themselves.

3. 'Salmenellosis in Chicken' by Dr. S. G. Dixit, Dr. Aiyar suggested the use of Chloromycin on further work on the subject.

4. "Coccidiosis in Cats and Dogs" by Dr. L. S. Hiregoudar written in collaboration with Dr. S. R. Rao of the Bombay Veterinary College.

5. Appliances for use in control of Rinderpest by Dr. K. Ramarao.

Dr. Ramarao demonstrated the appliances invented by him. These instruments were very much appreciated and working samples were asked to be supplied for trial purposes by Dr. Datta at the I.V.R.I. and by Dr. Sahai at the Biological Products section, Bombay.

Under the head, Any other item, Dr. V. R. Phadke moved the following resolution:—

This Conference resolves to request the Government to revoke their order asking Veterinary Officers not to visit clean villages in view of the financial stringency. As pointed out in his Presidential address, this Conference feels that the money so saved is lost many times more in the form of animal losses due to the lack of preventive measures.

Dr. Sahai, intervening, explained that there was no point in moving the resolution. He was himself doing his best in this matter and he assured that the Government will do whatever is possible under the circumstances and, therefore, requested Dr. Phadke to withdraw the resolution. The resolution was withdrawn.

In view of the extensive proceedings, the Chairman confined his closing remarks to thanking the Conference for conducting all the proceedings in the excellent way they did and for electing him to conduct the last day's proceedings.

Dr. C. S. Balakrishnan proposed a vote of thanks mentioning in full detail all the people who contributed towards the success of the Celebrations of the Jubilee and the Joint Sessions of the Conference and concluded by thanking the Chairman of the day.

The Conference then terminated.

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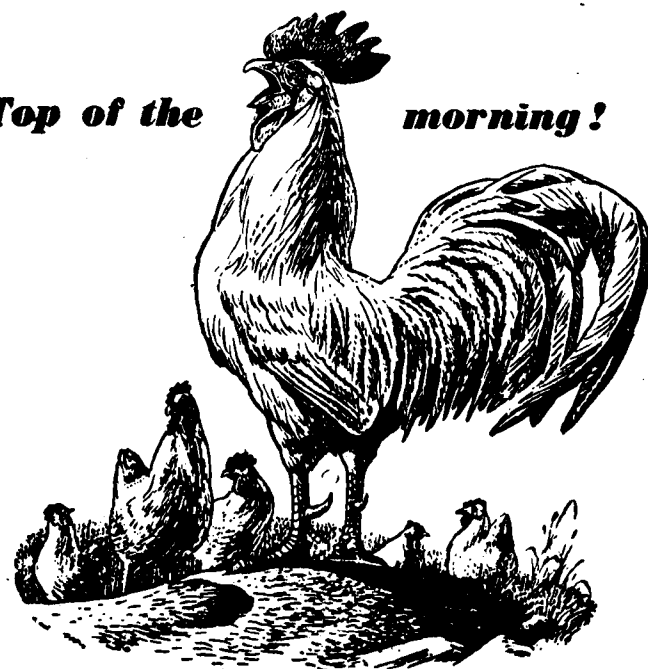
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Editorial

THE BOMBAY CONFERENCES

True to her traditions, Bombay did it excellently; and the combined Veterinary Conferences and the Diamond Jubilee Celebrations of the Bombay Veterinary College went off remarkably well. The Celebrations which really ought to have taken place about five years ago were being postponed for some reasons or other much to the great regret of the *alumni* of the institution and other well-wishers: it was even feared that they may be postponed *sine die*. Fortunately, however, wiser counsels have prevailed and such a contingency has not been allowed to develop. All credit to the Diamond Jubilee Committee and its Chairman, Shri S. R. Chadha, the Principal of the College, for the perseverance and earnestness with which they have struggled over the obstacles and come out successful. The arrangements that had been made for the Celebrations and Conferences were all that could be desired. Delegates had come from far and near and the older generation represented in personages like Dhakmarvala, Phadke, Laud and Sastry vied with the younger generation and students in their enthusiasm and joy over the Celebrations. The frail old figure of Dhakmarvala who insisted on being present in spite of his physical disability was a touching sight and it drew the admiration of every one for the deep attachment and love he bore to his *alma mater*. As will be seen from the proceedings published elsewhere in this issue, the functions went off to the gratification of one and all.

The genesis and development of the Bombay Veterinary College, from its inception in 1886 to its affiliation to the University in 1945, was very lucidly described by Shri Lakshmi

Sahai in his notable address on the occasion. Over 1100 Veterinarians have passed out of this College since then and they are found not only in all parts of India but also in far off places outside India. Wherever they have gone and in whatever posts they have served, whether as Principals of Colleges or as Directors of State Veterinary Departments, they have brought credit and distinction to their *alumni*. With such a record, the Bombay Veterinary College has become a national asset and it must be the endeavour of the State and the Profession and the Public to foster it and develop it to still greater heights. Unfortunately, the College has been going through vicissitudes after vicissitudes with, on one or two occasions, even to the extent of a threatened extinction. Even now, it is being starved of funds. Here is what Shri Sahai laments: "We are urgently in need, Sir, of more lecture rooms, more office accommodation for the staff and more extended laboratory facilities. Even such laboratories as exist are mostly out of date and need to be replaced by more up to date ones". Is this not very sad? Again, it is a matter for deep regret that the College has not been able to attract sufficient number of students every year in spite of attractions like grant of scholarships, free supply of books, payment of tuition fees, etc. This reflects adversely on the availability of trained Veterinary personnel for the State. While the requirements for the State are over 800 Veterinarians, there are only just 200 and, with the output of Veterinary Graduates every year at the present low level, it is practically impossible to reach the target even in another half a century. It is, therefore, essential that this matter is gone into immediately and remedial measures adopted to make the institution attractive to the student world.

The Hon'ble Shri Munshi, Minister for Food and Agriculture, Central Government, very kindly inaugurated the Conference and, in his characteristic learned and analytical speech, expatiated on the vast amount of wealth in our livestock and their importance in our country's economy. He emphasised the fact that India was first and foremost an agricultural country and that it would continue to remain so in the foreseeable future and that therefore, 'forests, agriculture and animal husbandry were

inseparable and inalienable factors in its life'. He went on to stress the fact that 'any solution to the problem of life in India, therefore, must take into account the peremptory need of restoring the life's cycle—not in terms of killing off superfluous animals as the West would do, but a planned increase of their quality, utilisation of their products and wastes and bullock power are most important factors in agriculture'. Shri Munshi regretted very much—and every one present joined him in that regret—that he had not been able to do what he intended to do and blamed his luck that his term of ministry 'synchronised with two very bad years when nature, locusts and panicky men combined to provide a very serious distraction'. He, however, assured that Animal Husbandry and Veterinary Institutes would receive greater attention in the future.

Dr. Datta, in his illuminating Presidential Address, elaborated on the economic importance of our livestock and emphasised that 'Veterinary or Animal Sciences did not form fields of narrow and obtruse specialism but were in fact socio-economic in implication and were mainly concerned with production and productivity of both land and animals'. He further explained that 'the objective in Veterinary Education was to produce forward-looking men able to apply a broad-based general education and specialised knowledge for the improvement of our unique livestock wealth for the betterment of rural life and economy.' He spoke the voice of the profession when he put in a very strong and powerful plea for establishing an uniform standard of Veterinary Education and for increased research facilities within the country itself and we do hope that the Government, both at the Centre and in the States, would take early steps in that direction.

Thus, the Diamond Jubilee Celebrations of the Bombay Veterinary College has been the occasion for a bit of loud thinking and for a review of some of the outstanding problems of our livestock development. We earnestly wish that this is followed up by the adoption of practical remedial measures to make our livestock second to none in the world.

HOPES FOR HORSES.

The great blow that the horse industry in this country had received during the last few years came in for strong criticism at the hands of the Hon'ble Shri Munshi, the Central Food Minister, when he was inaugurating the Diamond Jubilee Celebrations at the Bombay Veterinary College in December 1951. Speaking more in sorrow than in anger, he explained how he encouraged horse-breeding industry when he was the Home Minister of Bombay a few years ago. 'The reforms which I introduced in the Western India Turf Club', he said, 'gave a great impetus to the horse-breeding industry. As a result, the Stud Farms had increased from 10 to 41; about 5 crores of rupees came to be invested in horse-breeding; some of our horses won races in the highest class against keen foreign competition; our horses fetched prices up to Rs. 91,000 from Rs. 3500 in 1938 and in a few years our horses would have been a valuable export commodity—an asset to national finance. I had also scheme—only possible with a flourishing horse-breeding industry—to establish a net work of horse-breeding stations, riding clubs and travelling Veterinary dispensaries associated with our race courses'. Unfortunately, all these have been ruined with a stroke of the pen and, as a result, we are importing nearly 600 horses every year for the requirements of the military alone. How sad! And how tragic! The objection to the horse industry has been its association with, or its dependence on Racing and, therefore, it was quite appropriate that Shri Munshi reminded the people that race courses have been the only cradle of high stepping horses since Vedic times and that Indira himself was Ajipathi, the Lord of the Race course. We derive hope from the assurance of Shri Munshi that 'the attempts to enforce sinlessness by legislative coercion will run out, as it has always done in ages past, and that the horse will come into its own and that the race course will flourish unafraid'. Horse-breeding is a very important valuable national industry and the country cannot afford to neglect it except at its own peril.

PRELIMINARY STATISTICAL STUDY OF THE SINDHI AND KANGAYAM HERDS AT THE LIVESTOCK RESEARCH STATION, HOSUR

By

V. R. RAJAGOPALAN, G.M.V.C., DIP., BACT. (MANCHESTER),

Director of Animal Husbandry, Madras.

Scientific study of the characteristics of the type of local cattle form the basis for selective breeding in the urge to develop our indigenous stock. The success will then necessarily mean, a planned adjustment of the environment and a wise selection. A set of environmental condition, management and nutrition will go to make the average of the population, and it follows that there is always a limit in the potentialities of the herd population with the given constants. In these environmental factors, the individual variations in performance may be due to inherent differences for each factor and one will, therefore, appreciate, for the study of genetical make up, that variations through other factors must be stabilised. These variations of character are important for any work on cattle breeding, but it becomes necessary to control the causes and chances of variation.

An ideal type of animal must satisfy the test of scientific methods. These methods are in the form of proper maintenance of records. There are techniques for maintaining the records in milk yield, butter-fat, age, growth rate etc. It is important to realise that unless the records permit statistical scrutiny and analysis, the variations caused through environmental factors cannot be removed. Statistically these records can be corrected for the deviations from the expected due to non-genetic influences. The complication is great in any breeding programme, wherein the physiological characters such as milk yield, growth, etc are correlated with the external factors of altitude, temperature, humidity, nutrition etc. The experienced breeder will have to tackle two main problems, heredity and environment. Apart from the variations due to heredity and environment, there is the variation due to the interaction between heredity and environment, which has to be evaluated. The methods of calculating variation may be technical for students not trained in statistical methods. The amount of variation due to all or some other causes is known by "Variance" (σ^2) which statistically is the average amount by which the individuals in the population deviate from the average of the population.

As Prof. Lush puts, the variance of each factor can be separated from the total variance.

Let the variance of the off spring be	...	$\frac{2}{O}$
Variance due to heredity	...	$\frac{2}{H}$
Variance due to environment	...	$\frac{2}{E}$
Interaction variance due to both	...	$\frac{2}{HE}$

As the breeding and selection proceeds, the variance due to interaction may be reduced to minimum and variance gained due to selection may be measured in the ratio of

$$\frac{\frac{2}{O}}{\frac{2}{H}}$$

The breeding records maintained in any cattle breeding programme, offers many scientific tests through statistical analysis of the various conclusions that can be drawn up among dairy herds, those of performance and progeny tests are the most important. Such an analysis offers possibilities of distinguishing between individuals in their performance value. Progeny testing, the correct approach to cattle breeding needs no emphasis. Statistical analysis of the performance records have offered the availability of a reliable statement of the performance and merits of ancestors for comparison with collateral relatives. The possibility of utilising this information has not so far been considered in many Livestock Farms in India. For the information to have its real value, there should not be much variation within groups and the animals selected at random so as to be as comprehensive as possible for the nearest ancestors.

In the case of milk recording, the performance of a cow cannot be based in one day's milking, as it is affected by such factors as the length of lactation, the calving interval, the age of the cow, the number of lactations, and the number of times she is milked in a day. If it is not possible to record the daily yield of milk for each cow in a large herd for record purposes, sample days are necessary so that the lactation yield can be estimated. By analysing the total milk yield, the poor producers can be recognised and within a herd this is often accurately done by conversion factors. These conversion factors have to be set up for each breed to suit the environmental conditions. Usually the records of the first lactation period is used, although the second and third lactations greatly improve upon the reliability.

While studying the records, a comparison with other cows is absolutely necessary, since a single record of cow in any lactation period does not provide correction for environmental effect. This enables us to gain knowledge of the well known "Herd test". This has real advantage

over tests of individual cows, when complete records are available. Every year the general trend of production is assessed over the average production by studying the performance of the herd. The test is well developed in the United States of America. Statistically, the interpretations placed on herd tests, in which all the cows in the herd are recorded, give valid conclusions. As the herd test gives a reasonable picture of the total production in a herd, it forms a basis to the study of the economics of milk production in a herd as compared with the feed.

Livestock Research Station at Hosur is one of the major Livestock Farms in Madras State and in India. In this experimental station, records are maintained over many years. It is the aim of this department to analyse all these records stage by stage in order to plan the breeding programme on sound lines and to assess the progress of breeding and to introduce such modifications as to permit reliable statistical evaluation. It is the intention also to fix up the ideal herd in this farm, by studying the genetical and environmental variation.

The Sindhi herd at Hosur Cattle Farm was established in this farm for the last 25 years, with a nucleus of pure Sindhi cattle brought from Karachi and from the information available it is found that the breeding was followed with selected sires of Sindhi breed. To understand the genetic variations, a separate statistical analysis will be made for Progeny Testing etc.

This paper is a preliminary study on the analysis of records for the first lactation in 81 Sindhi cows. It enables to study the variation within the herd. This sample of 81 cows is considered to have been taken from the larger mass of population of Sindhi breed of cattle. There is no information about the population of the Sindhi herd as regards the mean and variance, except that given by the sample. The investigator does not know the values of the population with respect to this sample and the sample estimates are the only known values. The aim is to find out how much this sample differs from the whole Sindhi herd population and to test whether the results drawn from this sample can be valid for the population values.

The mean and variance of a random sample drawn from a population are considered as the unbiased estimates for the corresponding parameters i.e. population mean and variance. The sample is viewed in the light of sampling error. As the extent of the sampling has increased, the deviation of the sample mean from the true value becomes very small and the measure of deviation or variation is the study with respect to the sample mean. Usually an unbiased sample is one, whose mean tends towards the population value as the size of the sample is increased. In Animal Husbandry experiments it is difficult to get large number of animals and

obviously this sample of 81 animals in this herd can be regarded as a good number and the records of the first lactation were analysed. The information gathered by analysing the records of first lactation can be taken as an index for further investigation.

The following records were analysed :—

- (1) Milk yield records of first lactation.
- (2) Weight of the animal at first heat.
- (3) Weight of the animal at first calving.
- (4) Age of the animal at first heat.
- (5) Age of the animal at first calving.
- (6) Birth weight of calves during first lactation.

In each item, the mean, standard errors and the co-efficient of variation are calculated. As the daily milk yield records are maintained in this farm, sample days are not necessary to estimate the total milk yield at first lactation. A certain amount of probability level is required to fix the limits of the population mean from this sample. If the choice is 5% level of significance, we take the 95% confidence range for the population mean, while the data of the sample furnishes a value of Students/t/which corresponds to the probability equal to 0.05 for $n-1$ degrees of freedom. In this case the value of t 0.05 equals 1.99 for 80 degrees of freedom.

We have now the mathematical derivation,

$$\bar{x} - t \times S_{\bar{x}} < \mu < \bar{x} + t \times S_{\bar{x}}$$

where

$\bar{x}$ = Mean of the sample of Sindhi herd taken.

μ = Mean of the population of Sindhi herd.

$S_{\bar{x}}$ = Standard error of the mean of this sample.

t 0.05 = 1.99 for 80 degrees of freedom.

Now applying the values of the mean and standard error in all the items, the following fiducial limits of the population mean are calculated to swing between the following figures.

- (1) Milk yield during the first lactation.
3062.5 lbs. to 3716.5 lbs.
- (2) Weight of the animal at first heat.
543.5 lbs. to 573.8 lbs.
- (3) Weight of the animal at first calving.
521.5 lbs to 581.9 lbs.

- (4) Age of the animal at first heat.

Year.	Months.	Days.		Year.	Months.	Days.
2	7	21	to	3	0	6

- (5) Age of the animal at first calving.

Year.	Months.	Days.		Year.	Months.	Days.
3	6	23	to	3	9	0

- (6) Birth weight of calves during first lactation.

41.4 lbs to 46.4 lbs.

While fixing the limits of the population mean, from this sample, the assumptions made are that this sample is drawn at random from a normal population. In this sample, all the Sindhi cows in the first lactation are taken and as for normality, there is certainly no evidence against it in this sample. Hence the inferences about the whole Sindhi herd is exact, as the theoretical conditions are met with. This is the exact reason that the investigator plans the experiment with the theory on hand, so that the executions can be done skilfully to draw reliable conclusions. The inferences drawn from this sample can be taken for valid.

The coefficient of variation gives an idea of the variation in the herd for each item. This result is very useful in the planning of experiments.

TABLE I.

Sl. No.	Name of item.	Mean.	Standard error of the mean	Coefficient of variation
1.	Milk yield during first lactation.	3389.5 lbs.	$\pm$ 164.3	0.43
2.	Weight of the animal at first heat.	558.7 lbs.	$\pm$ 7.6	0.12
3.	Weight of the animal at first calving	551.5 lbs.	$\pm$ 15.3	0.25
4.	Age of the animal at first heat.	1030.8 days.	$\pm$ 35.3	0.30
5.	Age of the animal at first time calving	1331.3 days	$\pm$ 16.9	0.11
6.	Birth weight of calf.	43.9 lbs.	$\pm$ 1.3	0.26

In fixing the limits of milk yield during the first lactation of Sindhi herd, there are other external factors like feeding, management and climatic conditions for which a correlational study is required. At present these limits can be reliably fixed so that poor performers are spotted out. The other results drawn with respect to weight and age of the animal at first heat and calving are useful in fixing the limits for Sindhi cows attaining the age of maturity and calving in relation to animal's weight.

The study of correlation expresses the general idea of a relationship between two characters from the observational data. When two characters trend to increase together, the correlation is positive and when one increases, the other decreases, the correlation is negative. If there is no association between two variates, the correlation is zero. The magnitude of correlation may thus be taken as a measure of the degree to which the association between the two variates. Two variables can be statistically related when they lie between the two extremes of relationship. Thus the theory of correlation indicates a measure of relationship between two variates and also enables to predict the average value of one variate associated with the designated value of another variate.

The correlation coefficient which is usually symbolised by "r" varies between - 1 and + 1 according to the closeness of the association of the two variates. Perfect correlation ($r = 1$) is very rare in biological data. The sign shows the association as direct or inverse.

The correlation coefficient must be regarded from the point of view of sampling errors and the "test of significance" must be applied before any interpretation is made. The evidence of association is not necessarily evidence of causation and the influence of other connected factors on these two variates must be remembered while drawing conclusions on the correlation coefficient.

In this sample of 81 Sindhi cows, a correlation study is also made to measure the association of these variates, since it is possible that the milk yield may be associated with age of the animal and weight of the animal, and the birth weight of calves may be associated with the weight of the animal at first calving and age of the animal at first calving. Further this association may vary between breed to breed for different lactations and in all such cases a comparative study is essential for different breeds.

With the available data on these 81 Sindhi cows at the Hosur Cattle Farm, the following correlations were calculated for the first lactation.

1. Correlation between milk yield and age of the animal at first calving ... 0.1217
2. Correlation between milk yield and weight of the animal at first calving ... 0.22
3. Correlation between milk yield and weight of the animal at first heat ... 0.044
4. Correlation between milk yield and age of the animal at first heat ... 0.046

5. Correlation between age of the animal at first heat and weight of the animal at first heat ... 0.167
6. Correlation between age of the animal at first calving and weight of the animal at first calving ... 0.739
7. Correlation between weight of the animal at first calving and birth weight of calves ... 0.289
8. Correlation between the weight of the animal at first heat and birth weight of calves ... 0.089
9. Correlation between milk yield and birth weight of calves ... 0.033
10. Correlation between age at first calving and birth weight of calves ... 0.0496

While applying the tests of significance for these correlation coefficients and interpreting the results, it is observed that significant results are seen in the following cases:

1. Correlation between milk yield and weight of the animal at first calving.
2. Correlation between age of the animal at first calving and weight of the animal at first calving.
3. Correlation between weight of the animal at first calving and birth weight of calves.

In the cases where the correlation is observed between the milk yield and age of the animal at first calving and between age of the animal at first heat and weight of the animal at first heat, the respective correlation coefficients 0.1217 and 0.167 are not significant and we can conclude that a coefficient of this magnitude might have arisen merely by chance in taking a sample of this size and that in fact the two characters in each of these cases may not be correlated at all. We require more evidence in these cases before drawing any valid conclusions.

The rest of the cases where nil correlations are observed, the results are not uncommon, but still some more samples drawn from the same population of Sindhi cows will give more evidence of the association between these characters.

When we take up the study of the correlation between two characters, the existence of a correlation does not prove the existence of a causal relationship. Two characters can be correlated because they are both affected by a third group of causes and sometimes they may simply happen

to be correlated. For this a careful analysis is necessary before interpreting the above correlations as legitimate; as such the partial correlation method is applied in those cases where significant results are obtained. In this sample, there is a possibility of milk yield being associated with the weight of the animal and age of the animal at first calving.

The partial correlation coefficient are as follows:

1. Correlation between milk yield and age of the animal at first calving, when the weight of the animal at first calving is eliminated ... 0.0622
2. Correlation between milk yield and weight of the animal at first calving, when the age of the animal at first calving is eliminated ... 0.1945
3. Correlation between age of the animal at first calving and weight of the animal at first calving eliminating milk yield during first lactation ... 0.73664

In the first case there is no correlation between milk yield and age of the animal at first calving when the weight of the animal at first calving is eliminated. When the correlation between the milk yield and age of the animal at first calving without taking into consideration the weight of the animal at first calving is considered, it is found that the correlation is 0.1217 which value is found not significant showing an agreement that there is no correlation between the two characters.

In the second case the correlation between milk yield and weight of the animal at first calving when age of the animal at first calving is eliminated is found 0.1945 which is not significant showing there is no correlation between the two. But when the milk yield and weight of the animal at first calving, without considering the effect of age at first calving is taken up, the correlation is observed as 0.22 which is significant at 5% level falling within 5% and 2%. Though there is evidence to show that there is correlation between the two characters in this case, there is some doubt in view of the partial correlation coefficient obtained as 0.1945 which is not significant.

In the third case the correlation between the age of the animal and weight of the animal eliminating the milk yield during first lactation is found 0.73664 which is highly significant showing a reliable evidence of the correlation between the two characters. When the age of the animal at first calving and weight of the animal at first calving is considered, without taking into the effect of milk yield, it is found 0.739 as the correlation coefficient. This result also is very highly significant showing the evidence of correlation between the two.

TABLE 2

Serial No.	Name of item.	Correlation.	Name of item.	Partial correlation.
1.	Correlation between milk yield and age of the animal.	0.1217	Correlation between milk yield and age of the animal eliminating weight.	—0.0622
2.	Correlation between milk yield and weight of the animal.	0.22	Between milk yield and weight of the animal eliminating age.	0.1945
3.	Between age of the animal and weight of the animal.	0.739	Between age of the animal and weight eliminating milk yield.	0.73664

In item 3, it is interesting to note that the correlation and partial correlation are almost same showing that even after eliminating the effect of milk yield on age and weight of the animal at first calving, the correlation coefficients are same. Thus it can be observed that milk yield has nothing to do with the correlation between age and weight of the animal during first lactation.

Kangayam, one of the well established breeds of cattle in South India, whose home tract is Palayakottai of Coimbatore district, is also maintained at the Livestock Research Station, Hosur. This breed is of medium sized draught quality. A sample of 31 cows of Kangayam is chosen to study the characters as in Sindhi breed. This sample consists of all the Kangayam cows at this farm in the first lactation.

The following findings are recorded in the Table 3 below:

TABLE 3

S. No.	Name of item.	Mean.	Standard error.	Fiducial limits.	Co-efficient of variation.
1	2	3	4	5	6
1.	Milk yield during first lactation.	1413.09375 lbs.	± 98.4022	1212.39 to 1613.80 lbs.	0.293
2.	Weight of the animal at first lactation.	582.96 lbs.	± 9.2199	564.16 to 601.77 lbs.	0.089
3.	Weight of the animal at first calving.	590.218 lbs.	± 10.97	567.84 to 612.59 lbs.	0.105
4.	Age of the animal at first heat.	1114.75 days.	± 45.908	Yr. M. D. 2 9 21 to 3 3 23	0.232
5.	Age of the animal at first calving.	1447.5 days.	± 60.211	3 7 20 to 4 3 20	0.235
6.	Birth weight of calves.	45.0625 lbs.	± 0.59388	43.85 to 46.27 lbs.	0.0744

^t 0.05 for 31 degrees of freedom = 2.0396.

The correlational study gives the following information :—

1. Correlation between milk yield and age of the animal at first calving. ... 0.60694
2. Correlation between milk yield and weight of the animal at first calving. ... 0.5515
3. Correlation between milk yield and weight of the animal at first heat. ... 0.12467
4. Correlation between age of the animal and weight of the animal at first heat. ... 0.6584
5. Correlation between milk yield and age of the animal at first heat. ... 0.81677
6. Correlation between the age of the animal and weight of the animal at first calving. ... 0.6120
7. Correlation between the weight of the animal at first calving and birth weight of calves. ... 0.169
8. Correlation between the weight of the animal at first heat and birth weight of calves. ...—0.129
9. Correlation between milk yield and birth weight of calves. ...—0.06277
10. Correlation between age at first calving and birth weight of calves. ...—0.2016

The tests of significance reveal items 1, 2, 4 to 6 are highly significant, as such these correlations can definitely be attributed to the association of each of these two characters. Items 3, 7, 8, and 10 show that there is no correlation between the two characters and item 9 reveal zero correlation even without testing. In these cases where the tests reveal non-significant results, we require more evidence to draw valid conclusions.

Though we have drawn definite conclusions with respect to items 1, 2 and 4 to 6 on their highly significant results, yet we can say that these two characters may be associated with the third or more characters; as such it is necessary to eliminate this character so that the correlation can give a better picture of their association. As in Sindhi cows, in this sample also, the milk yield may be correlated with weight and age of the animal. To enable us to study this relationship, the partial correlation method is applied in the following cases :—

1. Partial correlation between milk yield and age at first calving eliminating weight at first calving. 0.40837
2. Partial correlation between milk yield and weight at first calving eliminating age at first calving ... 0.286314

3. Partial correlation between age at first calving and weight at first calving eliminating milk yield. ... 0.418217
4. Partial correlation between milk yield and age at first heat eliminating weight at first heat. ... 0.9837
5. Partial correlation between milk yield and weight at first heat eliminating age at first heat. ...—0.9512
6. Partial correlation between weight at first heat and age at first heat eliminating milk yield. ... 0.9739

In these cases all give significant results except item (2) which can be attributed to the sampling distribution. These partial correlations can very well be compared with the correlations in each case. This will give an idea how the eliminating factors have their effect on the other two characters either with decrease or increase.

The partial correlation coefficient in the case of milk yield and weight at first heat eliminating age at first heat is —0.9512 which is highly significant and the interpretation can be made that, as the weight at first heat increases, the milk yield decreases with the coefficient of correlation 0.9512. When the elimination of age at first heat is not considered, the correlation between milk yield and weight at first heat is 0.12467 which is not significant showing that there is no correlation between the two. This shows clearly that the age of the animal at first heat has influence on the two characters of milk yield and weight at first heat.

TABLE 4

Serial No.	Name of item.	Correlation.	Name of item.	Partial correlation.
(1)	(2)	(3)	(4)	(5)
1.	Between milk yield and age at first calving.	0.6069	Between milk yield and age at first calving after eliminating weight at first calving.	0.40837
2.	Between milk yield and weight at first calving.	0.55153	Between milk yield and weight at first calving after eliminating age at first calving.	0.286314
3.	Between age at first calving and weight at first calving.	0.6120	Between age at first calving and weight at first calving eliminating milk yield.	0.418217
4.	Between milk yield and age at first heat.	0.81677	Between milk yield and age at first heat after eliminating weight at first heat.	0.9837
5.	Between milk yield and weight at first heat.	0.12467	Between milk yield and weight at first heat after eliminating age at first heat.	—0.9512
6.	Between weight at first heat and age at first heat.	0.6584	Between weight at first heat and age at first heat eliminating milk yield.	0.9739

The partial correlation coefficient in milk yield and weight at first calving eliminating age at first calving is 0.286514 which is not significant, showing that there is no correlation between the two, but in the other case without eliminating age at first calving is 0.551531 which is highly significant. It is now clear that due to the effect of the age of the animal at first calving, a high correlation is seen in the other two. For our consideration, as we have the partial correlation 0.286514, we can take this value and say that there is no correlation between the two. To get a stronger evidence more samples of this kind have to be analysed.

In all the other cases, though there is difference in magnitude of the two correlation coefficients in each case, the correlation and partial correlation coefficients are significant showing the reliability of the association between the two characters.

The following tables give the comparative characters of Sindhi and Kangayam.

TABLE 5

S. No.	Name of item.	Sindhi.			Kangayam.		
1. (a)	Milk yield during first lactation.	3062.5 to 3716.5 lbs.			1212.39 to 1613.8 lbs.		
(b)	Mean.	3389.5 lbs.			1413.09 lbs.		
2. (a)	Weight of the animal at first heat.	543.5 to 573.8 lbs.			564.16 to 601.77 lbs.		
(b)	Mean.	558.7 lbs.			582.96 lbs.		
3. (a)	Weight of the animal at first calving.	521.5 to 581.9 lbs.			567.84 lbs. to 612.59 lbs.		
(b)	Mean.	551.5 lbs.			590.22 lbs.		
4. (a)	Age of the animal at first heat.	Years.	Months.	Days.	Years.	Months.	Days.
		2	7	21	2	9	21
		3	0	6	3	3	23
(b)	Mean.	2	10	—	3	0	19
5. (a)	Age of the animal at first calving.	3	6	23	3	7	20
		3	9	0	4	3	20
(b)	Mean.	3	7	26	3	11	22
6. (a)	Birth weight of calves.	41.4 to 46.4 lbs.			43.85 lbs. to 46.27 lbs.		
(b)	Mean.	43.9 lbs.			45.06 lbs.		

TABLE 6

S. No.	Correlation.	Sindhi.	Kangayam.
1.	Between milk yield and age of the animal at first calving.	0.1217	0.60694
2.	Between milk yield and weight of the animal at first calving.	0.22	0.5515
3.	Between milk yield and weight of the animal at first heat.	0.044	0.12467
4.	Between milk yield and age of the animal at first heat.	0.046	0.81677
5.	Between age and weight at first heat.	0.167	0.6584
6.	Between age and weight at first calving.	0.739	0.6120
7.	Between weight at first calving and birth weight of calves.	0.289	0.169
8.	Between weight at first heat and birth weight of calves.	0.089	-0.129
9.	Between milk yield and birth weight of calves.	0.033	-0.06277
10.	Between age at first calving and birth weight of calves.	0.0496	-0.2016

TABLE 7

S. No.	Partial Correlation.	Sindhi.	Kangayam.
1.	Between milk yield and age of the animal eliminating weight of the animal at first calving.	-0.0622	0.40837
2.	Between milk yield and weight of the animal eliminating the age of the animal at first calving.	0.1945	0.286514
3.	Between age of the animal and weight of the animal at first calving eliminating milk yield.	0.7366	0.418217

While comparing the two, there are differences in each result for each breed. Apart from the significant difference in milk yield between the two, other characters also speak for themselves showing that Sindhi is a milch animal and Kangayam a draught animal. In Kangayam breed, there is more association of characters with milk yield and weight and age of the animal at first heat and first calving, whereas there is very little association of these characters in Sindhi breed showing the genetic ability in the milch quality of Sindhi, since the environmental levels are same for a number of years at this Farm.

If our aim is to develop milch cattle, we can take into consideration of those characters that are closely associated with the milk yield, thereby

eliminating poor performers and plan the breeding policy to suit the environment with the available number of animals on hand.

The above conclusions drawn are valid for the first lactation only.

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OBSERVATIONS ON RINDERPEST AMONGST SHEEP AND GOATS IN THE STATE OF BOMBAY*

BY

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Rinderpest in sheep and goats was quite frequently reported as a cause of heavy mortality in some of the European countries during the second half of the last century after Roll (1851), (cited by Hutyra, Marek and Manninger) had shown that a disease similar to rinderpest occurred simultaneously with that disease in cattle.

Although in India rinderpest has been known to be widely prevalent amongst cattle from time immemorial and the disease was well recognised as causing severe mortality amongst cattle and buffaloes during the last century and had elicited such wide interest as to vouchsafe the establishment of a well-equipped research institute mainly to carry out researches on this disease with a view to evolve suitable methods for its control, it was not until comparatively recently that natural outbreaks of rinderpest amongst sheep and goats were brought on record. It would appear that this has been partly due to difficulties in arriving at a correct diagnosis as it is not always easy to identify the disease as it manifests itself in sheep

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and goats with that in cattle and buffaloes but mainly because diseases of sheep and goats in general did not, until recently, receive the attention that they deserved. Edwards (1927) who carried out a great deal of work on the propagation of rinderpest virus in sheep and goats and evolved the well known attenuated goat-strain by successfully adapting the virulent ox virus to goats held the view that some cases of pleuro-pneumonia in goats in this country were due to rinderpest.

Ware (cited by Hutyra, Marek and Manninger) appears to have reported a few outbreaks of rinderpest in sheep during the World War I and D'Costa (1936) described natural outbreaks of rinderpest in sheep and goats associated with a moderate rate of mortality. However, large scale records of its country-wide prevalence in sheep and goats came only after the scheme for the investigation of animal diseases sponsored by the Indian Council of Agricultural Research came into operation since when as a result of organised investigation work many important diseases of sheep and goats have been brought to light.

Viswanathan (1937, 1938, 1939) reported the occurrence of a severe type of rinderpest amongst sheep from many districts of Madras. In one such outbreak in 1937, only one case in a bovine was observed when sheep were dying in large numbers. During the year 1938, the disease was observed to be widely prevalent in that State. Here too, sheep suffered the most although the disease was simultaneously present amongst goats, cattle as well as swine. It was satisfactorily controlled by the serum-virus simultaneous method of inoculation. Outbreaks were again reported in 1939, when infection could be traced to cattle. The infection, this time, was comparatively milder in goats.

Naik (1938) reported an outbreak among sheep and goats in Bombay State which, from the clinical symptoms and post-mortem lesions, was suspected to be rinderpest and which, on biological tests in hill cattle, yielded results suggestive of the disease. The disease was confined mainly to sheep although a few goats were also attacked. It was simultaneously present amongst cattle and buffaloes. The mortality which was chiefly seen among young animals was quite heavy, being 78 percent in a total of 612 sheep attacked. The disease was successfully controlled by the use of anti-rinderpest serum.

Bawa (1939) reported a severe disease causing considerable mortality amongst sheep and goats occurring in Ajmer-Merwara in 1937-1938 which was confirmed as rinderpest by biological tests. The disease had presented a considerable difficulty in arriving at a correct diagnosis.

During the years 1939 to 1945, several outbreaks of rinderpest amongst sheep and goats were reported in the different States, notable amongst them being by Gopalakrishnan (1939-40, 1940-41 and 1941-42)

from Assam, Mahajan (1939-40) from Hyderabad, Khan (1939-40), Yaqub (1940-41), Gopal Singh (1942-43) from the Punjab and Parimo (1945) from Kashmir.

Crawford (1948) reported the occurrence of rinderpest in Ceylon which he traced to goats imported from India for the supply of meat to Indian troops stationed in Ceylon. He was of the opinion that these goats suffered from a modified form of the disease as a result of infection with goat adapted virus which was extensively used for prophylactic vaccination in the areas from where these goats had been collected and which had resulted in causing outbreaks of the disease in this species of animals. It is difficult to say how far this view can be accepted in the light of the observations of Seetharaman (1948) who has experimentally disproved the possibility of the spread of infection from animals vaccinated with goat-adapted virus.

The present outbreak.—During September 1950, it was reported by the Veterinary Assistant Surgeon, Dharwar, that a large number of sheep and goats were dying of an obscure disease after an illness of 3 to 5 days in two villages under his jurisdiction. These villages were situated on the Southern border of the State. Later on, reports of the incidence of such a disease came in numbers from other villages through the field staff. The disease could not be promptly investigated on account of certain technical difficulties and by the time investigation work was taken in hand the disease had progressed quite extensively till by the end of the year it has been reported from 201 villages of 12 districts.

Symptoms

During the course of field investigation carried out by one of us (S. L. Manjrekar), the chief clinical symptoms observed were as follows:—

In preliminary stages of the disease, the symptoms observed were capricious appetite, dullness, high fever from 105°F to 106.8°F, harsh staring coat in the case of goats; nasal and conjunctival catarrh, hurried respiration with signs of dyspnoea, congestion of the mucous membrane of the eyes; dry cough in a few cases and constipation were noticed as a constant feature. Later, as the disease progressed, the discharges from the eyes and the nose became more copious and thick whitish muco-purulent. In most cases, diarrhoea set in quite early during the course of the disease and frequent evacuation of greenish liquid faeces mixed with mucous or in some cases even with blood was constantly noticed. This resulted in rapid emaciation and prostration. Erosions and epithelial necrosis of the buccal mucous membrane were also noticed. Tiny vesicles developing into ulcers as typically seen in cases of rinderpest were seen on the lips, under-surface of the tongue and gums in over 60 percent of the cases. The ulcers mostly remained discrete and localized with little tendency to coalesce and form large areas of ulceration. Mortality was extremely heavy, between 80 to

95 percent of the affected animals dying in from 3 to 9 days after the symptoms first became apparent.

Lesions:—During the period of the outbreak, i.e., from September 1950 to March 1951, 149 sheep and goats (105 sheep and 44 goats) were autopsied to study the post-mortem changes.

The carcasses of animals dying of the disease were extremely emaciated. The anal region was soiled with liquid faeces and there was muco-purulent discharge at the nostrils. The mucous membrane of both the lips was almost invariably hyperaemic. Small ulcers were seen on the gums and tongue in about 60 percent of the cases. These ulcers were often coated with diphtheritic deposits. The pharynx, oesophagus, larynx and trachea were congested. Lungs did not, as a rule, show any thing unusual; lungs of five goats showed only acute hyperaemia. In about 9 percent of the animals examined post-mortem, pin-point haemorrhages were seen under the epicardium.

The important pathological changes were seen in the gastro-intestinal tract. Rumen, reticulum and omasum did not show any changes of significance except that the last named organ often had liquid ingesta. The abomasum presented fairly constant changes, being, in every case, highly congested, severely ulcerated and full of petchial haemorrhages. These lesions were more marked in the region of the pylorus. The ulcers were, as a rule, coated with greyish deposits which were fairly adherent and could not be easily wiped off. The whole of the intestinal tract was extremely congested and severely ulcerated. The contents were fluid. The caecum and the ileo-caecal valve were almost invariably the site of very acute haemorrhagic inflammation.

In a few cases, intestines showed numerous nodules suggesting heavy infestation with *Oesophagostomum columbianum*, but the majority of the animals showed few signs of heavy worm infestation.

In some of the cases (about 30-40%), the liver was found enlarged and fragile, but in others nothing beyond slight congestion could be seen. The gall bladder which was usually distended contained thin dirty-greenish bile but no marked changes were seen in the mucous membrane of the bladder. Nothing unusual was observed in the spleen, kidneys and the pancreas.

Diagnosis:—Although after noting the above symptoms and lesions, the disease was provisionally diagnosed as Rinderpest, the most baffling and noteworthy feature was the complete absence of the disease in cattle or buffaloes within the same village or in any of the adjoining villages in the locality in spite of the fact that animals were generally housed under a common roof with the affected sheep and goats at night and grazed with them during the day.

The possibility of the condition being of bacterial or protozoan origin was eliminated by carrying out microscopic examination of smears of blood and other organs as well as by cultural examination of heart blood from a few cases. Acute bacterial infections like Pasteurellosis were ruled out by the inoculation of heart blood into rabbits whenever a case was destroyed *in extremis*. None of the rabbits thus inoculated showed any signs of illness and remained quite normal.

Transmission

With a view to confirming the diagnosis of rinderpest, the following transmission experiments were carried out.

Experiment I:—A case in an ewe showing a body temperature of 106.4°F. was destroyed and 1.5 ml. of blood collected from its heart was injected subcutaneously into another apparently healthy ewe. On the 3rd day after inoculation, this animal showed rise in its body temperature which recorded 104.6°F. and a maximum of 105.6°F. on the 4th day. The animal showed vesicles on the lips on the 3rd day and developed diarrhoea on the 4th day and died on the 5th day after the injection. Post-mortem examination revealed lesions very similar to those observed in other sheep dying of the disease naturally. Although this animal was selected from a healthy flock and was apparently healthy at the time of inoculation, yet judging from the course of the disease after artificial inoculation and from the fact that the animal came from the village where the disease was prevalent, it would not appear unlikely that the animal in question was already incubating the disease at the time of inoculation and much reliance cannot be put on the results of the experiment. The reaction in this animal is shown in Fig. I.

Experiment II:—A sheep showing typical symptoms of the disease was killed while *in extremis* in a village and its spleen was collected and brought to the laboratory at Poona. A piece of spleen about 5 gms. in weight was emulsified in 10 c.c. of sterile normal saline solution and 1.5 ml. of the suspension injected subcutaneously into one healthy ewe and one healthy goat obtained from Poona Farm as well as into one healthy ram previously immunised passively by the inoculation of a dose of 15 c.c. anti-rinderpest serum.

The first two animals, viz. the goat and the ewe, showed a slight rise in their body temperature on the third day rising to its maximum on the 5th day and then came down to normal. In the case of the ewe, anorexia was seen on the 4th day and on the 5th day the animal developed a few discrete vesicles on the lips. Both the animals recovered and were discontinued on the 12th day. These animals could not be retested for immunity against rinderpest by the inoculation of goat virus to confirm that the illness that they had suffered from was due to rinderpest. The serumized ram did

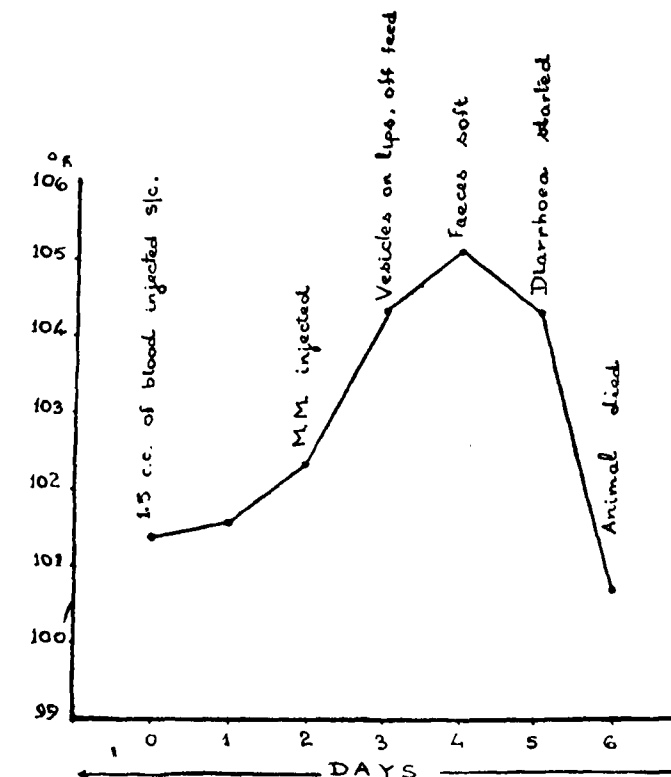


Fig. I—Expt. 1—Reaction in sheep.

not show any rise in its body temperature nor were any other signs of illness seen in it. The reactions of these animals are shown in Figure II.

Experiment III:—One ewe and a goat showing symptoms of the disease were destroyed *in extremis*. Their heart blood and spleens were collected and brought in sealed ampoules on ice to Poona where three healthy rams and one healthy ewe were inoculated as follows.

Ram 1 was given 2 c.c. of mixed spleen tissue suspension subcutaneously.

Ram 2 was given 2 c.c. of mixed heart blood subcutaneously as well as a few drops instilled into both nostrils.

Ram 3 was injected goat blood and spleen tissue suspension with a few drops instilled into the nostrils.

Ewe 4 was given 15 c.c. of anti-rinderpest serum ordinary one day before infecting with 2. c.c. of mixed blood and spleen suspension. A few c.c. of the suspension were also instilled into the nostrils as in the case of Rams 2 and 3.

The results of inoculation were as follows,

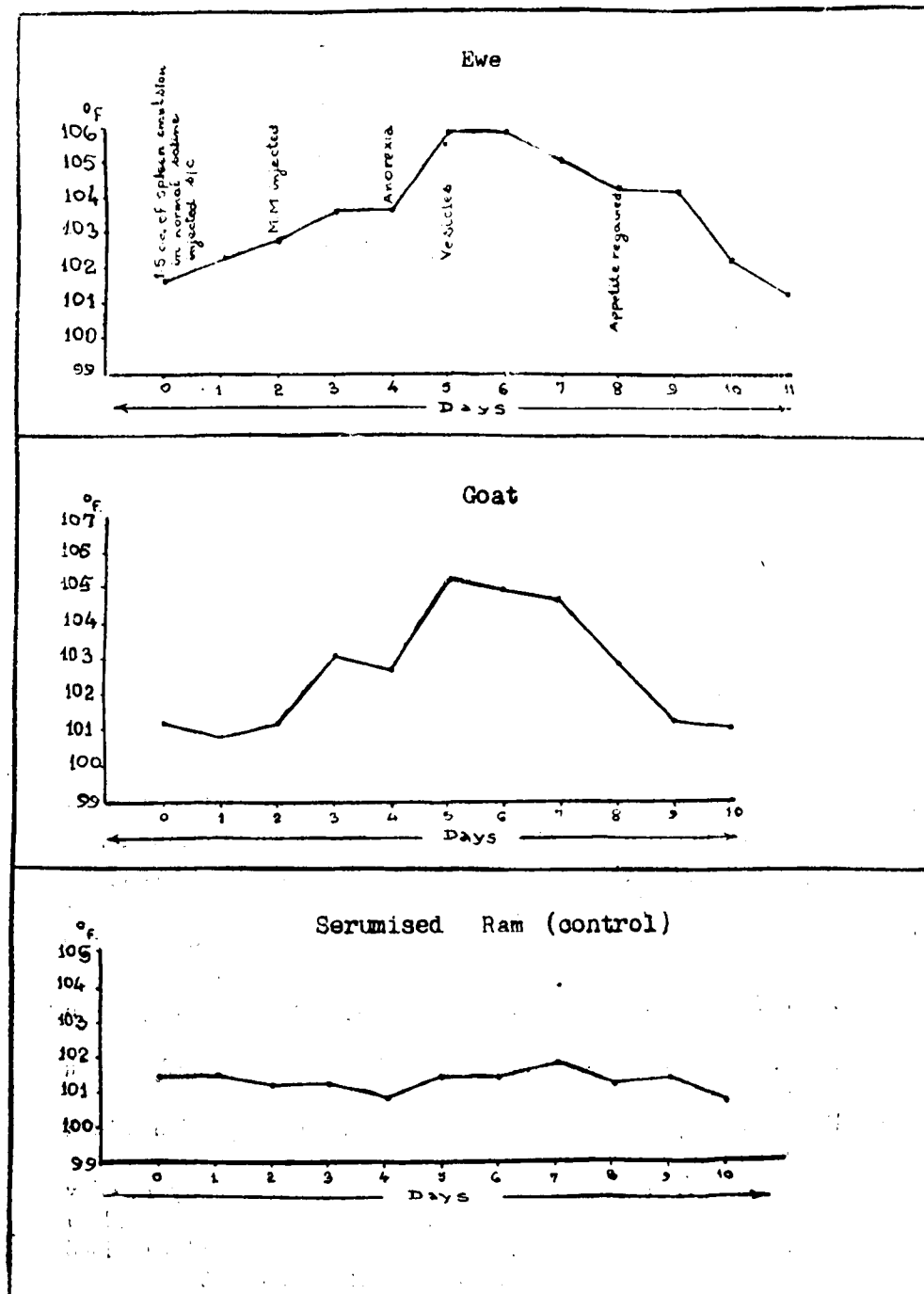


Fig. II. Expt. 2—Reaction in sheep and goat.

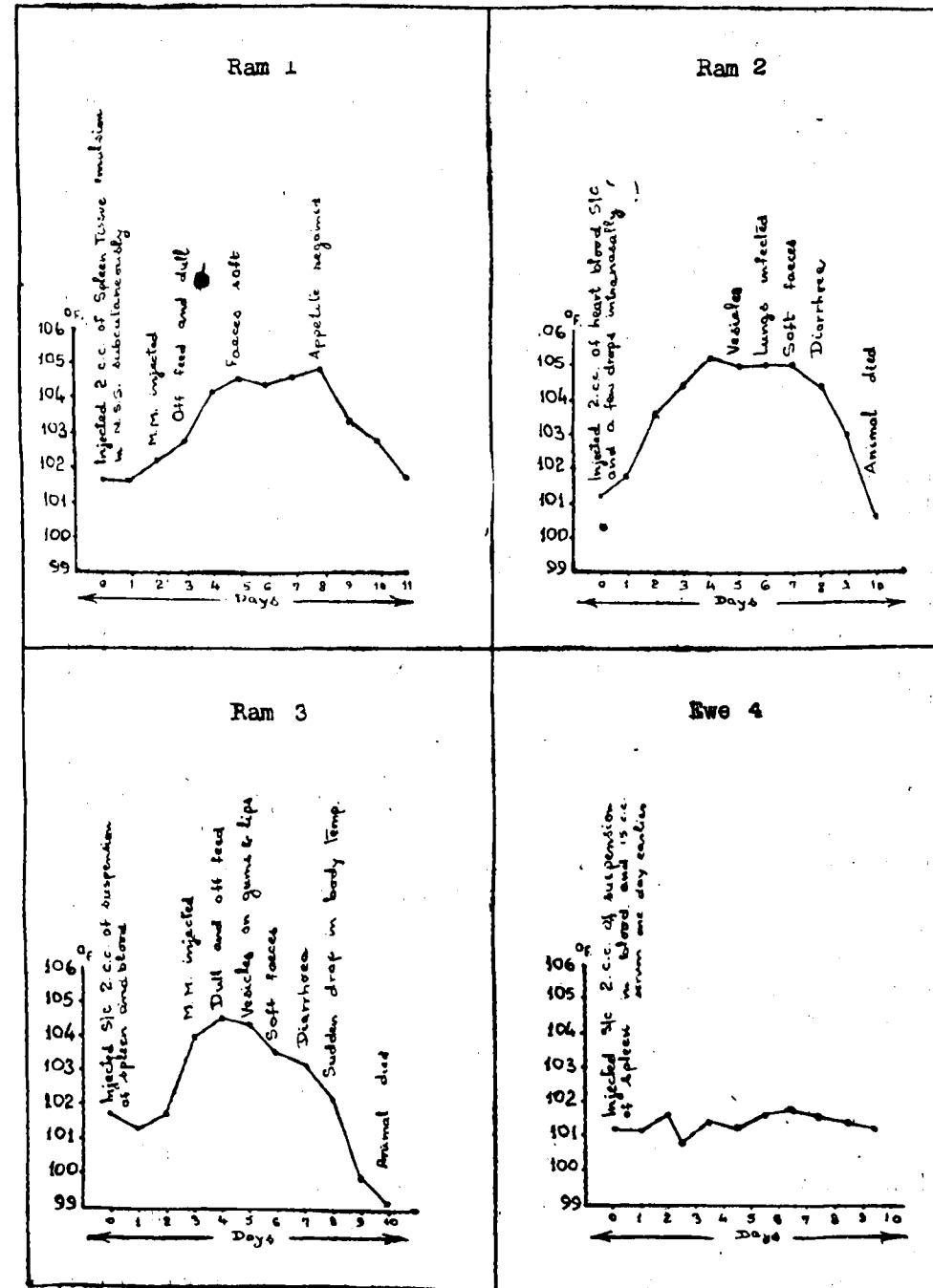


Fig. III Expt. 3—Reaction in the experimental animals.

Ram 1:—The animal showed a rise in body temperature on the 4th day, the temperature being 104.8°F. The fever ran a course of 8 days during which slight inappetance and dullness were observed and soft faeces were passed for one day. The animal ultimately recovered.

Rams 2 and 3:—developed typical form of the disease starting with a rise in body temperature, inappetance and dullness, derangement of the bowels followed by diarrhoea and development of typical mouth lesions in the form of vesicles and ulcers on the lips and the gums. Both the animals eventually died of the disease on the 10th and 9th day respectively after inoculation. Post-mortem examination revealed all the typical lesions of the disease as described previously.

Ewe 4 remained quite normal throughout the period of observation.

The above experiments left very little doubt of the disease being rinderpest. However, for further confirmation of diagnosis, morbid material removed under aseptic conditions was forwarded to the Indian Veterinary Research Institute at Mukteswar on several occasions. Material sent by ordinary post in the preliminary stages of the investigation did not yield positive results on biological examination, probably as it did not reach the laboratory in a viable state.

On three occasions subsequently, with the despatch of material on ice, it proved quite viable and the disease was reproduced successfully in hill bulls, sheep as well as goats. The reactions in respect of two such experiments are shown in figures IV and V.

Histo-pathology:—Pieces of abomasum, small intestines, liver and spleen were collected from one case and liver, spleen, kidney and lungs from another typical case in sheep and preserved in 10% formalin for histo-pathological examination. The findings are given below:

Abomasum:—Congestion of the blood vessels both of the mucosa and the submucosa with evidence of thrombosis in the vessels, especially smaller vessels of the submucosa; catarrh of the mucous membranes with leucocytic infiltration; degeneration of the chief body cells of the gastric glands of the fundus region, in some parts showing hydropic degeneration, karyolysis and necrosis; a tendency in parts for desquamation of the mucous membrane, and in others for the intertubular connective tissue to proliferate.

Small intestines:—The findings were similar to those in the abomasum *viz.* congestion of the vessels and catarrh, but here there was a greater tendency for the epithelium to be desquamated and ultimate formation of ulcers.

Liver:—Chronic venous congestion with attendant fatty changes; small encapsulated haematomas present in the parenchyma; retention of pigment; consequent on the congestion, certain amount of fibroblastic

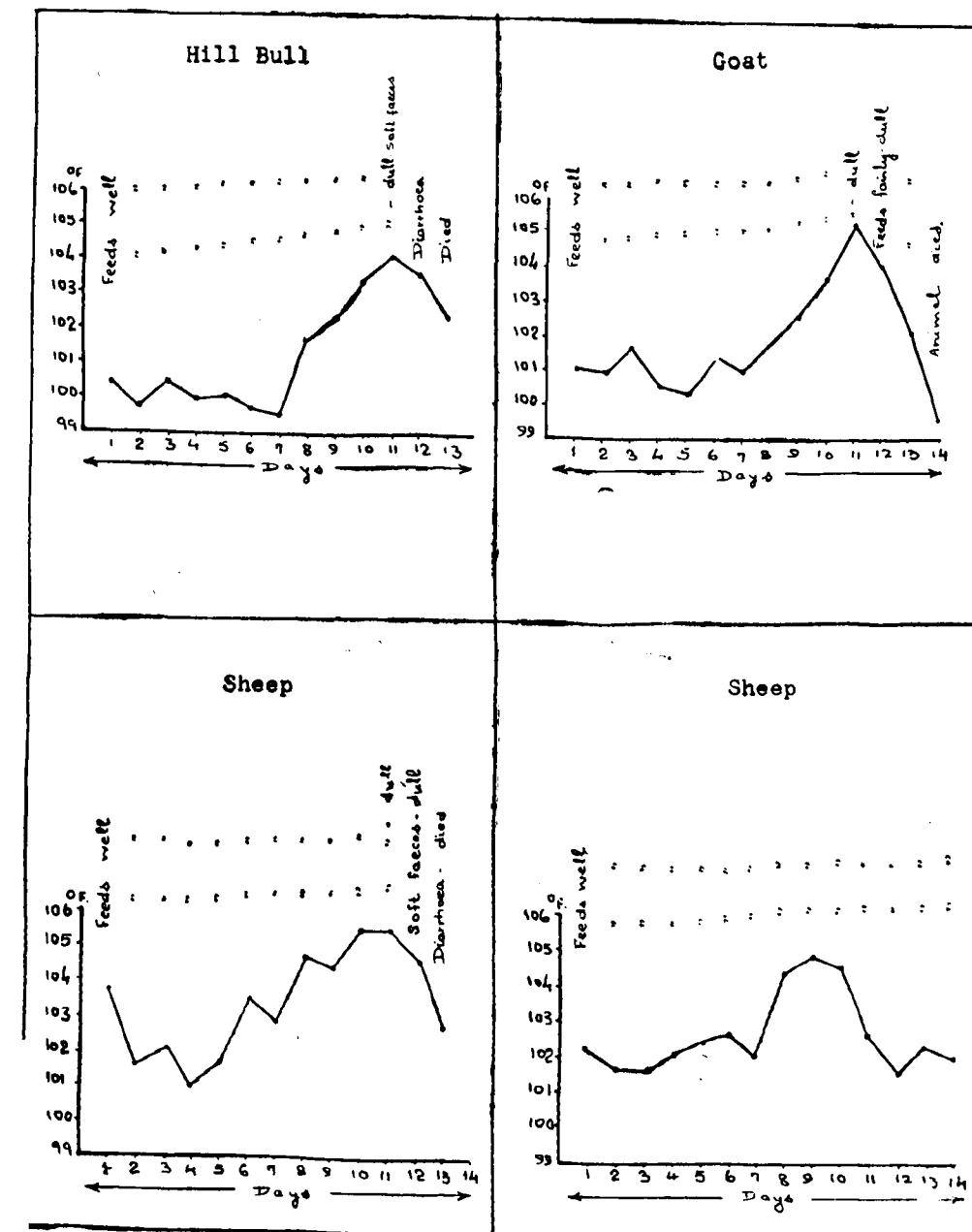


Fig. IV—Results of the first biological test.

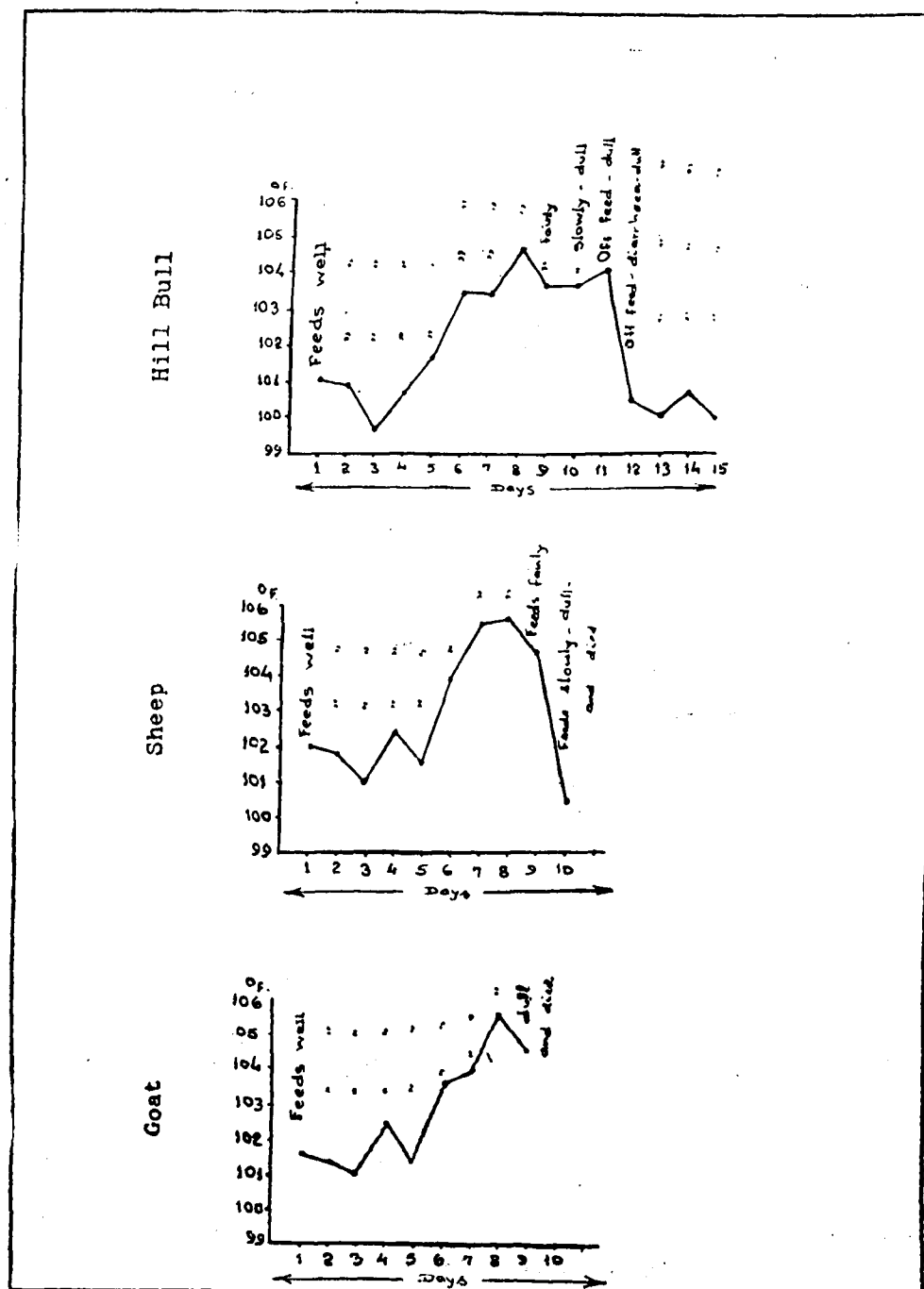


Fig. V—Results of the second biological test.

proliferation and formation of new connective tissue especially around the portal tracks; in one case there was extensive cirrhosis, probably of helminthic origin with attendant changes of the hepatic cells; in one of the cases examined, all stages of degeneration of the parenchymatous cells starting from cloudy swelling and culminating in necrosis were found.

Spleen:—Congestion which in one case was very intense and was noticed to result in the atrophy of the lymphoid tissue; retention of the pigment with its marked deposition in one case; there was slight thickening of the trabeculae in one case and marked thickening of the capsule and blood vessels in the other; in the latter case there was tendency for the formation of new blood vessels especially in the malpighian corpuscles.

Kidney:—Congestion with parenchymatous changes in the secretory cells of the convoluted tubules, wherein varying degrees of degeneration, necrosis and lipoidal deposition were found; albuminous and in some places hyaline casts in the lumen and not infrequently desquamation of the epithelium was seen. A certain amount of hyaline degeneration was evident in some of the glomeruli. There were haemorrhages into the parenchyma as a result of which some of the collecting tubules were found filled with erythrocytes.

Lungs:—Emphysema with rupture of alveoli and attendant venous congestion with extensive deposition of pigment; haemorrhages into the alveoli; thickening of the blood vessel, especially the intima and media of the arterioles; certain amount of oedema.

Proliferation of the alveolar epithelium in parts with increase in the inter-alveolar connective tissue; blood pigment found in the connective tissue mostly and partly in the macrophages.

The changes were, on the whole, suggestive of a toxæmia.

Mortality:—The following figures (Table I) collected mostly by the Veterinary Assistant Surgeons will give an idea both of the extent of infection as well as of the severity of the disease.

TABLE I
Case mortality and the percentage.

S. No.	Name of the district.	No. affected during the year 1950-51	No. of deaths during the year.	Percentage mortality.	Remarks.
1	2	3	4	5	6
1.	Dharwar: Sheep	6,936	5,548	80 percent	These figures were supplied by the field staff from returns submitted by the village officers. There might be many villages which have not reported and hence the figures cannot be taken as absolute.
	Goats	1,232	1,140	92.5	
2.	Satara: Sheep	10,962	8,221	75.0	
	Goats	755	740	98.0	
3.	Poona: Sheep	375	315	84.0	
	Goats	125	109	85.0	
Total	Sheep	18,273	14,084	77.0 percent	
	Goats	2,115	1,989	94.4 percent	

Prophylaxis:—On the basis of the tentative diagnosis of rinderpest which was later on amply confirmed, the field staff was instructed to undertake protective inoculation of all animals with the method in vogue viz. the administration of serum simultaneously with goat blood virus. The total number of animals vaccinated by the method as well as by the administration of serum alone, where simultaneous administration of virus was not possible, is shown in Table II. It will be seen from this table that some of the immunised animals died of the disease. This is probably due to the fact that inoculations were carried out in the actual scenes of outbreaks and it is not unlikely that most of the animals that died were already incubating the disease at the time of inoculation.

A few animals on organised farms were also vaccinated with lapinised vaccine but these were far away from the actual scenes of outbreaks and not exposed to infection.

TABLE II

Preventive measures and deaths.

No. of	Name of Division	No. of animals protected with serum.	Percent of deaths among animals protected by serum alone method.	No. protected by serum simultaneous method.	Percentage of deaths in S.S. method	Lapinised vaccine
1.	Dharwar: Sheep	1,975	29 percent	19,650	7 percent	...
	Goats	210	35 percent	1,210	5 percent	...
2.	Satara: Sheep	1,750	40 percent	14,370	9 percent	...
	Goats	270	48 percent	1,226	6 percent	...
3.	Poona: Sheep	...	...	657	...	77
	Goats	...	...	433	3.5 percent	25
Total						
	Sheep	3,725		34,677		77
	Goats	480		2,869		25

Discussion

In the past, rinderpest amongst sheep and goats had generally been reported to occur simultaneously with the occurrence of the disease amongst cattle and the present outbreak in the State of Bombay as well as another one reported simultaneously from the contiguous area in Bellary District of Madras State (Anantapadmanabhan, 1951) are suggestive of the existence, in nature, of strains of rinderpest virus which may have species specificity. However, the ease with which the disease could be reproduced in the hill cattle at Mukteswar Figs. (IV & V) without any additional efforts to adapt the strain to the bovine species by resorting to repeated passages in cattle, would indicate that such a plurality of strains in the rinderpest virus may be non-existent in nature. This was fully substantiated by yet another report from Mysore (Kuppuswamy Mudaliar,

1951) of the occurrence in three districts of the State of severe outbreaks of rinderpest primarily confined exclusively to sheep and goats characterised by a 100 percent mortality. The source of infection in these outbreaks was traced to the introduction of ailing sheep purchased from Dharwar area in Bombay State, the scene of outbreaks reported herein. It was noticed in Mysore that the bovines of the locality got involved at later stages of the outbreak after the disease among the sheep had remained unchecked for sometime. In these cases, the cattle exhibited a somewhat milder form of the disease at first, with almost negligible mortality, but those getting the infection later suffered from a severer form accompanied by high mortality thereby indicating some variation in the virulence of the strain with the change of the host after its adaption in the new species.

Summary

1. Literature on rinderpest among sheep and goats in India is briefly reviewed.

2. A widespread outbreak of rinderpest amongst sheep and goats as it occurred in the State of Bombay is described giving details of symptoms, lesions, histo-pathological changes as well as the results of biological tests carried out to arrive at a correct diagnosis.

3. The possibility of the occurrence, in nature, of strains of rinderpest virus having some sort of a species specificity is briefly discussed.

Acknowledgments

The help of the field staff of Bombay State in this investigation as well as in the collection of mortality figures is thankfully acknowledged.

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SOME SOUTH INDIAN BREEDS OF CATTLE AND THEIR IMPROVEMENT BY GENETIC METHODS

By

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Kangayam and Amrit Mahal.—In South India, it is the Kangayams that has a great deal of homozygosity in the breed. They breed true to a great extent. Amrit Mahal breed is a close competitor in uniformity.

Ongole.—The Ongole breed, before it got this baptismal name, was the Nellore breed of the South Andhra and the Krishna Valley breed of the North Andhra Desa. Even to-day several are doubtful whether the Ongole animals are so different as not to include Krishna-Valley animals. However this may be, the Ongole animals in the home tract are not breeding true. Many coloured calves are got even in Lam Farm in Guntur, where pedigree stock is supposed to be kept. It is necessary to purify the Ongoles of this Farm. Further a common fault is loose horns in the cows and rough striated horns in the males.

Hallikar.—Hallikar is a mongrel breed. In them neither colour, nor size, nor many of the other characters which distinguish breeds are fixed. It is true that Hallikars conform to the draft type. Besides Mysore the type is seen all along Rayalaseema, the west coast including Travancore and Cochin and in Tamil Nad as far south as Tinnevely. But it is a mixed lot that is seen in these parts. This is not surprising when we consider the fact of its breed formation. Amrit Mahal and other strains of Mysore cattle have gone into the making of this breed. The breed now exists in its pure form in Hassan and Tumkur districts of Mysore. The type of Hallikar seen in Hosur Cattle Farm differs in many respects from the Mysore Hallikars. It is possible that there is no agreement among the breeders of Hallikars as to breed characteristics. It is my view that in Hallikars, it is breed improvement that is required than breed expansion. It is in such matters that All-India organisation such as the Indian Council of Agricultural Research can give helpful advice or give training to State officers in the art of breed construction and breed conservation. This kind of programme is long overdue in several parts of India.

Umblacherry.—The Umblacherry or the Tanjore breed is one that has got adapted to conditions of the deltaic area. The Kangayams have helped to sire the local scrubs to a great extent in the formation of this breed. But the degree of amelioration with the Kangayams has not gone long enough to give the district Kangayam animals. But by some kind of crossing in an unconscious matter, Umblacherry breed has been created. When a farm is opened in Tanjore, it should be the principal aim to concentrate on this hardy useful breed. It is only in a Government farm that the required genetic analyses can be undertaken. At the moment the breed requires to be studied in all its aspects. I suggest that preliminary to definition, measurements of several animals, reputed to be Umblacherries of both sexes and of all ages should be

taken. The general characteristics such as colour, pitch of the horns, set of the tail, presence or absence of a naval flap, interval of calving, milk yield, draft capacity etc. are all noted at the same time. When full information has been collected, the breed characteristics are defined. Veterinary advice requires to be given to dehorn the females and not the males, unless there be good reason for dehorning both sexes. The present tendency to dehorn males alone should be discouraged. In any venture of a new breed construction, the policy should be to improve the indigenous. Introduction of a new breed should be undertaken only after a careful study of the reaction of the "to be introduced" breed to existing environmental and other conditions of the area.

There are in this country only a very few tested animals for breeding purposes, be they cattle, sheep, goat or poultry. In the farm superintendent's vocabulary a tested male is one that has crossed a female. The farm superintendent only means that the animal is capable of the act. But when a geneticist speaks of a tested animal, he understands by it that the animal has been progeny tested, test-mated etc. to find out whether the beast carries genes for certain lethals, whether he is homozygous or heterozygous and other related matters.

It is accepted by all animal husbandry men that the worth of a breeding animal is its get. But this idea has not yet been fully understood by the actual breeders of animals. Further up-to-date methods of testing is not known to many.

Progeny testing.—"By progeny testing is meant estimating the individual's heredity by studying its offsprings." (Lush). In the dairy farm, as suggested by most practical geneticists, a most suitable method is to evaluate the male according to the average performance of all his daughters sired by him during the first year of service. If it is not possible to know the yield of all his daughters, a representative cross section of the daughters has to be studied to know the breeding quality of the bull. It is here that artificial insemination would be of great help to prove a bull. This is a straight method that can be brought home to the breeders. Other complicated methods of indexing bulls by additions, subtractions and corrections are not suited to our country.

In India we are not concerned with milk production alone. We want to know a great deal about the draft quality of sires. This can be achieved by the aid of mechanical devices as dynameters and also by the study of yoke efficiency in farm and road work. This sort of knowledge is of great importance to India in selecting seed bulls of the draft breeds. Lastly when a progeny tested bull has been obtained, use him on the herd in exclusion of others. I desire to see only progeny tested bulls in artificial insemination centres.

Test mating.—Progeny testing that was described in the previous paragraph and test-mating to be spoken about presently require to be undertaken to purify any herd. If a male is suspected to carry the gene for colour

(or any other factor), or when we have to find out whether a young untried bull is likely to sire a coloured calf, the breeder may deliberately put the bull to a random sample of 10 or 12 cows. If all the calves born are of the type required, the breeder may be reasonably sure that the bull is homozygous for that gene and that he will not sire a coloured calf. This is a very quick way.

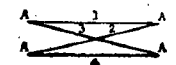
Another method suggested is useful for older breeding bulls. This is to test-mate him to his own daughters. But half a dozen and more daughters must be used to get reliable results. If no coloured offspring is got by this inbreeding, he can be considered to be homozygous. Instead of putting the sire to his daughters, same results can be obtained by mating the males to his own sisters, as half his full sisters are heterozygous. These incestuous methods suggested are most useful where one would like to know of many of the important genes in an individual.

The genetic explanation is very simple. Homozygous males mated to homozygous females, produce only homozygous offsprings. When the sire is homozygous AA for the character in question (in this case, colour) there is no possibility of getting a coloured offspring, even though the dams have the genetic constitution Aa (heterozygous) or aa (recessive). But a heterozygous male with the genetic constitution of Aa and which is indistinguishable from a homozygous AA can produce 25% of its offsprings that are coloured if put to a heterozygous female with the genetic make up of Aa .

In other words, if a male is heterozygous for one gene Aa , 50% of his daughters are also Aa , and so if the sire is put to his daughters 25% of them will show the abnormality. Therefore it is apparent that one or two matings are not enough to evaluate a bull. Tested males purify the herd. Again a homozygous male will halve the impurity of a herd e.g. when there is a 10% impure stock in a herd, a tested bull would bring down the impurity to 5% in that generation, and in each succeeding generation tested bulls will reduce the heterozygosity by half.

1. Homozygous male and female :

Parents: AA AA
Gametes: A A



Progeny: 1. AA ... 25%
 2. AA ... 25%
 3. AA ... 25%
 4. AA ... 25%

All the progeny are homozygous dominant AA and every animal will look alike for that character. We may expect to get 25% in each of the combination.

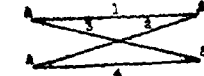
In a similar manner when both parents are recessive all the offsprings would be recessive for that character.

SOME SOUTH INDIAN BREEDS OF CATTLE

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2. Homozygous male and heterozygous female :

Parents: AA Aa
Gametes: A A a

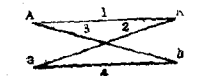


Progeny: 1. AA } 50%
 2. AA }
 3. Aa } 50%
 4. Aa }

In this combination 50% is AA and is homozygous dominant while 50% is Aa and is heterozygous. But all these animals would look similar for the character.

3. Both parents are heterozygous

Parents: Aa Aa
Gametes: A a A a

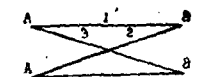


Progeny: 1. AA ... 25%
 2. Aa ... 25%
 3. Aa ... 25%
 4. aa ... 25%

Here 25% is AA and is homozygous dominant; 50% is Aa and is heterozygous and 25% is recessive. The progeny that has the genetic constitution AA , Aa (75% in this case) will look alike and only aa (25% in this case) will look different.

4. Homozygous male and recessive female :—

Parents: AA aa
Gamete: A a

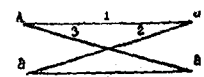


Progeny: 1. Aa ... 25%
 2. Aa ... 25%
 3. Aa ... 25%
 4. Aa ... 25%

All the progeny is heterozygous and will look alike.

5. Heterozygous male and recessive female ;—

Parents: Aa aa
Gametes: A a a a



Progeny: 1. Aa ... 25%
 2. aa ... 25%
 3. Aa ... 25%
 4. aa ... 25%

In this combination 50% is Aa and so heterozygous and 50% is aa and so is recessive. The heterozygous animals will look alike for the character and recessive will look different.

Note:—Although males and females have been written as homozygous or heterozygous, in the above illustration, it does not matter which sex is homozygous or heterozygous.

The best that could be done for Government farms is to test both the male and female breeding stock. Statistically the male is more valuable as he has more offspring during his life time than females. Therefore it is up to the superintendents of farms to breed good males. "A prepotent bull is one whose offsprings are profitable without exception". (A. L. Hagedoorn.) When a prepotent bull has been discovered, it should be the aim to use him on his herd in exclusion of all other males. It is therefore necessary to have artificial insemination methods put in practice in the farm to conserve this valuable bull and at the same time bring out the uniformity and purity to his herd. In the following of this policy the burden of the male stock in a farm could be reduced considerably. In all these matters the intelligent interference of a geneticist is urgently required.

Review

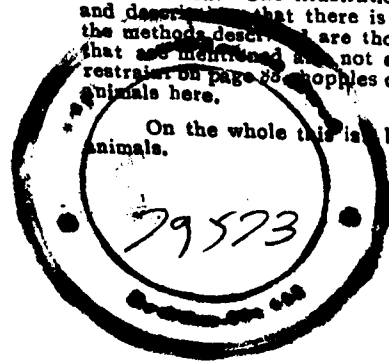
Restraint of Animals.—By JOHN R. LEAHY, D.V.M., M.S., and PAT BARROW, M.S., Department of Anatomy, New York State Veterinary College, Cornell University.

This is a handy little publication cramped with illustrative line drawings which will appeal to all Veterinary students and also to practising Veterinary Surgeons.

Restraint of animals is an essential pre-requisite for the successful treatment of animals and great judgment and dexterity is required to keep them under control with the minimum of restraint. It is not often realised that animals are temperamental and no two animals will tolerate the same kind of restraint. And, therefore, it is pleasing to read the following observations of the authors in the introduction:—"The Veterinarian should realise that in dealing with animals he is dealing with creatures who have minds, wills and not notions of their own.....One should never choose a method of restraint without keeping in mind the individual animal, its condition and the work to be done. Then, the least harsh restraint which will accomplish the purpose should be picked". This is an approach that should not be forgotten but should constantly be borne in mind in Veterinary practice.

Beginning with basic rope work and the various knots one has to learn for using the ropes effectively, the authors describe the various methods of restraint, used and useful for the different species of our patients—horses, cattle, dogs, cat, pig and birds. The fur-bearing animals like foxes, minks and rabbits are also taken into consideration. The illustrations accompanying the text about restraints are so clear and descriptive that there is no need to go through the text at all. Practically all the methods described are those commonly adopted in Veterinary practice, but a few that are mentioned are not easily applicable to the animals here. For instance, tail restraint on page 88, applies on pages 94-95, owing mainly to the temperament of our animals here.

On the whole this is a book which we welcome and recommend to all lovers of animals.



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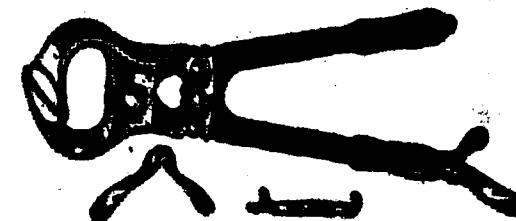
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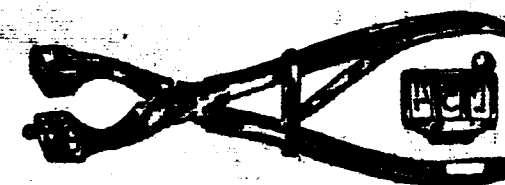
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