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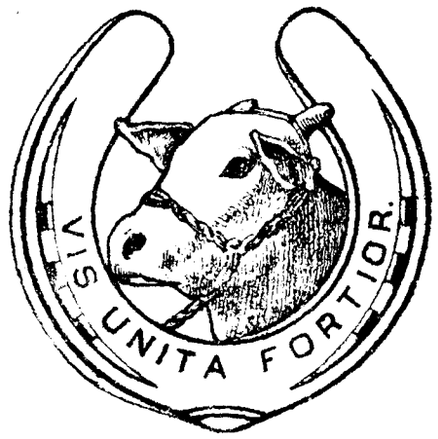

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NOTICE

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

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SPECIAL EDUCATIONAL NUMBER

THE

Indian Veterinary Journal

(The Journal of The All-India Veterinary Association)

Vol. XXI JANUARY, 1945 No. 4

CONTENTS

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Vol. XXI JANUARY, 1945 **No. 4**

FUTURE DEVELOPMENT OF VETERINARY EDUCATION IN INDIA

BY

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A recent writer in *Nature* stressed the fundamental importance of the veterinary profession for the well-being of man and the progress of his civilization. This applies more particularly to India which owns one-third of the world's whole cattle population and about 90 per cent of whose people subsist on an agriculture dependant on bullock-power. In the post-war development of India the importance of agriculture and public health (particularly nutrition) is rightly being emphasized and the veterinary profession will soon be called upon to play an important part in both these spheres. India will, therefore, urgently need a large number of efficient veterinarians in the near future. Considering the shortage of veterinarians which is now being felt in Great Britain, America and other allied countries it will be impossible to meet even a small fraction of this demand by imports from abroad and all our needs must, for this and other reasons, be supplied by the Indian Veterinary Colleges. It is the purpose of this article to offer some tentative proposals for the future development of veterinary education which could form a nucleus for discussion on this vital necessity.

Adequacy

Table I shows the number of veterinarians per million of the larger domestic animals in some western countries and in India.

Table I

COUNTRY	No. of veterinarians per million of large domestic animals	Source of information
U. S. A.	60	Allied Post-war Requirements Bureau in *Nature, 154,* 126.
Great Britain	94.4	
France	98.8	
Norway	123	
Netherlands	140	
Denmark	148	
Germany	149	
Switzerland	247.8	
British India	8.2	*Agric. & Anim. Husb. in India* 1935–39.

These figures show how inadequate, in numbers, are India's veterinarians and this inadequacy appears more serious when we consider that for reasons of a warmer climate and ignorance of the populace, India sustains far greater losses from animal diseases than any other country mentioned in the table and, therefore, needs a greater proportion of veterinarians. The figure for the United States might also appear to be low but much farm-stock in that country is kept under ranch conditions; further, reforms in veterinary education and increase in the number of veterinarians are now being urged and planned. The present number of veterinarians in Great Britain has been considered inadequate for post-war requirements by the Loveday Committee (1944). Considering the huge Indian large-animal population of 224.6 millions and the present acute shortage of veterinarians, the position might appear hopeless but it has to be faced. Even if we aim, in the first instance, to attain the low figure of the United States, say in 20 years, we should have at least 675 new veterinarians every year.

Table II shows the number of veterinarians who qualified from the Indian Veterinary Colleges during the six years before the war.

Table II

YEAR	No. graduated from the college at					Total
	Madras	Bombay	Calcutta	Lahore	Patna	
1933—34 ...	26	33	49	39	9	156
1934—35 ...	30	14	47	19	10	120
1935—36 ...	24	15	42	21	9	111
1936—37 ...	21	12	41	3	7	84
1937—38 ...	29	22	44	10	17	122
1938—39 ...	20	18	53	11	22	124
Averages ...	25	19	46	17.5	12.3	119.5

It will be seen that our Colleges train about 120 new veterinarians every year, who supply the needs of the Army and the Indian States in addition to those of British India. This is far below the minimum of 675 per year required by British India in the post-war era. While this great inadequacy may be partly mitigated by such measures as mechanisation of field veterinary services (Polding, 1944) it shall have to be made good mainly by (1) expanding the existing Colleges, and (2) by opening new Colleges.

The Loveday Committee (1944) has recommended that each of the British Colleges should not be expected to produce more than 30 graduates a year, with the exception of London and Edinburgh Colleges which might produce 100 among them. I have no information as to the available accommodation and facilities at all the Indian Colleges, but on an average each might be found capable of producing 40 graduates a year. This would mean that after expansion these Colleges could produce 200 graduates every year which is also far short of our estimated requirement and shall have to be supplemented by opening new Colleges.

Of the eleven Governors' provinces in India, which are comparable in size with important European countries, as

many as six are, as yet, without Veterinary Colleges. Among these is the United Provinces which is about the largest agricultural province in India and is quite well developed in other respects; it has five universities. Such a large province could easily run two Veterinary Colleges; the Central Provinces, Sind, Orissa and Assam could have one each. Two more Colleges could perhaps be opened in the Punjab and Madras which already have one each. These eight new Colleges will, in due course, produce about 320 graduates per year bringing the annual total to 520. We cannot, perhaps, expect to do more than this.

For the location of the new Colleges such towns should be selected as could have model livestock farms attached to the Colleges and which should preferably have universities. Nearly all Indian towns have easy access to agricultural areas and can have well-attended hospitals.

Another way of training a larger number of graduates in the existing Colleges, which can be recommended to meet the heavy post-war demand, is the so-called 'Russian method'. A few years ago the Russian medical profession had to face problems similar to ours, *i.e.*, shortage of doctors, colleges, material, equipment and money. This difficulty was overcome by a system of training in batches, *i.e.*, each College produced 2 to 4 times the usual number of graduates through a system of shifts as in a factory (Krishnan, 1944). Shortage of equipment was made good through sharing by 2 to 4 students of one article and using it at different times. This system could be adopted until our new Colleges can be opened and begin to produce new graduates.

Universities and Veterinary Colleges

Until recently, veterinary education remained divorced from Indian Universities. By administering and teaching in a veterinary faculty the veterinarian can effectively introduce new problems and spheres of work into a university. On the other hand, veterinary education, particularly the post-graduate part of it, can benefit immensely from contact with

experts in other branches of science and arts. The universities of Madras and Punjab have already created veterinary faculties and it is imperative that other Veterinary Colleges should also become parts of their respective universities as soon as possible.

There is some difference in the veterinary faculties of Madras and Lahore which might be mentioned here. At Lahore, all the subjects taught are university subjects and the whole course is conducted under university regulations, as in the medical colleges and Canadian, Australian and South-African Veterinary Colleges. At Madras, the university examines in and regulates the teaching of selected subjects only, others being conducted by the College authorities alone who award a diploma of their own. Unlike a similar arrangement in British Colleges, the Madras-system produces two grades of veterinarians which is not desirable for reasons given elsewhere in this paper. It is, therefore, suggested that the other veterinary colleges should preferably seek affiliation with universities on the Lahore-system.

The universities would also afford a more intimate contact with human medicine, a profession more nearly related to ours than any other, and, which seems to have accidentally but wrongly been separated from it. This tie must be strengthened by representing members of both professions in either faculty and by exchange of examiners. The mutual benefits of this closer association will be boundless especially in post-graduate teaching and research.

Curricula and standards of education

During the last two decades, this aspect of veterinary education has been discussed over and over again, without reaching a satisfactory conclusion. An unfortunate result of the successive changes made has been the multiplicity of qualifications so that India of today presents a variety of qualified veterinarians bearing different professional brands. In other countries, changes in standards and curricula, which are inevitable, have not meant changes of diplomas and

professional status, so that improvements have not caused splits within the ranks of the profession. In India, however, improvements have often meant changes of diploma names and sometimes condemnation of the older qualification. For evident reasons this is most unsatisfactory.

Another feature of the suggestions made has been the proposed establishment of dual standards of education justified chiefly on economic grounds. It has been said that a poor country like India needs cheaper, half-trained veterinarians, whose training costs less and who would work for less pay. A deeper consideration will show that money spent on more competent veterinary graduates will be repaid many times in the benefits that will accrue from their more efficient services. For the very reason of her poverty, India cannot afford to waste money on half-trained inefficient veterinary services. The creation of dual standards also destroys the team-spirit of the profession; it has been found quite unsuitable and is being abandoned by the sister profession of human medicine in this country. It will be unwise not to benefit from their experience. No other country in the world seems to have dual standards of veterinary education.

The time required for adequate veterinary training has also been the subject of much discussion in this and other countries. It is the opinion of progressive educationists that at least four years' training after a suitable pre-veterinary course (say the post-war Matriculation Examination proposed in the Sargent-plan) is necessary for graduate veterinary training. Of this period, suitable parts should be spent at an organised livestock farm, a laboratory and a well attended hospital during the last two years

Suitable curricula for Indian Colleges are now being considered by a specialist committee of the Imperial Council of Agricultural Research. I do not, therefore, propose to give them more than a passing reference. In the pre-vocational part of the curriculum stress should be laid, among other things, on observation of normal animals for which model livestock farms and dairies should be attached to each college.

Provision of this facility is also necessary for better training in animal husbandry which will strengthen the rightful claim of veterinarians to be entrusted with animal husbandry work in preference to agriculturists. For the same reason, inclusion of rural economics and marketing in the curriculum is also worth consideration. Suitable training in the English language should also be provided in this part. In the vocational part particular stress (*i. e.* allotment of more time) is needed for trophical diseases, preventive medicine, and parasitology. The curricula of European Veterinary Colleges should not be too closely followed and special consideration should be paid to the requirements of veterinarians in India.

Staff

It is the experience of progressive institutions all over the world that the efficiency of a College depends more on the quality of its staff than its curriculum. An enthusiastic and a far-seeing teacher who develops the right type of contact with his students largely determines their future and that of the College. It is, therefore, extremely necessary that only the most efficient and right type of men should be taken as teachers and inefficient men should not be preferred on grounds of seniority, communalism, etc. Education and research are the sacred trusts of humanity and should be protected from such 'viruses'.

The Principal or the Dean of a College should be selected with particular care. He should be: (1) a specialist in veterinary education and acquainted with modern trends of vocational education, (2) a distinguished specialist in any branch of veterinary science, it does not matter which, and (3) a capable leader possessing enough tact and skill to enlist the support of his non-professional superiors for the benefit of his institution. He should not be selected merely on grounds of seniority although it is desirable that he should have attained a mature age.

The instructional staff should comprise of men with high academic attainments, teaching and research experience, post-graduate training in foreign universities, originality, initiative

and a broad outlook. Promising students in the final year should be picked out by their teachers by means of a competetive examination and provided with facilities for post-graduate work at their own colleges or at other institutions in India or abroad. If they prove capable, they should be taken as assistants on the teaching staff and promoted later as occasion arises. It is a common practice in the Indian Colleges that people who have worked solely in the districts are appointed in college vacancies simply because they deserved promotion by virtue of seniority. Also, men who have specialised in research and teaching are moved out to the districts on flimsy grounds. This is extremely harmful to the cause of education. A teacher is a specialist in his subject and should be treated as such, he should not be moved about in the college or out to the districts. Indeed, the College cadre should be separated from the field cadre. Exchange of officers among Colleges and between a College and the Imperial Veterinary Research Institute is, however, very desirable and should be encouraged.

The emoluments of teachers should be sufficiently attractive to hold them so that they do not keep applying for district jobs.

Students

Veterinary students of today are to become the field-workers, administrators, teachers and research workers of tomorrow. A proper selection of students is, therefore, of great importance. The two qualities which a candidate should possess are: (1) a suitable pre-veterinary education, and (2) a natural inclination to work for the welfare of animals. The first quality is easy to judge as we have only to fix the passing of a suitable examination as the minimum required; I propose the post-war Matriculation examination of Indian universities which, it is said, will be of a higher standard than the present Matriculation as the minimum.

A suitable test for the second quality, *i. e.*, inclination for veterinary work is important because, unfortunately, there

exists a section of educated Indians who consider it beneath their dignity to handle or examine animals. Such fastidious persons sometimes get into the veterinary prefession; they depend wholly on their unqualified assistants for much of their work and never develop confidence in their own ability to make a diagnosis or to operate. To exclude such persons, Walker (1927) tested the candidates for admission to the Lahore college in the handling of animals and included such subjects as riding and animal management in the first year's curriculum so that students who were found, or found themselves, unsuitable for work with animals, retired without wasting their time. An even more searching test is badly wanted.

If sufficiently attractive prospects are offered to qualified men and there is no unemployment, there will be no dearth of suitable candidates for admission to the Veterinary Colleges, especially, if they are trained for university degrees. which are much valued in this country.

From his over half-a-decade's contact with veterinary students the writer has learnt that a large majority of them join this profession because they can thereby get into Government service. A majority of the rest do so because they have failed to get admission elsewhere and a very small number study veterinary medicine for the love of the science. Very few students, therefore, seem to study veterinary medicine with the right attitude of mind.

It has sometimes been suggested that women should be encouraged to join the veterinary profession. This does not seem advisable because the long training of a veterinary student costs much money which is liable to be lost in a woman veterinarian leaving the profession as a result of marriage. So far, there is no dearth of men for the profession and women do not seem to be more suitable for any particular branch of veterinary work.

Text-books

At present only foreign text-books are available for use in the Indian Colleges. These books, though valuable in

certain respects, lack information in local problems and tend to make the education theoretical. It is, therefore, urgent that text-books containing Indian data and reference to Indian problems should be written. The chief difficulty in the way of such enterprise is monetary because only limited sale can be expected. This difficulty should be overcome by grants from the Imperial Council of Agricultural Research who are already financing the writing of a text-book on bovine anatomy. Other subjects which need immediate attention are: medicine, jurisprudence, animal husbandry, dietetics, bacteriology, parasitology and clinical diagnostics. Experienced veterinary teachers with a literary bent of mind should be given grants-in-aid for compiling the books which should be published and sold by the council.

Post-graduate teaching

The so-called post-graduate courses now being given at some of the Indian Veterinary Colleges are *not* "post-graduate" at all. They are only refresher courses, because in them, the 'post-graduate' students attend regular classes with graduate students in the subjects they desire to study. Such courses are not very useful for the post-graduates because much of their time is wasted in learning the preliminaries necessary for graduate students. These should be replaced by special courses of lectures and practicals embodying modern developments in veterinary science at the well-epuipped colleges and should be followed by examinations leading to diplomas in state medicine, tropical medicine and hygiene, comparable with similar diplomas of British colleges.

Facilities should also be provided in various sections of the University Veterinary Colleges for post-graduate work leading to the master's and doctor's degrees of the university concerned. This is very necessary for increasing the prestige of the profession in scientific circles and for a supply of suitable research workers and teachers who are badly needed. At present, we have to go to chemists and zoologists to get specialists.

Research and teaching

A close association of research and teaching is essential not only because it is a source of inspiration both for teachers and students and provides excellent material for demonstration, but also because it provides the only satisfactory opportunity of picking out and training the young receptive mind to do the research of the future.

For organising research, the colleges should he staffed with men having a research aptitude, who should be given sufficient freedom from routine clinical and teaching work and provided with such facilities as literature, technical assistants and experimental animals. Each worker should submit his programme of work in advance which should be discussed by a committee of representative research workers from all over the country. In approving these progammes, relevance not utility, should be the touchstone.

Whenever possible, senior students should be encouraged to assist their teachers in field-work for research, especially during long vacations. Promising students should be assisted by post-graduate scholarships to work for higher degrees at their own Colleges and elsewhere.

Training of stock-assistants, compounders, etc.

India, with an acute shortage of qualified veterinarians requires a large number of stockmen who should assist the veterinarians in such routine work as castration, inoculation of sera and vaccines, and propaganda in the villages. Excellent places for training such men are the large livestock farms which can provide plenty of practical instruction. Minimum qualifications for entrance to such courses, which should be given in an Indian language, may be anglo-vernacular middle school examination. The curriculum should include animal-management, handling and restraint of animals, treatment of minor ailments and the use of Burdizzo castrator. It should be possible to impart this training in six to nine months.

The foregoing remarks also apply to the training of compounders who should be trained in pharmacology instead of animal management.

Control of educational standards

There should be an all-India body, preferably of the Imperial Council of Agricultural Research, which should control the standards of education in all the colleges. The same body should register veterinary practictioners and control their entry into practice and Government service. With the cooperation of universities, this body should have powers to inspect each College and make recommendations about the staff, equipment, accommodation, clinical and laboratory facilities and such other matters as are likely to affect the educational standards. It should also advise the universities on curricula and appointment of examiners. Failure to enforce the important recommendations of this body should debar the graduates of that College from registration until the defect is removed. In short, this body should function like the Indian Medical Council.

It may be suggested that with the transfer of veterinary activities to the control of provincial Governments it has become difficult to enforce an all-India control. Human medicine is also one of the transferred subjects. If it is possible for the Indian Medical Council to control medical education and practice in the provinces, it should also be possible for the Imperial Council to exercise a similar control on veterinary education and practice.

This controlling body should be representative of employers, educationists (both from universities and colleges) and the general body of the profession. Hitherto, the committees advising on veterinary education have consisted only of *ex-officio* members. The rank and file of the profession have not had any opportunity of voicing their opinion. This does not seem at all right in these days of democracy; no less an authority than Mr. Winston Churchill has recently said: "That we must beware of trying to

build a society in which nobody counts for anything except a politician or an official, a society where enterprise gains no reward and thrift no privilege." A majority of the members of the Royal College of Veterinary Surgeons, the controlling body in Great Britain, is elected by the profession.

Employment

It is the experience of all Veterinary Colleges in this country that even transitory periods of unemployment in the profession have profound influence both on the quality and numbers of students wishing to join these institutions. No scheme for the improvement of education should therefore ignore the important question of employment after qualification. With the exception of very few, we Indians have not yet learnt to pay for veterinary aid. A veterinarian in this country has, therefore, to look to Government service only as a means of livelihood.

The Royal Commission on Agriculture in India (1928) pointed out the inadequacy of Indian veterinary services and recommended their fourfold increase as the barest minimum. In the post-war era even this increase will be inadequate *(vide supra)* but even if this low number is aimed at by the Governments in this country, there should be no unemployment for a long time to come.

The emoluments of veterinary graduates should be fixed on a uniform scale throughout the country and should be at least equal to those of medical, agricultural and engineering graduates. If this important consideration is overlooked we shall get only second-rate men in the Veterinary Colleges.

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FUTURE VETERINARY EDUCATION IN INDIA

By

The Director of Army Veterinary Services in India

It is emphasized that the following points apply to all Veterinary Colleges in India from which students graduated before joining the Indian Army Veterinary Corps :—

1. The theoretical instruction in these Colleges is generally of a high standard.

2. The application to actual cases of their knowledge acquired in the class room and from books is not good, and this criticism applies not only to recent graduates, but also to men with considerable field experience, who tend to keep their College education and their practical work in entirely separate compartments.

The main reason for this is that the College education is given to students who are not familiar with animals, and have no real knowledge of animal husbandry and animal management.

This point is overcome in England largely by the opportunities presented to boys in their homes and on school holidays of familiarising themselves with the management of livestock, and also by R.C.V.S., insisting that students before commencing their College careers should have spent a considerable time working on a farm.

Unless something of this nature can be introduced in India the Indian graduate will continue to be handicapped by his lack of real knowledge of animals in health.

This might be rectified by the establishment of College farms where the whole of the work of the farm would be carried out by the teaching staff and their students. This would automatically bring into closer co-operation the inter-dependent subjects of agriculture and veterinary practice.

3. It is considered that more attention should be paid to specialised subjects *e.g.*

(*a*) Poultry diseases.

(*b*) Sterility.

(*c*) Meat inspection.

Students should not be selected for specialist training except on post-graduate courses, in fact the Colleges should base their general policy on the following lines :—

(*i*) Students should only be admitted if they have had a wide general education, and produce proof that they have worked previously with and have an interest in animals.

(*ii*) The veterinary curriculum should be wide and general and include as much practical work with animals as possible. This last point is even more important in Indian Veterinary Colleges than it is in England.

(*iii*) Post-graduate courses should be arranged. These are very necessary as Veterinary Education now covers such a wide field that the ordinary course can only introduce students to many subjects for which specialised training is required if they are to be experts.

We would emphasise that the full ordinary course is necessary as general education for all students before they specialise.

VETERINARY EDUCATION PAST, PRESENT AND FUTURE

By

M. V. Pillai, G.B.V.C.

Trivandrum.

When I was requested by my Editor-Friend to write a short note on the above subject, I was a bit hesitant to comply with his request. But on further consideration I decided that when the Indian atmosphere at present is surcharged

with many planned programmes to revolutionize agriculture, industry, education and public health, it is our duty not to keep back from expressing our views on Veterinary Education for the information of those who are engaged in the general Post-War reconstruction.

For a considerably long time this important problem has been subjected to great criticism and has been unfortunately allowed to stagnate until the arrival of Lord Linlithgow as Viceroy of India, who gave a real stimulus to the improvement of livestock for the prosperity of India as a whole. It was in his time, as every body knows, that the people of India came to realise the importance of a sound and high standard of veterinary education. Livestock industry and veterinary education are so inter-related that one cannot be separated from the other.

Thirty years ago when I was a student, there were only four veterinary colleges — Bombay, Bengal, Madras and Lahore—all of which had an uniform course of 3 years with an uniform syllabus and examination. All the examinations of all colleges were conducted under the supervision and control of the then Inspector General of Civil Veterinary Department, India, who was the President of the Board of Examiners. He was also responsible in selecting examiners from different Provinces who used to go round to all colleges. This system was discontinued in 1913 when the four colleges were left to the mercy of the Provincial Governments to manage.

The subjects taught in these institutions were not of a detailed nature as it is today, but just enongh to meet the then existing requirements. Subjects like applied Physiology, Bio-chemistry, clinical pathology, animal husbandry and laboratory work, were un-known in our time. Subject of hygiene in those days was of a general nature containing breeding, rearing, feeding and general management. The standard of animals used for dissection was horse. Meat Inspection was also not of great importance except a few scrapings of non-detailed consideration.

Oral examination was the order of the day and to meet every year new faces from different provinces as examiners was sickening and worrying. To explain before them boldly subjects like physiology, medicine, and other subjects was a very hard job. Nervousness was one of the main symptoms presented by the students before the examiners. There were instances of clever 'book-worms' being failed in the professional examinations due to the 'nervous' sickness. In those days there were plenty of clinical materials of different types for an observant and industrious student to study and grasp interesting cases.

The main function of these Colleges was to train up, within a period of three years, Graduates essentially for services in the C.V.Ds to prevent and control contagous diseases, to treat ordinary ailments, and to castrate scrub bulls. Some of the Indian States also utilised their services for the same. A few picked plums of exceptional merit were used to be selected for teaching purpcses in Colleges headed by European M.R.C.V.Ss as Principals. The Municipalities were not very keen to employ the services of veterinarians as they were ignorant of the importance of meat inspection for promoting national health. I regret to say that even now many of the municipalities have not appreciated the work of veterinarians for scientific meat inspection. A few adventurous Graduates, like the writer, having found very little prospects in India, crossed the big Indian ocean to Malaya, Ceylon and East Africa—no easy matter in those days where all of them held responsible and trustworthy jobs in the respective Colonies.

On the whole the Graduates turned out by these four Colleges were found to be quite fit and useful in all fields of veterinary work and there are even today men of outstanding ability as teachers, research workers and administrators in different Provinces and states. In the field of veterinary journalism there is only one man worthy to be mentioned with whom every one of us is familiar, who

has sacrificed his all for the up-lift of Indian Veterinary Graduates. Whatever changes we see now in our profession are all due to him and to the ***Indian Veterinary Journal***.

In spite of all these changes we have still our defects which cannot be denied. Our advancement of veterinary education, when compared with other sister professions, was so slow that we could not hitherto produce men of eminence and men of international fame and name as the other scientific professions such as Medicine, Engineering etc. This is one of the reasons why our system of education was subjected to vehement criticisms by the Army authorities, Royal Agricultural Commission and members of the Royal College of Veterinary Surgeons in England as insufficient, inadequate and unsatisfactory. It was the authorities then in power and the Principals of the Colleges who were responsible for this longstandiug discredit, with the result that we are even now looked down upon by others as un-scientific out-castes.

All credit goes to Col. Walker the then Principal of the Lahore Veterinary College to increase the course of that College to four years, and improve the syllabus of studies both theoretical and practical. As a result of continued agitation of the 'All India Veterinary Association' Madras also followed the Punjab and went one step further by affiliating Madras Veterinary College to the Madras University. The Punjab, getting jalous of this, recently affiliated its college to the Lahore University. Thus there are now two university colleges of a modern type well-equipped and efficiently staffed and with research laborataries attached to them. The other 3 Veterinary Colleges, Bengal, Bombay and Patna are having a sound sleep without knowing what is going on in Madras and Lahore. So long as these Colleges are also well-equipped in their own ways there should be no difficulty in increasing their status if the Principals and the authorities concerned take a real interest for their improvement.

Now about the future. The world events are changing so quick and dramatic, the sciences are so rapidly marching forward for construction and destruction, that we cannot wait any longer without following these currents. We as veterinarians are facing new problems every day which requires, for their adequate solution, a deep and wide knowledge, a close application and serious study. If we want to prove ourselves to be "TRUE VETERINARIANS" in the strictest sense, if we want to show to the public that we are guardians of health of animals and human-beings, if we want to increase our professional status and dignity in line with other scientific men, we must overhaul the system of education so that we may not hunt after for men from outside our mother country for any sort of veterinary work.

India is on the threshold of great developments in which science will play a prominent part. Wise men of India with the help of eminent veterinarians, should put their heads together to formulate plans for the better development of veterinary education which is also an important scientific profession.

I would therefore put my humble suggestions for the information of those experts who are engaged in the Post-War reconstruction work.

1. **Selection of students.**—This is one of the most important considerations and qualifications to be determined by the student, his parents or his teachers. Selection of a vocation for life is about the most difficult task. If a mistake is made by careless selection it proves to be fatal. If an young man is compelled to follow a calling—say veterinary—which is distasteful and unsuited to him, he is liable to court failure from the start however intelligent and whatever academical qualifications he may possess. One should look into his own heart before he chooses his profession. Veterinary profession is not so easy as others think. It is a profession of nobler and higher living science and it is therefore open to each and every one to love it; and to

join in such a profession one must have a real taste, special aptitude and love of animals. It is a folly to think that, because our profession is not overcrowded, any Tom, Dick and Harry will be fit to take it up. It is on this principle that Sir Frederick Hobday in his excellent book 'Fifty years a Veterinary Surgeon' suggests that it is a good policy for every intending veterinary student to see actual practice in the country farm animals for atleast six months before he enters into a college so that he may become acquainted with the habits of animals in health and disease, their feeding and management and thereby cultivate a natural liking for animals. This is necessary, he says, for success in the profession. Majority of our students seeking admission into the college after their intermediate examination are absolutely ignorant of the life of animals. It is desirable therefore to enforce this policy in future as far as practicable by the college authorities responsible for selection.

2. Uniformity of study in all colleges should be enforced particularly in Bombay, Bengal and Patna giving the highest standard of education as in Madras and the Punjab, and affliation to their respective universities. Hospital work should be made very strict, and students should take down notes of clinical cases and post-mortem examinations. A general agricultural training in growing food crops used for cattle would be a great advantage for veterinary graduates intending to take animal husbandry work.

3. Uniform Degrees in all colleges should be introduced throwing away the present Diploma course. Higher degrees like M. V. Sc; Ph. D; D. Sc should be instituted in all colleges to encourage ambitious students to take these degrees; and provision should be made to train them under recognised research workers in various branches such as Physiology, Bacteriology, Bio-Chemistry, Animal industry including genetics and nutrition, Preventive medicine and Indian Drugs used for treatment of animals. Establishment of a Chair in one of the Universities whereby a Doctrate degree can be obtained in comparative medicine equally by graduates of the human

and veterinary branches of medicine. This will do much not only for the general public, but also to draw together those who have made a special study of the diseases which equally concern both animals and man. It was the ambition of Sir Frederick Hobday that a University Chair if established would go far towards this end by its study and teaching of the varied relationships and symptoms of diseases in animals and human-beings of akin etiology. This scheme as suggested by Sir Frederick Hobday is not impossible in any of the colleges in India provided the Principals of any of these colleges takes a deep interest with the co-operation of the Principals of Medical colleges. Arrangements should be made for research students intending to take higher degrees to work in suitable institutions like Medical colleges, Bangalore and Allahabad Dairy institutes, Imperial Institute of Veterinary Research Mukteswar and Izatnagar, King Institute, Guindy, Madras etc. Migration of students from one college to the other if necessary may be encouraged, so that students may be benefited in a certain branch which may be absent in the other.

4. The Principals and the important professers of the colleges should, in future be men who passes such high academical degrees which will enhance the reputations to the outside world and to the sister professions. The lecturers and tutors should be first class degree holders with exceptional merits. A little bit of training in teaching would be an additional advantage.

5. The training imparted should in future be in such a way that each student may specialise according to the nature of service he is likely to enter (a) Graduates intending to take Animal Husbandry work either in the Government or private should have a special training in that line for atleast 6 months in any recognised Institution; (b) those for treatment work should have the same training at the college hospital for the same period; (c) those for laboratory should have laboratory training. (d) Municipal public health work. There is a good scope for this work all over the Indian Municipalities if they are well organised to include meat and milk inspection, inspection of dairy animals in the town and hackney carriage

animals and preventive medicine. Intending graduates to take this service must undergo a course of training on the above subjects for a period ot 6 months. The Director of Veterinary Services and Public Health should put their heads together to work this scheme up both for the advantange of the municipalities and the Veterinary profession.

6. Rejecting students passed from one college to a different province for service is a narrow minded policy so long as the colleges have uniform course of stndies.

7. Inter-Collegiate lectures should be arranged by inviting experts from other colleges—including Medical and Agriculture—for the benefit of the students.

8. More colleges to be opened in important places like Nagpur, Allahabad, Bangalore and Karachi to increase the number of Graduates for service in India to meet the steadily increasing demand.

9 Special arrangements may be made with medical institutions for veterinary students to attend lectures on physiology, hygiene, pathology, preventive medicine so as to create a sort of brotherly feeling and mutual understanding among the two sister professions.

10. Every year one or two professors may be given an opportunity to visit the European and American colleges so that they may acquaint themselves with the latest in the veterinary world.

11. Members of the teaching staff who are experienced in that line and in a particular subject may not be disturbed and transferred often.

12. 'Do more, see more' must be the motto. This is more valuable and impressive than mere book reading.

The above suggestions, if considered properly and introduced speedily in all colleges, dignity and status of the veterinarians would be increased and unemployment will be reduced. The veterinary profession will then be a nobler and higher profession.

A SHORT NOTE ON THE PAST, PRESENT AND FUTURE OF VETERINARY EDUCATION IN INDIA

By

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In the past i. e., more than 60 years ago Veterinary Education in India may be said to have taken its birth in the establishment of a Veterinary Institute in vernacular language at Lahore in the Punjab in 1882, another at Rangoon for the education of Burmese boys in diseases of cattle, and a third one at Poona on a limited scale for the instruction of Army Officers.

Whilst the education was in its infancy, the Bombay Veterinary College was opened in 1886 for education of Indians in Veterinary Science on western lines, and for some years this college began to supply educated Veterinary Practitioners for all parts of India. Thus it filled the gap then existing between the few European Veterinary Surgeons and numbers of unqualified 'Salutries' and enabled the Veterinary profession to occupy a position similar to that of Assistant Surgeons in the Medical Department. This continued until Punjab and Bombay Schools began to give higher education in English and other Colleges were opened in Calcutta, Madras and Patna.

In the beginning the course of study in all these Colleges was of 3 years but the standard of teaching varied from time to time. With a view to these Colleges being recognised by the Royal College of Veterinary Surgeons, a syllabus of advanced course of instruction comparable to it was introduced at the Bombay Veterinary College in 1890. But within a year it was found that the syllabus was too advanced and inappropriate to the conditions then prevailing in India and therefore it was modified and simplified. Notwithstanding this the course of study at the Bombay Veterinary College remained the highest for many years. But later

on *i. e.*, in 1900 a Conference of Principals of Veterinary Colleges was held and adopted a suitable curriculum of studies tending to an uniformity of teaching in all Veterinary Institutions in India. This curriculum remained as the basis of study till 1912 when again the co-ordination of Veterinary Education in India ceased to exist and each Province settled its own curriculum without reference to others in India. In the beginning non-matrics were admitted to the Colleges after passing the College Entrance Test.

At present, the admission is restricted to matriculates for the Diploma course and that of Inter science 'B' group for degree of B.V.Sc, (Bachelor of Veterinary Science) at the Madras and Punjab colleges which are affiliated to their Universities and also at the Bombay Veterinary College which is shortly to be affiliated to its University. In order to obtain this affiliation, these Colleges must have well qualified and experienced staff, well-equipped Laboratories and up-to-date Veterinary Hospitals. Only those who obtain these University degrees are considered eligible for the King's Commission in the Army Veterinary corps. It has been found of late that since the introduction of this higher qualification for admission to the Degree course, there is a fall in the number of students seeking admission to these colleges. So the Government of Bombay have instituted a system of liberal scholarships for students belonging to the Province and it is hoped that students of proper type will be attracted.

In the Future i.e. in the General Post-War Reconstruction our profession should not lag behind but should play a part which should be well-ordered co-ordinated and a sound one so that public opinion may be well focussed on it and the minds of veterinarians may be properly agitated.

First of all—Veterinary Colleges should be affiliated to their respective Universities by fulfilling all the conditions necessary for the purpose and therefore Governments on

their part should spend large seems of money by making provisions in their future budgets to meet the expenses in connection with these required equipments.

Secondly—Each college should have a post-graduate course of study in Research, Pathology, Parasitology, Pharmacology, Nutrition and Genetics.

Thirdly—Each college should have a Dairy Farm, Poultry-Keeping and Sheep-breeding establishment attached to it.

Fourthly—In the Laboratories attached to the college, facilities should be provided for the preparation of Sera and Vaccines.

Fifthly—a Lazaretto for animals should be provided near the College with an Incinerator for isolation and investigation of contagious and infectious diseases and their disposal after death.

Sixthly—Glanders and Farcy and Cattle diseases acts should be brought into force in each Province.

Seventhly—It should be the aim of Government to attract proper type of students by granting liberal scholarships throughout the college course as is done now in the Bombay Veterinary College.

Lastly—The scale of pay in Government services should be revised and increased in order that professional and academic attainments may be suitably rewarded and the arduous work of the veterinarians be properly appreciated and fully extended.

VETERINARY EDUCATION IN INDIA

By

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So much have been talked about the revision of curriculum of veterinary education in India, that one can add little original to it. But in view of the fact, that having been in practice and in teaching line for a period of nearly 34 years, I take the liberty of placing my ideas and it may be taken for what it is worth.

The question of need and supply in my opinion, should decide the nature of education that our boys should get at our Veterinary Colleges. The copy book like imitation of the curriculum of British Colleges ought not to be our aim but what will suit us for the needs of our country may be our paramount object. I think our model should be a cow and not a horse.

The course of studies must extend at least to 4 years and the basic training of Biology, Chemistry, Physics, Materia Medica and handling of animals in health should find boys busy in the first year. In the second year of studies, Anatomy, Physiology, Hygiene should occupy their time. In the next two years, Surgery, Obstetrics, Medicine, Therapeutics and subjects of Pathology with Bacteriology, Immunology, Entomology etc., Hospital practice and inspection of meat and milk should complete the training. Tropical diseases of cattle should be given importance.

One must bear in mind that our boys go to Veterinary Colleges from middle class families, as such very few of them get any experience in the handling and management of domestic animals in health, which is a great handicap to them in contrast to the boys of other countries, who come from families of farmers and livestock breeders. Therefore every effort must be made to make the boys get fond of animals and to handle them kindly, so that when they see a sick animal they can quickly find the deviations.

In my opinion waste of time and energy are done in forcing the boys to learn and practise such operations, which they are not required to do in their career, *viz.* Neurectomies, removal of lateral cartileges etc. Greater attention may be given to diseases both surgical and medical of small animals. In big cities there is always a demand for the skillful treatment of dogs, cats, birds and fowls. Operations like docking, removal of dew claws, castration of cats and goats also of fowls, extraction of teeth and various ways of bandaging of small animals should find a place in the curriculum of studies.

We find two types of work await a new graduate, those in the rural areas, are required to do mostly cattle practice and all sorts of knowledge are demanded of them. In the cities, treatment of horses, dogs, cats, birds and opinion on Dairies, Kennell are constantly asked for. So to be a successful professional man, one must know all description of veterinary work. The teaching should therefore be comprehensive both in theory and practice. The aim of training is to devolop their initiative and not to depend on some body else to help them.

Research ought to be a seperate Deptartment and those boys who show special aptitude for it, should be sent to a Research Institute on the recommendation of the Principal of a College, for special study and those who prove well, ought to be kept all along in the special line.

The main object of veterinary education in India is to build a good herd of cattle all over India, as the cattle is the mainstay of our Agriculture and milk and ghee are our main protein food. Taking into consideration, (1) The present indiscriminate breeding, (2) Scarcity of good breeding Bulls, (3) Prevalance of epizootic diseases, (4) Want of grazing lands, (5) Ignorance and poverty of the ryot regarding the value of fodder crops are the main causes that have contributed to the present poor state of our livestock. I want to say that slaughter of good milch cows in Calcutta and

Bombay are also contributing factors. The future Veterinary Surgeons in post-war India, must receive education on the line by which, he will be able to remedy these causes and educate his poor country men in the value of good cattle, and thereby render service to his country and profession.

FUTURE VETERINARY EDUCATION IN INDIA

By

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1. There should be an uniform standard of education in all the Indian Veterinary Colleges.

2. All the Colleges should be affiliated to the respective Universities so that the Veterinary Graduates may get a University Degree in Veterinary Science enabling them to proceed for Ph.D. and D.Sc. in Animal Nutrition, Animal Genetics, Pathology, Bacteriology, Helminthology, Entomology etc. and also enjoy the other privileges of holding a University Degree.

3. Facilities for research and specialisation in the various Veterinary subjects should be provided by the Indian Universities for the benefit of Veterinary Graduates to enable them to obtain higher degrees.

4. Professors must be distinguished members of the profession with long and extensive experiences.

5. A small Livestock Breeding Farm must be attached to each College (may be within 5 to 10 miles from the town) where students may receive practical training in all aspects of animal husbandry *e.g.* breeding, feeding, care and management of all kinds of livestock including poultry and even rearing of dogs besides cattle, buffaloes, sheep, goats, horse and pigs as well as cultivation and preservation of fodder crops and animal industries *e.g.* wool utilisation, dairying, hides and skins, eggs, meat etc.

I am keenly interested in the subject and the Government of Orissa is contemplating to establish after the war a College of Veterinary Science and Animal Husbandry at Cuttack affiliated to the Utkal University. The proposed "Education" number will be highly appreciated by the Veterinarians and the general public in this Province.

REFORM IN VETERINARY EDUCATION IN INDIA

By

Demodecs

Medical and Veterinary Education are in the forefront of discussion in England. There have been Committees appointed by the Parliament like the Goodenough Committee on Medical Schools and the Loveday Committee on Veterinary Schools. A series of discussion is going on in the pages of the *Veterinary Record*, regarding the one portal system of entry. A large part of these reports relate to what is obtaining in England. But many items of the report will find an echo in the hearts of the Veterinarians anywhere in the World. For example the Loveday committee is of opinion that the Universities should take upon themselves the responsibility of Veterinary Education. We in India wholly concur with that opinion and we hope that the time is not far off when every University in India will have a faculty of Veterinary science or at least every province will have a Veterinary College affiliated to the University in the locality. This will be an important post-war development.

In this connection it is necessary to consider what demands should be made of the veterinary profession in India and so upon the Veterinary student, how far should a compulsory curriculum take note of the increasing knowledge in other fields of science, what should be the range of knowledge of the allied sciences like Chemistry, Physics and Biology, what range of clinical knowledge should be demanded of the Indian Veterinarian before the graduates and what should be the time occupied for the training so that the training imparted to him will enable him to acquire

further knowledge and at what age the student should be admitted and what kind of degrees and post-graduate knowledge is essential to all round development of the profession.

The past and the present state of Veterinary Education do not give us any guide in the matter. The present state of affairs is chaotic. Madras offers a degree of five years based on Intermediate in Science. Since exemption in in pre-medical studies is given only to those who have taken degrees in pure science, it may be presumed that the pre-clinical studies are of a degree standard. Punjab offers a degree course of five years with matriculation as the qualification for admission. On going through the course of studies one will be surprised to find English language and literature in the first two years of study and it is strange that in the staff of the Veterinary College there is a Professor of English. Why not include Urdu in the course! Bombay University has a four year degree course based on Intermediate in Science and they do not teach pre-clinical subjects since they take I. Sc. with medical group (*i.e.* Physics, Chemistry, Biology). Bihar and Bengal offer a diploma course of three years. The science subjects such as Biology and Chemistry are taught in Bengal by a part time Lecturer and meat inspection by a non-Veterinarian in Bihar.

The status of teachers in the various institutions is still more chaotic. The Madras Veterinary College has no Professors but only Lecturers, though it offers the highest type of Veterinary education in India. The Punjab has all Professors and no Lecturers. Bombay has only Assistant Professors and Bihar has got both. Regarding the syllabus the less said the better; no two Colleges agree.

So on minute analysis it will be found that the profession itself has no definite aim. The sphere of interest oscillates between the Medical Science and Agriculture. When the Veterinary Departments in India started, the function of the Department was simply to prevent and cure diseases. Now the functions have multiplied as it is bound to owing to conditions peculiar to India.

These peculiar conditions of India should be thoroughly gone into before any suggestion is made regarding the improvement in Veterinary education.

In the present state of Animal Husbandry in India, the chances of growth of an independent Veterinary profession as in England, are very remote. The Indian peasant is proverbial for his poverty; his livestock is of poor value. So the scope of independent Private Practitioner is very limited. The Government will be the only agency to cater to the need of the sick animals, and so the Graduates of Veterinary Colleges have got to be absorbed in Government service. So the man who pays the piper has a right to call the tune; of course the music and the musician will be according to the payment. Since the *Sine qua non* of a better veterinary education will be better scales of pay, the Universities are not justified in having a very high standard for general practice in the veterinary field, when the pay and the prospects are limited.

There is an inherent defect in the profession itself. The succees of a calling is measured by its ability to conquer nature. In this respect the profession has no spectacular success. Major Veterinary surgery in bigger animals is a colossal failure and in smaller pets is of no economic importance. Yet we pride ourselves on assuming the designation of Veterinary Surgeons. We are in reality more of physicians than surgeons. So a very long course of training is unwarrented by the nature of the profession and more than four years is really superfluous for present requirements in India.

There are certain fields of activity, which are legitimately the domain of the veterinarian and the scope of study should fit in so that the student may take these responsibilities. These duties are:

(i) Cure and prevention of disease
(ii) Animal Husbandry
(iii) Marketing of animal products and inspection
(iv) Veterinary research.

At present he is called upon to shoulder only item No. (i). Item No. (ii) is the domain of the veterinary department only in certain Provinces and hotly constested in others. Item No. (iii) is not in our hands. As regards research it is highly regrettable that practically all important posts in the Imperial Veterinary Research Institute are filled by non-veterinarians. In this connection please compare those of School of Tropical Medicine, Calcutta. So we are not masters in our own kitchen.

Lastly, it is worth while to ponder why on earth a student should go to England for higher Veterinary training while the highest training in Law, Medicine, Engineering etc. can be had in India itself. The conditions of India and England are quite different; for example Pig may be an important livestock in England but is of little consequence in India. As a matter of fact it is found in experience that a locally qualified student seems to be much superior than the one qualified in England. But unfortunately, people who are in a position to introduce some reforms in Veterinary Education, have got this alien culture and outlook and hence cannot get the spirit Indian, for Veterinary work, and cannot visualise what is suitable for India.

Taking all these things into consideration the following plan of reform in Veterinary Education is best suited for Indian conditions and this plan also does not involve items of a revolutionary nature, but will easily fit in with the present state of affairs. This will result in a cheap efficient, and dignified status to the profession.

1. Each University should have a Faculty of Veterinary Science or as an alternative, each Province should have a College of its own affiliated to the respective Universities.

2. The number of students in the first year of studies should not be more than forty.

3. The course should be based on matriculation. In this connection it should be noted that the Science Colleges

all over India except the United Provinces have responded very well to the demand upon them in the subjects of Physics and Chemistry but have been unable so far, to any marked extent to provide due instruction in Biology, which preliminary subject remains to be dealt with as part of the Medical or Veterinary education. It may be this small anamoly will disappear in course of time but it may be also that it is extremely desirable that instruction in Biology should be given in the Veterinary Colleges, where later on the subjects of comparative anatomy, physiology parasitology, entomology.....etc., will be continued as offshoots of Biology.

4. The course should be of four years duration. This will be within the means of many and will not be too costly. If it is longer the Government will think it anamolous that wheras the Medical man has to study four years his confrere in the animal practice should study for a longer period.

5. The degree should be known as B. Sc. (Vet). There should be two examinations one at the Intermediate stage and the other at the degree standard. If necessary this qualification should be on a par with the B. Sc. in pure science for Federal and Provincial competitive examinations. The idea is that the education envisaged above should not be treated as a profession but as a science, just as physics, chemistry etc.

6. There should be uniform syllabus.

7. Specialisation should be a post-graduate one and should be conducted in the affiliated colleges, in the Imperial Veterinary Research Institute, Imperial Dairy Institute etc. The Universities should offer a M. Sc. degree by examination or by a thesis, or a university diploma, in the subjects specialised in. *e.g.* Diploma in Bacteriology or M. Sc. (Parasitology).

8. The teachers in the University Colleges should be uniformly designated and their pay and prospects should be such that they should take their work, as life mission and should not be eager after administrative posts.

9. If the similie of almamater and alumni should hold good, M.R.C.V.S. should not be given any preference over those degree holders; and for those few posts which may require foreign qualifications suitable state scholorships should be offered to the Indian graduates.

10. Lastly, what is most important of all—the pay of the Veterinarian—should atleast be such that it may attract the right type of students and will not penalise them for selecting veterinary science as a career.

11. Those who have taken diplomas after a brief preliminary training should be eligible to appear for the B. Sc. (Vet).

VETERINARY EDUCATION IN INDIA

By

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Importance of Veterinary Education in India

Veterinary service is a force like a battalion of guards, safeguarding the wealth of the Indian peasant. It secures the foundations of agriculture against chance upheavals of earthquakic movement, political or economic, and ensures him against most of the calamities that are his common lot these days. This neglected subject is coming once again to the limelight of popular notice. Veterinary education has been the Cinderella of Government Education Departments in India. It originated as a half-hearted attempt at immitating the veterinary arrangements of European countries.

Indeed much elaboration is not needed to prove the immense benefits that accrue to a country through veterinary science. The veterinarian does not merely relieve the sufferings of our dumb servitors but he helps materially to conserve the vast wealth of the nation, invested in its fields, flocks and herds. The benefit to the Indian peasant

cannot be overlooked in visualizing the agricultural conditions of the country.

India is a continent in itself with its varigated physical features, chiefly agricultural and the importance of this profession should be considered as the first asset to the improvement of the country as a whole. Real India lies in fields and pastures, in the milking cow and the ploughing ox, at the manger and in the furrows. The problems of rural India are actually the improvement of livestock population which is of the greatest economic concern for the peasant. The greatest wealth of the peasant is his cattle. His oxen till his fields, draw water for his crops, and after the harvest, separate husk and straw or work his sugar pans and finally when his product is ready for the market, they are the only means of transportation from village to the town. Thus from start to finish his every activity and paraphernalia of life is centred round the cattle which is his right hand in all agricultural processes.

It is at this stage worth while to recall the reasons which led the Government of Bombay to establish the Bombay Veterinary College. In their resolution sanctioning the opening of the College then the Bombay Government stated: "It is difficult to overrate the importance of agriculture and agricultural stock in India; and seeing that the value of agricultural cattle, which perish from Plague and other epidemic diseases in India is calculated at 6,000,000 sterling per annum (1883), it is obvious that any measures which would tend to check this great mortality and heavy loss by increasing the knowledge of the nature and remedies for the various diseases, which attack cattle, and provide a class of persons competent to treat scientifically the different maladies, to which cattle are subject, would prove of immense advantage to the State and to the innumerable owners of livestock, comprising the mass of the cultivators." These reasons as setforth by the Bombay Government have increased yearly in importance and weight.

In his presidential address to the third All-India Veterinary Conference, Principal MacGregor of the Bengal Veterinary College, stated: "Without looking even into approximate figures, a casual glance at existing facts, such as that of the number of veterinarians in India, relative to area and cattle they tend, may suffice to prove the colossal task we have in front of us. It works out at one veterinarian to 1-1/2 lakhs of cattle in every 700 square miles, whereas in the United Kingdom, the figures approximate one veterinary surgeon to 5,241 cattle in every 51-1/2 square miles." This gives a faint idea of the enormous field for expansion and development of Veterinary science and education in India. The present staff of the Veterinary Service is therefore totally inadequate to cope successfully with the problems presented in any one branch of the work, either in research, teaching or executive.

Education in Foreign Countries and in India

The Government of India will do well to take a leaf from the example set by the most progressive countries in the world. In America, on the continent and in England its importance is recognised and the number of Veterinary Colleges is increasing day by day. It will be superfluous to enumerate the different Colleges existing in different countries. Suffice it to mention that the product of these Colleges with its thorough study in science, with its courses of study and planned curriculum, one cannot underrate the achivements so for attained by them. In Germany, France, England, Switzerland, Spain, Italy, Portugal, Hungary, Belgium and America, the number of Veterinary Colleges is legion and all are centers of research and highest teaching and affiliated to the Universities.

From a cursory glance at Veterinary Education in foreign countries it is evident that sufficient importance is not given to this science in India. There are at present five Veterinary College in India, namely at Lahore, Patna, Calcutta, Madras and Bombay, financed by the provincial governments concerned. Out of these Veterinary Colleges

Lahore and Madras Colleges have been affiliated to their respective Universities and grant degrees. The rest three offer only diplomas and are just aiming affiliation to their respective Universities.

Need for Highest Veterinary Education in India.

In 1922 at the Bombay Veterinary Graduates Conference now known as Bombay Veterinary Medical Association held at Surat under the Chairmanship of Khan Bahadur Sir Gulam Hussain Hydeaitulla then Minister for Local Self-Government of Bombay, and now Premier of Sind, I had moved the first resolution urging the necessity of affiliation of the Bombay Veterinary College to the Bombay University.

In my memorandum on "A plea for better Veterinary Education in India submitted to the Royal Commission on agriculture under the Chairmanship of the Marquess of Linlithgow in 1925 I had drawn some suggestions. To my gratification they have been adopted by two of the Colleges, and the rest, are travelling towards the same goal.

The Royal Commission on agriculture in their report (in paragraph 250) have made concrete recommendations that for an enlarged and more efficient veterinary service two types of courses are necessary in India (a) for having Veterinary Assistant Surgeons at the existing veterinary colleges and (b) a central college for imparting advance training in veterinary science.

The 2nd meeting of the Animal Husbandry wing of the Board of Agriculture and Animal Husbandry held at Madras 1936 had recommended the establishment of a new Central Veterinary College and that it should be established at Izatnagar.

It is a matter of great regret that after 60 years of existance the growth and progress of the Veterinary science in India has been retarded. Out of the existing 5 Veterinary Colleges only two Colleges of Madras and Punjab are affiliated to the Universities. The Central College is not

established. Therefore, India has still to look to the Royal College of Veterinary Surgeons in England to give her sons the highest training to make them fit to hold superior posts in the country. Now that the Government of India have formulated their one thousand crores development scheme we appeal to the Government to allot sufficient sum for the establishment of the Central Veterinary College in India at Izatnagar.

(a) This College should be called the Imperial College of Veterinary Surgeons.

(b) Its graduates should be Members of the Imperial College of Veterinary Surgeons in the same way as the Graduates of the Royal College of Veterinary Surgeons in England are M.R.C.V.S.

(c) The syllabus of courses should be practically the same, with minor additions and alterations to suit Indian conditions as for the M.R.C.V.S. diploma course in the United Kingdom.

(*d*) Since the recognition by the Royal College of Veterinary Surgeons of the Diploma awarded by the Government of India will be essential, it will be necessary to bring out at least one officer from Great Britain annually to inspect the Imperial College and to take part in the examinations.

(*e*) The Colleges of Bombay, Bihar and Bengal should be immediately affiliated to the respective provincial Universties.

(*f*) Also the prospects of the Veterinarians in the lower Government service should be raised to a higher standard so as to enable them to lead a decent life worthy of their profession.

ANIMAL HUSBANDRY DEVELOPMENT

By

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The present World turmoil and the striving of nations to become more self-sufficient and in many cases actual starvation are forcing the Indian cultivator to renewed efforts in his fight to obtain a living for himself and family. The Veterinary department should not be unmindful of its increased responsibility in assisting the Indian cultivator in handling vexatious animal husbandry problems under these trying circumstances. But the limited number of trained men and also the insufficient training given in the different colleges, bars such a progress in our country. In the light of these things therefore, the following suggestions are made with the hope that the colleges would not only turn out more graduates per year but also better graduates. The Imperial Council of Agricultural Research in its Memorandum on the "Development of Agriculture and Animal Husbandry in India" estimates the need for 5,000 qualified Livestock Officers at the rate of 420 a year. The same report suggests that there should be nine Veterinary Colleges in India imparting four years graduate training and that in the final year there should be specialization in one branch of Animal husbandry. I would suggest, in addition to the special course in the final year, the Veterinary Colleges should also have Graduate Schools, which should offer opportunities for advanced instructions and research to as wide a constituency as possible. The Graduate School may either be under the direction of the Graduate Faculty in which case the post-graduates should get their M.V.Sc. or D.V.Sc. degrees on the mertits of their works or if it is not under the University, the College should give a diploma in Animal Husbandry.

Whether for giving the special training in the final year class or for the Graduate School, it is essential that each college should maintain a Model Dairy Farm of one or two

known breeds of the province and a Model Poultry Farm. There should also be a separate department for Genetics which should have a well-equipped laboratory, both for the small animals as well as for the larger domestic animals.

A vast amount of work has been already done in India and elsewhere. These works should be made available for study in the final year class, as well as for Extension service. An understanding and appreciation of the work already done in India is a necessity before launching on new problems. All efforts, however, should be done in bringing home to the Indian cultivator the facts in Animal Husbandry so far known for his economic advantage. The methods of feeding, breeding, management and disease control should be made known to the Indian cultivator by a wide extension service in each province.

In the Graduate School some of these problems could be taken up by individual students for investigation. The Graduate School should lay special emphasis on the graduate students for thorough aquaintanceship with the research problem.

The following serve as problems for research study.

1. *Livestock Feeding*—a study of the principles of feeding and the composition of the Indian feeds, practice in formulating Indian rations for various classes of livestock, and evaluation of feeds and feeding practice in different parts of the Province and the ways and means of correcting dietetic deficiency.

2. *Dairy Cattle Production*—developments and present status of the important dairy breeds of India; systems and cost of production, practices in breeding; the breeding of high class pure bred foundation stock.

3. *Dairy Cattle and Buffalo*—improvement, including physiology of reproduction and the application of genetics to breeding problems; immunological and inheritance problems in connection with contagious diseases.

4. *Principles of Breeding*—breeding experiments illustrating the principles of heredity; effects of selection; study

of animal breeding methods; evaluation and analysis of pedigrees; application of genetics to problems of livestock.

5. *Inheritance*—studies on inheritance of milkyielding qualities in the Indian dairy cattle and Buffalo; fertility and dominance of sex in dairy cattle and Buffalo; body build and inheritance in some of the recognized Indian draught cattle: study of inheritance in animals.

6. *Fertility*—studies on fertility of Indian range cattle, dairy cattle, sheep and goat; the seasonal and climatic rhythm in the fertility of Indian cattle; influence of age and weight on fertility.

7. *Reproductive System*—studies on the reproductive systems of the domestic animals; studies on the development of the female genital tract of the domestic animals; the function of the generative system, the determination of the specific sex characters and their relationship with sex glands; the genetic and operative evidence relating to secondary sexual characters.

8. *Organotheraphy*—studies in organotheraphy; studies in the disorder of sex glands in domestic animals; studies on the abnormal ovarian function in domestic animals; the relation between endocrine system and the formation of tumours; the behaviour of endocrine glands in diseases attributed to them.

9. *Endocrinology*—the physiology and chemistry of the hormonal glands; the relation between different hormones; vitamins and hormones; the autonomic nervous system and its relationship to the hormonal system; the preparation and bio-analysis of hormone.

10. *Sterility*—studies of the bovine female sterility; studies on the diseases of Vulva and Vagina, cervix and uterus, fallopian tubes and ovaries; functional sterility.

11. *Experimental studies*—on the implantation of the ovum of sheep and goat from the stage of the Bilaminar Blastocyst to completion of fetal membranes.

12. *Cyclic changes*—in the ovaries and uterus of the domestic animals and their relation to the mechanism of implantation.

13. *The effect of inanition*—in the pregnant animals; studies on fetal absorption; studies on abortion.

14. *Nutritional improvements*—for milk production and longevity of the Indian cow; nutritional relationship with endocrines and sterility in the Indian bovines.

15. *Nutritional Physiology*—of the Indian cattle; nutritional value of the local fodders; nutritional value of milk from cows and buffaloes fed on different Indian grasses; Nutritional value of pasture feeding to the dairy animals.

16. *Under-nutrition*—in calves, foals, steers, milch animals and its relation to metabalism, digestion and subsequent re-alimentation.

17. *The Vitamins*—for the Indian cattle; the effect of ensilage on the vitamin contents of different Indian cattle fodder.

18. *Respiration Calorimeter*—studies of Indian livestock.

19. *Artificial insemination*—in livestock.

20. *Cytoplasmic structures*—in seminal epithelium of the domestic animals.

21. *Studies on the standards*—of utilization of Indian stud bulls of different breeds and ages.

22. *Studies on the animal vitality*—and efficiency under prolonged and restricted Indian straw and hay diet.

23. *Metabolism studies*—of the Indian domestic and laboratory animals.

24. *Studies on the influence*—of breed, feeding, and season on the fat content of milk, creaming of milk, size of fat globules, quality of cream, improvement of quality, method of treatment and influences of acid cultures.

25. *Studies on the possibility of reduction*—in the cost of running a small dairy in Indian village. The different economic conditions should be studied.

The above problems are merely an indication of the type of work for investigation in our country. Regarding the possibility of such researches, there are a multitude of problems in our country which requires investigation.

The Veterinary Colleges should also publish bi-lingual monograph series as the record of a particular subject or series of related investigations. This should be distributed free to libraries and other institutions and to such persons as may require them. The College should issue monthly Bulletins containing several short articles based on different phases of the College work and written for the purpose of illustrating the practical application of the work to the agricultural and animal husbandry conditions of the province. And lastly the College should publish as 'Research Bulletins' all those original works done by the College and post-graduates. All these publications should be made available to the Extension staff for educating the general public and particularly the Indian cultivator.

Ignorance and poverty has ruined the Indian cultivator to the last degree. There should be a concerted measure to improve the situation by the judicious introduction of such changes in routine village management which would tend to reduce the calf-mortality, the incidence of epidemic diseases, and the unthrifty condition of the livestock. The scientific management of dairy animals, breeding, feeding and marketing their produce should be properly instructed and the cultivator encouraged to improve.

Admission to the Graduate School should be based upon the under-graduate work as well as on the actual work done in the field. In general all the Veterinary Graduates whether of three years course or four years course who have put in more than three years of practical work in any animal husbandry farm should be given special consideration for their admission.

For the Degree of Master of Veterinary Science (M. V. Sc.), the following should be the regulations:

1. The minimum period of residential study in the college should be one academic year.

2. The preliminary preparation required to obtain the degree in one academic year should be the diploma course in veterinary science.

3. If there is deficiency in the three year course, this must be made good by giving additional subjects before the candidate is finally approved for the degree.

4. An additional term of residence of at least six months is required of candidates whose general preparation is found inadequate.

5. As a part of the major work the student should carry on research, the results of which should ordinarily be embodied in a formal thesis and it must be approved by the major professor under whose guidance it has been worked.

6. At the termination of the work the condidate must pass an oral examination to be conducted by a committee appointed by the University.

For the Degree of Doctor of Veterinary Science. (D.V.Sc.):—

The degree of Doctor of Veterinary Science is not to be earned by the length of residence, nor by doing a prescribed amount of work. Special qualifications should be required, particularly the power of original research, which should be shown by the production of a thesis, which should embody an important contribution to knowledge and should be presented in good literary form.

The followinug should be the regulations:—

1. The normal residence study required should be three years. In the case of those who have obtained the M.V.Sc. only two years.

2. Major Study: The candidate must select a major study falling within one of the departments.

3. Minor Studies: Supplementary to his major study, a candidate is required to pursue one and may pursue two, minor studies. The minor study or studies may aggregate from one-fourth to one-third of the time required for the degree. The minor study or studies should regularly lie outside the major department.

4. At least nine months prior to final oral examination, the candidate must secure from the departments in which his major and minor subjects lie a formal recommendation of his candidacy.

5. Candidates must pass an oral examination two hours in length on the subjects offered for the degree, before a committee appointed by the University.

6. A thesis formally attested by a committee appointed by the University should be required of all candidates.

For those who are serving in the existing Veterinary Colleges, there should be special exemption for the normal residential requirements but must he admitted by the virtue of their thesis, for these degrees direct.

A considerable number of fellowship and scholarships should be instituted for the benefit of graduates. To promote interest in problems of investigation and for training in the presentation of results, numerous clubs and societies should be established.

The All-India Veterinary Association should address the Inter-University Board for its opinion and recommendation to the Indian Universities the need and urgency of introducing Animal Husbandry Education.

Extension service:—According to the receent reports India has 200 million bovines of which one-third male, one-third female and one third young stock. The average amount of milk produced by an animal is 750 lbs. in a year. This shows that the improvement of the dairy cows has not kept pace with the increased demand. It

has also been shown that the Iudian cow is also capable of reaching a maximum yearly yield of over 12,000 Lbs. This disparity is entirely due to a lack of improvement. Innumerable cultivators are keeping milking animals of inferior and unprofitable types today, the production of which could be exceeded by better feeding, breeding and management by at least three times. The increase in production would be a great boon to the country.

The improvement of livestock as well as the maintenence of any improvement which may have been achieved necessitates strict adherence to certain fundamental principles of breeding and management. The cultivators do not understand and realize the importance of these principles and consequently fail to profit by them. There are some who realize their importance but apparently lack conviction or possibly executive ability which would enable them to realise better returns for their labour. Not only is knowledge required for the successful management of all classes of livestock but also untiring energy and perseverance, prompted by the keenest possible interest fn the end to be achieved. It is evident from the inability and failure of the cultivator to improve their livestock that a well organized Extension Service is most urgently needed that will educate, encourage and help the cultivator to better his condition. It should be the function of the extension service to impart to the cultivator all the information regarding the improvement of the livestock and also to get the correct information of the existing conditions. The extension service should be the connecting link between the Research and the cultivator so that the benifits of research may be used for economic ends.

ESSENTIAL ASPECTS OF FUTURE VETERINARY EDUCATION

By

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Education in general sense is the foundation of the building of the moral, material and the cultural developments of any nation; and hence the mould and the standard of national character, thc nature and the levels of scientific investigations, the system and the intensity of industrial developments, the mode and the standard of living of the people and consequently the type of mentality and the degree of creative abilities of any nation, are determined by the type., the standard and the extent of education imparted to the people.

The right type of education in any country, therefore, is national nursery of body and mind, ideal of which must be to ensure proper, orderly and fullest developments of all inherent and intrinsic physical and mental potentialities of the people, to fertilise them with the full quota of the existing knowledge of the art or science or profession concerned, to encourage the germination of the thinking power and creative abilities, and to facilitate the harnessing of all the human energies for the national good by grafting on them the idealism of the national good.

Any plan or system of education of any art, science or professlon must, therefore, have a definite idealism before it and the necessary facilities for fostering and developing in the rising generation of the country such attributes as are essential for the attainment of the set ideals; without the former an educational system is an aimlessly wandering ship without an anchor in a vast ocean; and without the latter it is a mass production machinary of misfits and unfits, which the country cannot make use of. Any system of education divorced from the idealism, and devoid of necessary facilities shall have to be considered as a waste of human energy and of the public funds.

What fundamental facts hold good in the case of education in general, hold good in the case of Veterinary education too. It is therefore, necessary to analyse the position of the Veterinary Science, determine its place in the scheme of national services and to decide its idealism and accomplishments before devising a proper system of education.

Veterinary Science and its place in National services :—

Veterinary service, in its restricted sense, as it was understood up-till-now, was a scientific service of public utility meant for conserving the livestock of the country by saving it from premature deaths and avoidable disabilities. This was the conception of Veterinary service in India till recent past. Things have, however, changed vastly and in right direction too. The national and the logical idealogy of the Veterinary service occupying proper place in the livestock affairs and economics of the country has been materialised in many important provinces and States in India. and is expected to be materialised in others, which are still lagging behind.

The future conception of the Veterinary Science and consequently of Veterinary Education must, therefore, be based on what is most national and most useful to the country as a whole. We have got a defininite lead in this respect from the principal guiding body in India. The memorandum on development of Agriculture and Animal Husbandry in India of the Advisory Board of the Imperial Council of Agricultural Research has now clearly laid down that "Thc logical division is into a department of Plant Husbandry and Animal Husbandry" and further that "The idea of Animal Husbandry Department is to have a staff that will be qualified to deal with all aspects of Animal Husbandry."

The Veterinary Departments are, therefore, to be full-fledged Animal Husbandry Departments and hence the nature and the scope of the Veterinary education must be so adjusted as will enable fostering in the future staff of the Animal Husbandry Departments, all the attributes as are essential for efficiently conducting alround activities of Animal Husbandry which will ultimately lead to the attainment of

the ideals of the development plans of the country. There must, therefore, be a harmonious co-ordination, firm linking and close identity in the idealism of the education, of the departments and of the development plans of the country.

Idealism of Veterinary Science

"The aim and the object" as the above referred memorandum states of a plan "of development must be the furtherance of human well-being, the promotion of welfare of the people, and the improvement of their standard of living, including the raising of their level of nutrition," by ensuring "adequate quantity of goods and services". The same must, therefore, be the aims and the objects of the Animal Husbandry Departments and hence our educational plans must envisage the essential need of (i) imbibing the spirit of the country's development plan and (2) of fostering necessary attributes in the personnel of the Animal Husbandry Departments for the fulfilments of the plans. This means our educational system must not rest content with only the imparting of the scientific knowledge of Animal Husbandry to the students, but must endeavour to bring about change in their outlook in regard to the human affairs and the new values, broaden their views in regard to their duties and responsibilities and generate in their hearts the true spirit and idealism of the service.

Animal Husbandry can concisely be defined as a science of Animal Industries and the Animal Husbandry departments as the official agencies responsible for enabling the Ryat to scientifically explore and commercially exploite all the sources and resources of the livestock wealth of the country. Animal Husbandry department thus a nation-building scientific department of economic and public utility, its staff must possess (i) adequate scientific knowledge of all aspects of Animal Husbandry, (2) economic outlook of animal industries and (3) the sublime spirit of public service or the idealism of development plans.

Our educational plans must recognise the vital importance and the correlation of these three aspects of Animal Husbandry

education as the products of our educational institutions are meant for making use of their scientific knowledge for the economic development of the country and for the benefits of the public at large. These three aspects can, for the sake of convenience be concised into only two aspects, namely (i) the scientific aspect, (ii) and the ideological aspect of education, as the economic aspect is a common factor to both. These two aspects deserve some consideration in details as they are the key stones of the education, though it is not possible to discuss them fully in this small article.

Scienticfic aspect of education.

This aspect covers the plan of imparting theoretical and practical knowledge of all fundamental and applied sciences and of practices associated with Animal Husbandry to the students, or in other words it may be described as the aspect of scientific and professional accomplishments of Vetetrinary Surgeons.

Animal Husbandry departments require staff of various capacities and calibres to do various types of work. One can however, broadly divide the staff into three groups on the basis of their functions and jurisdictions, (i) research staff, (2) extension or development staff, (3) and supervising and co-ordinating staff. Under extension staff there will be again two classes, (a) graduate or fully college qualified staff (b) and non-graduate staff or staff of stockmen catagory. I am not going to consider in this article the aspect of education of the non-graduates, but of only graduates, as they are the foundation of the Animal Husbandry service, and as from amongst them will have to be selected suitable people for research work or for the posts of supervising and co-ordination duties. They are further the joining link between the research workers on one hand and the stock-owners on the other hand. Actual executive duties, organisation of the work in the country and the supervision and guidance of the stockmen etc. shall have to be done by them, and hence they must have comprehensive knowledge of all the aspects of Animal Husbandry. What must then be the

subjects to be taught to them and what should be their scope? In reply to the first half of the question, I have given a chart on the plate No. 6.

The chart is designed to illustrate the main objective aspects of Animal Husbandry, and how they are correlated with the various applied and fundamental sciences and their branches and subjects. It is not possible in this short article to discuss the full idea of the chart and the implications of the various sciences and subjects, a few points, however may be illucidated.

The chart is divided into four fundamental aspects of Animal Husbandry on the basis of economic importance, and the relative utilities of different sciences and subjects, though it is by no means perfect in every respect. It, however, attempts to put closely correlated fundamental and applied sciences and subjects together with a view to illustrate the underlying objects of study of different sciences and subjects. It is necessary to be understood by every student, that the study of any subject is not an end in itself, but it is only a means of attaining something else related to the human welfare. Animals are bred and maintained for love or gain. The latter point is of common and greater importance from scientific study point of view. (Humanitarian or religious point has been left out of consideration for the present.) The economic efficiency of animals is, therefore, the primary objective of breeding and maintaining animals. This objective and outlook must, therefore, be the main pivot on which all other aspects must move and adjust their activities.

This economic objective can be achieved by exploitation of potentialities of animals, and that becomes possible only when (i) the improvement in potentialities can be achieved, and when the improved potentialities can be (2) maintained and (3) conserved or preserved. This becomes possible with the adoption of various scientific measures. What the related sciences are, what their fundamental basis are, and what their different branches and aspects are, are given in the chart. Opinions may differ as to the closeness of one branch of

science to the other, but the objectives might be considered as the fundamental basis. Any way, every student must be conversent with the fundamental principles of all the sciences and subjects mentioned in the chart and their practical implications.

I have stated in the chart only the names of the sciences and the subjects to be taught, but not the actual division of the subjects in different years and the requirement of the teaching staff. It is not possible to deal with that aspect in this article.

Another important question is in regard to (a) the basic qualifications for the admission to the Animal Husbandry College, and (b) the period of course. This question is of vital economic importance and particularly because sufficient students for the course are not coming forth because of poor emoluments. Either the scale of the pay of Veterinary Surgeons must be raised considerably high or the standard of basic qualifications and the length of course must be brought down. However desirable the first alternative may be, financial stringency is ultimately the determining factor. When expansion of alround Animal Husbandry services is desired, and when finances are limited, the course of education must be made cheaper, not however, lowering the efficiency at the same time.

It will be advisable to admit matriculates to the colleges instead of inter-science standard, and the degree course should be of 5 years at the most. The fundamental sciences like Zoology, Botany and Chemistry etc. should be taught in the Animal Husbandry College, but the scope of their teaching should be adjusted to the practical needs.

Possibly special text books for this purpose may be prepared. This adjustment would save about one year e.g. instead of two years in science college and 4 years in Animal Husbandry college after matriculation, the normal course should be of 5 years instead of 6 years. There should be only one degree course and not two courses of degree and diploma. There should be post graduates' courses too for specialisations in different subjects. This will enable the development of

Plate No. 6 **Vol. XXI, No. 4**

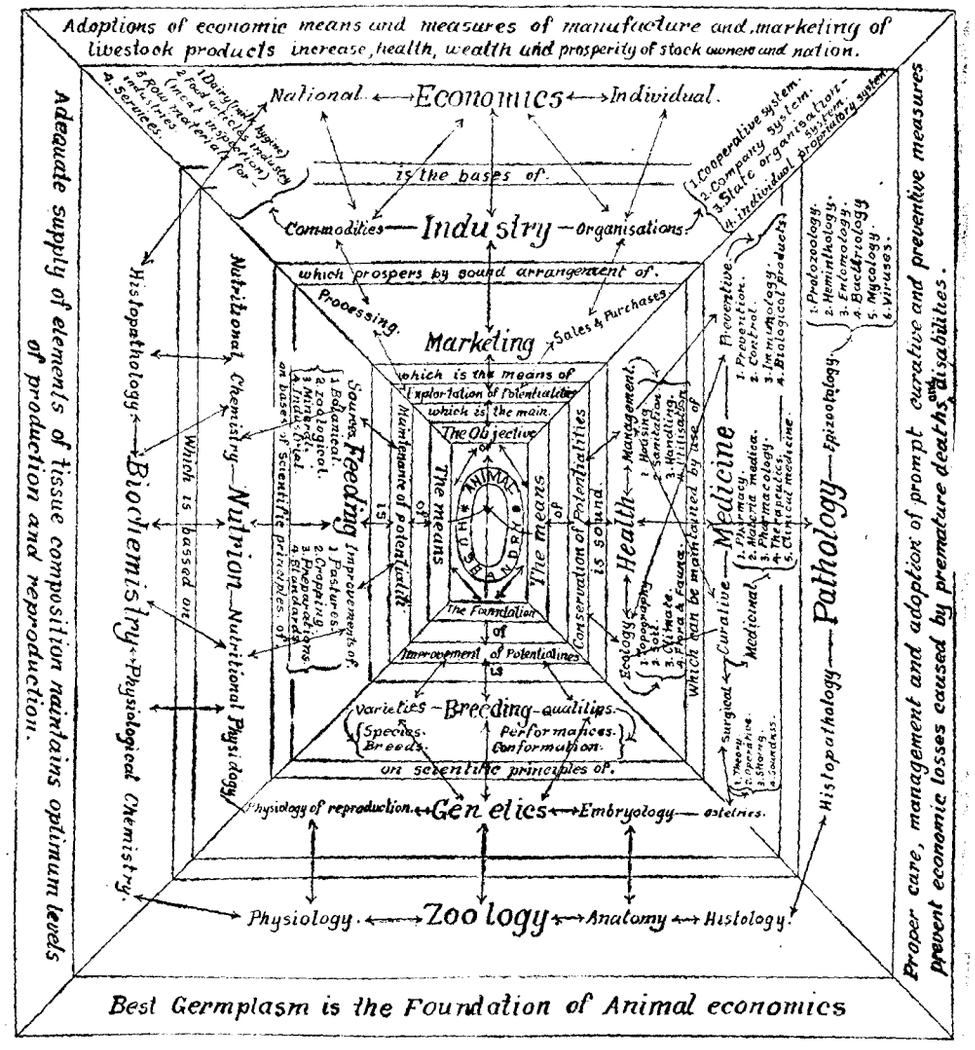

Chart Showing the Correlation between Different Fundamentals and Applied Sciences and the Practices Associated with the Animal Husbandry.

research workers for different branches, as well as facilitate solutions of different problems of Animal Husbandry. In fact, test for such type of work which helps in developing originality and observation power — should be created even from the beginning. In German colleges any student gets facilities to work in the laboratory of the subject of his liking during his spare time and guidance from the professors to prepare some paper. The roots of scientific developments in Germany, I think, lie in developing the originality of the students from the very beginning.

The system of dictating notes must be stopped. The lectures supply a volume of up-to-date information and give full perspective of the subjects to the students with a view to widen their outlook, to increase their thinking power and to enable them to study the subjects in its real sense. Simply committing the notes to memory narrows the angle of vision, full scope of subject is not understood, habit of real study is not developed, originality is arrested and the real object of education e.g. development of creative abilities foiled. We require vast improvement in this respect.

The aspect of scientific accomplishments must, in short provide the student with the full quota of the existing knowledge of the subject, as well as enable him to contribute his own quota to that knowledge. It is necessary to be understood that though every science stands on some fundamental facts, there is nothing like final word in every respect. Every science is a living thing and growing plant.

This is so for as scientific aspect of eduation is concerned.

Ideological aspect of education

Passing of an examination is not an end in itself, nor to secure a job—a goal of life—though that is the attitude of majority of people. There are no doubt certain peculiar circumstances in this country which are responsible for this attitude. But that will have to be changed. The idea that the completion of education means qualifying oneself for public service and the public service means a stage for the

display of one's creative abilities for the good of the country must dawn. This means the recognition of the fact that the service is not simply a means of livelihood, but a mission of carrying out economic development of one's country and thus helping thousand others earn their livelihood.

This implies bringing about a radical change in outlook, and for that purpose proper stress on sacredness of duties and responsibilities and the correlation between the fulfilling of one's duties and the good of the country is necessary to be laid. In short higher elements of human mind must be touched. If scientific aspect of education may be considered to be meant for developing qualities of head, the idealogical aspect may be considered to be meant for developing the qualities of heart. Unlike men of many other branches of sciences and arts, a Veternarian has to deal with common people of varying nature and has to secure their co-operation. He must therefore, know the art of convincing propaganda, right manner of approaching the people, skill of winning the confidence of the people and the principles of mass psychology. He must, in short, accomplish himself with the qualities of leadership. These qualities can come partly by training and partly by practice, though admittedly true leadership is an inborn gift and not a privilege of every body To achieve country-wide progress, however, the future Veterinary Surgeon, cannot afford to remain as a secluded person. He has to gain the confidence and the cooperation of the people.

In actual practice, there is, no doubt an anomalous position, of Vetcrinary Surgeons—in fact of every officer of development department—partly because of the want of power, partly because of the ignorance and short sightedness of the people and the village servants, and partly because of political back-ground.

An Officer of a Development Department at present is an officer without an official authority, a public servant without public support, a leader without followers and a missionary without missionary spirit. The people and the offlciers both have traditionally developed mania for offlcialism

and officialdom; the former do not pay heed to the latter, if he has no authority; and the later is invariably accustomed to feel somebody above the rest of the people. Naturally the latter feels that there is no sufficient response to his call from the people and the former, that the officer is a foreign element something incompatible with their social and economic order and views. This sort of disharmony is responsible for slow progress in many official activities to a great extent.

Animal Husbandry work is spread all over the country in every cottage of every village—and cannot be done simply by possession of scientific knowledge by worker, he must know how to make use of it to its fullest extent all over the country. This can be achieved only when the student will have a fountain of interest in his heart for development of his country and will learn to identify himself with the interests of the people.

Giving the lectures on conditions of country-side and country problems cannot be possible by the teaching staff if it is all the while in the cities. There must, therefore, be an interchange of research, extension and teaching staff, or at least lectures by the field staff on extension duties must be arranged as well as the students must be taken to different villages for practical training. There should thus be a horizontal and vertical coordination between research, extension and education.

In short, our educational institutions should aim at equiping students with comprehensive knowledge of theory of Animal Husbandry and the skill of its practical application, should facilitate development of originality and creative abilities, should generate love for their science and create interest for its fullest application, and thus should aim at bringing about a proper blending of qualities of head and heart or of achieving culmination of scientific knowledge and spirit of service in its real sense. A change in outlook is essential.

VETERINARY EDUCATION IN MADRAS

By

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The aim of the Madras Veterinary College has all along been to impart Veterinary Education of the highest standard. The course of studies at this College to start with was for a period of 3 years and the Diploma of this college was given to those who passed a theoretical and practical examination conducted by a Board of Examiners appointed by Government. So far back as 1927-28 there appears to have been proposal to improve Veterinary Education in this College by introducing a revised curriculum of studies extending the course to a period of four years, but it did not materialise for reasons not known to us. However, in the year 1930 the curriculam of studies was revised and enlarged, but the length of the course continued to be three years and naturally the course of studies became very intensive. The initiative in the matter of advising Government for any revision or alteration of the syllabuses and the period of study for the Diploma course was entirely in the hands of the Director of Veterinary Services. It is interesting to note that these revised syllabuses were almost a replica of those of the R.C.V.S., where the course extended over a period of five years. Within a few years after the introduction of the revised course it was found desirable to further raise the standard and the entrance qualification, with the object of getting better status and, to this end, the University was approached to institute a degree course in Veterinary Science. Early in 1935 a University Commission visited the College and submitted a a report in favour of affiliating the College to the Madras University. Thus this College became a constituent College of the Madras University and from July 1936 a University course came into being in addition to the already existing Diploma course. Introducing this University degree course one unique feature was also introduced, viz. while all the subjects of Veterinary Science were included for the Diploma course, many

important subjects like Anatomy, Surgery, Pharmacology, Therapeutics, etc., were excluded from the Degree course. Naturally therefore the Degree course became linked to the Diploma course. At that time the Diploma course extended over a period of 3 years or 9 terms and Degree course over a period of 3½ years or 10 terms. The introduction of the Degree course was certainly a laudable policy and is very sound. But it is unfortunate that this policy of having two types of Veterinary men—a G.M.V.C., and a B.V.Sc., instead of only one type, introduced a cleavage in an otherwise well-knit profession. The exact reasons for linking the Diploma course with that of the Degree course are not understood excepting that the Director of Veterinary Services wanted to retain for himself control over the Diploma course and thus on Veterinary Education. Again, later in 1938, with the idea of enabling the graduates of this College to become eligible for Commission in the Indian Army Veterinary Corps and also with the hope of obtaining recognition by the R.C.V.S., it was decided to extend the University degree course to 5 years. It had been realised that the syllabus for the Diploma course was too cramped to be effectively taught in three years. The syllabus was then so arranged as to spread the Diploma course over four years and the Degree course to 5 years. This was approved by the Government and the University.

The type of education received by the Diploma or the Degree students at the College is practically the same for the first four years and it is a matter for serious consideration why the Diploma course was not abolished forthwith. It cannot be gainsaid that the existence and perpetuation of two types of Veterinary Graduates lead to difficulties and tend to undermine the ***espirit de corps*** most essential to this small profession. The difficulties are real and are best seen in service questions.

The University can be trusted to look after Veterinary Education as a whole. The Director of Veterinary Services the Principal of the College, some senior members of the

Department and a few others, constitute the Board of Studies in Veterinary Science, where matters relating to Veterinary Education are discussed in all their aspects and therefore no harm can possibly be done if the control of the entire Veterinary Education is in the hands of the University.

In dealing with educational problems we cannot ignore the role played by the Teachers. In the year 1930 when the new regulations were introduced, the teaching staff of the College was increased by the addition of a few more lecturers Most of them were alumni of this college and some of the R.C.V.S.

The pay and prospects offered now are far from adequate and unless this defect is remedied the object of getting the best type of student to the college and the best type of work in serviee will remain only as a faint hope. Now that the activities of the Veterinary Department have been enlarged we want more men. There is so much work to be done by the Veterinary Department during the War and after it is over. It is not enough if the admissions to the College are doubled, the teaching staff should also be adequately strengthened and properly remunerated. Any improvement in any Department entails expenditure; and this one in particular although of great economic importance to the well-being of the animal wealth of the country, has not had its due share of recognition. That has been unfortunate and this should be rectifled immediately.

THE VETERINARY CURRICULUM

The following is an extract from the *Lancet* (June 3, 1944) on the second report of of the Loveday Committee on Veterinary Education which will be of interest to the Veterinarians. (*Ed. I. V. J.*)

"The committee feel that the adoption of their recommendations will open a border path for veterinarians who desire to read for higher degrees in science, and will bring university and veterinary students into a much closer association. In general this view will be strongly supported, but there are dangers which must be appreciated and guarded against. The importance of integrating and correlating preclinical

and clinical studies is well recognised; the out look of veterinary medicine is different from that of human because the saving of individual life is not always the paramount objective, economic factors and the control of disease in the herd being equally or more important. It follows that the bias of the preclinical subjects for the veterinary student should be different from that of the medical student. The committee apparently recognise that Pathology and Bacteriology, and Anatomy, are subjects which must be taught by specialists in the veterinary field; on the other hand, judging both by the content of the report and the proposed staffing, they do not consider that Physiology bio-chemistry, genetics, parasitology, and pharmacology require the same specialised study. This is surprising, for they are, fully alive to the increasing importance of animal husbandry and the necessity of careful clinical training; and in the first report they recommend that there should be a second year of applied physiology which is the only sound introduction on clinical methods of diagnosis. It must be admitted that in the past pathology and bacteriology have dominated the picture; the physiology and bio-chemistry of the farm animals have not been studied to the same extent, but now that their importance is realised it is essential that senior posts in these subjects should be created capable of attracting the best men for teaching and research. Judging by the proposals for staffing and salaries, it would appear that the colleges will provide greater scope in these fields than the University Schools. Physiology, bio-chemistry, genetics; parasitology and pharmacology are all subjects with a general scientific background but they can only be taught properly to Veterinary students by veterinarians familiar with their particular application to veterinary problems, and with the facilities and inclination to pursue their studies in the animals concerned. Generalisations are not enongh; a much more precise knowledge of these subjects as they apply to each species of the domestic animals is required; if this is not realised there is a danger that the whole orientation and outlook of the teaching may be wrong. William Youatt summed the matter up thus in the Veterinarian of 1839.

' We confess there are few things of which we have so much dread in the education of the veterinary pupil as these general systems of physiology, which are deemed by some persons to be so important. 'Every animal has a physiology of its own; and it is only by that knowledge of its conformation and its function, which it should be the object and duty of the attendant on that animal to acquire that a useful and satisfactory practice can be grounded.'

"Research at teaching centres fulfils a larger purpose than at specialised research institutions; it not only increases knowledge but provides material for demonstration, and is a source of inspiration to both teachers and students. The committee rightly emphasise that adequate facilities and time must be available for the staff to conduct research. It again emphasises the importance of the field station and extramural teaching to obtain practical experience. It fully appreciates the importance of the ruminant in veterinary medicine, and it is therefore a little unexpected that it recommends the dog as the type of animal for dissection. The sheep would be just as easy or easier to obtain and the student would gain first-hand experience of the most important type with which he has to deal."

THE
Indian Veterinary Journal
(The Journal of The All-India Veterinary Association)
Vol. XXI JANUARY, 1945 No. 4

Editorial

POST-WAR VETERINARY EDUCATION

There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune.
—"*Shakespeare*"

ONE of the most important questions confronting the Veterinary profession in India today is the Post-war Veterinary Education. This Global War with its unprecedented weapons of destruction and devastation has exposed in all its nakedness the great defects in our body politic. Shortage of foodstuffs and starvation of millions of human-beings have opened the eyes of the Administrations; and the consequential 'Grow More Food' campaign has not been such an unqualified success as one would wish it to be, mainly because Animal Husbandry, which is so closely related to Agriculture, has all along been a neglected subject. The necessity for a well-organised Veterinary Department in the different provinces with efficient officers in adequate numbers, to cope with the manifold activities of Animal Husbandry is being felt very keenly every day. The demand for qualified Veterinarians is becoming more and more insistent and we find that many a scheme of Animal Husbandry is being held up owing to paucity of staff. The extent of the paucity of the staff can easily be understood when one realises that for the whole of India there are only as many Veterinary Surgeons as there are in Great Britain. And yet, Great Britain is primarily an Industrial country and India besides being essentially agricultural is very much more extensive. This dearth of staff has

been the result of continued indifference and short-sightedness on the part of officers responsible for the working of the Veterinary Departments. There is no blinking that fact. Both officialdom and the public have been guilty in this respect and the Veterinary Department remained the Cinderella of the services—neglected, starved and discouraged. The few improvements that have been made have been solely due to the efforts of great pioneer British workers in this country, and let it be remembered with gratitude that they really worked against great odds with zeal and enthusiasm for the creation and development of the existing Veterinary Departments. They had a real live interest in their profession, they foresaw the requirements of the country and planned out the curriculum of studies in the newly started Veterinary Colleges that would be in the best interests of the country. If such workers had been succeeded by equally interested officers we would not now witness the sorry spectacle of great dearth of Veterinary staff in the country which is really oppressive and stifling. This tragic condition has been well brought out in a speech by Mr. J. T. Edwards (a former Director of the Imperial Veterinary Research Institute, Mukteswar) as published in the *Veterinary Record* of October 30, 1943.

"Entirely individualistic, and highly laudable, efforts had been made by a very few Veterinary workers abroad to study with all the scientific resources now forthcoming, the great problems around them, often in the face of intense discouragement, and even violent persecution, from the local officialdom and their compliant servers who did not wish to be "embarrassed" by the methods of pioneer workers. The great mass of recruits in the past, somehow, although resident overseas, were entirely ignorant of the real veterinary problems around them, content as they were to proceed with the existing methods and comply with requests of officialdom in matters of "administration" to while away their days. Nearly all the workers in India, he found, were more concerned about inspecting dispensaries, checking inventories, signing leave forms and writing "reports" than in looking themselves, using the skill bequeathed to them by their own professional

training, into the cattle to find out what macro-and micro-parasites, for example, they harboured, and to deal with the special problems they revealed. They had seemed to be content to use their own feeble and misdirected energies and those of their staffs merely to inject serum against rinderpest and leave it at that, without enquiring over much whether what they did was more harmful than useful. It could be stressed that many fascinating and economically important problems were awaiting them overseas which as yet had not been tackled with the enthusiasm and energy these problems richly deserved."

We must therefore bring to bear on the planning of the future our past experiences and learn to depend upon our resources. On this point also, Mr. J. T. Edwards is quite clear. To quote again from the *Veterinary Record*. October 30, 1943.

"Before he departed for India in 1921, he was consulted by the India office, in regard to the best method of implementing the Islington Report, to educate Indians of Provincial Cadre to the highest posts in the service. The view he expressed was in accord with that given independently by the late Sir Stewart Stockman, namely, that so far as possible facilities should be made available in that great territory which contained one-quarter to one-third of the cattle population of the world, to train Graduates within that country in as intimate a contact as possible with their own problems. Hence, after his arrival afterwards in India, a major portion of his own energies and of his colleagues (Bennet and Cooper) was directed for a few years to this essential preliminary in the solution of the Indian Veterinary problem, namely, the training of Indians themselves to appreciate and grapple with the task confronting them."

Now what is the kind of Education that the Veterinary Graduate should get? Is the Education imparted to the present day Graduate satisfactory? If not, on what lines should it be improved? Is there scope for higher Education in this country? Are the facilities for that Education adequate and satisfactory?

These are some of the questions that crop up whenever one thinks of Veterinary Education in this country. The first of these questions is the most impotant and it is best answered by another; what are the duties and functions of a Veterinary Graduate in this country? It is clear that the modern Veterinary Graduate cannot merely confine himself to the narrow limits of the treatment of ailing and sick animals. He has in addition to undertake the duties and responsibilities of production and distribution comprising the entire field of Animal Husbandry. He should be in charge of the whole lot of operations of the development of livestock from their cradle to the grave. He will have to bestow more and more attention to the preventive aspect of diseases than to the curative side. His aim should be to breed and develop animals which are less susceptible to and more resistent to diseases. This will require of him an adequate knowledge of Genetical, Nutritional and environmental factors in their relation to the development of livestock. He should therefore possess a broad based education not only of solely Veterinary subjects but also of basic sciences like Biology and Chemistry. His curriculum of studies should contain greater and greater stress on health conditions than on disease problems. Naturally it follows that that type of education to be effective and thorough should extend fairly well over a number of years and in suitable surroundings with a Farm attached to his educational institution. The course should neither be too cramped nor too extended. The former is not conducive to efficiency while the latter is uneconomic. A period of four to five years should be prescribed—the period of four years is possible only in those cases where the basic sciences of adequate standard are included in the preliminary Entrance Examination. The object of this course of study should be the efficient imparting of what we would call a Basic Veterinary Education and which should be the aim of every Veterinary College in our country. Judged by this standard we can unhesitatingly say that Madras and Punjab Colleges have given the lead to other Veterinary Colleges to follow in this country. The curricula of studies

at the Veterinary Colleges in these two places have been pronounced to be of a high order and could stand comparison with other Veterinary institutions in other parts of the world. But of course that does not mean we have reached perfection. There is no reason for complacency at all. It should be possible for the other Veterinary Colleges in this country to fall in line with these two Colleges and also to open a few more Colleges to meet the growing needs of the country. There are at present only five Veterinary Colleges in this country. A small country like Great Britain has nearly as many as four. This increase in the number is a real necessity even in the immediate future as otherwise there is a likelihood of Mass Education in the existing Veterinary Colleges leading to deterioration and inefficiency of teaching. Be it here remembered that a small 'Teacher-student' ratio is essential for successfull and efficient teaching and this is possible only when there are a number of institutions to meet the requirements.

A question that is commonly asked in this connection is whether the Education shold be under the auspices of the University or not. Fortunately for us, the opinion in this country is unanimous and it is readily admitted that Veterinary Education should be under the University. The Universities are the accepted seats of learning and it is but right that we, as members of a scientific profession, should have as our hall mark or recognition a University Degree. Every Veterinary College should be affiliated to the University leading to a Degree of B.V.Sc. Provision must also be made by the Universities for the award of higher degrees like M.Sc., Ph.D., and D.Sc. This will naturally result in the affiliated Colleges providing facilities for the conduct of Research and Post-Graduate studies. In fact, it should be the aim of every affiliated College—in our opinion there should be no Veterinary College without affiliation—to be a centre of Research with the Professors and Lecturers taking an active part in it. This will create an atmosphere and a spirit of Research in every Veterinary student from the very beginning.

Latterly we have noticed a tendency to revive the proposal for a Central Veterinary College for India to coach up students for higher services and one correspondent has actually suggested it. We thought the proposal had once for all been buried fathoms deep never to rise again; and we are therefore pained to see its ugly face raising itself again. We have all along condemned this proposal in no uncertain terms as it will not only cramp Veterinary Education in this country but also definitely leave a stamp of inferiority on the existing Veterinary Colleges which have been worked up to a high level of efficiency by patient workers. We extract on another page what we wrote about this proposal years ago and we have nothing further to add to it. The proposal should in the interests of the profession be dropped. While there is a crying need for more up-to-date Veterinary Colleges in this vast country, the suggestion to limit Veterinary Education to one Central College is too monstrous for words and will, we trust, be condemned by all who have the best interest of the country at heart.

Before we conclude, we appeal to the authorities responsible for Veterinary Education to take time by the forelock and take every possible step for its advancement. There is no lack of resources; the times are propitious; it only needs some forethought and planning.

OUR SPECIAL NUMBER

We are very glad that our appeal for contributions to the Special Number on Veterinary Education met with a very favourable response and we are very grateful to the contributors for so readily complying with our request in spite of the shortness of time.

Suggestions have been received for similar special numbers on subjects like Meat Inspection, Poultry diseases, Rabies etc., and we hope to bring out such special numbers in future with the help and co-operation of the members of the profession.

CENTRAL VETERINARY COLLEGE

We are reproducing below our Editorial on the Central Veterinary College which appeared in the 3rd issue of the 18th Vol. page 295 to 298 for ready reference of the readers.—(*Ed*)

The Animal Husbandry Wing Meeting which lately concluded its Sessions in Madras decided to recommend to the Government of India to establish a Central Veterinary College at Izatnagar to provide for higher Veterinary Education in the land.

While there is entire agreement with the principle that Veterinary Education of the highest standard should be made available in this country, the scheme as now contemplated for the establishment of a Central College is quite unnecessary, unjustifiable and extravagant. The fundamental idea behind the scheme is to obtain recognition of the Royal College of Veterinary Surgeons of the United Kingdom. The illogical implication of the scheme is that seven Members of the Royal College of Veterinary Surgeons from the British Isles are to be recruited to the staff of the College, besides a delegation from R. C. V. S., to inspect and satisfy itself of the standard of training imparted, and examiners obtained each year from the same country to ensure that the standards of training and examination in our country are equal to those of inter-national standards. This scheme in its broad outline is estimated to cost initially Rupees nine lakhs and over Rupees two lakhs annually. This estimate does not include outside teachers, and examiners' fees and expenditure in connection with the inspecting delegation.

Let us examine for a moment the needs and conditions of this country in relation to those of Great Britain. While the main aim of the British Veterinary Colleges has been to produce private practitioners, it is well-known that a different type of man is required for Animal Husbandry Work of all kinds in India. The most important work which a Veterinary man has had to cope with in the past, as he will have to do for many years to come, being the suppression and control of contagious diseases of cattle—which constitutes in the main the live stock of this country—the Veterinary Education should be on the lines best suited to India's needs and not modelled on the lines of the British Colleges where importance is given to equine practice. In regard to the inter-national standard of Veterinary Education on which so much stress is laid, it must be clearly understood that the system of Veterinary Education differs from country to country and no inter-national standard in Veterinary Education has been laid down. For purposes of inter-national trade, however, reciprocal understanding exists between certain countries, notwith-standing the length of the course of training varying from four to six years. It must also be realised that the volume of India's trade in live-stock products with Great Britain is not

so large as to shape the Veterinary Education of this country with a view to obtain the recognition of the Royal College of Veterinary Surgeons. To mention only two countries—Australia and Canada—have found it unnecessary to seek recognition of the R. C. V. S., in the interests of their live-stock trade.

It will be seen from what has been stated above that the conditions in Great Britain and India being so different, there is absolutely no justification for the proposed recruitment of Members of the Royal College of Veterinary Surgeons from the United Kingdom, while there are over 80 men, both Indians and Europeans, including Professors and Principals of Colleges, with the same British qualifications and considerable experience of the conditions and requirements of the country, who are better fitted to fill the posts with distinction in any Veterinary College training up to the highest standard. Further the type of men proposed to be recruited from abroad, though they may possess some teaching experience in Britain, cannot be expected to impart satisfactory training in diseases and conditions peculiar to India.

Now coming to the financial aspect of the scheme, there is no justification for this enormous capital outlay of nine lakhs of Rupees and the recurring expenditure of over two lakhs of Rupees for opening a new College, when there are at present five Colleges in India some of which at any rate could be developed upto the required standard with an initial expenditure not exceeding 4 % and an annual cost amounting to less than 10 % of what is proposed for the new College. Further the Central College is intended to pass out only about ten students every year, a large number of which will perhaps be absorbed by the Army leaving only a very few for employment in the Civil Veterinary Departments, where as if some of the Provincial Colleges are allowed to develop to a higher standard they would be in a position to train many more men according to the country's needs. The contention that the training of Indians in British Isles leading up to the Membership of the Royal College of Veterinary Surgeons is prohibitive, loses all its force because of the fact that the training in the new College is not going to cost the country any less.

Izatnagar, the proposed place is a very unsuitable one to start a College of this description. Izatnagar is an isolated area in United Provinces having Bareilly town close to it. This place has come to some prominence as the Sera and other Biological products for the Imperial Veterinary Research Institute Muktesar are now manufactured in this station. The Muktesar authorities are trying to develop Izatnagar as a sub-station for them as Animal Nutrition, Poultry Research and some other sections are at present located in Izatnagar.

But the proximity of Research Institute is only a desirable addition to a Veterinary College. The most important need is to have a wealth of clinical material of all kinds of animals and a small place like Izatnagar is not the area where such are available. There is not even a Veterinary Hospital at present in Izatnagar to supply this need. As the place is lacking in general scientific and cultural atmosphere a student of this College cannot be expected to have a broad and All-India outlook.

The All-India Veterinary Conference that met at Bombay during the Christmas holidays unanimously condemned the scheme of one Central Veterinary College by the Government of India as unsuitable and unnecessary to the needs of the country. The general feeling of the rank and file was that the originaters of the scheme are obviously trying to find employment to some Europeans who are to be paid highly in a service where the European element is getting extinct.

If the object in having the new College is to make India self-sufficient in the matter of Veterinary Education, then the logical course would be to make the fullest use of the resources in men and materials already available in India.

The Government of India instead of financing a New College should, while allowing development of Provincial Colleges to the required standard take immediate steps to constitute an *Indian Veterinary Council* whose function will be to lay down and maintain the requisite standard of Veterinary Education and to arrange for the conduct of examinations and grant of diplomas. This is the only suitable and satisfactory solution of the problem of higher Veterinary Education in India. consistent with the approaching Provincial Autonomy and Federation.

NEW YEAR HONOURS

O. B. E. (Civil Division.—on Capt. T. J. Hurley, M. R. C. V. S., D. V. S. M., I. V. S., Director of Veterinary Services, Madras.

C. I. E. on Mr. F. C. MINETT, D.S.C., M.R.C.V.S., Director, Imperial Veterinary Research Institute, Mukteswar.

We are glad to note that the Government have been pleased to confer the tittle of *O.B.E.* on Capt. T. J. Hurley and *C.I.E.* on Mr. F. C. Minett, in recognition of their valuable services. We congratulate them on their well-merited distinction and wish them greater Honours in years to come.

Association News

THE ALL-INDIA VETERINARY ASSOCIATION

THE INDIAN VETERINARY JOURNAL

Statement of Receipts and Payments for the year ending 30th June 1944. (Vol. XX)

RECEIPTS	Rs.	A.	P.	PAYMENTS	Rs.	A.	P.
To Balance on 1-7-43	3,874	3	3	By Paper, Printing and Blocks ...	3,140	3	0
„ Subscriptions	5,162	0	0	„ Postages	889	15	3
„ V. P. Postage recovered	75	6	4	„ Printing and Stationery	49	4	6
„ Advertisements	832	15	0	„ Rent	480	0	0
„ Interest	100	0	0	„ Salary	554	0	0
„ Reprints	39	2	0	„ Honorarium	1,000	0	0
„ Sale of Review Books	44	2	0	„ Bank Charges	6	6	0
				„ Audit fee	25	0	0
				„ Balance on 30-6-44	3,982	15	10
Total ...	10,127	12	7	Total ...	10,127	12	7

Examined and found correct.

K. GOPALAKRISHNA RAO,
Registered Accountant,
Auditor.

20, Thambu Chetty Street,
Madras, 24—11—44.

ALL-INDIA VETERINARY ASSOCIATION

(Madras Branch)

Proceedings of the meeting of the Managing Committee of the A.I.V.A. (Madras Branch) held at the Madras Veterinary College Library Hall on 4th January 45

Members Present:—

1. Rao Sahib K. Kylasamier (President), 2. Mr. K. S. Nair, 3. Mr. Md. Azizuddin, 4. Mr. M. Y. Mangrulkar, 5. Mr. C. V. Padmanabhan, 6. Mr. L. S. Parameswarier, 7. Mr. S. Vaithinatha Mudaliar, 8. Pangal Srinivasa Rao, 9. S. N. Vaithinathan, 10. Mr. V. Gurumurti, 11. R. Swaminathan (Secretary)

The Minutes of the meeting held on 6-11-44 were read and approved.

2. Mr. K. S. Nair reported that during his recent visit to Bombay he attended the Annual Meeting of the Bombay Veterinary Association on the 24th and 25th December 1944 and conveyed to it the greetings of this Association. His action was approved and Mr. K. S. Nair was thanked for availing of that opportunity and conveying the greetings.

3. *Resolved that the Association be "At Home" to Mr. T. J. Hurley, the Director of Veterinary Services, Madras, on Friday, the 5th January 1945 to felicitate him on the title of O.B.E. conferred on him recently.*

4. ***The President announced that the collections for the Panikkar Memorial Fund had reached a sum of Rs. 1,028-2-0 and invited suggestions about its disposal. The Committee resolved*** (a) ***that the Fund be kept open for some more time*** (b) ***that, out of the amount already collected, a sum of Rs. 1000/- be invested in Government Securities in the name of the Principal, Madras Veterinary College and that the interest on that amount be utilised to award a medal annually to the student securing the highest number of marks in the aggregate in the Final Diploma Examination at the first attempt in March.***

5. *Resolved to call a special meeting of the General Body of the Association on Sunday, the 11th February at 3 p.m. to adopt the revised rules and byelaws of the Association as approved by the Managing Committee.*

6. *Resolved (a) to hold a Provincial Veterinary Conference at Madras on the 6th, 7th and 8th April 1945 with Mr. T. J. Hurley as*

the President, (b) to request Mr. S.V. Ramamurti to open the Conference, (c) to form a Reception Committe for the Conference with the Managing Committee of the Association as the nucleus and with Mr. K. S. Nair as its chairman and (d) to fix a minimum of Rs. 5 as the subscription for a Reception Committee Member and Rs. 3. as the subscription for a delegate.

7. Resolved to address the President and Secretary of the All-India Veterinary Association to hold the Annual Meeting of that Association at Madras on the 6th, 7th or 8th April 1945 to resuscitate that Association and to elect its office bearers.

The meeting then terminated.

R. SWAMINATHAN,
Secretary.

THE ALL-INDIA VETERINARY ASSOCIATION,
(Madras Branch.)
PANIKKAR MEMORIAL FUND.
List of Subscription from 15-9-44 to 5-1-45.
(Continued from page 112, September 1944 issue).

	Rs.	A.	P.
Brought forward ...	960	2	0
Lt. C. T. Ramaswamy Naidu, I.A.V.C.	5	0	0
Sri K. R. Padmasundaram	5	0	0
Mr. George Ebenezer	3	0	0
Sri G. S. Kalyanasundaram	5	0	0
Prof. K. B. Nair, Bombay Veterinary College	10	0	0
Dr. D. S. Laud, Bombay	10	0	0
Rao Bahadur V. R. Phadke, Bombay	5	0	0
Mr. I. Md. Azizuddin Sahib Bahadur	25	0	0
Total ...	1028	2	0

Madras,
6-1-'45.

V. GURUMURTI,
Jt. Secretary & Treasurer.

THE BOMBAY VETERINARY MEDICAL ASSOCIATION

Resolutions passed at the Managing Committee Meeting, held on the 27th August and 26th November 1944 respectively and actions taken on them.

I "Resolved that the Government be approached for the revision of pay of the Veterinary Assistant Surgeons of the Civil Veterinary Department to Rs. 100-10-200, E.B., 15-275 selection grade 20 per cent Rs. 300 in view of the fact that the standard of admission is raised and the syllabus is enhanced and also because the service is not attracting sufficent number of candidates inspite of scholarships and concessions awarded".

Copies were forwarded to the Secretary to Government and the Director of Veterinary Services, Poona.

II. Resolved that the Committee of the B.V.M.A., notes with much concern the policy adopted by Government of Bombay of overlooking the claims, experience and qualifications of the senior members of the Veterinary Department while filling up higher appointments in Class I and Class II posts of the department and also brings to to the notice of the Government the growing dissatisfaction among the members of the veterinary profession in this Province and requests Government to do the needful in the matter."

Copies were forwarded to the Secretary to Government of Bombay and to the Director of Veterinary Services with the following endorsement of the President of the B.V.M.A. Association.

"I have the honour to enclose herewith a copy of the resolution passed at the B.V.M.A., for your information and kind consideration.

In this connection, I would like to state that a similar resolution was passed in 1943 and forwaded to you under registered letter No. 22 of of 31st January 1944 but no acknowledgement has yet been received. I may also state that there is great dissatisfaction among the members of the profession and ignoring the claims of the members of the department would lead to inefficiency.

I therefore suggest that atleast 50 per cent of the Class I and Class II appointments should be filled in by promotion of officers of proved merit from the ranks of the services and request you to give this matter your earnest consideration".

V. R. PHADKE, G.B.V.C.,
(Retired Principal, Bombay Veterinary College)
President. B.V.M Association.

THE BOMBAY VETERINARY MEDICAL ASSOCIATION

Twenty-Fourth Annual Conference, December 1944

PROCEEDINGS

First Day 24th December 1944

The Conference met at 4-30 P.M. on December 24th, 1944, in the spacious hall of the old Bombay Veterinary College in the premises of the Bai Sakarbai Dinshaw Petit Hospital for Animals attached to the College. Veterinary Surgeons from different parts of the Bombay Province, from Indian States and from Madras and many eminent gentlemen of the City of Bombay and Suburbs graced the occasion with their presence. The guests and members were received by the student volunteers of the Bombay Veterinary College and members of the Committee of the Association.

E.W. Perry, Esquire, C.I.E., B.A. (Cantab), I.C.S., Reconstruction Commissioner to the Government of Bombay arrived at 4-30 P.M. He was received by Rao Bahadur V. R. Phadke, retired Director of Veterinary Services, Bombay Province and Member of the Managing Committee of the Bombay Veterinary Medical Association. The President, after introducing all the members of the Managing Committee and the Principal of the College conducted Mr. Perry to the dais in the hall amidst cheers.

Mr. V. N. Kulkarni, retired Dy. Director of Veterinary Services, Bombay Province delivered the welcome address (***Appendix A***).

Prof. K. B. Nair, Joint Hon. Secretary of the Association read an illuminating report of the activities of the Association during the year ending 1944. He also pointed out the incessant efforts made by the Association since 1923 for affiliation of the Bombay Veterinary College to the University of Bombay and for the extension of the course of study to 4 years (***Appendix B***).

Letters and telegrams received from members and gentlemen who could not attend the conference owing to previous engagements or otherwise were read out. Among many, who sent messages, mention may be made of the following:—

(1) Dr. P. Srinivasa Rao, Editor, *Indian Veterinary Journal*.
(2) M. J. Desai, Esqr., I.C.S., Secretary to the Govt. of Bombay, Revenue Department.
(3) Sir Thomas Sinclair Kennedy, Kt.
(4) N. M. Mirchandani, Esqr., I.C.S., Municipal Commissioner, Bombay.
(5) Khan Saheb, J. D. Buxy, Retd. Dy. Director of Veterinary Serices, Bombay Province.

(6) Dr. D. H. Dudha, Principal, National Medical College, Bombay.
(7) J. G. Kulkarni, Esqur., Retd. Dy. Supt., Bombay City & Harbour Vety Department.
(8) C. N. Desai, Esqr., Retd. Dy. Director of Vety. Services, Bombay Province.
(9) Dr. Kathirvelu, Dy. Director, Vety. Department, Hyderabad State.
(10) M. K. Garudachar, Esqr., Retd. Divisional Vety. Officer, Bombay Province.
(11) Dr. P. N. Mane, Veterinary Officer, Kolhapur State.
(12) G. S. Cheema, Esqr., Principal, Agricultural College, Poona.
(13) Dr. B. B. Mundhe, Dy. Director of Vety. & Animal Husb. Deptt., Baroda State.
(14) Dr. G. A. Hardikar, Vety. Surgeon on deputation to Mukteswar.
(15) D. B. Kolhe, Esqr., Livestock Expert to the Govt. of Bombay Poona.
(16) Dr. P. G. Joshi, Vety. Surgeon, Civil Vety. Deptt., Bombay.
(17) Dr. H. R. Kulkarni, Vety. Surgeon, Civil Vety. Deptt., Bombay.
(18) Dr. A. Y. Shete, Vety. Surgeon, Civil Vety. Deptt., Bombay.
(19) Dr. N. V. Tamhankar, Vety. Surgeon, Civil Vety. Deptt., Bombay.
(20) Dr. Ghatge, Vety. Surgeon, Kolhapur State.

Rao Bahadur V. R. Phadke followed the Secretary and he in his speech observed that the Veterinary Department in the province is receiving only step-motherly treatment from Government; that in the interest of the country Livestock Department should be transferred to Veterinary Department; that younger Veterinary Institutions like the Madras and the Punjab Veterinary Colleges have instituted Degree Course in Veterinary Science long ago and that the affiliation of the Bombay Veterinary College to Bombay University should be done without delay; that in the Bombay Province, inspite of concessions and scholarships awarded by the Government, sufficient number of candidates was not forthcoming for the study of Veterinary Science as the present salary is megre and unattractive and that Government should atleast pay Rs. 125/- to Rs. 300/- to Veterinary Assistant Surgeons (Appendix C).

Rao Bahadur Phadke then requested Mr. Perry to open the Conference and amidst loud cheers he rose to address the gathering.

Mr. Perry addressing the members of the conference thanked them all and said that he agreed with the suggestion of transfer of Animal Husbandry Department to Veterinary Department, that the resolutions passed by the Association and forwarded to Government were carefully considered and that he hoped that Government will endeavour to redress the grievances of the Association has passed before it from time to time.

Principal Mohey Deen thanked the President and the Guests and the function came to a close at 6 P. M.

After tea, the Conference again met at 7 P. M. The following members were present :—

(1) Rao Bahadur V. R. Phadke.
(2) Mr. V. N. Kulkarni.
(3) Mr. K. B. Nair.
(4) Mr. P. C. Bapat.
(5) Mr. K. R. Alur.
(6) Mr. S. J. Khambete.
(7) Mr. N. H. Laxmeshwar.
(8) Mr. J. N. Barowa.
(9) Mr. S. P. Deshpande.
(10) Mr. R. G. Sathe.
(11) Mr. M. Mohey Deen.
(12) Mr. A. H. Khan.
(13) Mr. J. P. Damri.
(14) Mr. D. B. Khole.
(15) Mr. K. R. S. Aiyar.
(16) Mr. R. N. Naik.
(17) Mr. E. R. Kulkarni,
(18) Mr. Y. K. Velankar.
(19) Mr. D. R. Chavan.
(20) Mr. R. G. Dharwadkar.
(21) Mr. F. Pareira.
(22) Mr. P. V. Nagarsheth
(23) Khan Saheb N. D. Dhakmarwala.
(24) Mr. D. S. Laud.
(25) Mr. P. G. Date.
(26) Mr. G. R. Pathak.
(27) Mr. V. V. Nabar.
(28) Mr. H. H. Uttanwalla.
(29) Mr. G. T. Shah.
(30) Mr. R. D. Sarnobat.
(31) Mr. G. S. Patankar.
(32) Mr. H. R. Chandrasekharaya.
(33) Mr. F. S. Khambata.
(34) Mr. Mr. G. B. Shahane
(35) Mr. V. N. Vaishnav.
(36) Mr. M. A. Merchant.
(37) Mr. P. B. Umachgi.
(38) Mr. R. M. Hegdekatti.
(39) Mr. M. R. Redkar.
(40) Mr. L. S. Hiregoudar.
(41) Mr. H. R. Iraddi.
(42) Mr. K. S. Nair, Principal.
(43) Mr. S. R. Chadha.
(44) Mr. D. K. Desai,
(45) Mr. Y. S. Wakankar.
(46) Mr. S. N. Gadag.
(47) Mr. Ghulam Mohamed.
(48) Mr. G. B. Raichur.
(49) Mr. J. H. Unerkar.

The following office bearers were elected for the year 1945 :—

President—Rao Bahadur V. R. Phadke, Retd. Director of Veterinary Services, Bombay.

Hon. Secretaries—1. Prof. K. B. Nair, Bombay Veterinary College.
2. Mr. P. C. Bapat, Veterinary Asst. Surgeon.

Hon. Treasurer—Mr. S. R. Chadha, Asst. Director of Veterinary Services, B. P., Poona.

Members—1. Mr. E. R. Kulkarni, Divl. Vety. Officer.
2. Mr. D. B. Khole, Lecturer, Bombay Vety. College.
3. Mr. K. R. Alur, Lecturer, Bombay Vety. College.
4. Mr. N. H. Laxmeshwar, Vety. Asstt. Surgeon.
5. Mr. F. S. Khambata, Vety. Inspector Bombay Municipality.

After election of the officer bearers the conference adjourned to meet again the next day. The members retired for refreshment and dispersed at 9-30 P. M.

Second Day 25th December 1944

The Conference met at 1 P. M. and Rao Bahadur Phadke presided.

(1.) The minutes of the last meeting were confirmed. (2.) The statement of accounts for the year 1944 was adopted. (3.) Vote of thanks for the retiring office bearers was passed. (4.) The following are some of the resolutions passed :—

There was much discussion about the policy adopted by Government in re-employing pensioners and giving extensions to officers of the department. Many members opined that re-employment and giving extensions affect their prospects of efficient, qualified senior members of the department and they are definitely harmful to the interests of men working in the department, as their promotions are being held up and chances to show their ability and merit in discharge of functions of responsible posts are denied. After very long discussion the following resolution was passed.

(*a*) "This Association strongly recommends to Government that in the re-employment of officers in the Civil Veterinary Department no claims of the members of the department should be allowed to be adversely affected ".

Passed by overwhelming majority.

(*b*) " The Association requests the Municipal Commissioner Bombay Municipality to revise suitably the scale of pay of Veterinary Graduates employed in the Various services of the Bombay Municipal Corporation. "

Carried *nem con.*

(*c*) " The Association recommends to Government and other bodies employing Veterinary Graduates, to encourage suitable men by deputing to different institutions in India or abroad to specialise in different subjects in order to meet the requirements of the province in the improvement of livestock and thus avoid recruitment from outside, or to allow candidates to take education at their own expense for the benefit of the province."

Carried *nem con.*

(*d*) " This Association depreciates the distinction in emoluments and pay to Veterinary Assistant Surgeons appointed to posts of equal responsibility with the same educational qualification and resolves that Government be requested to remove the disparity of pay and to sanction the uniform application and new scale of pay to all Veterinary Assistant Surgeons employed in the Civil Veterinary Department.

Carried *nem con.*

Principal K. S. Nair of the Madras Veterinary College paid tribute to the Bombay Veterinary Medical Association on behalf of the Madras Veterinary Medical Assocation. The president suitably thanked Principal Nair and requested him to convey best wishes of the Bombay Veterinary Medical Association to the Madras Association.

The president then adjourned the meeting for reading and discussion of professional papers and the meeting continued with Principal Nair in the chair. The following papers were read and at the end of each interval discussion ensued.

(1) Acanthoma of udder skin in a she goat—by Mr. K. R. S. Aiyar.

(2) Bovine Surra, by Mr. A. G. Bhagwat.

(3) Diagnosis and treatment of co-existant infections in equines—by Mr. D. B. Khole.

(4) Entero-hepatitis in fowls—by Mr. S. P. Deshpande.

(5) Animal Parasites—by Mr. F. S. Khambata.

Principal Nair spoke on the educative value of reading professional papers and congratulated the members who have read the papers.

Mr. D. S. Laud proposed a vote of thanks to the chair which was unanimously carried with acclamation.

The conference terminated at 9 P. M. and the members dispersed after refreshments.

Appendix A.

Welcome Speech by

MR. V. N. KULKARNI. G.B.V.C.,

Retd. Deputy Director of Veterinary Services, Bombay.

Mr President, Gentlemen, Professional Brothers and Students of the Bombay Veterinary College,

It is my proud privilage as a senior member of the Veterinary Profession in the Province that I should be called upon to welcome Mr. E. W. Perry, C.I.E., I.C.S. and the other guests that have assembled here in kind response to our invitation and I do so with great pleasure on behalf of the members of the Bombay Veterinary Medical Association.

Mr. Perry, our chief guest of this evening, needs no introduction He is one of the most capable members of the Indian Civil Service in this Province. He joined service in the year 1915, served as Assistant Collector in Belgaum and other Districts before he became Collector

of the Bombay Suburban District in the year 1925. You might be knowing that one of the main roads of Bandra has been named after him in recognition of his services towards the improvement of civic life of that important suburban town. He also acted as Private Secretary to His Excellency the Governor of Bombay in the year 1921 and was subsequently appointed as Assistant Secretary to the Indian Statutary Commission. Later, he officiated as Director of Information and Commissioner of Labour Bombay, in the year 1933. He was Revenue Secretary during the time of the Congress Ministry and though suddenly placed in quite a new atmosphere he could fully satisfy the Minister in charge and others by his integrity of purpose, conciliatory spirit and accommodative temperament. He is now entrusted with an important and arduous work of Post War Reconstruction for which he had to be recalled from New Delhi, where he had recently gone from the Premiership of Kolhapur, the premier state of the Southern Maratha Country. I now quote an apt Sanskrit Stanza from Subhashit which so fittingly applies to our Chief Guest, Mr. Perry, and which means. "He who is interested in the King is hated by the people. He who is on the side of the people is forsaken by the King." Under such conflicting circumstances it is very rare to find a person who is liked both by the King and the people.

With these words I once again welcome you all.

Appendix B.

Report of the Secretary by K. B. Nair.

President, Gentlemen and Professional Brothers,

It gives me pleasure to lay before you the report of the Bombay Veterinary Medical Association. Before I read the report let me thank you all on behalf of the members for the honour you have given to our Association by your presence here this evening.

This Association was founded in the year 1921. It was then known as "Bombay Veterinary Graduates Association" and the membership was limited to Graduates ot the Bombay Veterinary College. To create better union among the members of the veterinary profession and to widen the scope, in the year 1929 by resolution No. 3, the Association permitted Graduates of recognized Veterinary Colleges to become members. To keep pace with advanced western countries add to be on a par with other Associations, in 1931 by resolution No, 1 the name of the Association was changed to "Bombay Veterinary Medical Association".

The Association had much difficulties in the beginning to thrive and the members had to work very hard and keep its existence, Gradually it made good progress and I am glad to inform you to-day that it is making

satisfactory progress and is able to maintain its prestige and good name by the good work done by the members of the Association.

The Association has received much help, advice and encouragement from many enlightened gentlemen of high position and the Association is grateful to them all. In this connection I may say that I well be failing in my duty if I do not mention the names of a few gentlemen who were gracions enough to open Conferences on various occasions and from whom the association received much encouragement and valuable suggestions for the betterment of the profession. The Association is especially grateful to:—

(1) Major William, Animal Husbandry Commissioner with the Government of India.
(2) Sir Gulam Husein Hidaytulla, Ex-Minister.
(3) Hon. Mr. Morarji Desai, Ex-Minister.
(4) Major E. S. Farbrother, I. V. S., Bombay Province.
(5) Sir H. F. Knight—Adviser to Government.
(6) Sir Thomas Sinclair Kennedy.

Since 1921 to date, in 24 years, five Veterinary Surgeons occupied the Presidential Chair as shown below :—

(1) Rao Saheb P. D. Maniar, Retd. Dy. Superintendent, Civil Veterinary Department, Bombay.
(2) Late Veterinary Surgeon, A. D. Lopez, Veterinary Inspector, Civil Veterinary Deptt., Bombay Province.
(3) Late Professor, V. E. Vakharia.
(4) Khan Saheb N. D. Dhakmarwala, Retd. Professor, Bombay Veterinary College.
(5) Rao Bahadur V. R. Phadke, Retd., Principal, Bombay Veterinary College.

There were 32 members in 1921. To-day there are 170 active members including ten life members. The total number of the roll is 231.

The committee consists of 9 Members, 1 President, 2 Hon. Secretaries, 1 Hon. Treasurer and 5 Managing Committee Members. The members of the committee this year are :—

1. Rao Bahadur V. R. Phadke—*President.*
2. Mr. V. N. Kulkarni—*Hon. Treasurer.*
3. Mr. K. B. Nair
4. Mr. P. C. Bapat } *Hon. Secretaries.*
5. Mr. Baruwa
6. Mr. K. R. Alur
7. Mr. S. B. Hanchlikar
8. Mr. S. J. Khambete } *Members.*
9. Mr. N. H. Laxmeshwar

The Association interests itself in matters concerning veterinary education and veterinary profession, development of livestock industry, food problems such as meat, milk and egg production and supply to the country especially that of this province, employment of qualified veterinary surgeons to posts requiring veterinary skill as those required in the S. P. C. A., Slaughter Houses, in the Zoo, Market and Health Department of Municipalites and ways and means to prevent death of livestock from contagious diseases. The Association also looks to the welfare of veterinary surgeons employed under various bodies, ventilates the just grievances of the profession approved by the Veterinary Medical Association and approaches and requests the employees to rectify remedy and/or redress their grievances.

Usually two meetings are held in a year. Urgent meetings are called when found necessary. During this year 3 meetings were held. Resolutions concerning veterinary profession and grievances of Veterinary Graduates were passed by the General as well as executive Committees in their respective meetings and communicated to the right quarters for necessary action. The following are some of the important resolutions passed and—communicated to proper authorities.

(1) This Association felt the need of improving veterinary education in this Province 21 years ago and resolutions requesting Government to extend the course of veterinary study to 4 years and to affiliate the Bombay Veterinary College to the University of Bombay were repeatedly passed in 1923 (Resolution No. 10), 1924 (Resolution No. 3) and again in 1938 (Resolutton No. 3).

(2) The Association repeatedly requested Government to transfer or amalgamate Livestock Department to Veterinary Department, 1st time in 1923 (Resolution No. 9), 2nd time in 1938 (Resolution No. 5), 3rd time in 1939 (Resolution No. 4). 4th time in 1942 (Resolution No. 4) and 5th time in 1944 (Resolution No. 8).

(3) This Association requested Municipal Authorities to appoint qualified Veterinary Surgeons to posts in Market and Health Departments where veterinary skill is required, and also to appoint veterinary graduates to hold posts where inspection of meat and milk is required, in 1924 (Resolution No. 11), in 1944 (Resolution No. 7).

(4) The Association suggested enforcement of muzzling of dogs in the City of Bombay to safeguard people against rabies in 1924 (Resolution No. 16).

(5) This Association passed a resolution to establish a vaccine and sera institute for the manufacture of different kinds to biological products required for veterinary use in this province in 1930 (Resolution No. 4).

(6) This Association resolved to introduce compulsory vaccination against Rinderpest in this province in 1938 (Resolution No. 4).

(7) The Association suggested to compel importers of milch cattle to get their animals protected against Rinderpest and to charge a nominal fee for expenses in 1942 (Resolution No. 1).

(8) This Association requested the S. P. C. A. authorities to device a provident fund or a pension fund scheme for the benefit of Veterinary Surgeons employed under the S. P. C. A. in 1942 (Resolution No. 11).

(9) This Association informed Government of the growing dissatisfaction existing in the department by the policy adopted by Government in overlooking the claims, experience and qualifications of senior members of the department while filling Class I and II posts and requested Government to do the needful to avoid further discontent.

(10) This Association requested Government to revise the pay of Veterinary Surgeons of the Civil Veterinary Department as the service is not attracting sufficient number of candidates inspite of scholarships and concessions awarded.

Inspite of appeals there are still heavy arrears from many members. The Association has functioned satisfactorily during the year, which is due to the kind help and co-operation received from the members of the Association and I thank them all. I now conclude by thanking one and all of you for your presence here this evening.

K. B. NAIR,
Hony. Secretary.

Appendix C.

BOMBAY VETERINARY MEDICAL ASSOCIATION

The 24th Annual Conference 1944

Presidential Address by

RAO BAHADUR V. R. PHADKE, G.B.V.C.,
Retd. Principal, Bombay Veterinary College.

Mr. President, Gentlemen, my Professional Brothers and Students,

I have great pleasure in according you all, the most cordial and hearty welcome here. We are very fortunate, indeed, in having Mr. E. W. Perry, C.I.E., I.C.S., Reconstruction Commissioner for inaugurating our Annual Conference this year and I am very thankful to him for his readiness in accepting our invitation and finding time while he is so busily engaged, in his new and arduous duties in evolving plans of Post War Reconstruction of Departments entrusted to his care and ours is one of them.

2. My friend, Mr. Kulkarni has already introduced our Chief Guest and I fully associate my self with all what has been said about him. Mr. Perry has been the Revenue Secretary for a long time. He was the Secretary of the Thomas Committee appointed by the Government of Bombay for retrenchment of expenditure in this Province. As a result of the recommendations of this Committee many institutions were recommended to be axed including ours. But his influence and foresight saved the situation. I am certain he knew that some of those drastic recommendations were not going to be accepted by Government. I came in contact with him as the Principal of the College and as the Acting Director of Veterinary Services and I always found him very sympathetic. His presence is a source of immense encouragement and augurs well for the future of the profession.

3. I need not go into the details about the activities of our Association, as Mr. Nair, our enthusiastic Secretary, has already narrated to you in his brief report. However, I would like to state that we have made very satisfactory progress in our membership during the year and also in other activities.

4. Gentlemen, our College was started as a pioneer Vererinary Institution in India in 1896 with a very high ambition by the Late Principal, John Henry Steel, F.R.C.V.S. but any how as destiny would have it, those ideals could not be fulfilled for reasons known to officials then in power. In the year 1930 Matriculation was made compulsary for admission to the College and since 1940 the standard for admission has been raised to that of Intel Science Medical Group, with a three years course with advanced curriculum. The Bombay University has now instituted a Degree in Veterinary Science B. Sc. (Veterinary.) and the course has been extended to four years after Inter Science. The

Government applied to the University for the recognition of the Bombay Veterinary College as a constituent College, qualified to impart instruction for the Degree B. Sc. (Veterinary.) of the Bombay University. Consequently the Syndicate of the University of Bombay appointed a Commission to inspect and report on the application for recognition. The Commission has only day before yesterday inspected the College and we are all anxiously waiting for a favourable report and hope to get the College affiliated from next year. The Madras and the Punjab Colleges are already affiliated and we are following in the making. You will all agree with me that we as a profession will have a due status then only as University Graduates.

5. The importance of our profession has always been ignored and a sort of step-motherly treatment meted out to us but now that importance is being realized we hope things would be moving faster than before. In the enthusiasm of extending the course of Veterinary Education the prospects of students did not receive the same attention with the result that admissions have decreased, thereby resulting in serious shortage of qualified men becoming available for appointments in the Department and elsewhere. Although Government sanctioned 60 scholarships as a sort of encouragement to students to join the college only 12 have joined this year. Why? the reason is not far to seek. The emoluments, I mean the inattractive salary offered and the paucity of higher appointments in the department failed to attract the recruits.

6. The demand for Veterinarians is very acute all over India. and would continue to be so for many years to come. But I am afraid, our college would not be able to supply the demand. The only remedy, therefore, is to increase the basic salary of the graduates to Rs. 125/- to Rs. 300/-, thereby increasing their status in the eyes of the public. I understand that the basic salary of the new graduates has been revised to Rs. 100/-. But this again has created considerable heart-burning and discontent amongst the old graduates with considerable experience serving in the department. I, therefore, earnestly request Government to consider their case sympathetically by giving them the same pay or more increments. Even Rs. 100/- do not go a long way in maintaining one and his family in these hard days. The Hon. Mr. Justice M. C. Chagla, Judge, Bombay High Court in his presidential address to the students on the College Sports Day (17th December 1944) rightly said "the pay offered is not even a wage for starvation" and further said that if his words were conveyed to proper quarters they would receive due attention. I am not blind to the fact that the present situation is responsible to a certain extent in not being able to get sufficient number of students.

Propaganda

7. This has been suggested as one of the means in increasing the number of admissions to the College. Sir, no wordy propoganda could be of any value for success in increasing the number of admissions unless the entrants are assured of an increase in their basic pay with good scale and increase in

the number of higher appointments not only in Government Service but also in States and Municipalities and other private Institutions to which they can look forward to. Then only the existing members of the Veterinary Profession would be the best propagandists.

Recruitment to Highter Posts

8. Encouragement should be the policy of the Government in recruiting members to the higher ranks. I mean the claims of the existing members of the services should not be over-looked. Lack of training to suit a particular post can be overcome by giving training in particular branch of study to suitable men in their employment. Over-looking these facts would result in discontent and indfficiency,

Live Stock

9. Importance of Livestock to this country has been brought to the fore by the Royal Commission on Agriculture in the year 1926. Rather after the report was published in the year 1928 and it is admitted since then that the country's Livestock is the greatest asset. As a result of the recommendations progress has been made in various directions in the last decade but much more is needed to be done and this fact has been placed in the fore front in "Planning for the Future of the Bombay Country Side". In our province just before the war broke out there were about 10 million cattle and buffaloes and 4½ million sheep and goats and innumerable poultry, but now I am afraid due to the present war conditions in as much as the Government is faced with a serious deficit in supplying the normal needs of the people, considerable decrease in the Livestock population has taken place as indicated by the soaring prices, a farmer has to pay for his draught cattle and the public in general, for supply of meat, milk and food stuffs. Unless adequate steps are taken by way of conservation and raising of Live Stock and providing sufficient feed and fodder our present and future progeny would be physically worse off. The Veterinary Department's activities have been really restricted to disease, its treatment and control and it did not attract the attention of the Government or the public to the same extent as the Agricultural Department did. The study of animals in health and to know the essentials in maintaining them in health for performing different functions is equally important (if not more) as the study of disease, its pathology and cure. It is high time that Livestock section is handed over to the Veterinary Department. As an Agricultural Graduate is concerned with plant life a Veterinary Graduate is concerned mainly with animal life and the latter is more fitted to deal with animal breeding, be it for draught, milk, food wool or eggs by virtue of his education and environment. Livestock health is the index of prosperity of any nation and Livestock disease indicates it poverty.

10. If this grievance of ours is not redressed by Government as is done in other major drovinces, like Punjab, Madras and Central Provinces etc. we shall ever be smarting under that feeling of inferiority complex and this would hinder our progress.

Meat Inspection

11. This is another problem which should receive earnest attention of Government and Municipal Authorities all over the Province. Meat Inspection should be carried out by Veterinary Officers and not left to lay men as is the case in many towns. Diseased meat is a great source of danger to public health as there are many diseases—Bacterial and Parasitic —communicable to man, to be brief half hazzard inspection carried out by lay men should, therefore, be stopped. The prevalent insanitary conditions of slaughter houses almost all over the province (Bombay City of course included) are well known and as such should be condemned and new slaughter houses built up on modern lines. If the control of slaughter houses is left to a Veterinarian he would be in a position to prevent effectively the slaughter of animals fit for breeding and draught work, Besides this, the work of disease investigation, especially incidence of Helminths and Tuberculosis and various other diseases will be facilitated.

Inspection of Victoria and Tonga Horses

12. In most of the cities this work is entrusted to the Police Department with the result that unsound animals are passed and allowed to ply for hire. This is harmful to the animal itself and inconvenient and annoying to the passengers. To prevent this, inspection of horses, by a Veterinarian before passing them, should be made compulsary by legislation.

Milk Supply—Cattle Sheds and Stables

13. The milk producer owes a duty to the public to supply clean and pure milk. There are very many diseases transmitted to man through the agency of milk. The source of contamination of milk can be the animal itself, a diseased milker or the insanitary byre—many producers are ignorant about these simple facts. The conditions of byres particularly are far from satisfactory in Municipal areas while regular inspection is supposed to be carried out under rules. When a defaulting stable owner is hauled up before the court of law he prefers to pay a fine imposed on him by the Judge rather than improving the insanitary conditions and do the necessary repairs to his byres. Both these matters are of great importance from public health point of view. Stringent measures should be adopted so that the regulations are duly carried out. I hope the authorities concerned would delegate the duties of inspection to the Veterinary Staff under them.

14. The problem of supplying pure milk in cities is already enganging the attention of Government and various associations of the producers and I am sure the problem would be solved if properly tackled.

Employment of Stockmen

15. The recent scheme of training stockmen to assist the Veterinary Assistant Surgeons, in his field work, in the way of carrying out inoculations, castrations and attending to minor ailments of animals, requires a good deal of expansion. If Veterinary aid is to be made available to all the nooks and corners of the province, they should be compared to the field Kamagars in the Agricultural Department, at least three stockmen should be employed in each Taluka. This would relieve the Veterinary Assistant Surgeon of his routine work of inoculation etc. and his energies then could be more effectively utilized for disease control work as well as animal husbandry problems. I would, therefore, suggest that the period of training should be at least 9 months to a year, which will automatically raise his standard and efficiency. The pay of these stockmen should be the same as that of Kamgars.

Preventable Diseases of Livestock

16. The most important disease among cattle is Rinderpest and this disease now is being controlled all over India by inoculating animals with goat virus (blood or spleen tissue). In the case of milking animals, serum is given simultaneously. It is an acknowledged fact that the immunity conferred is of a long duration. This, however, would entirely depend upon the viability of the virus, at the time of its use. Unfortunately the virus, both blood and spleen tissue, does not remain viable for more than 5-6 days during winter and in summer months not more than 4 days, depending on atmospheric temperatures. In almost all other provinces the virus is being despatched in thermos flasks packed with ice. In Bengal and United Provinces, desicated spleen tissue is being used, and even that is being sent in thermos flasks during summer months. The virus is being despatched from only one depot—I mean Bombay-by ordinary post parcel to all places in the province. As an emergency measure another centre was opened at Dharwar for about a year with the result that the virus could reach earlier in the Southern Division. The virus despatched from Bombay reaches very late especially to distant places and gets discolured unfit for use and thus has to be discarded. To solve this difficulty in my opinion three more centres, if not at least two, should be opened so that the virus will be in the hands of the user on or before the third day. In this province the production of dessicated spleen tissue is under experimentation.

17, Under the scheme of planning for the future of Bombay's Country Side we are happy to note that the Veterinary Department is going to assume full control of Veterinary Dispensaries and surely thereby more progress is possible. Also an Animal Husbandry Research Station and a Serum Institute for the production of sera and vaccines for protection of animals against various contagious diseases, are going to be established so that this province would be self contained, and won't have to depend upon other institutions. I understand considerable difficulty is being experienced in procuring vaccines and sera from the Mukteswar Institute.

I am afraid this question will have to be postponed for some time after the war. However, I would like to stress that the College be provided with a well equipped laboratory, the necessity for which has been long felt as far back as 1910, and that the same has been accepted before the war broke out and necessary funds have been provided, the work may be undertaken immediately as an urgent measure. Want of a laboratory is a serious handicap not onlo for research but also for imparting instructions to the students. I also understand that proposals for additional buildings are already before Government and hope at least some of them would have to be taken up very early to satisfy the requirements of the College under priority scheme. Under the new planning scheme it is gratifying to note that cattle breeding, sheep breeding and poultry breeding are going to be undertaken in various suitable centres and that five cattle dipping tanks are to be opened every year for the eradication of ticks thereby improving the general health of cattle and damage they do the hides, thus lessening its market value.

18. I have nearly come to the end of my speech and hope it has not overtaxed your patience in listening to me. However, I should like to crave a little more on your indulgence in giving me a few minutes more. I consider it my pleasant duty to thank the Joint Secretaries, Mr. K. B. Nair in particular and members of the Managing Committee for the whole hearted help and support they have rendered throughout the year. My thanks are also due to the Members of the Association who have attended the function in spite of the present difficulties in travelling. I am very much thankful to all the guests who have honoured us by their presence this evening,

19. Gentlemen, we are now in the sixth year of the second calamatous world war, but we are fortunate enough in being saved from the actual ravages due to the success of the Allied and Indian Arms in all the theatres of war and let us all pray the God Almighty for our final victory soon.

20. Wishing you all the compliments of the season, I once again thank our chief guest, Mr. Perry for having graced the occaion by his presence and I now request him to declare the Conference open.

Announcement

EMERGENCY COMMISSIONS IN THE I. A. V. C.

A list giving the names of the V. C. Os. who have been granted Emergency Commissions in the I. A. V. C. since July '44 is forwarded herewith.

2/Lt. U. K. Menon (Marked asterisk in the list) was granted a direct commission from the open market.

NAME	Veterinary College	Date of qualification	Date of Commission
2/Lt. Mohd. Shafi Ahmed	Punjab Vety. College	1942	25—8—44
,, Ajmer Singh Deol	,,	1942	,,
,, B. Benjamin	Madras Vety. College	1930	1—9—44
,, R. R. Raju	Bengal Vety. College	1935	,,
,, P. S. Kujur	,,	1935	,,
,, Lekh Raj	Punjab Vety. College	1938	,,
,, V. G. Khare	Bombay Vety. College	1940	,,
,, B. N. Sinha	Beugal Vety. College	1942	,,
,, J. M. Bujarbarua	,,	1943	,,
,, Om Prakash Anand	Punjab Vety. College	1941	,,
*,, U. K. Menon	Madras Vety. College	1944	28—10—44

Simla,
21—12—44

.....*Major,*
for D.V.S. in India.

INDIAN ARMY VETERINARY CORPS

A further list of Veterinary Assistant Surgeons employed as V.C.Os. in the I.A.V.C.

LIST OF

(*a*) V.A.Ss. employedfor duration of war and 12 months thereafter:—

1. V-319 Ris. Cl. II. Monohar Shankar Vaidya.
2. V-320 ,, Sachindra Nath Sarkar.
3. V-321 ,, Sayed Wahid Ahmed Naqvi.

Civil V. A. Ss.

(*b*) 4. V-5044 ,, Jagat Ram Shama.
5. V-5045 ,, A. N. Guha.
6. V-5046 ,, Balkrishen Dewan.
7. V-5047 ,, Dharam Paul,
8. V-5048 ,, Mohd. Ibrahim Maan.

9. V-5049 Ris. Cl. II. Moti Lal Bose.
10. V-5050 „ A. K. Agha.
11. V-5051 „ S. C. Thamb.
12. V-5052 „ Ch. Ghulam Mustafa Khan.

(c) *V. A. Ss. for Militarq Farms Department.*

13. V- 65 Ris. Cl. II. Ahmed Shah.
14. V-5301 „ Mohd. Din.
15. V-5302 „ Qazi Abdur-Rehman.
16. V-5303 „ Parimal Kumar Sinha.

Ambala Cantt.
15—12—44

O.C., I. A. V. C. CENTRE & RECORDS.

Extracts

INDIAN DEGREES FOR INDIAN GRADUATES

BY

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LIEUTANANT-COLONEL, I.M.S.
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The centenary of education in scientific medicine has been celebrated in several Indian universities. Practically all the principals of medical colleges in India and the great majority of the professors are graduates of Indian universities; the control of medical education in India is vested in the Indian Medical Council over which the distinguished Vice-Chancellor of the University of Calcutta presides.

Nevertheless, even today, the average Indian medical graduate seeking a higher qualification in medicine or surgery aims at a foreign diploma rather than at a higher degree from his own alma mater.

It is true that Europe and America have vast treasure houses of material and of opportunity ready for exploration. It is undeniable that it is desirable for Indian medical men and women to travel, to exchange ideas with their colleagues abroad, to see what is going on outside their homeland, and to gain experience in those departments of their science not at present fully developed in this sub-continent.

A very high proportion of the medical men who proceed overseas from India, however, do so in order to repeat study they have already carried out here, to read up and receive coaching in elementry portions of their work, devoting their days to study with undergraduates or only recently qualified men, and, their nights in dingy lodging with fellow Indians, to mugging up coaching notes and textbooks for a fellowship of a

Royal College of surgeons or a Membership of a Royal College of Physicians, or for one, two or even more of the elementary diplomas attainable by the average young house surgeon in England at the end of a year's house surgeoncy.

A man who goes to England merely to take a 'higher diploma' often studies only in the unit of the 'coach' under whom he places himself—generally a man of junior standing who depends on 'students grinds' for an important part of his income.

He does not see the work of the leaders of the profession, nor is his mind receptive of facts or impressions other than those likely to be regarded as orthodox and pleasing to the examiners who have to be faced.

Too often the Indian graduate embarks hastily on the first boat back to India after obtaining his parchment, and regards himself as a fully qualified surgeon, physician or specialist.

Much wasted time and money could be saved if young men and women graduates were given sound advice on the subject of post-graduate study. I am personally aware of the harm which can be done by bad counsel given in ignorance or without care.

I have known young assistants and tutors in physiology and pharmacology who have just managed to scrape together enough money to have a year or two in Europe before returning to their science departments, to be advised to go for the M.R.C.P. or F.R.C.S; I have known a biochemist to return M.R.C.P.E., D.T.M. & H.. without having visited or even seen any of the world famous departments dealing with his own subject in Cambridge, Oxford, London, Paris, Berlin or New York in which he might have spent profitable, delightful months—and all because of bad advice.

In the not too for distant future, we hope that some thousands of medical graduates will be demobilized from services, and many of those with considerable savings and a large gratuity will seek our aid with regard to 'higher studies'. Let us see to it that we teachers give the best possible advice and that every rupee is spent to the best possible advantage.

I may be asked why higher degrees and diplomas are necessary. The answer to that is that they are not necessary for every one. A man may be a perfectly good practioner or even a capable specialist without any higher degree or diploma. One of the most able surgeons in India holds the English conjoint diploma only: he has spent years in post-graduate specialist study in clinics abroad, but has not cared to take an examination which would guarantee to his fellow practitioners that he had submited himself to the severe mental discipline necessary for the passing of a higher examination.

We must remember that the bachelor degrees in medecine and surgery obtained by the young graduate at the end of 5½ years of professional study indicate only that he has absorbed the general principles of the subjects and that he has had contact with a fair sample of the various pathological conditions met with in practice.

A higher degree is intended to guarantee to the public that the practitioner has acquired skill in actual practice, has developed sound and mature judgment and that he has acquired the habit of reading the literature concerning his profession.

The prescription of appropriate 'qualifications' for certain posts negatives tendencies to nepotism and favouritism in the filling of appointments.

The medical Council of India has laid it down, too, that in future all teachers should have degrees. In this they were forestalled by the University of Madras which for some years has prescribed the higher degrees and diplomas and years of teaching experience required of candidates for teaching posts in colleges under its administration.

It is a curious fact that in India today it is easier to find M.R C.Ps., and F.R.C.S.s for higher posts than Doctors of Medicine and Masters of Surgery. In certain provinces the holders of Indian higher degrees are very rare indeed.

It cannot be gainsaid that the leading medical college hospitals in India are staffed by teachers of the highest quality, that their professional capacity is excellent, and that the clinical material at their disposal is unsurpassed in any part of the world, though autopsy material, which is so important for teaching, is not as plentitful as one would like.

Why then is there such a poor demand for higher degrees from Indian universities? Why this rush for the M.R.C.P. and F.R.C,S.?

One reason is that governments, railways and other employers have tended to favour Indian doctors who hold higher European diplomas but that is not the main reason. The chief cause is that the higher medical degrees of Indian universities have the reputation *amongst Indian graduates* of being so difficult to obtain that it is easier and even cheaper to go abroad for a few months and come back F.R.C.S.I. or M.R.C.P. Ed., rather than go on being failed year after year at home in India.

One has heard of examiners who insist on a minute acquaintance with the most up-to-date numbers of even quite abstruse foreign periodicals and of others who surround themselves with such an air of mystery and awe that the wretched candidates fail to do themselves justice. Some examiners have the reputation of never permitting candidates to pass at the first attempt.

I am well aware that many first-class examiners exist. I have derived great pleasure, and profit too, from association as an examiner with distinguished Indian physicians, but the fact remains that Indian higher degrees are looked upon, by many Indian graduates, as too risky to be worth while attempting. All this must go.

After nearly 20 years devoted mainly to problems connected with medical education in India and Burma, and after discussion with many teachers in this country and in Europe, I would plead for an effort to be

made by all concerned to popularize our own Indian higher degrees in medicine and surgery and to have them adequately recognized by all concerned in making appointments requiring proved skill and experience.

For the higher diplomas in medicine and surgery obtainable in Europe, only a sound knowledge of basic principles is required, but that knowledge must be sound. If we could convince our own pupils in India that a firm grasp of principles combined with good judgment and with real practical experience under an able master would be rewarded by a higher degree, we should do a great deal for the country.

The fanatical—no digitalis except in fibrillation, crime ever to plug the uterus, partial gastrectomy for all peptic ulcer—type of examiner can play havoc with the pass list unless he is out-numbered by more balanced colleagues.

A meeting of representatives from the medical staffs of all the Indian universities concerned might well be arranged in order to devise means for encouraging promising graduates to take higher degrees.

The pass standard should be that which could be attained by an average diligent—passed all undergraduate examinations at the first attempt —M.B. graduate with 3 years' experience after qualification—most of it spent in a teaching hosipital. The standard should not be that of a professor or assistant professor and the candidate should be able to get his book knowledge from the latest edition of large standard textbooks supplemented by judicious reading of one standard weekly journal such as the *Lancet*. Mental indigestion results from literary voracity and all delving by degree seekers in out of the way periodicals and monographs should be discouraged.

Time for rumination and cogitation is required.

Handling of many cases and seeing patients right through their illness from the first day to complete restoration to health or to the post-mortem room, are necessary for the acquisition of that experience and judgment which is essential in the holder of a higher degree.

Let us therefore aim

(1) At laying down a standard of experience necessary. Let this be. say, 3 years in a teaching hospital after graduation or 5 years in practice,

(2) At ensuring that the candidate knows how to look up the literature of a subject and to present facts and findings in an orderly fashion and that he has made good use of his time in hospital, by insisting on the presentation of case records with full annotations and commentaries (and in surgery and gynæcology with operation records).

Only those candidates who satisfy the board of examiners in the above respects should be permitted to take the higher examinations concerned.

All papers should be valued by all the examiners independently.

In the clinical examinations, all the examiners should work together. All vivas and practicals should be conducted by all the examiners together. Cranks may even go in pairs, and it is wise, in my experience, in such

higher examinations that every step in the examination, be submitted to the judgment of all examiners, sitting together and discussing their differences of opinion: It is absolutely essential to foster the belief in the minds of young Indian graduates that the day of obscure questions and of prejudiced and cranky marking has gone for ever.

So far as the specialities are concerned, we have in Madras instituted one-year diploma course in ophthalmology, obstetrics, tuberculosis and radiology, and the time has come for an extension of these throughout India and to cover all the usual specialities such as venereology, dermatology and orthopædics There is quite enough material in India to justify the institution of all the diplomas now given in London with the exception of a diploma in psychiatry—a subject almost entirely neglected in this country.

For what purpose should medical men and women go abroad and why should they go?

For the aspirant to a professorship or to any senior teaching post, a period of study overseas should be regarded as essential. A worker in any branch of science in India needs 'contacts' with leading men in his own field. It is often impossible to discuss details of a special advanced piece of research with another worker in the same line in India.

If an Indian is working along certain lines, it will be much easier to submit work of criticism to a fellow worker in Zurich, Madrid, or Birmingham if he has been there in person and made 'contacts' which should be renewed and strengthened as time and funds permit.

We have in India a fine body of general physicians and general surgeons but very few specialists in subdivisions of medicine and surgery.

The number of thoracic surgeons able to perform lobectomies or even thoracoplasties with the accustomed ease which comes from frequent repetition, is small; the neuro-surgeon is almost non existent. The number of refractionists and perimetrists in the ophthalmic world in India is astoundingly small, considering the material available; expert therapeusis of retinal detachment is extremely rare.

How many experienced endoscopists capable of reporting intelligently and with reliability on a stomach or bronchus are available in India today?

The demand for such specialists is insistent and must be supplied. It can be supplied only by Indian doctors (already thoroughly grounded in their subjects already possessing higher degress and the appropriate diplomas in their own country), who are prepared to put in hard work at one of the specialist clinics abroad, working perhaps for many months for example, with a man who spends his whole working life doing bronchoscopies or radiographing the lumbar spine or canalizing the prostate.

No intensive study of books is required. In the evening and week-ends the visiting doctor should mix with the inhabitants of the couutry visited make a study of their lives, their habits, their culture, music, art and literature

He or she will return to India not only more fitted than in the past to play the part of a specialist but also with a wider knowledge of what goes on in the great world outside India.

The general physician in a big city today has a poor time unless he is a senior consultant. The public wants the specialist and means to have him. Even the poorest of our outpatients knows on what day to come if his kidneys are out of order and to avoid certain days if he has a joint or bone disease.

Two subjects cannot at present be fully appreciated by the Indian graduate without a visit abroad.

One is the wonderfully beneficial effect which a devoted, educated and capable nurse can exercise on a patient. Nursing education in India, even in pioneer Madras, is still in a very uudeveloped stage, and the nursing care of patients leaves much to be desired. It is also impossible for one who has not visited Europe to imagine the high state of public health administration attained there, and post-graduate study in hygiene in Europe and America for Indian doctors is a crying need.

With regard to anatomy, physiology, pharmacology and biochemistry in India these have only recently been established as subjects in their own right.

As in Europe till the early part of this century, these subject have been taught in medical colleges till 1928 or so by men 'passing up' to clinical teaching appointments. This arrangement, inevitable at the time, has very properly disappeared and only pure specialists in these sciences are now employed in teaching them.

The standard of heads of departments is however not universally satisfactory because Indian college authorities still prefer to promote assistants by seniority to professorships instead of advertising senior posts. Keen young pharmacologists and physiologists find it difficult to obtain advancement or to get adequate research facilities, as the existing professors and their assistants are overwhelmed with routine teaching duties to an extent quite inconceivable in Europe. Young men keen on these laboratory sciences should work for the degree of M.Sc. in their own universities and then, if possible, go abroad to a laboratory of repute where they may pursue research work under one of the many inspiring and helpful professors who abound in Europe and America.

I should like to make some remarks about the prevailing habit of going abroad for a pass diploma in England, Scotland or Eire.

It has been an unfortunate fact that those medical men who, through ignorance, financial stringency or other cause, chose to enter the medical profession in India through the portals of a medical school instead of a medical College of a university have found themselves in a lower caste, the only hope of escape from which was a sojourn in Europe with a diploma registrable in the United Kingdom in view.

The University of Madras has for some years made it its business to help the deserving L.M.P: to rise, and I trust that before long all university bodies in India will take an active share in promoting the interests and educational uplift of this deserving class though, at the same time, maintaining their pass standard with rigour.

Our experience has been that after stern weeding out of the unfit those who remain to qualify for M.B.B.S. attain a high standard, and a number are eager to rise still further and in fact have done so.

Action on these lines will prevent waste of good money on foreign travel 'for lower studies'

Let us get rid of the prevailing tendency to insist on overseas diplomas rather than on overseas experience, on contacts with coaches instead of creators, and with tutors in place of inspiring leaders.

Let those who sail from India do so in order to reap a rich harvest of the world's bounty of advanced knowledge rather than to scratch over the ground which they have already ploughed.

——— *Ind. Med. Gazette, April 1944.*

Review

The Practice of Veterinary Medicine. By D. H. UDALL, B.S., D.V.M., D.Sc., Professor of Veterinary Medicine and Superintendent of the Ambulatory Clinic, Emeritus, in the New York State Veterinary College at Cornell University. Fourth revised edition, 1943. Published by the Author, Ithaca. New York. Price 6.50.

This book covers 709 pages and contains some very useful illustrations. The author has attempted in this book to discuss almost all the non-contagious diseases including some of the disorders of metaboliam, acute bacterial, virus and protozoan affections, and some metazoan diseases. An attempt has also been made to give an account of some of the important poisonons—mineral as well as vegetable—which the animals are likely to gain access to.

Most of the diseases are dealt with only briefly on account of the limited space. Some of the diseases of cattle, sheep and goats, *e.g.*, Parasitic diseases of the stomach, intestines and lungs, traumatic gastrics in ruminants, etc., etc., are given greater attention. Treatment with such preparations as Phenothiazine, Sulphanilamide, Sulphathiazole, etc., is detailed very well under the concerned diseases. Besides, the author has taken immense pains to give a very valuable bibliography under such disease. The book can therefore be recommended as a valuable addition to every Library and as reference books for practicing Veterinarians.

The book does not give much information on diseases of the urinary system and cardio-vascular system and it is also lacking information about such diseases as Diabetes Mellitus, Diabetes Insipidus, Rhematism, Lymphangitis, Myxoedeema, Exophthalmic goitre, etc,, and any canine or feline diseases. If such omissions are made good, the value of the book will be much enhanced.

Obituary

Mr. M. Thandavan Nair, a graduate of the Madras Veterinary College, graduated in 1912 and who has just retired from Travancore State service, died of heart failure at the age of 56, in his house at Trivandrum.

We convey our condolences to the members of the bereaved family.

Errata

(Vol. XXI, No. 2, September 1944),

In page 120 under heading Bihar Civil Veterinary Department in paragraph 1, line 8, for 'Senior Grade 12% on Rs. 100/-, read "2% on Rs: 100/-".

2

(1)	(2)	(1)	(2)

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