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29-9

[Despatch Abstract.]

Pasteur Institute

In forming the Govt. of India that this Govt. will be prepared to contribute towards the cost and upkeep of the _____ to be established in the Punjab, if other local Govts. do so & forwarding copy of correspondence on the subject to the Surgeon-General.

979
4-12-93

ENCLOSURES.

CURRENT No.

2272

STATEMENT WITH DED.

ORDER, &c., OF GOVERNMENT—A.

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16TH SEPTEMBER 1893, Nos. 771, 772, PUBLIC.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper :—

From C. J. LYALL, Esq., C.S.I., C.I.E., Secretary to the Government of India,
Home Department (Medical), to the Chief Secretary to the Government of
the Punjab, dated Simla, 10th August 1893, No. 488.

No. 158, dated the 3rd April 1893.

" 201 " " 22nd " "
" 189-S. " " 13th June "
" 423-S. " " 11th July "

I am directed to acknowledge the
receipt of your letters marginally noted
on the subject of the establishment by
private effort of a Pasteur Institute in the
Punjab.

2. From these papers it appears that a committee has been formed in the
Punjab with the view of collecting funds for the purpose of establishing in a suitable
locality a Pasteur Institute for the gratuitous treatment of cases of hydrophobia
occurring in India. It is further proposed, if the amount collected will permit, to
extend the institution so as to provide for bacteriological investigation into human
diseases other than hydrophobia and for the instruction of selected students in the
conduct of bacteriological study and experiment.

3. In reply, I am to say that the question whether such an institution could be
combined with the Bacteriological Laboratory for the investigation of the diseases of
cattle in India had already been considered by the Government of India, and they had
come to the conclusion that this would not be advisable and that the two projects
should be kept apart. They fully approve the proposal that an Antirabic Institution
should be established, from such funds as may be provided by the contributions of
charitable persons, with such aid from the State as it may be found practicable to
give; and in furtherance of the project they are prepared to give the services of a
qualified medical officer to take charge of the Institute when it has been established,
if a sufficient income can be guaranteed for its maintenance and a satisfactory scheme
arranged for its management. The Governor-General in Council is of opinion,
however, that it is premature at present to consider what further extension of bac-
teriological investigations into human diseases should be undertaken, or whether
students could be profitably instructed in bacteriology, until the antirabic objects of
the institution have been provided for and it is seen whether the results of the
committee's appeal to the public for contributions justify any extension of the project.

4. I am to say that the present correspondence, together with His Honour the
Lieutenant-Governor's Minute of the 5th May 1892, will be forwarded to Local
Governments and Administrations for their information, and for such further action
in each province as may be deemed desirable.

No. 489.

Copy, with copy of the letters from the Government of the Punjab therein referred to, and enclosures, and of the Lieutenant-Governor's Minute of 5th May 1892, forwarded to Local Governments and Administrations (except Bombay) for information.

(By order)

(Signed) H. LUSON,
Under-Secy. to the Govt. of India.

To the Government of Madras.

ENCLOSURES.

From H. MAUDE, Esq., Junior Secretary to the Government of the Punjab, to the Secretary to the Government of India, Home Department, dated Lahore, the 3rd April 1893, No. 158.

In continuation of the letter from this office, No. 236, dated the 11th of May 1892, I am directed to forward a copy of the papers noted in the margin regarding the proposed establishment of a Pasteur Institute in the Punjab, and to say that, as will have appeared from His Honour's Minute enclosed in that letter, Sir Dennis Fitzpatrick does not think that a scheme of this kind is one to be taken up by the Punjab Government alone.

From the Inspector-General of Civil Hospitals, Punjab, to the Junior Secretary to the Government of the Punjab, dated the 3rd March 1893, No. 642.

I have the honour to enclose a letter from Surgeon-Lieutenant-Colonel Roe, Civil Surgeon of Sialkote, forwarding, for the consideration of His Honour the Lieutenant-Governor, the outlines of a scheme for establishing a Pasteur's Institute in the Punjab.

As stated by Dr. Roe, the objects of such an institution are—

- (1) the treatment of hydrophobia in the human subject;
- (2) the preparation of pure animal lymph for vaccination;
- (3) as a school for teaching bacteriology and its practical application in the prevention of epidemic diseases among men and animals.

All these are of a definite and practical character, and from a medical and scientific point of view are of high importance, well worthy of the support of Government and of the public.

As, however, the benefits to be derived from such an institution are of general application, the expenses attending it should either be met from Imperial funds or equally by all Local Governments.

The Punjab Government is really not vitally interested in the matter, as during the past five years the total deaths reported from hydrophobia were only 522 or a yearly average of 104.4; and the Sanitary Commissioner informs me that he considers the present system of vaccination which has been introduced into the Punjab, viz., that direct from the calf, is in certain respects superior to that advocated by Dr. Roe.

I understand that the Government of India have now under consideration the propriety of establishing such an Institute as the one now recommended by Dr. Roe, and I would suggest that he should be associated with the scheme. He has studied under Pasteur for six months and subsequently under Koch in Berlin and he is eminently qualified to superintend the management and working of such an institution.

From Surgeon-Lieutenant-Colonel ROE, F.R.C.S., Civil Surgeon of Sialkote, to the Inspector-General of Civil Hospitals, Punjab, dated Sialkote, the 17th February 1893.

I have the honour to forward, for the information of His Honour the Lieutenant-Governor, the outlines of a scheme for the establishment of a "Punjab Pasteur Institute" which I have been directed to submit through you for such remarks as you may consider necessary.

2. The advisability of starting such an institution by voluntary subscription has been urged on me frequently by native gentlemen and European officers and ladies; and I have every reason to believe that it would meet with most liberal support from the native Princes and the general public, while its advantages and usefulness can scarcely be exaggerated.

3. I propose that the Institute should be mainly a teaching one, where the courses of instruction will closely follow on the lines of those delivered in the University of Cambridge, the Pasteur Institute in Paris and the Hygienic Institute in Berlin, so that every one who desires to avail himself of an opportunity of becoming acquainted with bacteriological science may have the means placed within his reach; secondly, I propose that all lymph which is required for vaccination shall be prepared here for the whole province. Thirdly, the Hydrophobia division of the Institute, which will be one of the most important, shall devote itself to the preparation of the virus for the treatment of rabies, gratis, for all who apply for advice and help.

4. That such an institution is most urgently needed can scarcely be gainsaid, where so many deaths occur annually from this disease; and if proof of this want be required, it will be found in the universal desire of the whole community, who warmly advocate its establishment in the province.

5. On the 5th January last, several native boys were bitten in Sialkote city by a dog supposed to be mad, and again on the 28th January another dog attacked several natives without any cause and bit them severely; both these animals were killed and brought to me, and I inoculated rabbits from them with the result that these animals all died in from 12 to 16 days with all the symptoms of dumb madness, the form it assumes in the rabbit, so that I have now in my own district five or six persons (natives) whose future life depends on the accident of their treatment by excision and cauterization being successful or not, but as at least 30 per cent. of those bitten die even after the most energetic treatment, the risk these persons run is enormous. These cases occurring so recently under my own special observation have induced me to draw up this scheme without delay, and I would most strongly urge the necessity of establishing some place where treatment can at least be given a trial, so soon as preparations can be made to start it.

It is proposed to establish an institute in the Punjab, somewhat similar to the Pasteur Institute in Paris, to be called the "Punjab Pasteur Institute."

The object of this institution is primarily for the relief of natives of India who are unable from poverty or other causes to proceed to Paris for treatment after bites of rabid animals, such an institution being urgently needed, as upwards of 2,000 deaths occur annually from this disease alone.

A second use for such an institution will be the preparation of perfectly pure animal lymph for ordinary vaccination purposes to be sent out to all places where required, thereby avoiding the present arm-to-arm system and the constant necessity for obtaining the use of calves from the zemindars. This lymph will be prepared from perfectly healthy animals with all the precautions which the present state of science shows to be needful.

Thirdly, the Institute will be a teaching one, in which three courses of lectures will be delivered annually, each lasting from 6 weeks to 2 months, on bacteriology and the means of applying this method of research to epidemic diseases amongst men and animals, these lectures to be open to all veterinary as well as medical students who have not had the opportunity of becoming acquainted with the recent advance of knowledge in this direction.

These objects will, it is believed, commend themselves to the native Princes of the Punjab and to all District and Municipal Boards, through whose generosity and liberality it is hoped that the Institute may become a reality; and it has only to be pointed out that under Monsieur Pasteur's system of treatment, deaths after bites from rabid animals have reduced from 80 in every 100 to little more than one death in every 200 bitten.

With regard to lymph for ordinary vaccination purposes, the present admirable method in use in Germany can at once be introduced into India, with the best results and at less cost than the present system in the Punjab.

As a teaching institute for veterinary students it may be pointed out that to enable native practitioners to study in a proper and scientific way the causes, course and methods of preventing outbreaks of epidemic disease amongst the cattle of the villagers among whom their duty takes them is the only means whereby the enormous animal losses in cattle may be in some degree prevented, and as this system has proved successful in France, there is every reason to suppose the extension of knowledge of a similar kind will be equally advantageous in India.

In return, therefore, for all donations and annual subscriptions the Institute will provide—

- (1) Treatment gratis for every person bitten by a rabid animal.
- (2) The preparation and production of pure animal lymph for ordinary vaccination purposes for the whole province.
- (3) The Institute will be largely used for teaching each native State; District Board and Municipality will have the privilege of sending one or more pupils as vacancies occur, to attend the course of lectures and instruction given. These pupils will pay a nominal fee to cover the wear and tear of the laboratory apparatus and instruments of which they will have the use during their course of instruction.

It is estimated that to start the laboratory with the necessary apparatus will require a sum of about Rs. 30,000 owing to the depreciation in exchange, and a further sum will be needed for a small and suitable building to be located in some accessible part of the hills, where the laboratory must be situated on account of the temperature required to perfect the virus (70°) and to prepare the vaccination lymph. It is believed that a suitable site can be easily found in the hills near Kasauli or Simla, and His Highness the Maharaja of Patiala would doubtless grant facilities for the erection of a building if one could not be purchased.

The amount to support the Institute has been estimated at about Rs. 3,500 per mensem, but if Government will give the services of the medical officers, this estimate would scarcely be felt.

From the Inspector-General of Civil Hospitals, Punjab, to the Junior Secretary to the Government of the Punjab, dated Lahore, the 7th March 1893, No. 669.

In continuation of my letter, No. 642, dated 3rd March 1893, I have the honour to forward another communication, dated 4th March 1893, from Surgeon-Lieutenant-Colonel W. A. C. Roe, Civil Surgeon, Sialkote, regarding the establishment of a Pasteur Institute.

From Surgeon-Lieutenant-Colonel W. A. C. ROE, F.R.C.S., Civil Surgeon of Sialkote, to the Inspector-General of Civil Hospitals, Punjab, dated the 4th March 1893.

With reference to my proposals for the establishment of a "Punjab Pasteur Institute," I now wish to add, for the information of the Punjab Government, that I have succeeded in establishing the virus necessary for the purpose of preparing for treatment.

After a good many failures, I obtained last month another supply from the Institute, thanks to the kindness of Monsieur Pasteur, and with this I again experimented and have at last succeeded, so that we have now in India the "virus fixe" at the 341st passage through the rabbit, the same that is used in Paris to prepare the vaccine.

I have also been fortunate enough to have had the opportunity of observing the disease in rabbits raised from a rabid dog on the 23th January last, running side by side with the same as raised by the Paris virus, and this was a most important point to determine whether the disease in both cases ran the same course or if it was in any degree modified by the climate of India.

My observations so far have shown that it is in all points exactly similar to the disease in Europe; but seems to have a more lengthened period of incubation in the case of the country virus when directly inoculated into the nervous system, and a still longer one when injected under the skin as would be mostly the case when bites are inflicted.

I propose, therefore, keeping up the virus until such time as I hear the decision regarding the establishment of some place for treatment of patients, as, if I allow it to die out, it cannot be raised before next winter, and then possibly after many failures such as I have experienced; the trouble now will be to keep the animals from getting ill with other complaints (when the weather grows warmer) until they are seized with rabies; the chief difficulty is, however, overcome, viz., the establishing the same virus as used in Paris and it only remains to perfect details when the opportunity is given.

From C. L. TUPPER, Esq., Chief Secretary to the Government of the Punjab, to the Secretary to the Government of India, Home Department, dated Lahore, the 22nd April 1893, No. 201.

In continuation of the letter from this office, No. 158 (Home—Medical and Sanitary), dated the 3rd of April 1893, I am directed to forward, for the information of the Government of India, a copy of a letter, dated the 22nd of April 1893, to Mr. E. K. Robinson, Editor of the *Civil and Military Gazette*, on the subject of a scheme brought forward under his auspices for the establishment of a Pasteur Institute by private contributions.

Demi-official from the Chief Secretary to the Government of the Punjab, to the Editor, *Civil and Military Gazette*, Lahore, dated 22nd April 1893.

Sir Dennis Fitzpatrick desires me to reply to the letter from Mr. F. L. Dames, to the Private Secretary, dated the 19th of March last, in which it is said that you will be much obliged if His Honour would suggest the names of any gentlemen who might be asked to join the committee which you propose to form to carry out an idea of establishing, from public contributions, a Pasteur Institute in the Punjab for the benefit of this and neighbouring provinces.

Dr. Cleghorn, the Inspector-General of Civil Hospitals, Punjab, has expressed his readiness to join the proposed committee, and Sir Dennis has consented to his doing so in a non-official capacity; he, however, wishes me to make the following remarks for your consideration.

His Honour understands that the Government of India propose to establish a Bacteriological Laboratory somewhere in the Himalayas and, if this is the case, he is most decidedly of opinion that the funds to be collected from private sources should be applied in connection with it, as appears from the letter noted on the margin to have been already suggested by the Private Secretary to His Excellency the Viceroy.

There is, Sir Dennis observes, really only room for one institution of the class in question in this part of India, and the funds would be most usefully

employed in aiding the Government, and thus bringing about the establishment of the institution at an earlier date and on a better footing than could, in the present state of the finances, be otherwise hoped for.

His Honour further thinks it would be desirable to give subscribers the option of having their subscriptions appropriated solely to the Pasteur division of the Institute, i.e., to the division of the Institute which has for its object the averting of hydrophobia. Sir Dennis suggests this because he believes there are many persons who are so impressed with the terrible nature of that disease and the risks of contracting it that we all run in this country, that they would gladly subscribe to help those who may be threatened with it, while they might on the other hand not be inclined to subscribe towards the other objects embraced in the extensive scheme sketched out in the enclosure to Mr. Dames' letter.

These are, however, His Honour's own personal views. It is, of course, for those who have started this movement to settle what they would do. Meanwhile, the draft proposal has been forwarded to the Government of India.

Endorsement by the Home Department, dated Simla, 2nd June 1893, No. 280.

No. 158, dated 3rd April 1893.

Transferred, with the letter marginally noted, to the Revenue and Agricultural Department for disposal.

From C. L. TUPPER, Esq., Chief Secretary to the Government of the Punjab, to the Secretary to the Government of India, Home Department, dated Simla, the 13th June 1893, No. 189-S.

In continuation of my letter, No. 201, dated the 22nd of April 1893, I am directed by the Lieutenant-Governor to forward herewith a copy of a letter from Mr. E. Kay Robinson, dated the 20th ultimo, and of its enclosure, showing the progress made in the months of March and April last towards the proposed establishment by private effort of a Pasteur Institute in the Punjab.

2. The Lieutenant-Governor observes that if it is finally decided to combine a Pasteur Institute with the Imperial Bacteriological Laboratory, the accessibility of the institution will obviously be a very important point.

Demi-official from E. KAY ROBINSON, Esq., Editor, *Civil and Military Gazette*, Lahore, to the Chief Secretary to the Government of the Punjab, dated 20th May 1893.

Some time ago I forwarded for transmission to the Government of India some papers in connection with the proposed Pasteur Institute. Were these forwarded by the Local Government, and has any reply been received?

Herewith I enclose some copies of the printed report of our work up to the 30th ultimo, and I should be much obliged if you would show one to His Honour for any remarks which he may like to make thereon, and forward another to the Government of India in the usual way for an expression of opinion, especially with regard to paragraph 4 on page 3.

THE PASTEUR INSTITUTE.

Report of work for the months of March and April 1893.

Various articles having appeared in the *Civil and Military Gazette* strongly advocating the establishment of a Pasteur Institute in the Punjab, on the 2nd March 1893 Khan Bahadur Barjorjee D. Patel, an influential contractor of Quetta, wrote through Mr. J. S. Bellew, Editor of the *Baluchistan Gazette*, and made an offer of Rs. 1,000 towards a fund for the Pasteur Institute in the event of others subscribing to the same, enquiring at the same time whether the Editor of the *Civil and Military Gazette* would be willing to start a subscription list. The Editor of the *Baluchistan Gazette*, in forwarding the Khan Bahadur's letter, stated that several wealthy Natives

and Parsees in Quetta and other parts of Baluchistan who had read the articles in the *Civil and Military Gazette* were ready to contribute liberally towards the cost of the proposed Institute.

Acting upon the Khan Bahadur's generous offer, letters were addressed by the Editor of the *Civil and Military Gazette* to the Lieutenant-Governors of the North-Western Provinces and the Punjab as well as the Commissioner of Sind regarding the proposal to start a Pasteur Institute in the Punjab.

The Lieutenant-Governor of the North-Western Provinces in reply stated that he wished the scheme success, and that he would be glad to permit any officer serving under the North-Western Provinces Government to act on the committee.

The Lieutenant-Governor of the Punjab also stated that he was quite prepared to countenance the project, and that he would be glad to assist in finding a suitable man for the committee, and to permit the person selected, if an officer of Government, to serve upon it.

The Commissioner of Sind, in his reply dated the 10th March, expressed his sympathy with the scheme, but wished to be assured that the climate of the Punjab would prove suitable for establishing a Pasteur Institute.

In reply to a letter addressed to the Private Secretary to His Excellency the Viceroy on the 6th March, Colonel J. C. Ardagh, Private Secretary, stated that any representation which might be received through the Local Government would receive His Excellency's careful consideration; and he also pointed out that it was under consideration whether the Bacteriological Laboratory at Poona should not be moved to some place at a greater elevation, and that the Punjab Himalayas, and in particular Kotegarh, had been suggested as suitable. And His Excellency further hoped that they would not overlook the "desirability of considering whether such an establishment as that contemplated by Mr. Patel and his friends might not with advantage be attached to this Bacteriological Laboratory, if it should prove that there would not be excessive delay in transporting a patient thither."

On the 16th March, a letter was addressed by the Editor of the *Civil and Military Gazette* to Surgeon-Lieutenant-Colonel W. A. Roe, Civil Surgeon, Sialkote, asking him to draw up the outlines of a scheme for establishing a Pasteur Institute, and requesting him to reply to the Commissioner of Sind's queries as to climate. Surgeon-Lieutenant-Colonel Roe, in his reply dated the 17th March, forwarded a draft proposal. He stated that many sites were to be found in the Himalayas quite suitable for bacteriological work, but that the question of accessibility must never be lost sight of on account of patients, who would probably arrive from all parts of India.

During the month of March, the following gentlemen were asked to join the committee:—

- (1) Surgeon-Colonel Cleghorne, Inspector-General of Civil Hospitals, Punjab;
- (2) Brigade-Surgeon Lieutenant-Colonel Stephen, Sanitary Commissioner, Punjab;
- (3) Surgeon-Major H. S. Browne, Principal, Medical College, Lahore;
- (4) Captain J. A. Nunn, Principal, Veterinary College, Lahore;
- (5) E. B. Hankin, Esq., Chemical Examiner and Bacteriologist to the North-Western Provinces Government;
- (6) Surgeon-Lieutenant-Colonel W. A. Roe, Civil Surgeon, Sialkote;
- (7) Brigade-General B. Blood, C.B., Commanding Bundelkhand District;
- (8) The Honourable W. H. Rattigan, Vice-Chancellor, Punjab University;
- (9) Khan Bahadur Barjorjee D. Patel, Quetta;

all of whom expressed their willingness to join the committee. Surgeon-Colonel Richardson, Inspector-General, Civil Hospitals, North-Western Provinces, was also asked to join, but begged to be excused as he was going away on leave and intended to retire at the end of his leave. He expressed his approval of as much of the scheme regarding rabies, but said that further he did not go. Mr. E. W. Parker, Registrar of the Chief Court, Lahore, in reply to an invitation to join the committee, said that the proposals had his sympathy, but he did not feel qualified to act on the committee.

During the month of March letters were written to twenty of the principal newspapers published in India on the subject of the proposed Pasteur Institute, and on the 4th April a letter was addressed to eleven of the principal London papers.

A letter was also addressed by the Editor of the *Civil and Military Gazette* to each of the gentlemen named above as having joined the committee, in which he made a number of suggestions as to the best method for commencing work. As a result a meeting was held on April 22nd at Lahore: and Khan Bahadur Barkat Ali Khan, of Lahore, Sirdar Muhammad Hyat Khan, C.S.I., Senior Member of Council, Kashmir, and Rai Bahadur Lala Ram Kishen, Delhi, were added to the committee. At the meeting a number of written suggestions by members unable to attend were taken into consideration as well as the opinions of those present. The following resolutions were passed:—

(1) That a Pasteur Institute be established in the Punjab Himalayas for the treatment of hydrophobia, conducting bacteriological research.

(2) The Honourable W. H. Rattigan be elected President of the committee; Mr. D. P. Masson, of the Punjab Bank, Treasurer; and Mr. E. Kay Robinson, *Civil and Military Gazette*, Secretary.

(3) That the committee should hold its next meeting at Simla.

(4) That the Secretary should communicate in the name of the committee with the Supreme and Local Governments with a view to ascertaining how far they would support the scheme.

(5) That the Pasteur Institute should be amalgamated to the Imperial Bacteriological Laboratory, and that for this purpose the committee will invite Government to consider whether some more accessible site than Kotegarh, if possible some site in the vicinity of Simla or Kasauli, should not be chosen.

[In the discussion on this resolution it was pointed out that, according to the tables of mean temperature prepared by the Meteorological Department for the committee, the vicinity of Simla was meteorologically the most suitable locality, and Tara Devi Hill was specially mentioned as a favourable site.]

(6) That the following amended draft scheme be adopted by the committee:—

It is proposed to establish an Institute in the Punjab, somewhat similar to the Pasteur Institute in Paris, to be called "The Pasteur Institute of India."

The object of this institution is primarily for the relief of natives of India who are unable, from poverty or other causes, to proceed to Paris for treatment after bites of rabid animals, such an institution being urgently needed.

That the institute should become a reality it has only to be pointed out that under Monsieur Pasteur's system of treatment deaths after bites from rabid animals bitten, and this in spite of the long delay that occurs, owing to distance from Paris, before many cases can be treated.

A second use for such an institution would be to carry on independent bacteriological research, in which field of utility to India and the world at large no limit can be placed upon its possibilities.

Thirdly, as a teaching Institute it may be pointed out that to enable selected native practitioners to study in a proper and scientific way the causes, course and methods of preventing epidemic disease amongst the cattle of the villages among whom their duty takes them, is the only means whereby the enormous annual losses in cattle may be in some degree prevented; and as this system has proved successful in France, there is every reason to suppose the extension of knowledge of a similar kind will be equally advantageous in India.

In return therefore for all donations and annual subscriptions the Institute, besides carrying on important scientific inquiries, will provide for the public—

(1) treatment *gratis*, including, if necessary, travelling expenses to and from for every person bitten by a rabid animal;

(2) teaching *gratis*, as vacancies occur, to selected students sent by the Principals of Veterinary Colleges.

It cannot be estimated exactly what it would cost to start the Laboratory with the necessary apparatus until it is known on what scale the Institute shall be designed, and this cannot be known until the views of the different Governments and the public have been ascertained; but the building must be located on some accessible part of the hills, where the Laboratory must be situated on account of the temperature required to perfect the virus (70°F.). It is believed that a suitable site can be easily found in the hills near Kasauli or Simla, and His Highness the Maharaja of Patiala would doubtless grant facilities for the erection of a building if one could not be purchased.

The amount to support the Institute, when established, has been estimated at about Rs. 3,500 per mensem; but if Government will give the services of the medical officers, this estimate can be reduced, and the monthly charge thus distributed over the whole country would scarcely be felt.

The essential feature, however, of the working of the Institute will be that the travelling and other expenses of poor patients will be paid by the Institute.

(7) That the following members of committee be appointed a sub-committee, to draw up a suitable appeal to the public in the name of the committee for subscriptions, and to take such other steps as may be necessary to obtain the funds required:—

Honourable W. H. Rattigan.

Surgeon-Colonel Cleghorn.

Surgeon-Lieutenant-Colonel Roe.

K. B. Barkat Ali Khan.

Veterinary Captain J. A. Nunn.

E. Kay Robinson.

(8) That the committee arrange for lectures to be delivered at Simla and the head-quarters of the various Local Governments on behalf of the scheme.

From B. E. YOUNGHUSBAND, Esq., Officiating Junior Secretary to the Government of the Punjab, to the Secretary to the Government of India, Home Department, dated Simla, the 11th July 1893, No. 423-S.

In continuation of the letter from this office to your address, No. 189-S., dated the 13th June 1893, I am directed to forward, for the information of the Government of India, a copy of a further letter, dated the 15th of June 1893, from Mr. E. Kay Robinson, on the subject of the proposed establishment of a Pasteur Institute in India from private contributions, to be supplemented by such State aid as the supporters of the scheme hope it may be found possible to afford to the project.

2. In the report forwarded with Mr. Robinson's letter of the 20th May (a copy of which was submitted to the Government of India with the letter from this office, No. 189-S., dated the 13th ultimo) it was suggested that the proposed Pasteur Institute should be amalgamated with the Imperial Bacteriological Laboratory and established at some place in the Punjab. It will be observed that this idea has now been abandoned, and that the present proposal is to provide a Pasteur Institute for the sole treatment of hydrophobia cases in India; the Institute to be quite apart and entirely separately from the Imperial Bacteriological Laboratory and to be in some suitable locality where—

(1) persons apprehending hydrophobia can be treated *gratis*, the travelling expenses of poor patients being paid for them;

(2) bacteriological investigation can be made into human diseases other than hydrophobia, if funds permit;

(3) selected students can be instructed in the conduct of bacteriological study and experiment, also if funds permit.

Mr. Robinson asks from the Government of India the "great assistance of an expression of approval and a favourable recommendation to Local Governments" in

respect to (1), *i.e.*, the provision of a Pasteur Institute for the treatment of hydrophobia cases. He observes that (2) and (3) might lie over until he can report that funds are available, and he proposes to ask the Government of India how such funds could be best expended.

3. With reference to the manner in which any sums collected by private effort can best be expended, Sir Dennis Fitzpatrick desires me to say that, assuming that the Bacteriological Institute for diseases of animals must be kept separate from any Pasteur Institute, it seems to His Honour clear that a Pasteur Institute pure and simple, *i.e.*, an institute merely for treating hydrophobia, which is the really urgent need, should be started at once, leaving the question of bacteriological investigation into human diseases other than hydrophobia, and that of providing instruction for students in regard to such matters, for future consideration.

4. The Lieutenant-Governor further thinks that, as suggested in his note dated the 5th of May 1892, forwarded with Mr. Tupper's letter, No. 236, dated the 11th idem, the Government of India should establish the Pasteur Institute with the aid of contributions from Local Governments and from private persons, and that Mr. Robinson's Association would make the best use of any funds they may collect by offering them to the Government of India for the purposes of the Pasteur Institute so to be established. This would, His Honour observes, in the first place, lead to the institution being established at an earlier time than would otherwise be possible, and in the second place, would enable the Government to establish it on a better footing than they otherwise could. If this were done, and if the subscriptions raised by the Association were considerable, it would, His Honour thinks, be only reasonable that the Association should be given a voice in the management of the institution by being allowed to nominate members to a Committee of Management or otherwise.

From E. KAY ROBINSON, Esq., Editor, *Civil and Military Gazette*, to the Chief Secretary to the Government of the Punjab, dated Simla, the 15th June 1893.

I have to thank you for yours of the 13th, and in reply to say that there need be no delay in dealing with the Pasteur Institute scheme on account of the chance of its being combined with the Imperial Bacterio Laboratory, because I have ascertained that scientific men engaged in the two branches of work respectively would regard amalgamation as impossible, and that those especially whose work lay in the inoculation of human beings would refuse to run the risk of performing such operations in proximity to a laboratory where investigation into animal diseases, capable of transmission by accidental inoculation to human beings with terrible results, was being carried on.

2. I have obtained this information informally; but I feel sure that Dr. Lingard or Dr. Haffkine would endorse the view I have expressed, and I am equally convinced that the Pasteur Institute committee will adopt it. They would doubtless have done so before this had I not been obliged to postpone the meeting of the committee, which was to have been held early this month, owing to the inability of the majority of the members to reach Simla until later.

3. The scheme, therefore, of the Pasteur Institute, for which I desire the approval of the Government of India and a favourable recommendation to the various Local Governments, may briefly be stated to be, in the first place, to provide an Institute in some suitable locality where persons apprehending hydrophobia can be treated *gratis*, if funds permit, to provide for bacteriological investigation into human diseases other than hydrophobia; and in the third place, to provide for the instruction of selected students in the conduct of bacteriological study and experiment, also if funds permit.

4. You will observe that the first and main object of the scheme stands out, for reasons which I have given, quite distinct from any question connected with the

Imperial Bacterio Laboratory. The second and third are dependent upon the collection of sufficient funds to enable the committee to take them into consideration.

5. I submit, therefore, that the Government of India, after assuring themselves by inquiry from Dr. Lingard, Sir E. Buck or others qualified to express an authoritative opinion as the inadvisability of mixing up a Pasteur Institute for the treatment of human hydrophobia with a laboratory for the investigation of animal disease, might at once afford the Pasteur committee, if so disposed, the great assistance of an expression of approval and a favourable recommendation to Local Governments of their proposal to provide a Pasteur Institute for the treatment of hydrophobia cases in India.

6. The other matters might then be reserved for consideration until the Pasteur Institute committee should happily be in a position to inform the Government of India, through you, that they had funds at disposal for such purposes, and to ask for the opinion of the Government of India as to the way in which they could best be expended.

7. I should be much obliged if you would convey these views to the Government of India, and add that the committee will most highly value any encouragement which they may receive.

Minute by the Lieutenant-Governor.

For some time past Pasteur's method of treatment has (whether rightly or wrongly it will probably take many years to determine) come to be so fully believed in by the public that many persons bitten by dogs supposed to be mad have been sent from India to Paris for treatment; and if any member of a poor family gets so bitten, the family would probably feel bound to spend their last rupee in sending him home. This being so, it has often occurred to me to think that we ought to have a Pasteur Institute in India; but I have hesitated hitherto to make any suggestion on the subject, as I did not know how the Government of India would receive it.

2. Having, however, recently seen it stated in the newspapers that soldiers bitten by mad dogs have been sent home to Pasteur for treatment and that the Government have thus recognized it as a duty to give their servants whatever chance Pasteur's system may afford, I am encouraged to put forward my proposal, which is that a Pasteur Institute be established at some one place in India to the expense of which the Imperial Government and the Provincial Governments would contribute in such proportions as may be deemed equitable.

3. I am quite aware that it may be objected that in establishing an institution of this kind the Government would be taking upon itself to decide the scientific controversy which exists as to the merits of the Pasteur system; but the answer to this would be that we take upon ourselves to decide nothing: we find that a large proportion of the medical profession believe in the efficacy of Pasteur's treatment; that they would always advise their patients to have recourse to it; that it is a terrible hardship to poor patients when so advised to be unable, or to be able only at a ruinous expense, to avail themselves of what they are told by their professional advisers is their best chance; that it is a terrible hardship to all so advised, rich or poor, that they cannot at present get treated until after such a lapse of time that their chance of a cure, whatever it may be, must be immensely diminished; and that, having regard to all this, we, without venturing to form any opinion as to the efficacy of Pasteur's method of treatment, establish our institution for those who may be advised to have recourse to it.

(Signed) D. FITZPATRICK.

The 5th May 1892.

LETTER—to the Secretary to the Government of India, Home Department, dated Ootacamund, 16th September 1893, No. 771, Public.

With reference to endorsement No. 489 forwarding a copy of letter No. 488 of the 10th August last to the Government of the Punjab relating to the establishment of a Pasteur Institute in that Province, I am directed to inform you that this Government strongly sympathises with the movement, and will be prepared to contribute towards the cost and upkeep of the institution if other Local Governments do so.

J. F. PRICE,
Chief Secretary.

ENDORSEMENT—dated 16th September 1893, No. 772, Public.

Copy of the foregoing papers forwarded to the Surgeon-General *for information.*

J. F. PRICE,
Chief Secretary.

Gobt. of {1893} Madras.
● PUBLIC.

Issued

Recd.

Encl.

Letter, &c., 16th Sept. 1893,
Nos. 771, 772.

SEPTEMBER.

Pasteur Institute.

Informing the Government of India that this Government will be prepared to contribute towards the cost and upkeep of a — to be established in the Punjab if other Local Governments do so, and forwarding copy of correspondence on the subject to the Surgeon-General.

No. 488.

FROM

C. J. LYALL, Esq., C.S.I., C.I.E.,
Secretary to the Government of India,

TO

THE CHIEF SECRETARY TO THE GOVERNMENT OF THE
PUNJAB.

Home Department.
Medical.

Simla, the 10th August 1893.

SIR,

No. 158, dated the 3rd April 1893.
" 201, " " 22nd April 1893.
" 189-S, " " 13th June 1893.
" 423-S, " " 11th July 1893.

I AM directed to acknowledge the receipt of your letters marginally noted on the subject of the establishment by private effort of a Pasteur Institute in the Punjab.

2. From these papers, it appears that a Committee has been formed in the Punjab with the view of collecting funds for the purpose of establishing in a suitable locality a Pasteur Institute for the gratuitous treatment of cases of hydrophobia occurring in India. It is further proposed, if the amount collected will permit, to extend the institution so as to provide for bacteriological investigation into human diseases other than hydrophobia, and for the instruction of selected students in the conduct of bacteriological study and experiment.

3. In reply, I am to say that the question whether such an institution could be combined with the Bacteriological Laboratory for the investigation of the diseases of cattle in India had already been considered by the Government of India, and they had come to the conclusion that this would not be advisable, and that the two projects should be kept apart. They fully approve the proposal that an Antirabic Institution should be established, from such funds as may be provided by the contributions of charitable persons, with such aid from the State as it may be found practicable to give; and in furtherance of the project they are prepared to give the services of a qualified medical officer to take charge of the Institute when it has been established, if a sufficient income can be guaranteed for its maintenance and a satisfactory scheme arranged for its management. The Governor General in Council is of opinion, however, that it is premature at present to consider what further extension of bacteriological investigations into human diseases should be undertaken, or whether students could be profitably instructed in bacteriology, until the antirabic objects of the institution have been provided for, and it is seen whether the results of the Committee's appeal to the public for contributions justify any extension of the project.

4. I am to say that the present correspondence, together with His Honour the Lieutenant-Governor's Minute of the 5th May 1892, will be forwarded to Local Governments and Administrations for their information, and for such further action in each province as may be deemed desirable.

I have the honour to be,

SIR,

Your most obedient Servant,

C. J. LYALL,

Secretary to the Government of India.

No. 489.

COPY, with copy of the letters from the Government of the Punjab therein referred to, and enclosures, and of the Lieutenant-Governor's Minute of 5th May 1892, forwarded to Local Governments and Administrations (except Bombay) for information.

By order,

H. Lumsden

Under-Secy. to the Govt. of India.

To The Government of Madras.

No. 158, dated Lahore, the 3rd April 1893.

From—H. MAUDE, Esq., Junior Secretary to the Government of the Punjab,
To—The Secretary to the Government of India, Home Department.

In continuation of the letter from this office, No. 236, dated the 11th of May 1892, I am directed to forward a copy of the papers noted in the margin, regarding the proposed establishment of a Pasteur Institute in the Punjab, and to say that, as will have appeared from His Honour's Minute enclosed in that letter, Sir Dennis Fitzpatrick does not think that a scheme of this kind is one to be taken up by the Punjab Government alone.

No. 642, dated the 3rd March 1893.

From—The Inspector-General of Civil Hospitals, Punjab,
To—The Junior Secretary to the Government of the Punjab.

I HAVE the honour to enclose a letter from Surgeon-Lieutenant-Colonel Roe, Civil Surgeon of Sialkote, forwarding, for the consideration of His Honour the Lieutenant-Governor, the outlines of a scheme for establishing a Pasteur's Institute in the Punjab.

As stated by Dr. Roe, the objects of such an Institution are:—

- (1) the treatment of hydrophobia in the human subject;
- (2) the preparation of pure animal lymph for vaccination;
- (3) as a school for teaching bacteriology and its practical application in the prevention of epidemic diseases among men and animals.

All these are of a definite and practical character, and from a medical and scientific point of view, are of high importance, well worthy of the support of Government and of the Public.

As, however, the benefits to be derived from such an institution are of general application, the expenses attending it should either be met from Imperial funds or equally by all Local Governments.

The Punjab Government is really not vitally interested in the matter, as during the past five years the total deaths reported from hydrophobia were only 522 or a yearly average of 104.4; and the Sanitary Commissioner informs me that he considers the present system of vaccination which has been introduced into the Punjab, viz., that direct from the calf, is in certain respects superior to that advocated by Dr. Roe.

I understand that the Government of India have now under consideration the propriety of establishing such an Institute as the one now recommended by Dr. Roe, and I would suggest that he should be associated with the scheme. He has studied under Pasteur for six months and subsequently under Koch in Berlin and he is eminently qualified to superintend the management and working of such an Institution.

Dated Sialkote, the 17th February 1893.

From—Surgeon-Lieutenant-Colonel ROE, F.R.C.S., Civil Surgeon of Sialkote,
To—The Inspector-General of Civil Hospitals, Punjab.

I HAVE the honour to forward, for the information of His Honour the Lieutenant-Governor, the outlines of a scheme for the establishment of a "Punjab Pasteur Institute" which I have been directed to submit through you for such remarks as you may consider necessary.

2. The advisability of starting such an Institution by voluntary subscription, has been urged on me frequently by native gentlemen and European

officers and ladies; and I have every reason to believe, that it would meet with most liberal support from the native princes and the general public, while its advantages and usefulness can scarcely be exaggerated.

3. I propose that the Institute should be mainly a teaching one, where the courses of instruction will closely follow on the lines of those delivered in the University of Cambridge, the Pasteur Institute in Paris and the Hygienic Institute in Berlin, so that every one who desires to avail himself of an opportunity of becoming acquainted with Bacteriological Science may have the means placed within his reach; secondly, I propose that all lymph which is required for vaccination shall be prepared here for the whole Province. Thirdly, the Hydrophobia Division of the Institute, which will be one of the most important, shall devote itself to the preparation of the virus for the treatment of rabies, gratis, for all who apply for advice and help.

4. That such an Institution is most urgently needed can scarcely be gainsaid, where so many deaths occur annually from this disease; and if proof of this want be required, it will be found in the universal desire of the whole community who warmly advocate its establishment in the Province.

5. On the 5th January last, several native boys were bitten in Sialkote city by a dog supposed to be mad, and again on the 28th January another dog attacked several natives without any cause and bit them severely—both these animals were killed and brought to me, and I inoculated rabbits from them with the result that these animals all died in from 12 to 16 days with all the symptoms of dumb madness, the form it assumes in the rabbit, so that I have now in my own district five or six persons (natives) whose future life depends on the accident of their treatment by excision and cauterization being successful or not, but at least 30 per cent. of those bitten die even after the most energetic treatment, the risk these persons run is enormous. These cases occurring so recently under my own special observation, have induced me to draw up this scheme without delay, and I would most strongly urge the necessity of establishing some place where treatment can at least be given a trial, so soon as preparations can be made to start it.

It is proposed to establish an Institute in the Punjab, somewhat similar to the Pasteur Institute in Paris, to be called the "Punjab Pasteur Institute."

The object of this Institution is primarily for the relief of natives of India who are unable from poverty or other causes to proceed to Paris for treatment after bites of rabid animals, such an Institution being urgently needed as upwards of 2,000 deaths occur annually from this disease alone.

A second use for such an Institution will be the preparation of perfectly pure animal lymph for ordinary vaccination purposes to be sent out to all places where required, thereby avoiding the present arm-to-arm system, and the constant necessity for obtaining the use of calves from the zemindars. This lymph will be prepared from perfectly healthy animals with all the precautions which the present state of science shows to be needful.

Thirdly, the Institute will be a teaching one, in which three courses of lectures will be delivered annually, each lasting from 6 weeks to 2 months, on bacteriology and the means of applying this method of research to epidemic diseases amongst men and animals, these lectures to be open to all veterinary as well as medical students who have not had the opportunity of becoming acquainted with the recent advance of knowledge in this direction.

These objects will, it is believed, commend themselves to the native Princes of the Punjab, and to all District and Municipal Boards, through whose generosity and liberality it is hoped that the Institute may become a reality; and it has only to be pointed out that under Monsieur Pasteur's system of treatment, deaths after bites from rabid animals have reduced from 80 in every 100, to little more than one death in every 200 bitten.

With regard to lymph for ordinary vaccination purposes, the present admirable method in use in Germany can at once be introduced into India, with the best results and at less cost than the present system in the Punjab.

As a teaching Institute for veterinary students, it may be pointed out that to enable native Practitioners to study in a proper and scientific way, the causes, course and methods of preventing out-breaks of epidemic disease, amongst the cattle of the villagers among whom their duty takes them, is the only means whereby the enormous animal losses in cattle may be, in some degree, prevented, and as this system has proved successful in France, there is every reason to suppose the extension of knowledge of a similar kind will be equally advantageous in India.

In return, therefore, for all donations and annual subscriptions the Institute will provide—

- (1) Treatment gratis for every person bitten by a rabid animal.
- (2) The preparation and production of pure animal lymph for ordinary vaccination purposes for the whole Province.
- (3) The Institute will be largely used for teaching each native State; District Board and Municipality will have the privilege of sending one or more pupils as vacancies occur, to attend the course of lectures and instruction given. These pupils will pay a nominal fee to cover the wear and tear of the Laboratory apparatus and instruments of which they will have the use during their course of instruction.

It is estimated that to start the Laboratory with the necessary apparatus will require a sum of about Rs. 30,000 owing to the depreciation in exchange, and a further sum will be needed for a small and suitable building to be located in some accessible part of the hills, where the Laboratory must be situated on account of the temperature required to perfect the virus (70°) and to prepare the vaccination lymph. It is believed that a suitable site can be easily found in the hills near Kasauli or Simla, and His Highness the Maharaja of Patiala would doubtless grant facilities for the erection of a building, if one could not be purchased.

The amount to support the Institute has been estimated at about Rs. 3,500 per mensem, but if Government will give the services of the Medical Officers, this estimate can be reduced and the monthly charge thus distributed over the whole Province would scarcely be felt.

No. 669, dated Lahore, the 7th March 1893.

From—The Inspector-General of Civil Hospitals, Punjab,
To—The Junior Secretary to the Government of the Punjab.

IN continuation of my letter No. 642, dated 3rd March 1893, I have the honour to forward another communication dated 4th March 1893, from Surgeon-Lieutenant-Colonel W. A. C. Roe, Civil Surgeon, Sialkote, regarding the establishment of a Pasteur Institute.

Dated the 4th March 1893.

From—Surgeon-Lieutenant-Colonel W. A. C. Roe, F.R.C.S., Civil Surgeon of Sialkote,
To—The Inspector-General of Civil Hospitals, Punjab.

WITH reference to my proposals for the establishment of a "Punjab Pasteur Institute," I now wish to add, for the information of the Punjab Government, that I have succeeded in establishing the virus necessary for the purpose of preparing for treatment.

After a good many failures, I obtained last month another supply from the Institute, thanks to the kindness of Monsieur Pasteur, and with this I again experimented and have at last succeeded, so that we have now in India the "virus fixe" at the 341st passage through the rabbit, the same that is used in Paris to prepare the vaccine.

I have also been fortunate enough to have had the opportunity of observing the disease in rabbits raised from a rabid dog on the 28th January last, running side by side with the same as raised by the Paris virus, and this was a

most important point to determine, whether the disease in both cases ran the same course or if it was in any degree modified by the climate of India.

My observations so far have shown that it is in all points exactly similar to the disease in Europe; but seems to have a more lengthened period of incubation in the case of the country virus when directly inoculated into the nervous system, and a still longer one, when injected under the skin as would be mostly the case, when bites are inflicted.

I propose, therefore, keeping up the virus until such time as I hear the decision regarding the establishment of some place for treatment of patients, as if I allow it to die out, it cannot be raised before next winter, and then possibly after many failures such as I have experienced; the trouble now will be to keep the animals from getting ill with other complaints (when the weather grows warmer) until they are seized with rabies, the chief difficulty is, however, overcome, namely, the establishing the same virus as used in Paris and it only remains to perfect details when the opportunity is given.

No. 201, dated Lahore, the 22nd April 1893.

From—C. L. TUPPER, Esq., Chief Secretary to the Government of the Punjab,

To—The Secretary to the Government of India, Home Department.

IN continuation of the letter from this office No. 158 (Home-Medical and Sanitary), dated the 3rd of April 1893, I am directed to forward, for the information of the Government of India, a copy of a letter dated the 22nd of April 1893, to Mr. E. K. Robinson, Editor of the *Civil and Military Gazette*, on the subject of a scheme brought forward under his auspices for the establishment of a Pasteur Institute by private contributions.

Dated 22nd April 1893.

Demi-official from—The Chief Secretary to the Government of the Punjab,

To—The Editor, *Civil and Military Gazette*, Lahore.

SIR DENNIS FITZPATRICK desires me to reply to the letter from Mr. F. L. Dames, to the Private Secretary, dated the 19th of March last, in which it is said that you will be much obliged if His Honour would suggest the names of any gentlemen who might be asked to join the Committee which you propose to form to carry out an idea of establishing, from public contributions, a Pasteur Institute in the Punjab for the benefit of this and neighbouring Provinces.

Dr. Cleghorn, the Inspector-General of Civil Hospitals, Punjab, has expressed his readiness to join the proposed Committee, and Sir Dennis has consented to his doing so in a non-official capacity; he, however, wishes me to make the following remarks for your consideration.

His Honour understands that the Government of India propose to establish a Bacteriological Laboratory somewhere in the Himalayas and, if this is the case, he is most decidedly of opinion that the funds to be collected from private sources should be applied in connection with it, as appears from the letter noted

on the margin to have been already suggested by the Private Secretary to His Excellency the Viceroy. There is, Sir Dennis observes, really only room for one institution of the class in question in this part of India, and the funds would be most usefully employed in aiding the Government, and thus bringing about the establishment of the institution at an earlier date and on a better footing than could, in the present state of the finances, be otherwise hoped for.

His Honour further thinks it would be desirable to give subscribers the option of having their subscriptions appropriated solely to the Pasteur division of the Institute, i.e., to the division of the Institute which has for its object the averting of hydrophobia. Sir Dennis suggests this because he believes there are many persons who are so impressed with the terrible nature of that disease

and the risks of contracting it that we all run in this country, that they would gladly subscribe to help those who may be threatened with it, which they might on the other hand not be inclined to subscribe towards the other objects embraced in the extensive scheme sketched out in the enclosure to Mr. Dames' letter.

These are, however, His Honour's own personal views. It is of course for those who have started this movement to settle what they would do. Meanwhile, the draft proposal has been forwarded to the Government of India.

No. 280, dated Simla, 2nd June 1893.

Endorsement by the Home Department.

No. 158, dated 3rd April 1893.

Transferred, with the letter marginally noted, to the Revenue and Agricultural Department for disposal.

No. 189-S., dated Simla, the 13th June 1893.

From—C. L. TUPPER, Esq., Chief Secretary to the Government of the Punjab,
To—The Secretary to the Government of India, Home Department.

IN continuation of my letter No. 201, dated the 22nd of April 1893, I am directed by the Lieutenant-Governor to forward herewith a copy of a letter from Mr. E. Kay Robinson, dated the 20th ultimo, and of its enclosure, showing the progress made in the months of March and April last towards the proposed establishment by private effort of a Pasteur Institute in the Punjab.

2. The Lieutenant-Governor observes that if it is finally decided to combine a Pasteur Institute with the Imperial Bacteriological Laboratory the accessibility of the institution will obviously be a very important point.

Demi-official, dated 20th May 1893.

From—E. KAY ROBINSON, Esq., Editor, *Civil and Military Gazette*, Lahore,
To—The Chief Secretary to the Government of the Punjab.

SOME time ago I forwarded for transmission to the Government of India some papers in connection with the proposed Pasteur Institute. Were these forwarded by the Local Government, and has any reply been received?

Herewith I enclose some copies of the printed report of our work up to the 30th ultimo, and I should be much obliged if you would show one to His Honour for any remarks which he may like to make thereon, and forward another to the Government of India in the usual way for an expression of opinion, especially with regard to paragraph 4 on page 3.

THE PASTEUR INSTITUTE.

Report of work for the months of March and April 1893.

VARIOUS articles having appeared in the *Civil and Military Gazette*, strongly advocating the establishment of a Pasteur Institute in the Punjab, on the 2nd March 1893, Khan Bahadur Barjorjee D. Patel, an influential Contractor of Quetta, wrote through Mr. J. S. Bellew, Editor of the *Baluchistan Gazette*, and made an offer of Rs. 1,000 towards a fund for the Pasteur Institute, in the event of others subscribing to the same, enquiring at the same time whether the Editor of the *Civil and Military Gazette* would be willing to start a subscription list. The Editor of the *Baluchistan Gazette*, in forwarding the Khan Bahadur's letter, stated that several wealthy Natives and Parsees in Quetta and other parts of Baluchistan, who had read the articles in the *Civil and Military Gazette*, were ready to contribute liberally towards the cost of the proposed Institute.

Acting upon the Khan Bahadur's generous offer, letters were addressed by the Editor of the *Civil and Military Gazette* to the Lieutenant-Governors of the North-Western Provinces and the Punjab, as well as to the Commissioner of Sind, regarding the proposal to start a Pasteur Institute in the Punjab.

The Lieutenant-Governor of the North-Western Provinces in reply stated that he wished the scheme success, and that he would be glad to permit any officer serving under the North-Western Provinces Government to act on the Committee.

The Lieutenant-Governor of the Punjab also stated that he was quite prepared to countenance the project and that he would be glad to assist in finding a suitable man for the Committee, and to permit the person selected, if an officer of Government, to serve upon it.

The Commissioner of Sind, in his reply dated the 10th March, expressed his sympathy with the scheme, but wished to be assured that the climate of the Punjab would prove suitable for establishing a Pasteur Institute.

In reply to a letter addressed to the Private Secretary to His Excellency the Viceroy on the 6th March, Colonel J. C. Ardagh, Private Secretary, stated that any representation which might be received through the Local Government would receive His Excellency's careful consideration; and he also pointed out that it was under consideration whether the Bacteriological Laboratory at Poona should not be moved to some place at a greater elevation, and that the Punjab Himalayas, and in particular Kotegarh, had been suggested as suitable. And His Excellency further hoped that they would not overlook the "desirability of considering whether such an establishment as that contemplated by Mr. Patel and his friends might not with advantage be attached to this Bacteriological Laboratory, if it should prove that there would not be excessive delay in transporting a patient thither."

On the 16th March, a letter was addressed by the Editor of the *Civil and Military Gazette* to Surgeon-Lieutenant-Colonel W. A. Roe, Civil Surgeon, Sialkote, asking him to draw up the outlines of a scheme for establishing a Pasteur Institute, and requesting him to reply to the Commissioner of Sind's queries as to climate. Surgeon-Lieutenant-Colonel Roe, in his reply dated the 17th March, forwarded a draft proposal. He stated that many sites were to be found in the Himalayas quite suitable for bacteriological work, but that the question of accessibility must never be lost sight of, on account of patients who would probably arrive from all parts of India.

During the month of March, the following gentlemen were asked to join the Committee:—

- (1) Surgeon-Colonel Cleghorne, Inspector-General of Civil Hospitals, Punjab.
- (2) Brigade-Surgeon Lieutenant-Colonel Stephen, Sanitary Commissioner, Punjab.
- (3) Surgeon-Major H. S. Browne, Principal, Medical College, Lahore.
- (4) Captain J. A. Nunn, Principal, Veterinary College, Lahore.
- (5) E. B. Hankin, Esq., Chemical Examiner and Bacteriologist to the North-Western Provinces Government.
- (6) Surgeon-Lieutenant-Colonel W. A. Roe, Civil Surgeon, Sialkote.
- (7) Brigade-General B. Blood, C.B., Commanding Bundelkhand District.
- (8) The Honourable W. H. Rattigan, Vice-Chancellor, Punjab University.
- (9) Khan Bahadur Barjorjee D. Patel, Quetta.

All of whom expressed their willingness to join the Committee. Surgeon-Colonel Richardson, Inspector-General, Civil Hospitals, North-Western Provinces,

was also asked to join, but begged to be excused as he was going away on leave and intended to retire at the end of his leave. He expressed his approval of as much of the scheme regarding rabies, but said that further he did not go. Mr. E. W. Parker, Registrar of the Chief Court, Lahore, in reply to an invitation to join the Committee, said that the proposals had his sympathy, but did not feel qualified to act on the Committee.

During the month of March letters were written to twenty of the principal newspapers published in India, on the subject of the proposed Pasteur Institute, and on the 4th April a letter was addressed to eleven of the principal London papers.

A letter was also addressed by the Editor of the *Civil and Military Gazette* to each of the gentlemen named above as having joined the Committee, in which he made a number of suggestions as to the best method for commencing work. As a result a meeting was held on April 22nd at Lahore: and Khan Bahadur Barkat Ali Khan, of Lahore, Sirdar Muhammad Hyat Khan, C.S.I., Senior Member of Council, Kashmir, and Rai Bahadur Lala Ram Kishen, Delhi, were added to the Committee. At the meeting a number of written suggestions by members unable to attend were taken into consideration as well as the opinions of those present. The following resolutions were passed:—

1. That a Pasteur Institute be established in the Punjab Himalayas for the treatment of hydrophobia, conducting bacteriological research.
2. The Honourable W. H. Rattigan be elected President of the Committee; Mr. D. P. Masson, of the Punjab Bank, Treasurer; and Mr. E. Kay Robinson, *Civil and Military Gazette*, Secretary.
3. That the Committee should hold its next meeting at Simla.
4. That the Secretary should communicate in the name of the Committee with the Supreme and Local Governments with a view to ascertaining how far they would support the scheme.
5. That the Pasteur Institute should be amalgamated to the Imperial Bacteriological Laboratory, and that for this purpose the Committee will invite Government to consider whether some more accessible site than Kotegarh, if possible some site in the vicinity of Simla or Kasauli, should not be chosen.

[In the discussion on this resolution it was pointed out that, according to the tables of mean temperature prepared by the Meteorological Department for the Committee, the vicinity of Simla was meteorologically the most suitable locality, and Tara Devi Hill was specially mentioned as a favourable site.]

6. That the following amended draft scheme be adopted by the Committee:—

It is proposed to establish an Institute in the Punjab, somewhat similar to the Pasteur Institute in Paris, to be called "The Pasteur Institute of India."

The object of this institution is primarily for the relief of natives of India who are unable, from poverty or other causes, to proceed to Paris for treatment after bites of rabid animals, such an institution being urgently needed.

That the institute should become a reality, it has only to be pointed out that under Mons. Pasteur's system of treatment deaths after bites from rabid animals have been reduced from 80 in every 100, to little more than one death in every 200 bitten, and this in spite of the long delay that occurs, owing to distance from Paris, before many cases can be treated.

A second use for such an institution would be to carry on independent bacteriological research, in which field of utility to India and the world at large no limit can be placed upon its possibilities.

Thirdly, as a teaching Institute it may be pointed out that to enable selected native practitioners to study in a proper and scientific way the

causes, course, and methods of preventing epidemic disease amongst the cattle of the villagers among whom their duty takes them, is the only means whereby the enormous annual losses in cattle may be in some degree prevented; and as this system has proved successful in France, there is every reason to suppose the extension of knowledge of a similar kind will be equally advantageous in India.

In return therefore for all donations and annual subscriptions the Institute, besides carrying on important scientific inquiries, will provide for the public:—

- (1). Treatment *gratis*, including, if necessary, travelling expenses to and fro for every person bitten by a rabid animal.
- (2). Teaching *gratis*, as vacancies occur, to selected students sent by the Principals of Veterinary Colleges.

It cannot be estimated exactly what it would cost to start the Laboratory with the necessary apparatus until it is known on what scale the Institute shall be designed, and this cannot be known until the views of the different Governments and the public have been ascertained; but the building must be located on some accessible part of the hills, where the Laboratory must be situated on account of the temperature required to perfect the virus (70° F.). It is believed that a suitable site can be easily found in the hills near Kasauli or Simla, and His Highness the Maharaja of Patiala would doubtless grant facilities for the erection of a building, if one could not be purchased.

The amount to support the Institute, when established, has been estimated at about Rs. 3,500 per mensem; but if Government will give the services of the Medical Officers, this estimate can be reduced, and the monthly charge thus distributed over the whole country would scarcely be felt.

The essential feature, however, of the working of the Institute will be that the travelling and other expenses of poor patients will be paid by the Institute.

7. That the following members of Committee be appointed a Sub-Committee, to draw up a suitable appeal to the public in the name of the Committee for subscriptions, and to take such other steps as may be necessary to obtain the funds required:—

Honourable W. H. Rattigan.
Surgeon-Colonel Cleghorn.
Surgeon-Lieutenant-Colonel Roe.
K. B. Barkat Ali Khan.
Veterinary Captain J. A. Nunn.
E. Kay Robinson.

8. That the Committee arrange for lectures to be delivered at Simla and the head-quarters of the various Local Governments on behalf of the scheme.

No. 423-S., dated Simla, the 11th July 1893.

From—R. E. YOUNGHUSBAND, Esq., Offg. Junior Secretary to the Government of the Punjab,

To—The Secretary to the Government of India, Home Department.

IN continuation of the letter from this office to your address, No. 189-S., dated the 13th of June 1893, I am directed to forward, for the information of the Government of India, a copy of a further letter, dated the 15th of June 1893, from Mr. E. Kay Robinson, on the subject of the proposed establishment of a Pasteur Institute in India from private contributions, to be supplemented by such State aid as the supporters of the scheme hope it may be found possible to afford to the project.

2. In the report forwarded with Mr. Robinson's letter of the 20th May (a copy of which was submitted to the Government of India with the letter from this office, No. 189-S., dated the 13th ultimo) it was suggested that the proposed

Pasteur Institute should be amalgamated with the Imperial Bacteriological Laboratory and established at some place in the Punjab. It will be observed that this idea has now been abandoned, and that the present proposal is to provide a Pasteur Institute for the sole treatment of hydrophobia cases in India; the Institute to be quite apart and entirely separate from the Imperial Bacteriological Laboratory and to be in some suitable locality where—

- (1) persons apprehending hydrophobia can be treated gratis, the travelling expenses of poor patients being paid for them;
- (2) bacteriological investigation can be made into human diseases other than hydrophobia, if funds permit;
- (3) selected students can be instructed in the conduct of bacteriological study and experiment, also if funds permit.

Mr. Robinson asks from the Government of India the "great assistance of an expression of approval and a favourable recommendation to Local Governments" in respect to (1), *i.e.*, the provision of a Pasteur Institute for the treatment of hydrophobia cases. He observes that (2) and (3) might lie over until he can report that funds are available, and he proposes to ask the Government of India how such funds could be best expended.

3. With reference to the manner in which any sums collected by private effort can best be expended, Sir Dennis Fitzpatrick desires me to say that assuming that the Bacteriological Institute for diseases of animals must be kept separate from any Pasteur Institute, it seems to His Honour clear that a Pasteur Institute pure and simple, *i.e.*, an institute merely for treating hydrophobia, which is the really urgent need, should be started at once, leaving the question of bacteriological investigation into human diseases other than hydrophobia, and that of providing instruction for students in regard to such matters, for future consideration.

4. The Lieutenant-Governor further thinks that, as suggested in his note dated the 5th of May 1892, forwarded with Mr. Tupper's letter No. 236, dated the 11th idem, the Government of India should establish the Pasteur Institute with the aid of contributions from Local Governments and from private persons, and that Mr. Robinson's Association would make the best use of any funds they may collect by offering them to the Government of India for the purposes of the Pasteur Institute so to be established. This would, His Honour observes, in the first place, lead to the institution being established at an earlier time than would otherwise be possible, and in the second place, would enable the Government to establish it on a better footing than they otherwise could. If this were done, and if the subscriptions raised by the Association were considerable, it would, His Honour thinks, be only reasonable that the Association should be given a voice in the management of the institution by being allowed to nominate members to a Committee of Management or otherwise.

Dated Simla, the 15th June 1893.

From—E. KAY ROBINSON, Esq., Editor, *Civil and Military Gazette*,
To—The Chief Secretary to the Government of the Punjab.

I HAVE to thank you for yours of the 13th, and in reply to say that there need be no delay in dealing with the Pasteur Institute scheme on account of the chance of its being combined with the Imperial Bacteriological Laboratory, because I have ascertained that there are imperative reasons why they should be combined. I am assured that scientific men engaged in the two branches of work respectively would regard amalgamation as impossible, and that those especially whose work lay in the inoculation of human beings would refuse to run the risk of performing such operations in proximity to a laboratory where investigation into animal diseases, capable of transmission by accidental inoculation to human beings with terrible results, was being carried on.

2. I have obtained this information informally; but I feel sure that Dr. Lingard or Dr. Haffkine would endorse the view I have expressed, and I am equally convinced that the Pasteur Institute Committee will adopt it. They

would doubtless have done so before this, had I not been obliged to postpone the meeting of the Committee, which was to have been held early this month, owing to the inability of the majority of the members to reach Simla until later.

3. The scheme, therefore, of the Pasteur Institute, for which I desire the approval of the Government of India and a favourable recommendation to the various Local Governments, may briefly be stated to be, in the first place, to provide an Institute in some suitable locality where persons apprehending hydrophobia can be treated gratis, with the travelling expense, &c., of poor patients paid for them; in the second place, if funds permit, to provide for bacteriological investigation into human diseases other than hydrophobia; and in the third place, to provide for the instruction of selected students in the conduct of bacteriological study and experiment, also if funds permit.

4. You will observe that the first and main object of the scheme stands out, for reasons which I have given, quite distinct from any question connected with the Imperial Bacterio Laboratory. The second and third are dependent upon the collection of sufficient funds to enable the Committee to take them into consideration.

5. I submit, therefore, that the Government of India, after assuring themselves by inquiry from Dr. Lingard, Sir E. Buck or others qualified to express an authoritative opinion as to the inadvisability of mixing up a Pasteur Institute for the treatment of human hydrophobia with a laboratory for the investigation of animal disease, might at once afford the Pasteur Committee, if so disposed, the great assistance of an expression of approval and a favourable recommendation to Local Governments of their proposal to provide a Pasteur Institute for the treatment of hydrophobia cases in India.

6. The other matters might then be reserved for consideration until the Pasteur Institute Committee should happily be in a position to inform the Government of India, through you, that they had funds at disposal for such purposes, and to ask for the opinion of the Government of India as to the way in which they could best be expended.

7. I should be much obliged if you would convey these views to the Government of India, and add that the Committee will most highly value any encouragement which they may receive.

Minute by the Lieutenant-Governor.

For some time past Pasteur's method of treatment has (whether rightly or wrongly it will probably take many years to determine) come to be so fully believed in by the public that many persons bitten by dogs supposed to be mad have been sent from India to Paris for treatment; and if any member of a poor family gets so bitten, the family would probably feel bound to spend their last rupee in sending him home. This being so, it has often occurred to me to think that we ought to have a Pasteur Institute in India; but I have hesitated hitherto to make any suggestion on the subject, as I did not know how the Government of India would receive it.

2. Having, however, recently seen it stated in the newspapers that soldiers bitten by mad dogs have been sent home to Pasteur for treatment and that the Government have thus recognized it as a duty to give their servants whatever chance Pasteur's system may afford, I am encouraged to put forward my proposal, which is that a Pasteur Institute be established at some one place in India to the expense of which the Imperial Government and the Provincial Governments would contribute in such proportions as may be deemed equitable.

3. I am quite aware that it may be objected that in establishing an institution of this kind the Government would be taking upon itself to decide the scientific controversy which exists as to the merits of the Pasteur system; but the answer to this would be that we take upon ourselves to decide nothing: we find that a large proportion of the Medical profession believe in the efficacy of Pasteur's treatment; that they would always advise their patients to have

recourse to it; that it is a terrible hardship to poor patients when so advised to be unable, or to be able only at a ruinous expense, to avail themselves of what they are told by their professional advisers is their best chance; that it is a terrible hardship to all so advised, rich or poor, that they cannot at present get treated until after such a lapse of time that their chance of a cure, whatever it may be, must be immensely diminished; and that, having regard to all this, we, without venturing to form any opinion as to the efficacy of Pasteur's method of treatment, establish our institution for those who may be advised to have recourse to it.

D. FITZPATRICK.

The 5th May 1892.

1893.
<i>Pale</i> Dept.
Exhib. No. <i>1</i>
To <i>20</i>

CURRENT NO 272

Pub Dept.

From

The Govt of India
Home Dept.

NO 489.

Dated 10. viii - 93

Recd 21. viii 93

Enc. 1. 7 de of C. D. No.

Subject

Forwarding copy of
Correspondence with
the Govt of the Punjab
on the subject of Estt
by private effort of
a Pasteur Institute
in the Punjab.

Public DEPARTMENT.

No. 2272.

From The Govt of India.

Dated 10th August 1893.

FOR ORDERS.

I misread the papers - & thought we had to
go into the question of providing a Pasteur
Institute for this Presidency.
I see now that it is intended to have only one
for the whole of India, ^{in regard to} ~~the whole of~~ which we are
asked to say what action we will take.
I agree with the answer wh. my hon.
colleagues propose we should send.

to
8 Sep.

*These papers are sent to us for information
as they are not to be published in the Punjab
as - vide Government order.*

The papers are sent to us for information.
Hindia had desired their publication, orders
would have been issued for the Punjab
Uls

It is not proposed to establish provincial insti-
tutions, but among private India. And the
Govt of India has made up its mind as to
the expediency of it; so that I don't see what
need there is to consult our Sup. Gen.

But I am in doubt as to Uls
know what action we are Uls.
prepared to take in the matter if any.

I do say that we are strongly sympathetic with
the movement & will be prepared to contribute towards
the institution if the Local Govt do so.
The views of the S. G. are not to be
considered as a final decision, as it is not proposed to have more than one
in the Punjab.

whether any,
and if so, what further
actions is deemed desirable
in this Presidency.

40B
23/viii

There seems nothing to be done but
to wait & see what the outcome
of the movement in the Punjab is
Uls

I think say

Recorded

Uls
28 Aug.

24/8/93

I think it might express our
sympathy with the movement &
place the correspondence on the
Extraordinary. This might lead to
a further movement to raise funds
Uls
29/8/93

I think the papers should go to
the Surgeon General for his
remarks. He will very likely
say that there is no necessity for
such an institution down here.
Anyhow he might make some
suggestions, if he does think one
necessary.
Uls

31 Aug

Public Dept.

Despatch with 526
23/9/93

Current 2272.

Letter, 11th Sep 1893.
No 771.
To the Govt. of India.
Home Dept.

Sir,

With reference to Encl:
No 489 forwarding a
copy of letter No 488 of the
10th August last to the
Govt of the Punjab relating
to the establishment of a
Pasteur Institute in that
Province, I am directed
to inform you that this
Govt. strongly sympathizes
with the movement, &
will be prepared to con-
tribute towards the
cost & upkeep of the
institution if other local
Govts. do so.

W. P. S.
15/9/93

21/9/93

~~Despatch with 526~~
~~23/9/93~~

~~Letter, 11th Sep 1893.~~

Resubmitted to:

H.E. the Governor
with reference to the
notes of Hon'ble Member.

30/9
7/9

25
7/9/93

Despatch with 526
29/9/93
copy of the foregoing paper
forwarded to the Sur-
geon General for in-
formation.

Pasteur Institute

Hon. Sir H. Stokes, K.C.S.I.
Hon. J. H. Garstin, C.S.I.

J.P.